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2021 PRODUCTS

Catalogue

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Products Catalogue

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2018 PRODUCT PORTFOLIO

BAND		<100MHz	VHF	UHF & TETRA	>700MHz	MULTIBAND
PRODUCT						
Fixed Antenna	Collinear		SC225M SC226 SC233 SC251 SC272 SC281	SC323 SC328 SC329 SC331 SC351 SC366 SC381 SC389	SC412 SC479 SC420 SC49C SC433 SC469 SC473 SC476 SC488 SC499 SC432D SC432T SC442D	
	Aviation					SC6175D (118-138 & 225-400)
	Exposed Dipole	SD110 SD112 SD114	SD210 SD212 SD214 SD218 SD222 SD224 SD235 SD2352 SD236 SD210D SD212D SD222D SD235D	SD310 SD312 SD314 SD318 SD335 SD3352 SD310D SD310Q SD312Q SD314D SD3352D		SD310/210D (406-512 & 138-174)
	Enlcosed Dipole				SE412-WBL SE414-WBL SE419-WBL SE414-WBAL SE419-WBAL SE4192-WBL	
	Panel/Flat			SP304-L	SP440 SP4402 SP470	
	Ground	SG101	SG201 SG217 SG238	SG301 SG317	SG401	
	Yagi		SY203 SY206 SY2062 SY250	SY303 SY306R-H SY307 SY3072 SY3074 SY307R SY350	SY406 SY4062 SY4064 SY406R SY415 SY415R-H SY450 SY459	

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2018 PRODUCT PORTFOLIO

BAND		<100MHz	VHF	UHF & TETRA	>700MHz	MULTIBAND
PRODUCT						
Fixed Antenna	Corner Reflector		SV227 SV228	SV302 SV360	SV402 SV460	
Mobile Antenna	Whip	SVB-LOW BAND	SVB - VHF SVT - VHF	SUB - UHF SUT - UHF	SUB < 1GHz	
	Transportation	ST121R	ST221 ST221R ST221-LP	ST321 ST321R	ST421R	SM202 (VHF & 350-2700) SM300 (350-2700) SM600 (694-2700) SM600D (VHF/PTC & 694-2700) SM701 (694-6000)
	Stealth		SHA211	SHA311	SHA411	
Transmitter Combiner	Cavity Based (including expandable multicoupler)		CS2 CTx150F TJ2 C2024 C2034 C2017 C2027 C2037	CTx450F CTx450F -R-y CTx453F CTx453F -R-y RTC5400R TJ3, TJ3x1y -R-z TN3, TN321x-R-y C3017 C3019 C3024 C3027 C3029 C3034 C3037	RTC5800R RTC6800R RTC10800R TJ4 TJ4x3y -R-2	
Transmitter Combiner	Hybrid		TC2 TCC2	TC3 TCC3	TC4 TCC4	
Transmitter Combiner	Ceramic				TXC4x3y-z	
Duplexer	Base Station Duplexer		P201 Q201G Q202G Q2220 Q2221 Q2222 Q2330	P3880R-CC Q301 Q3220 Q3330	P40901 P4440E P4460E Q4220E	
	Mobile Duplexer		MR254 MR256 MR2222 MR2332	MR354 MR356 MR3332	MR454 MR456	
TTA					TM4	
Receiver Multicoupler			RM2 RM200	RM3 RM300	RM4	

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2018 PRODUCT PORTFOLIO

BAND		<100MHz	VHF	UHF & TETRA	>700MHz	MULTIBAND
PRODUCT						
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Filter	Cavity Based			FP30107 FP30109 FP30207 FQ30107 FR30107	FP40137 FP40137-746/806 FP40237	
	Pre-Selector			FP30401 PH3040	FP40615CL FP40x15CL PH4040 PH4060C	
	Lumped Element Filter		FPxxxRxxx-(C)			
Coupler	Hybrid Coupler	HH1	HH2	HH3	HH4	
	Multi-Band Coupler					FX2300 (138-174 and 380-512) FX2400 (138-174 and 746-960) FX3400 (138-512 and 746-960) FX4500 (138-960 and 1710-2500)
Intermod Supression Panel			PC2	PC3		
Comshel	Comshel Shelter	COMSHEL				
	Comshel Antenna		SD6035 SD6036			
	Comshel Accessory	SRX				
Accessory	Clamp	Various Types of Clamps				

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700-1000 MHz Catalogue

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700-1000 MHz Catalogue

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Enclosed log periodic, 5-6 dBd, 800-1000 MHz

- Radome-enclosed LPD antenna
- Suited for in-building systems as a donor antenna
- Ideal for use in RFID and other data systems

Model	Description
SP440-SF1SNF	6 dBd, 928-956 MHz
SP440-SF2SNF	5 dBd, 800-1000 MHz

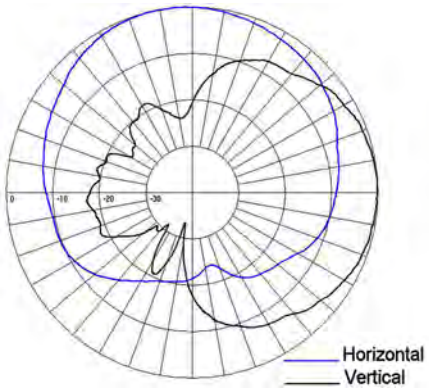


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	800 to 1000
Connector		N-Female
Gain (nominal)	dBd (dBi)	5 to 6 (7.1 to 8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	90 to 95
Vertical beamwidth (typ)	degrees	60 to 65
Average Power Input (max)	W	100 / 50
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	25

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	10.56 (268)
Width	in (mm)	2.88 (73)
Radiating element material		PCB
Weight	lbs (kg)	2.5 (1.14)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	5 (2.27)
Shipping dimensions	in (mm)	L 5in W 9in H 13in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.39 (0.04)
Wind Loading Area (1/2" ice)	ft² (m²)	0.51 (0.05)
Rated wind velocity (no ice)	mph (km/h)	190 (306)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 (266)
Lateral thrust (100 mph No Ice)	lbs (N)	24 (106.8)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	9 (12.2)



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Enclosed log periodic, 8 dBd, 800-1000 MHz

- Compact radome-enclosed log-periodic antenna for SCADA/telemetry application.
- Light but rugged ABS radome provides protection from snow, ice and environmental hazards.
- 200MHz bandwidth. Ideally suited for PTP, PMP and receive-only applications.

Model	Description
SP4402-SF2SNF	8 dBd, 800-1000 MHz

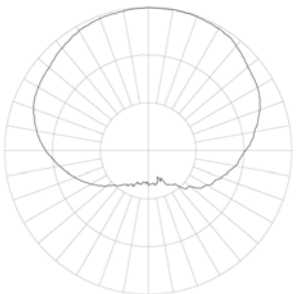
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For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	800 to 1000
Bandwidth	MHz	200
Connector		N-Female
Gain (nominal)	dBd (dBi)	8 (10.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	90
Vertical beamwidth (typ)	degrees	33
Average Power Input (max)	W	100
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	25

Mechanical Specifications		
Depth	in (mm)	2 (51)
Length/ Height	in (mm)	22.5 (572)
Width	in (mm)	2.88 (73)
Radiating element material		prntd circuit bd
Weight	lbs (kg)	5 (2.27)
Mounting Hardware (Standard)		Clamp130
Shipping dimensions	in (mm)	L 12in W 16in H 37in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.06 (0.01)
Wind Loading Area (1/2" ice)	ft² (m²)	0.07 (0.01)
Rated wind velocity (no ice)	mph (km/h)	190 (306)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 (266)
Lateral thrust (100 mph No Ice)	lbs (N)	40 (177.9)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	9 (12.2)

SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN
VERTICAL POLARIZATION
Azimuth
Relative Gain - 10 dB per Division

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Panel, 8.5 dBd, 806-960 MHz

- Compact panel antenna
- Discreet profile featuring a strong ABS radome
- Horizontal or vertical polarization, 60 or 75 degree horizontal beamwidth

Model	Description
SP470-SF1P60SNF	8.5 dBd, 60° Horizontal beamwidth, 806-870 MHz
SP470-SF2P60SNF	8.5 dBd, 60° Horizontal beamwidth, 824-894 MHz
SP470-SF4P60SNF	8.5 dBd, 60° Horizontal beamwidth, 890-960 MHz
SP4701-SF3SNF(E8134)	10 dBd, 900-960 MHz

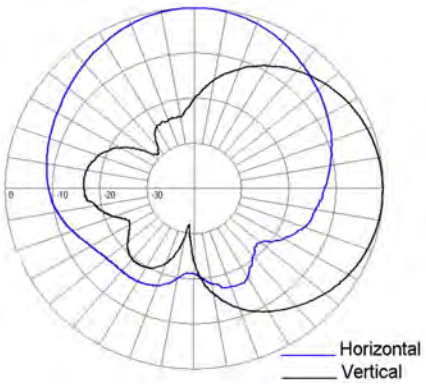


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Electrical Specifications		
Frequency Range	MHz	806 to 960
Bandwidth	MHz	60 to 70
Connector		N-Female
Gain (nominal)	dBd (dBi)	8.5 to 10 (10.6 to 12.1)
Input VSWR (max)		1.5:1
Polarization		horizontal / vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	20 to 60
Vertical beamwidth (typ)	degrees	45 to 95
Average Power Input (max)	W	100
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20 to 25

Mechanical Specifications		
Depth	in (mm)	5.3 to 5.5 (135 to 140)
Length/ Height	in (mm)	12 to 35 (305 to 889)
Width	in (mm)	12 to 14 (305 to 356)
Weight	lbs (kg)	3.2 to 7 (1.45 to 3.18)
Mounting Hardware (Standard)		Clamp166
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L(12 - 19)in W(13 - 41)in H(6 - 7)in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1 to 2.9 (0.09 to 0.27)
Wind Loading Area (1/2" ice)	ft² (m²)	1.1 to 3.3 (0.1 to 0.31)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	34 to 116 (151.2 to 516)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	4 to 50 (5.4 to 67.5)



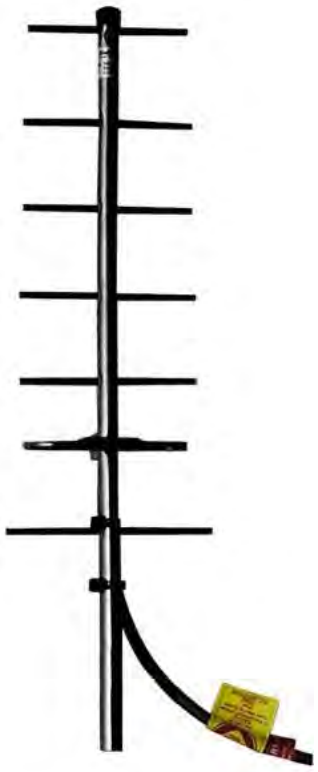
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Yagi, 10 dBd, Black anodized, 728-985 MHz

- Black anodized aluminum rods
- 360 degree welded elements
- Completely sealed dipole withstands harsh environments

Model	Description
SY406-SF1SNM(ABK)	10 dBd, 806-870 MHz
SY406-SF2SNF(ABK)	10 dBd, 824-896 MHz
SY406-SF2SNM(ABK)	10 dBd, 824-896 MHz
SY406-SF3SNM(ABK)	10 dBd, 846-925 MHz
SY406-SF4SNM(ABK)	10 dBd, 895-966 MHz
SY406-SF4SNM(C30-ABK)	10 dBd, 30' pigtail, 895-966 MHz
SY406-SF4SNM(C60-ABK)	10 dBd, 60' pigtail, 895-966 MHz
SY406-SF5SNM(ABK)	10 dBd, 835-900 MHz
SY406-SF6SNM(ABK)	10 dBd, 920-985 MHz
SY406-SF7SNM(ABK)	10 dBd, 746-806 MHz
SY406-SF8SNM(ABK)	10 dBd, 876-925 MHz
SY406-SF9SNM(ABK)	10 dBd, 746-806 MHz



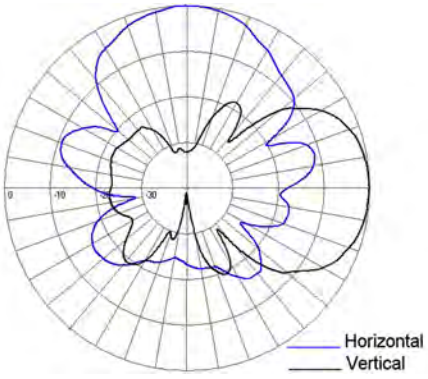
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Electrical Specifications

Frequency Range	MHz	728 to 985
Connector		N-Male / N-Female
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	52
Vertical beamwidth (typ)	degrees	45
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Depth	in (mm)	2.63 (67)
Length/ Height	in (mm)	24 (610)
Width	in (mm)	7.08 (180)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	1.06 (0.48)
Finish		anodize black
Weight iced	lbs (kg)	4.7 (2.13)
Mounting Hardware (Standard)		Clamp115
Actual Shipping weight	lbs (kg)	3 to 5 (1.36 to 2.27)
Shipping dimensions	in (mm)	L 43in W 8in H 3in



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.18 (0.02)
Wind Loading Area (1/2" ice)	ft² (m²)	0.53 (0.05)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	6.8 to 7 (30.2 to 31.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	5.1 to 5.26 (6.9 to 7.1)

Ordering Information

N-male connector standard; N-Female available as option

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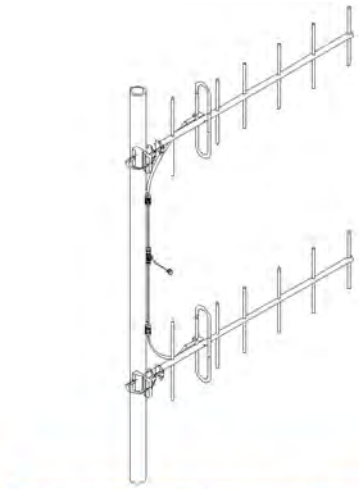
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Yagi, 13 dBd, dual, 806-966 MHz

- Two element broadband yagi array
- Can be stacked vertically or horizontally
- Easy to install, versatile product

Model	Description
SY4062-SF1SNM(ABK)	13 dBd, 806-870 MHz
SY4062-SF2SNM(ABK)	13 dBd, 824-896 MHz
SY4062-SF3SNM(ABK)	13 dBd, 846-913 MHz
SY4062-SF4SNM(ABK)	13 dBd, 895-966 MHz
SY4062-SF5SNM(ABK)	13 dBd, 876-925 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



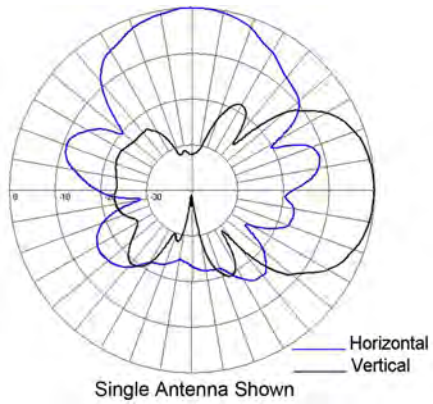
Polarization	Stacking	H Plane	E Plane
Vertical	Vertical	46	21
Vertical	Horizontal	23	41
Horizontal	Vertical	41	23
Horizontal	Horizontal	21	46

Electrical Specifications

Frequency Range	MHz	806 to 966
Connector		N-Male
Gain (nominal)	dBd (dBi)	13 (15.1)
Polarization		vertical or horizontal
Pattern		Directional
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Depth	in (mm)	7.1 (180)
Length/ Height	in (mm)	24 (610)
Width	in (mm)	24 (610)
Radiating element material		aluminum
Weight	lbs (kg)	2.78 (1.26)
Weight iced	lbs (kg)	13.1 (5.95)
Mounting Hardware (Standard)		Clamp115
Actual Shipping weight	lbs (kg)	7 (3.18)
Shipping dimensions	in (mm)	L 43in W 9in H 4in



Single Antenna Shown

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.53 (0.05)
Wind Loading Area (1/2" ice)	ft² (m²)	1.48 (0.14)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	13.8 (61.4)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	5.26 (7.1)

Ordering Information

The SY4062 is available in 7 sub-bands to cover the 806-966 MHz band:

F1- 806-870 MHz F4- 895-866 MHz F7- 746-806 MHz
F2- 824-896 MHz F5- 835-900 MHz
F3- 846-913 MHz F6- 920-985 MHz

Note: Shipped in two boxes.

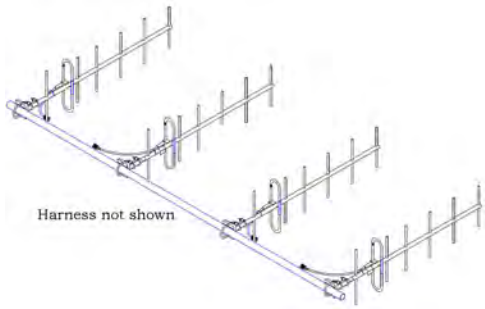
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Quad yagi directional antenna, 15.5 dBd, 895-966 MHz

- Quad array
- Designed to meet Category A Classification
- 15.5 dBd gain with low VSWR
- Designed for high performance, versatility and ease of installation

Model	Description
SY4064-SF4SNM(ABK)	Quad yagi directional antenna, 15.5 dBd, 895-966 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	895 to 966
Connector		N-Male
Gain (nominal)	dBd (dBi)	15.5 (17.6)
VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	12
Vertical beamwidth (typ)	degrees	41
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Depth	in (mm)	68.5 (1740)
Width	in (mm)	4.6 (117)
Weight	lbs (kg)	11.5 (5.22)
Weight iced	lbs (kg)	53 (24.06)
Mounting Hardware (Standard)		#115 clamp
Actual Shipping weight	lbs (kg)	27 (12.26)
Shipping dimensions	in (mm)	L 28in W 6in H 8in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.11 (0.2)
Wind Loading Area (1/2" ice)	ft² (m²)	5.9 (0.55)
Rated wind velocity (no ice)	mph (km/h)	175 (282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 (153)
Lateral thrust (100 mph No Ice)	lbs (N)	56 (249.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	17.5 (23.6)

Polarization	Stacking	Horizontal	Vertical
Vertical	Vertical	46	10
Vertical	Horizontal	12	41
Horizontal	Vertical	41	12
Horizontal	Horizontal	10	46
Horizontal	2 X 2	21	23
Vertical	2 X 2	23	21

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Yagi, 10 dBd, HD, Radome enclosed, 806-960 MHz

- Heavy-duty fiber-glass radome enclosed design provides additional environmental protection
- High performance high gain antenna

Model	Description
SY406R-HF1SNM	10 dBd, 806-870 MHz
SY406R-HF2SNM	10 dBd, 846-925 MHz
SY406R-HF3SNM	10 dBd, 895-960 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

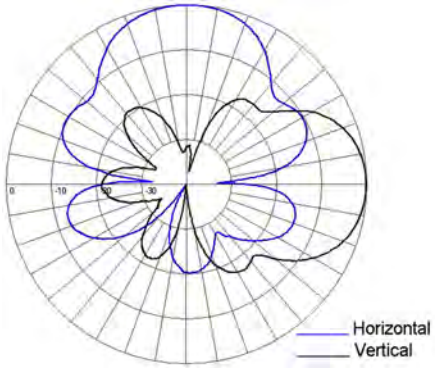
Frequency Range	MHz	806 to 960
Bandwidth	MHz	64 to 65
Connector		N-Male
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	46
Vertical beamwidth (typ)	degrees	41
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Length/ Height	in (mm)	26.5 (673)
Width	in (mm)	11.5 (292)
Weight	lbs (kg)	20 (9.08)
Mounting Hardware (Standard)		Clamp002B
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 12in W 16in H 37in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (1/2" ice)	ft² (m²)	1.4 (0.13)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Yagi, 12 dBd, 902-956 MHz

- High gain, wide band antenna in the 902-956 MHz range
- Can be stacked for additional gain
- Ideal for control station, paging, and repeater applications
- Aluminum construction

Model	Description
SY415-SFXSNF(ABK)	12 dBd, black anodized, 902-956 MHz
SY415-SFXSNM(ABK)	12 dBd, black anodized, 902-956 MHz
SY415-SFXSNM(ACL)	12 dBd, clear anodized, 902-956 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

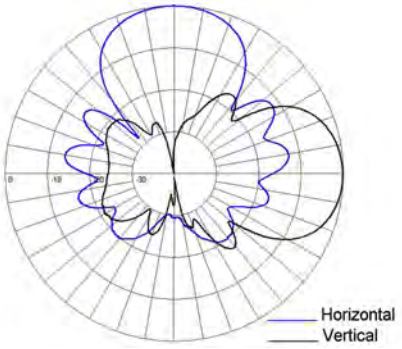
Frequency Range	MHz	902 to 956
Bandwidth	MHz	54
Connector		N-Female / N-Male
Gain (nominal)	dBd (dBi)	12 (14.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	42
Vertical beamwidth (typ)	degrees	37
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Length/ Height	in (mm)	37.5 (953)
Width	in (mm)	6.4 (163)
Weight	lbs (kg)	2.7 (1.23)
Finish		anodize (black) / anodize (clear)
Actual Shipping weight	lbs (kg)	5 (2.27)
Shipping dimensions	in (mm)	L 47in W 6in H 18in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.2 (0.02)
Rated wind velocity (no ice)	mph (km/h)	200 (322)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	32 (142.3)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	49 (66.2)



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Yagi, 12 dBd, HD, Radome enclosed, 902-956 MHz

- High gain, relatively wide band antenna in the 902-956 MHz range
- Fiberglass radome enclosed for greater resistance to harsh environments.

Model	Description
SY415R-HFXSNM	12 dBd, radome enclosed, 902-956 MHz

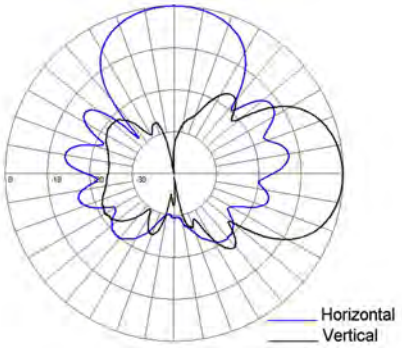


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	902 to 956
Connector		N-Male
Gain (nominal)	dBd (dBi)	12 (14.1)
VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	42
Vertical beamwidth (typ)	degrees	37
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications		
Depth	in (mm)	11.5 (292)
Length/ Height	in (mm)	34.13 (867)
Width	in (mm)	11.5 (292)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	10.25 (260)
Radiating element material		brass
Radome material		fiberglass
Weight	lbs (kg)	7.5 (3.41)
Weight iced	lbs (kg)	27.7 (12.58)
Mounting Hardware (Standard)		Clamp002B
Actual Shipping weight	lbs (kg)	16 (7.26)
Shipping dimensions	in (mm)	L 18in W 12in H 39in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.42 (0.13)
Wind Loading Area (1/2" ice)	ft² (m²)	1.77 (0.16)
Rated wind velocity (no ice)	mph (km/h)	195 (314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	175 (282)
Lateral thrust (100 mph No Ice)	lbs (N)	49.9 (222)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	69 (93.2)



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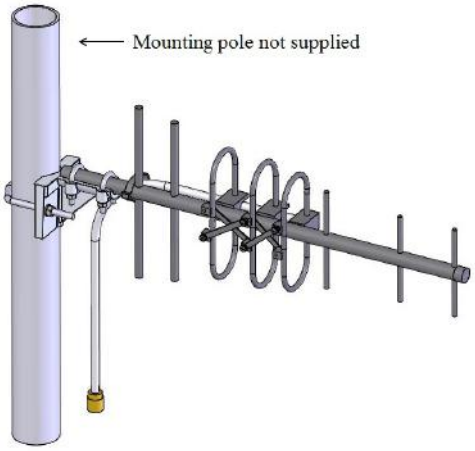
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Yagi directional, 8 dBd, wide band, black anodized, 746-960 MHz

- High gain, wide band yagi antenna that covers the whole 746-960 MHz frequency band
- Made of corrosion-resistant anodized aluminum for added durability and long life
- Fully welded construction for optimum performance and reliability
- Can be stacked for added gain

Model	Description
SY450-SWBSNM(ABK)	8 dBd, 746-896 MHz, wide band, black anodized

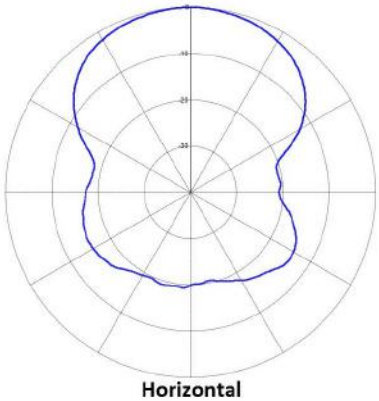
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Antenna may not appear exactly as picture

Electrical Specifications

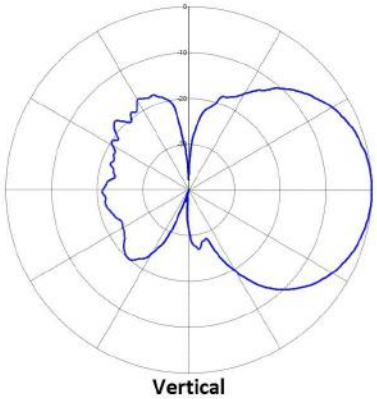
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		N-Male
Gain (nominal)	dBd (dBi)	8 (10.1)
VSWR (typ)		1.5:1
Polarization		vertical / vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	60
Average Input Power (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	18



Horizontal

Mechanical Specifications

Width	in (mm)	9.5 (241)
Depth	in (mm)	3.2 (81)
Length/ Height	in (mm)	22.5 (572)
Base pipe diameter	in (mm)	0.75 (19)
Radiating element material		aluminum
Finish		anodize (black)
Weight	lbs (kg)	1.1 (0.5)
Weight iced (1/2" ice)	lbs (kg)	6 (2.72)
Mounting Hardware (Included)		Clamp115
Actual shipping weight	lbs (kg)	3 (1.59)
Shipping dimensions	in (mm)	L 24in W(11)in H(5)in



Vertical

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.16 (0.01)
Wind Loading Area (1/2" ice)	ft² (m²)	0.51 (0.05)
Rated wind velocity (no ice)	mph (km/h)	195 (314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 (185)
Lateral Thrust (100 mph No Ice)	lbs (N)	6.1 (27.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	3.7 (5)
Tip deflection (100 mph No Ice)	degrees	0.2

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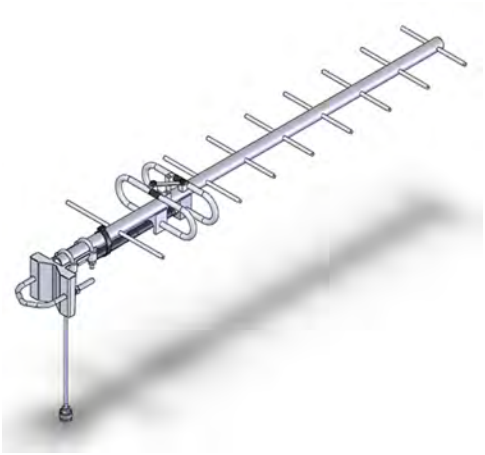
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Yagi, 10 dBd, Broadband, Black anodized, 698-806 MHz

- Covers 698-806 MHz with 10 dBd gain
- Black anodized aluminum for corrosion resistance and de-icing

Model	Description
SY459-SF1SNM(ABK)	10 dBd, 698-806 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

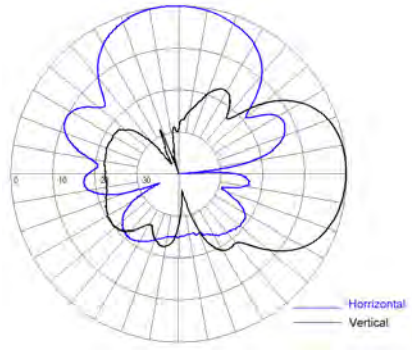
Frequency Range	MHz	698 to 806
Bandwidth	MHz	108
Connector		N-Male
Gain (nominal)	dBd (dBi)	10 (12.1)
VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	53
Vertical beamwidth (typ)	degrees	47
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	18

Mechanical Specifications

Depth	in (mm)	3.15 (80)
Length/ Height	in (mm)	34 (864)
Width	in (mm)	9.15 (232)
Base pipe diameter	in (mm)	0.84 (21)
Radiating element material		aluminum
Weight	lbs (kg)	125 (56.75)
Finish		anodize (black)
Weight iced	lbs (kg)	7.7 (3.5)
Mounting Hardware (Standard)		Clamp115
Actual Shipping weight	lbs (kg)	3.8 (1.73)
Shipping dimensions	in (mm)	L 36in W 10in H 4in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.26 (0.02)
Wind Loading Area (1/2" ice)	ft² (m²)	0.81 (0.08)
Rated wind velocity (no ice)	mph (km/h)	195 (314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	125 (201)
Lateral thrust (100 mph No Ice)	lbs (N)	9.9 (44)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	10.3 (13.9)
Tip deflection (100 mph No Ice)	degrees	0.4



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Corner reflector, 10 dBd, 800-960 MHz

- Compact, rugged, broadband corner reflector
- Resonant dipole is DC grounded and mounted into a solid aluminum reflector
- High front back ratio

Model	Description
SV402-SF1SNM	10 dBd, 800-900 MHz
SV402-SF2SNM	10 dBd, 896-960 MHz

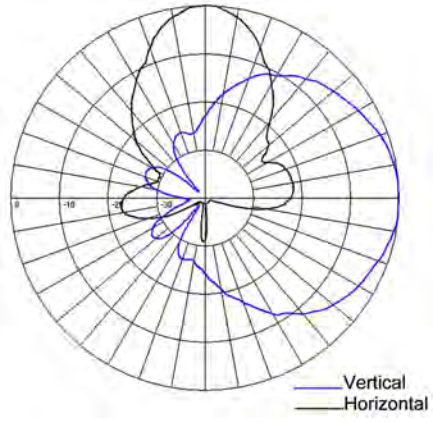


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Electrical Specifications		
Frequency Range	MHz	800 to 960
Connector		N-Male
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	30
Vertical beamwidth (typ)	degrees	52
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	30

Mechanical Specifications		
Depth	in (mm)	18 (457)
Length/ Height	in (mm)	24 (610)
Width	in (mm)	48 (1219)
Weight	lbs (kg)	23 (10.44)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	L 50in W 21in H 34in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	167 (742.8)



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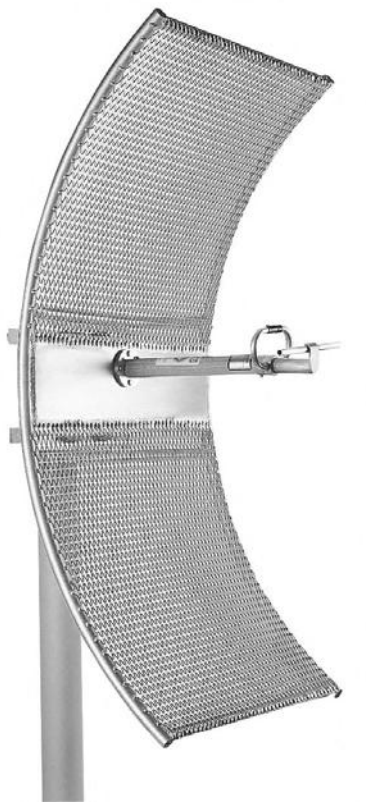
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Corner reflector, 15-16 dBd, 806-960 MHz

- Parabolic cylinder reflector with a dipole-reflector assembly and back-firing primary radiator
- Wideband, high gain antenna
- Meshed reflector for 15 dBd version; Solid reflector for 16 dBd version

Model	Description
SV460-SF1SNM	15 dBd, 806-890 MHz
SV460-SF2SNM	15 dBd, 890-960 MHz
SV460-SF2SNM(G16-ABK)	16 dBd, black anodized, 890-960 MHz

15 dBd version

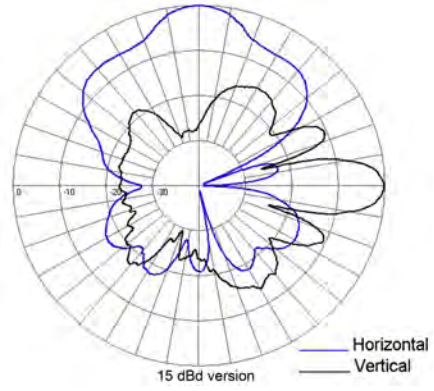


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	806 to 960
Connector		N-Male
Gain (nominal)	dBd (dBi)	15 to 16 (17.1 to 18.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	14 to 16
Vertical beamwidth (typ)	degrees	30 to 31
Average Power Input (max)	W	75 / 125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	24 to 25

Mechanical Specifications		
Depth	in (mm)	18.3 to 22.5 (465 to 572)
Length/ Height	in (mm)	56 (1422)
Width	in (mm)	24 to 25 (610 to 635)
Weight	lbs (kg)	20 to 27.8 (9.08 to 12.62)
Mounting Hardware (Standard)		Clamp004
Actual Shipping weight	lbs (kg)	50 to 61 (22.7 to 27.69)
Shipping dimensions	in (mm)	L(58 - 59)in W(21 - 30)in H 28in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.4 (0.5)
Wind Loading Area (1/2" ice)	ft² (m²)	5.7 (0.53)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	297 (1321.1)



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Enclosed dipole, wide band, 8-11.5 dBd, adj. beamwidth, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Horizontal beamwidth adjustable between 60º/90º/105º/130º/160º with gain varies between 11.5-8 dBd
- Low PIM and PIP rated versions available
- 0 - 10º electrical downtilt available

Model	Description
SE414-SWBPALDF(D00)	8-11.5 dBd, adj. B.W., DIN-Female, PIM & PIP rated
SE414-SWBPALNF(D00)	8-11.5 dBd, adj. B.W., N-Female

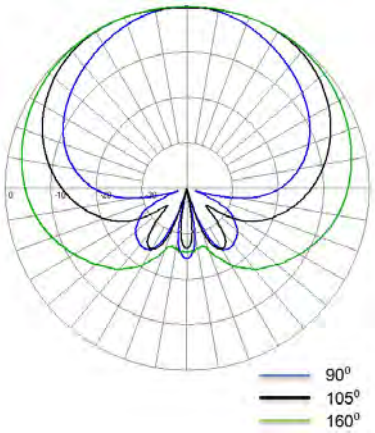


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	11.5 (13.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Directional and Adjustable
Horizontal beamwidth (typ)	degrees	60
Vertical beamwidth (typ)	degrees	20
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	53 (1346)
Width	in (mm)	25 (635)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	30.5 (775)
Weight	lbs (kg)	19.5 (8.85)
Mounting Hardware (Standard)		#130 clamp
Actual Shipping weight	lbs (kg)	24.5 (11.12)
Shipping dimensions	in (mm)	L 58in W 14in H 17in
Mounting configurations		upright

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4.8 (0.45)
Wind Loading Area (1/2" ice)	ft² (m²)	5.7 (0.53)
Rated wind velocity (no ice)	mph (km/h)	105 (169)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 (153)
Lateral thrust (100 mph No Ice)	lbs (N)	180 (800.6)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	93 (125.6)



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Enclosed dipole, wide band, 13.5-18 dBd, adj. beamwidth, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Horizontal beamwidth adjustable between 60º/90º/105º/130º/160º with gain varies between 18-13.5 dBd
- Low PIM and PIP rated versions available, Null fill versions also available
- 0 - 10º electrical downtilt available

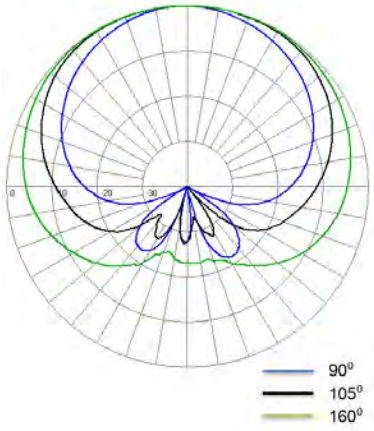
Model	Description
SE4192-SWBPALDF(D00)	14-18 dBd, adj. beamwidth, PIM & PIP rated
SE4192-SWBPALDF(D00-NuF)	13.5-17.5 dBd, adj. beamwidth, PIM & PIP rated, Null Fill



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	13.5 to 18 (15.6 to 20.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Directional and Adjustable
Horizontal beamwidth (typ)	degrees	60
Vertical beamwidth (typ)	degrees	4
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
PIP(KW, max)		25
Electrical tilt (available)		0 to 10 Degrees

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	216 (5486)
Width	in (mm)	25 (635)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	85.95 (2183)
Radiating element material		copper
Weight	lbs (kg)	68 (30.87)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	82 (37.23)
Shipping dimensions	in (mm)	L 219in W 14in H 17in
Mounting configurations		upright



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	9.81 (0.91)
Wind Loading Area (1/2" ice)	ft² (m²)	11.77 (1.09)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	438 (1948.2)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	188 (253.8)

Ordering Information

N-type connectors are available (with degraded PIM rating).

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Enclosed dipole, wide band, 11-15.5 dBd, adj. beamwidth, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Horizontal beamwidth adjustable between 60º/90º/105º/130º/160º with gain varies between 15.5-11 dBd
- Low PIM and PIP rated versions available, Null fill version also available
- 0 - 10º electrical downtilt available

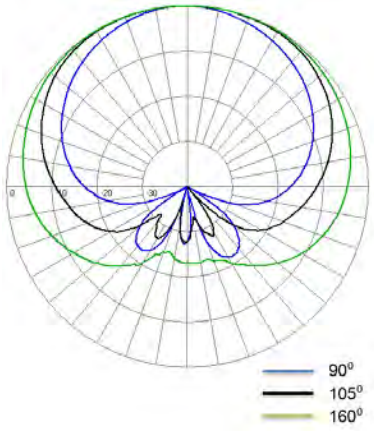
Model	Description
SE419-SWBPALDF(D00)	11.5-15.5 dBd, adj. B.W., PIM & PIP rated
SE419-SWBPALDF(D00-NuF)	11.0-15.0 dBd, adj. B.W., PIM & PIP rated, Null
SE419-SWBPALNF(D00)	Fill 11.5-15.5 dBd, adj. B.W.



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	11 to 15.5 (13.1 to 17.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Directional and Adjustable
Horizontal beamwidth (typ)	degrees	60
Vertical beamwidth (typ)	degrees	8
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	103 (2616)
Width	in (mm)	25 (635)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	85.95 (2183)
Radiating element material		copper
Weight	lbs (kg)	36 (16.34)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 118in W 14in H 17in
Mounting configurations		upright



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	7.93 (0.74)
Wind Loading Area (1/2" ice)	ft² (m²)	11.1 (1.03)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	265 (1178.7)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	141 (190.4)

Ordering Information

N-type connectors are available (with degraded PIM rating).

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Enclosed dipole, wide band, 5 dBd, bi-directional/offset, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Compact, enclosed antenna with excellent low intermodulation performance
- Low PIM and PIP rated versions available
- 0-6º electrical downtilt available

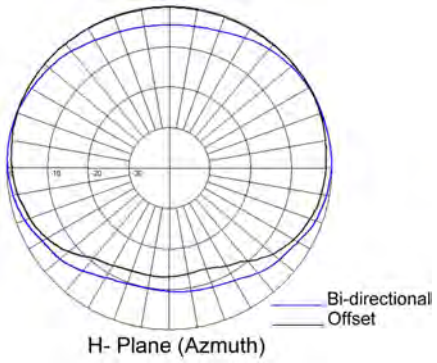
Model	Description
SE412-SWBP2LDF(D00)	5 dBd, Bi-directional, DIN-Female, PIM & PIP rated
SE412-SWBP2LNF(D00)	5 dBd, Bi-directional, N-Female
SE412-SWBP4LDF(D00)	5 dBd, Offset, DIN-Female, PIM & PIP rated
SE412-SWBP4LNF(D00)	5 dBd, Offset, N-Female



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	5 (7.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Vertical beamwidth (typ)	degrees	34
Average Power Input (max)	W	350
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0-6 degrees

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	22 (559)
Width	in (mm)	2.9 (74)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	10.25 (260)
Radiating element material		copper
Weight	lbs (kg)	7 (3.18)
Mounting Hardware (Standard)		#130 clamp
Shipping dimensions	in (mm)	L 16in W 12in H 22in
Mounting configurations		upright



H- Plane (Azmuth)

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.4 (0.13)
Wind Loading Area (1/2" ice)	ft² (m²)	1.6 (0.15)
Rated wind velocity (no ice)	mph (km/h)	110 (177)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 (153)
Lateral thrust (100 mph No Ice)	lbs (N)	56 (249.1)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	22 (29.7)

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Enclosed dipole, wide band, 7.5 dBd, bi-directional/offset, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Compact, enclosed antenna with excellent low intermodulation performance
- Low PIM and PIP rated versions available
- 0 - 10º electrical downtilt available

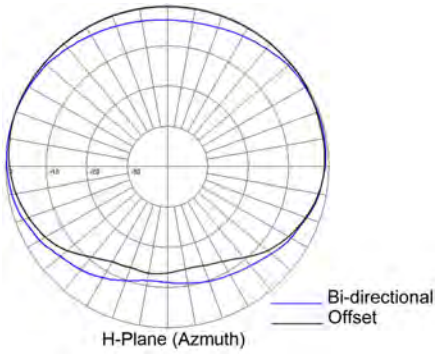
Model	Description
SE414-SWBP2LDF(D00)	7.5 dBd, Bi-directional, DIN-Female, PIM & PIP rated
SE414-SWBP2LNF(D00)	7.5 dBd, Bi-directional, N-Female
SE414-SWBP4LDF(D00)	7.5 dBd, Offset, DIN-Female, PIM & PIP rated
SE414-SWBP4LNF(D00)	7.5 dBd, Offset, N-Female



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	7.5 (9.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Vertical beamwidth (typ)	degrees	18
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	53 (1346)
Width	in (mm)	2.9 (74)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	30.5 (775)
Radiating element material		copper
Weight	lbs (kg)	12.5 (5.68)
Weight iced	lbs (kg)	35.5 (16.12)
Mounting Hardware (Standard)		#130 clamp
Shipping dimensions	in (mm)	L 58in W 14in H 17in
Mounting configurations		upright



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3 (0.28)
Wind Loading Area (1/2" ice)	ft² (m²)	3.8 (0.35)
Rated wind velocity (no ice)	mph (km/h)	105 (169)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 (145)
Lateral thrust (100 mph No Ice)	lbs (N)	112 (498.2)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	40 (54)

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Enclosed dipole, wide band, 11.5-12.5 dBd, bi-directional/offset, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Compact, enclosed antenna with excellent low intermodulation performance
- Low PIM and PIP rated versions available
- 0 - 10º electrical downtilt and Null Fill versions available

Model	Description
SE4192-SWBP2LDF(D00)	12 dBd, bi-directional, PIM and PIP rated
SE4192-SWBP2LDF(D00-NuF)	11.5 dBd, bi-directional, PIM and PIP rated, Null Fill
SE4192-SWBP4LDF(D00)	12.5 dBd, offset, PIM and PIP rated
SE4192-SWBP4LDF(D00-NuF)	12 dBd, offset, PIM and PIP rated, Null Fill

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

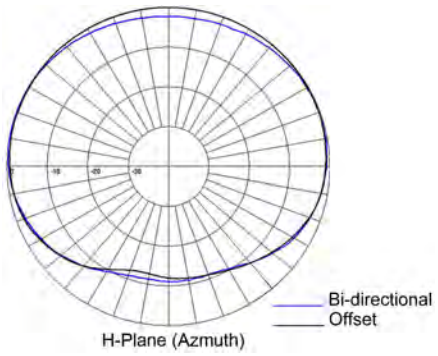


Electrical Specifications

Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	11.5 to 12.5 (13.6 to 14.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Vertical beamwidth (typ)	degrees	3.5 to 4
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
PIP(KW, max)		25
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications

Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	216 (5486)
Width	in (mm)	2.9 (74)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	85.95 (2183)
Radiating element material		copper
Weight	lbs (kg)	56 (25.42)
Weight iced	lbs (kg)	135 (61.29)
Mounting Hardware (Standard)		Clamp130
Shipping dimensions	in (mm)	L 219in W 13in H 15in
Mounting configurations		upright



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	8.37 (0.78)
Wind Loading Area (1/2" ice)	ft² (m²)	10.59 (0.98)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	438 (1948.2)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	188 (253.8)

Ordering Information

N-type connectors are available (with degraded PIM rating).

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Enclosed dipole, wide band, 10 dBd, bi-directional/offset, 746-960 MHz

- Wide band design covers whole 746-960 MHz band
- Compact, enclosed antenna with excellent low intermodulation performance
- Low PIM and PIP rated versions available
- 0 - 10º electrical downtilt available

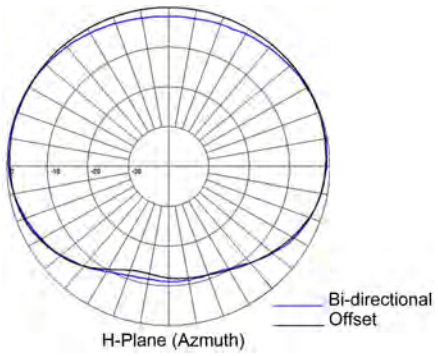
Model	Description
SE419-SWBP2LDF(D00)	10 dBd, bi-directional, DIN-Female, PIM & PIP rated
SE419-SWBP2LNF(D00)	10 dBd, bi-directional, N-Female
SE419-SWBP4LDF(D00)	10 dBd, offset, DIN-Female, PIM & PIP rated
SE419-SWBP4LNF(D00)	10 dBd, offset, N-Female



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Horizontal beamwidth (typ)	degrees	180 to 206
Vertical beamwidth (typ)	degrees	7 to 7.5
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	103 (2616)
Width	in (mm)	2.9 (74)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	85.95 (2183)
Radiating element material		copper
Weight	lbs (kg)	24 (10.9)
Weight iced	lbs (kg)	61 (27.69)
Mounting Hardware (Standard)		Clamp130
Shipping dimensions	in (mm)	L 108in W 13in H 15in
Mounting configurations		upright



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.9 (0.55)
Wind Loading Area (1/2" ice)	ft² (m²)	7.5 (0.7)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	239 (1063.1)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	97 (131)

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Collinear Omni, 9dBd, dual port, 40dB isolation, 806-960 MHz

- Nominal 9 dBd gain over entire 806-960 MHz range
- Dual port, 500 Watts power handling
- -150 dBc PIM rated
- Heavy Duty

Model	Description
SC442D-HF2LDF(D00-I40-G09)	9dBd, 40 dB isolation, dual port, 806-960 MHz.

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

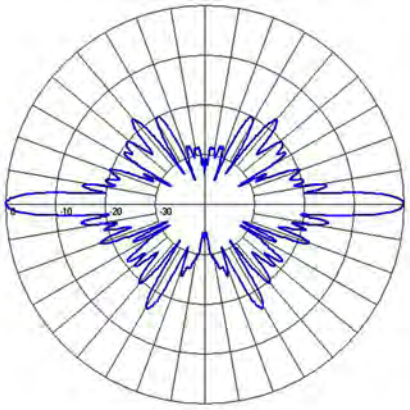
Frequency Range	MHz	806 to 960
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9 (11.1)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	6
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	5 (127)
Length/ Height	in (mm)	243 (6172)
Width	in (mm)	5 (127)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	30 (762)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	78.5 (35.64)
Weight iced	lbs (kg)	141 (64.01)
Mounting information		Upright, inverted
Mounting Hardware (Optional)		Clamp006C
Actual Shipping weight	lbs (kg)	119 (54.03)
Shipping dimensions	in (mm)	L 255in W 7in H 7in
Recommended For Offset Side Mount:		SMK-345-A7

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.11 (0.47)
Wind Loading Area (1/2" ice)	ft² (m²)	6.23 (0.58)
Rated wind velocity (no ice)	mph (km/h)	175 (282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 (242)
Lateral thrust (100 mph No Ice)	lbs (N)	201 (894)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1540 (2079)
Tip deflection (100 mph No Ice)	degrees	2.4



Elevation

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Collinear omni, 3 dBd, low PIM, HD, 746-869 MHz

- Covers the 746-869 MHz frequency range and 500 Watt power handling capability
- Heavy-duty, low PIM construction
- PIP rated versions available
- 0 - 5° electrical downtilt available

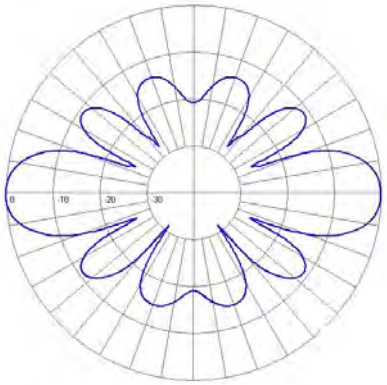
Model	Description
SC473-HF1LDF(D00)	3 dBd, DIN-Female, low PIM, 746-869 MHz
SC473-HF1LDF(D00-E5749)	3 dBd, DIN-Female, low PIM, PIP rated, 746-869 MHz
SC473-HF1LDF(D01)	3 dBd, upright, 1º DT, 746-869 MHz
SC473-HF1LDF(D02)	3 dBd, upright, 2º DT, 746-869 MHz
SC473-HF1LDF(D03)	3 dBd, upright, 3º DT, 746-869 MHz
SC473-HF1LDF(D04)	3 dBd, upright, 3º DT, 746-869 MHz
SC473-HF1LDF(D05)	3 dBd, upright, 5º DT, 746-869 MHz
SC473-HF2LDF(D00)	3 dBd, DIN-Female, low PIM, 806-960 MHz
SC473-HF2LDF(D00-E5749)	3 dBd, DIN-Female, low PIM, PIP rated, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	3 (5.1)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	28
Main Beam Electrical Tilt (Downtilt)	degrees	0 to 5
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	58.5 (1486)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	14 (356)
Radiating element material		copper/ zinc
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	17 (7.72)
Weight iced	lbs (kg)	28 (12.71)
Mounting Hardware (Optional)		Clamp147
Shipping Length/ Height	in (mm)	82.5 (2096)
Shipping dimensions	in (mm)	L 78in W 6in H 6in



Vertical, 0º DT

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.83 (0.08)
Wind Loading Area (1/2" ice)	ft² (m²)	1.1 (0.1)
Rated wind velocity (no ice)	mph (km/h)	370 (596)
Rated wind velocity (1/2" radial ice)	mph (km/h)	325 (523)
Lateral thrust (100 mph No Ice)	lbs (N)	33 (146.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	51.1 (69)
Tip deflection (100 mph No Ice)	degrees	0.048

Ordering Information

Units with no downtilt can be mounted both inverted and upright

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Collinear omni, 6 dBd, HD, 746-869 MHz

- Covers the 746-869 MHz full frequency range
- PIM and/or PIP rated versions available
- Null Fill versions available
- 0 - 10° electrical downtilt available

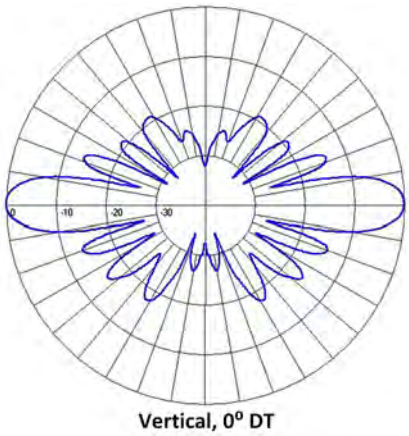
Model	Description
SC476-HF1LDF(D00)	6 dBd, low PIM, 746-869 MHz
SC476-HF1LDF(D02)	6 dBd, 2° DT, upright, 746-869 MHz
SC476-HF1LDF(D03)	6 dBd, 3° DT, upright, 746-869 MHz
SC476-HF1LDF(D06)	6 dBd, 6° DT, upright, 746-869 MHz
SC476-HF1LDF(D00-E5608)	5 dBd, low PIM, Null fill, 746-869 MHz
SC476-HF1LDF(D00-E5749)	6 dBd, low PIM, PIP rated, 746-869 MHz
SC476-HF1LDF(D00-E5765)	5 dBd, low PIM, Null fill, PIP rated, 746-869 MHz
SC476-HF1LNF(D02)	6 dBd, 2° DT, upright, N-Female, 746-869 MHz 6
SC476-HF2LDF(D00)	dBd, low PIM, 806-960 MHz
SC476-HF2LDF(D00-E5608)	5 dBd, low PIM, Null fill, 806-960 MHz
SC476-HF2LDF(D00-E5749)	6 dBd, low PIM, PIP rated, 806-960 MHz
SC476-HF2LDF(D00-E5765)	5 dBd, low PIM, Null fill, PIP rated, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	746 to 960
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	5 to 6 (7.1 to 8.1)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	12 to 12.5
Main Beam Electrical Tilt (Downtilt)	degrees	0 to 10
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -139
Lightning protection		DC ground



Vertical, 0° DT

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Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	80 to 84 (2032 to 2134)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	18 (457)
Radiating element material		copper
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	21 (9.53)
Weight iced	lbs (kg)	36 (16.34)
Mounting Hardware (Optional)		Clamp147 or Clamp005
Shipping dimensions	in (mm)	L 108in W 6in H 6in
Recommended For Offset Side Mount:		Not Required

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.19 (0.11)
Wind Loading Area (1/2" ice)	ft² (m²)	1.57 (0.15)
Rated wind velocity (no ice)	mph (km/h)	290 (467)
Rated wind velocity (1/2" radial ice)	mph (km/h)	255 (411)
Lateral thrust (100 mph No Ice)	lbs (N)	46 (204.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	104 (140.4)
Tip deflection (100 mph No Ice)	degrees	0.13

Ordering Information

N-type connectors available

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Collinear omni, 11.5 dBd, low PIM, HD, 746-960 MHz

- 500 Watts power handling
- Heavy duty UV protected fiberglass radome design
- PIP rated and/or Null fill versions available
- 150 dBc PIM rated, available with 0 - 10º downtilt options

Model	Description
SC412-HF2LDF(D00)	11.5 dBd, low PIM, 746-869 MHz
SC412-HF2LDF(D00-E5608)	11.5 dBd, low PIM, Null Fill, 746-869 MHz
SC412-HF2LDF(D00-E5749)	11.5 dBd, low PIM, PIP Rated, 746-869 MHz
SC412-HF2LDF(D00-E5765)	11.5 dBd, low PIM, PIP Rated, Null Fill, 746-869 MHz
SC412-HF3LDF(D00)	11.5 dBd, low PIM, 806-960 MHz
SC412-HF3LDF(D00-E5749)	11.5 dBd, low PIM, PIP rated, 806-960 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

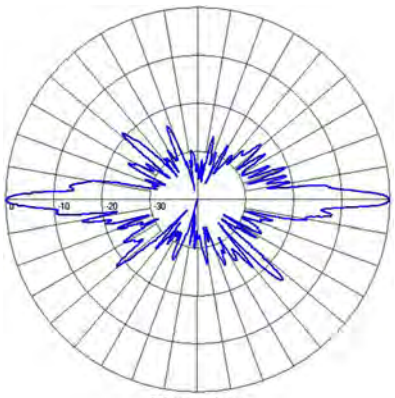


Electrical Specifications

Frequency Range	MHz	746 to 960
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	11.5 (13.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	3.6 to 3.9
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications

Depth	in (mm)	5 (127)
Length	in (mm)	5 (127)
Length/ Height	in (mm)	251.5 (6388)
Width	in (mm)	5 (127)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	26 (660)
Radome material		fiberglass
Weight	lbs (kg)	79 (35.87)
Weight iced	lbs (kg)	142 (64.47)
Mounting Hardware (Optional)		Clamp006C
Actual Shipping weight	lbs (kg)	110 (49.94)
Shipping dimensions	in (mm)	L 264in W 7in H 7in
Mounting configurations		Universal or Upright / universal
Recommended For Offset Side Mount:		SMK-345-A7



Elevation
Standard Model Shown

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.24 (0.49)
Wind Loading Area (1/2" ice)	ft² (m²)	6.39 (0.59)
Rated wind velocity (no ice)	mph (km/h)	170 (274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 (242)
Lateral thrust (100 mph No Ice)	lbs (N)	208 (925.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1610 (2173.5)
Tip deflection (100 mph No Ice)	degrees	2.2

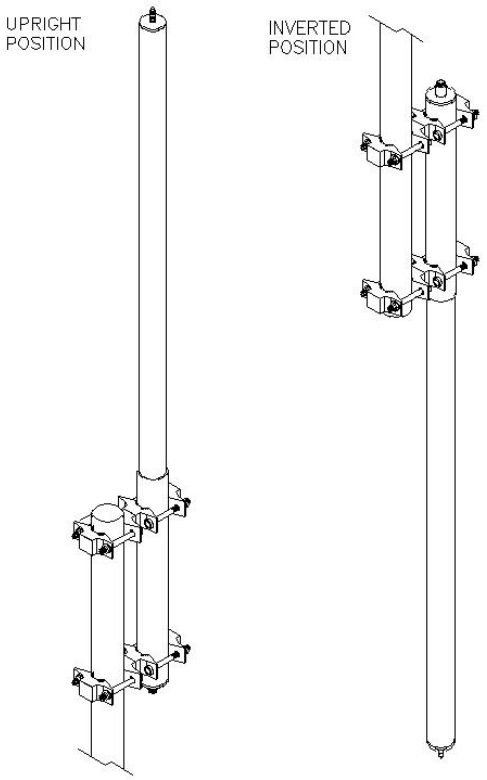
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Collinear omni, 7.5 dBd, low PIM, HD, 806-960 MHz

- Medium-gain antenna covering 806-960 MHz in 4 sub-bands
- Light weight and compact design
- 0 - 6° electrical downtilt available
- Both DIN or N female connectors (degraded PIM rating) are available

Model	Description
SC420-HF1LDF(D00)	7.5 dBd, DIN-Female, 806-869 MHz
SC420-HF2LDF(D00)	7.5 dBd, DIN-Female, 827-896 MHz
SC420-HF3LDF(D00)	7.5 dBd, DIN-Female, 890-940 MHz
SC420-HF4LDF(D00)	7.5 dBd, DIN-Female, 928-960 MHz



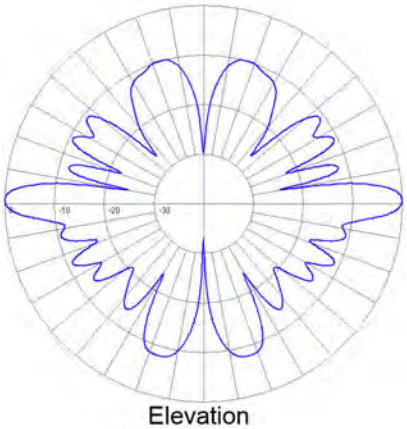
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	806 to 960
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	7.5 (9.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	11
Average Power Input (max)	W	750
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0 to 6 degrees

Mechanical Specifications

Depth	in (mm)	2.5 (64)
Length	in (mm)	102.5 (2604)
Width	in (mm)	2.5 (64)
Base pipe diameter	in (mm)	2.5 (64)
Base pipe mounting length	in (mm)	18 (457)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	15 (6.81)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 157in W 5in H 5in
Mounting configurations		upright, inverted
Recommended For Offset Side Mount:		SMK-325-A3 or SMK-325-A7



Elevation

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Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.1 (0.1)
Wind Loading Area (1/2" ice)	ft² (m²)	2.5 (0.23)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	41.6 (185)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	108.9 (147)

Ordering Information

7/16 DIN connector standard. N-Female also available. PIM and power may vary.

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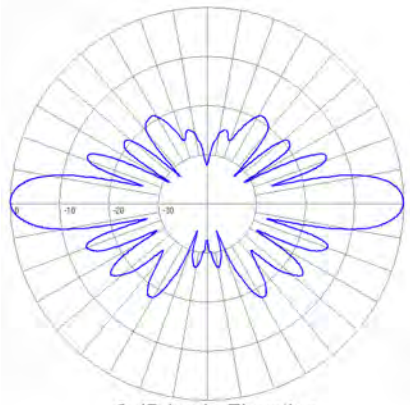
Collinear omni, 0/3/6 dBd, dual ports, 746-960 MHz

- Stacked dual port heavy duty antenna
- Available with 0 or 3 or 6 dBd gain
- Provides up to 45 dB port-to-port high isolation
- PIM rated versions available

Model	Description
SC432D-HF2LDF(D0-I40-G6-E5749)	6 dBd, Isolation 40 dB, low PIM, PIP rated, 806-960 MHz
SC432D-HF2LDF(D00-I40-G06)	6 dBd (typ), 40 dB, HD, low PIM, 698-806 MHz
SC432D-HF2LDF(D02-I40-G06)	6 dBd (typ), 2º DT, 40 dB, HD, low PIM, 698-806 MHz
SC432D-HF6LDF(D00-I40-G06)	6 dBd (typ), 2 ports, 40 dB, HD, low PIM, 746-869 MHz
SC432D-HF6LDF(I45-G00)	0 dBd, 45 dB Isolation, 746-869 MHz
SC432D-HF6LDF(D01-I45-G03)	3 dBd, 45 dB isolation, 1º DT, 746-869 MHz
SC432D-HF6LDF(D02-I40-G06)	6 dBd, 40 dB Isolation, 2° DT, 746-869 MHz
SC432D-HF6LDF(D02-I45-G03)	3 dBd, 45 dB isolation, 2º DT, 746-869 MHz
SC432D-HF6LDF(D03-I45-G03)	3 dBd, 45 dB isolation, 3º DT, 746-869 MHz
SC432D-HF6LDF(D04-I45-G03)	3 dBd, 45 dB isolation, 4º DT, 746-869 MHz
SC432D-HF6LDF(D05-I45-G03)	3 dBd, 45 dB isolation, 5º DT, 746-869 MHz
SC432D-HF6LDF(D06-I40-G06)	6 dBd, 40 dB Isolation, 6° DT, 746-869 MHz
SC432D-HF6LDF(D06-I45-G03)	3 dBd, 45 dB isolation, 6º DT, 746-869 MHz
SC432D-HF6LDF(D07-I45-G03)	3 dBd, 45 dB isolation, 7º DT, 746-869 MHz
SC432D-HF6LDF(D08-I45-G03)	3 dBd, 45 dB isolation, 8º DT, 746-869 MHz
SC432D-HF6LDF(D09-I45-G03)	3 dBd, 45 dB isolation, 9º DT, 746-869 MHz
SC432D-HF6LDF(D1-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 1º DT, 746-869 MHz
SC432D-HF6LDF(D10-I45-G03)	3 dBd, 45 dB isolation, 10º DT, 746-869 MHz
SC432D-HF6LDF(D2-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 2º DT, 746-869 MHz
SC432D-HF6LDF(D3-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 3º DT, 746-869 MHz
SC432D-HF6LDF(D4-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 4º DT, 746-869 MHz
SC432D-HF6LDF(D5-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 5º DT, 746-869 MHz
SC432D-HF6LDF(D6-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 6º DT, 746-869 MHz
SC432D-HF6LDF(D7-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 7º DT, 746-869 MHz
SC432D-HF6LDF(D8-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 8º DT, 746-869 MHz
SC432D-HF6LDF(D9-I45-G3-E5749)	3 dBd, 45 dB isolation, PIP rated, 9º DT, 746-869 MHz
SC432D-HF6LDF(I40-G06-E5749)	6 dBd (typ), 2 ports, PIP rated, 40 dB, HD, low PIM, 746-869 MHz
SC432D-HF6LDF(I45-G03)	3 dBd, 45 dB Isolation, 746-869 MHz
SC432D-HF6LNF(D02-I40-G06)	6 dBd, Isolation 40 dB, 2° DT, 746-869 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



6 dBd gain Elevation

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Electrical Specifications		
Frequency Range	MHz	746 to 960
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	0 to 6 (2.1 to 8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	12.5 to 70
Average Power Input (max)	W	500 / 300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -139
Lightning protection		DC ground
Electrical tilt (available)		0-10 degrees in 1° increments
Isolation between sections (nom)	dB	40 to 45

Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	82 to 189.5 (2083 to 4813)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	18 to 30 (457 to 762)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	22 to 41.4 (9.99 to 18.8)
Weight iced	lbs (kg)	36 to 76.6 (16.34 to 34.78)
Mounting Hardware (Optional)		Clamp006B
Actual Shipping weight	lbs (kg)	32 to 76 (14.53 to 34.5)
Shipping dimensions	in (mm)	L(102 - 202)in W 6in H 6in
Number of ports		2
Mounting configurations		upright
Recommended For Offset Side Mount:		SMK-335-A3 or SMK-335-A7

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.08 to 2.71 (0.1 to 0.25)
Wind Loading Area (1/2" ice)	ft² (m²)	1.42 to 3.58 (0.13 to 0.33)
Rated wind velocity (no ice)	mph (km/h)	170 to 245 (274 to 394)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 to 225 (250 to 362)
Lateral thrust (100 mph No Ice)	lbs (N)	41 to 119 (182.4 to 529.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	93 to 717 (125.6 to 968)
Tip deflection (100 mph No Ice)	degrees	0.11 to 2.1

Ordering Information
N-type connectors available

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Collinear omni, 0dBd, tripple port, low PIM, HD, 746-869 MHz

- 45 dB port-to-port isolation and -150 dBc PIM
- Designed to operate in extreme environmental conditions
- 3 antennas assembled in a single radome to save tower space and simplify installation
- Wideband, covers full 746-869 MHz

Model	Description
SC432T-HF6LDF(I45-G00)	0 dBd, Isolation 45 dB, 746-869 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

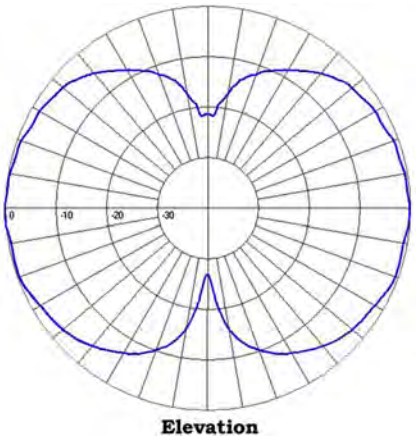
Frequency Range	MHz	746 to 869
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	70
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4, or 6 degrees
Isolation between sections (nom)	dB	45

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length	in (mm)	134 (3404)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	18 (457)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	33 (14.98)
Weight iced	lbs (kg)	57 (25.88)
Mounting Hardware (Optional)		Clamp006B
Actual Shipping weight	lbs (kg)	46 (20.88)
Shipping dimensions	in (mm)	L 156in W 6in H 6in
Mounting configurations		upright
Recommended For Offset Side Mount:		SMK-335-A3 or SMK-335-A7

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.86 (0.17)
Wind Loading Area (1/2" ice)	ft² (m²)	2.45 (0.23)
Rated wind velocity (no ice)	mph (km/h)	190 (306)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 (266)
Lateral thrust (100 mph No Ice)	lbs (N)	71 (315.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	273 (368.6)
Tip deflection (100 mph No Ice)	degrees	0.6



Elevation

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Collinear omni, 6 dBd, tripple port, low PIM, 746-960 MHz

- Triple port collinear antenna with 30 dB port-to-port isolation and 6 dBd gain
- Designed to operate in extreme environmental conditions
- Recommend using the SMK-335-A3 or SMK-335-A7

Model	Description
SC432T-SF2LDF(D0-I30-G6-E5749)	6 dBd, PIP rated, 30 dB, 806-960 MHz
SC432T-SF2LDF(D00-I30-G06)	6 dBd, 30 dB, 698-806 MHz
SC432T-SF6LDF(D0-I30-G6-E5749)	6 dBd, PIP rated, 30 dB, 746-869 MHz
SC432T-SF6LDF(D00-I30-G06)	6 dBd, 30 dB, 746-869 MHz
SC432T-SF6LDF(D06-I30-G06)	6 dBd, 6° DT, 30 dB, 746-869 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

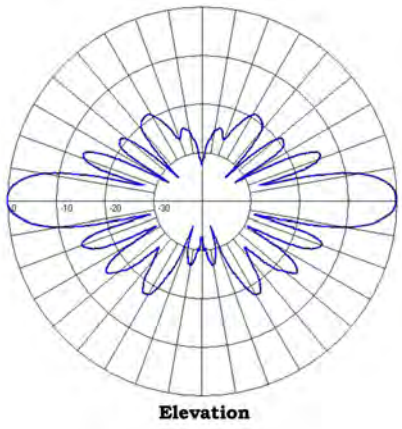


Electrical Specifications

Frequency Range	MHz	746 to 960
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	6 (8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	12.7
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4, or 6 degrees
Isolation between sections (nom)	dB	30

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	200.5 to 214.5 (5093 to 5448)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	30 (762)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	40.5 to 43 (18.39 to 19.52)
Weight iced	lbs (kg)	77.3 to 87 (35.09 to 39.5)
Mounting Hardware (Optional)		Clamp006B
Actual Shipping weight	lbs (kg)	72 to 92 (32.69 to 41.77)
Shipping dimensions	in (mm)	L(219 - 252)in W 6in H 6in
Mounting configurations		upright
Recommended For Offset Side Mount:		SMK-335-A3 or SMK-335-A7



Elevation

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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	140 to 165 (225 to 266)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 to 135 (185 to 217)
Lateral thrust (100 mph No Ice)	lbs (N)	113 to 132 (502.6 to 587.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	681 to 983 (919.4 to 1327.1)
Tip deflection (100 mph No Ice)	degrees	2.5 to 4.2

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Collinear omni, 2.5 dBd, HD, 750-960 MHz

- High power handling capacity
- Low profile and light weight design
- Durable heavy-duty long lasting fiberglass radome construction

Model	Description
SC433-HF1SNF	2.5 dBd, 806-869 MHz
SC433-HF2SNF	2.5 dBd, 824-896 MHz
SC433-HF3SNF	2.5 dBd, 890-940 MHz
SC433-HF4SNF	2.5 dBd, 928-960 MHz
SC433-HF5SNF	2.5 dBd, 746-806 MHz
SC433-HF6SNF	2.5 dBd, 902-928 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

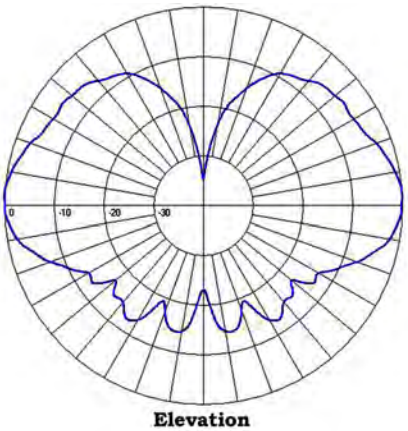
Frequency Range	MHz	750 to 960
Connector		N-Female
Gain (nominal)	dBd (dBi)	2.5 (4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	33
Average Power Input (max)	W	500
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	2.5 (64)
Length/ Height	in (mm)	40.83 (1037)
Width	in (mm)	2.5 (64)
Base pipe diameter	in (mm)	2.5 (64)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	7.4 (3.36)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	8.8 (4)
Shipping dimensions	in (mm)	L 65in W 5in H 5in
Mounting configurations		upright, inverted
Recommended For Offset Side Mount:		SMK-325-A3 or SMK-325-A7

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.44 (0.04)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Lateral thrust (100 mph No Ice)	lbs (N)	16.7 (74.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	17.1 (23.1)



Elevation

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Collinear omni, 2.5 dBd, low PIM, HD, 750-960 MHz

- High power handling capacity
- Low profile and light weight design
- Durable heavy-duty fiberglass radome construction
- None low PIM versions available

Model	Description
SC433-HF1LDF	2.5 dBd, 806-869 MHz
SC433-HF2LDF	2.5 dBd, 824-896 MHz
SC433-HF3LDF	2.5 dBd, 890-940 MHz
SC433-HF4LDF	2.5 dBd, 928-960 MHz
SC433-HF5LDF	2.5 dBd, 750-806 MHz
SC433-HF6LDF	2.5 dBd, 902-928 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

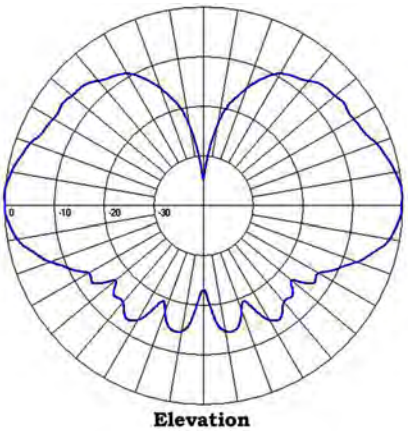
Frequency Range	MHz	750 to 960
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	2.5 (4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	33
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	2.5 (64)
Length/ Height	in (mm)	40.83 (1037)
Width	in (mm)	2.5 (64)
Base pipe diameter	in (mm)	2.5 (64)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	7.4 (3.36)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	8.8 (4)
Shipping dimensions	in (mm)	L 71in W 5in H 5in
Mounting configurations		upright, inverted
Recommended For Offset Side Mount:		Not Required

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	175 (282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	140 (225)
Lateral thrust (100 mph No Ice)	lbs (N)	16.7 (74.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	17.1 (23.1)



Elevation

Ordering Information
None low PIM versions are also available.

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Collinear omni, 9-10 dBd, low PIM, HD, 746-960 MHz

- Wideband, one antenna covers the full 746-869 or 806-960 MHz frequency range
- 500-Watt power handling capability
- PIP rated and/or Null fill versions available
- 0 - 10° electrical downtilt available

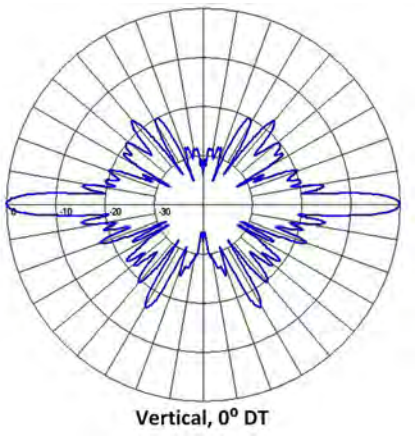
Model	Description
SC479-HF1LDF(D00)	9.5 dBd, Low PIM, 746-869 MHz
SC479-HF1LDF(D00-E5608)	9 dBd, low PIM, Null Fill, 746-869 MHz
SC479-HF1LDF(D00-E5749)	9.5 dBd, low PIM, PIP rated, 746-869 MHz
SC479-HF1LDF(D00-E5765)	9 dBd, Low PIM, Null fill, PIP rated, 746-869 MHz
SC479-HF1LDF(D00-E6029)	10 dBd, low PIM, PIP rated, 746-869 MHz
SC479-HF1LDF(D00-E6085)	9.5 dBd, low PIM, Null fill, PIP rated, 746-869 MHz
SC479-HF1LDF(D02-E5765)	9 dBd, 2º DT, Null Fill, PIP rated, 746-869 MHz
SC479-HF2LDF(D00)	9.5 dBd, low PIM, 806-960 MHz
SC479-HF2LDF(D00-E5608)	9 dBd, low PIM, Null fill, 806-960 MHz
SC479-HF2LDF(D00-E5749)	9.5 dBd, low PIM, PIP rated, 806-960 MHz
SC479-HF2LDF(D00-E5765)	9 dBd, low PIM, PIP rated, Null fill, 806-960 MHz
SC479-HF2LDF(D00-E6029)	10 dBd, low PIM, PIP rated, 806-960 MHz
SC479-HF2LDF(D00-E6085)	9.5 dBd, low PIM, PIP rated, Null fill, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	746 to 960
Bandwidth	MHz	123 to 154
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9 to 10 (11.1 to 12.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	5.2 to 5.7
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees



Vertical, 0º DT

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Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	161.4 to 173.4 (4100 to 4404)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	24 (610)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	34 (15.44)
Weight iced	lbs (kg)	66 (29.96)
Mounting Hardware (Optional)		Clamp006B, or Clamp147
Actual Shipping weight	lbs (kg)	76 (34.5)
Shipping dimensions	in (mm)	L 192in W 6in H 6in
Recommended For Offset Side Mount:		SMK-335-A3 or SMK-335-A7

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.46 (0.23)
Wind Loading Area (1/2" ice)	ft² (m²)	3.25 (0.3)
Rated wind velocity (no ice)	mph (km/h)	170 (274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 (250)
Lateral thrust (100 mph No Ice)	lbs (N)	97 (431.5)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	520 (702)
Tip deflection (100 mph No Ice)	degrees	1.52

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Collinear omni, 9.5-10 dBd, HD, 694-960 MHz

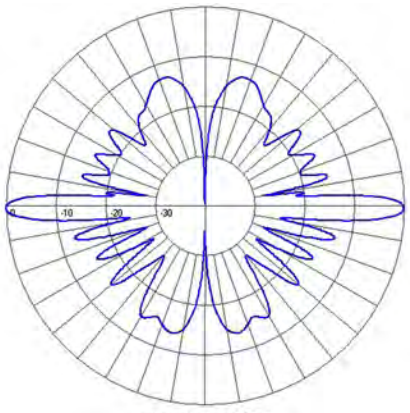
- 10 dBd gain (9.5 dBd with downtilt) with omni-directional pattern and heavy-duty radome
- Compact lightweight heavy-duty fiberglass radome
- Available in several sub-bands and 0 - 6° downtilt options
- PIM rated versions available

Model	Description
SC488-HF1LDF(D00)	10 dBd, DIN-Female, 806-869 MHz
SC488-HF1LDF(D02)	9.5 dBd, 2° DT, 7/16 DIN, 806-869 MHz
SC488-HF1LDF(D04)	9.5 dBd, 4° DT, 7/16 DIN, 806-869 MHz
SC488-HF1LDF(D06)	9.5 dBd, 6° DT, 7/16 DIN, 806-869 MHz
SC488-HF1LNF(D04)	9.5 dBd, 4° DT, N-Female, 806-869 MHz
SC488-HF2LDF(D00)	10 dBd, DIN-Female, 824-896 MHz
SC488-HF2LDF(D02)	9.5 dBd, 2° DT, 7/16 DIN, 824-896 MHz
SC488-HF2LDF(D04)	9.5 dBd, 4° DT, 7/16 DIN, 824-896 MHz
SC488-HF2LDF(D06)	9.5 dBd, 6° DT, 7/16 DIN, 824-894 MHz
SC488-HF2LNF(D00)	10 dBd, N-Female, 824-896 MHz
SC488-HF2LNF(D02)	9.5 dBd, 2° DT, N-Female, 824-894 MHz
SC488-HF3LDF(D00)	10 dBd, DIN-Female, 890-940 MHz
SC488-HF3LDF(D06)	9.5 dBd, 6º DT, 7/16 DIN, 890-940 MHz
SC488-HF4LDF(D00)	10 dBd, DIN-Female, 928-960 MHz
SC488-HF4LDF(D06)	9.5 dBd, 6° DT, 7/16 DIN, 928-960 MHz
SC488-HF7LDF(D04)	9.5 dBd, DIN-Female, 4° DT, 900-950 MHz 10
SC488-HF9LDF(D00)	dBd, DIN-Female, 694-746 MHz
SC488-HF9LDF(D02)	9.5 dBd, 2º DT, 694-746 MHz



Electrical Specifications		
Frequency Range	MHz	694 to 960
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	9.5 to 10 (11.6 to 12.1)
Input VSWR (max)		1.5:1 / 1.4:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	6
Average Power Input (max)	W	750 / 500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0-6 degrees / 0 to 6 degrees

Mechanical Specifications		
Depth	in (mm)	2.88 (73)
Length/ Height	in (mm)	166.9 to 200 (4239 to 5080)
Width	in (mm)	2.88 (73)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	24 (610)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	29.3 to 34.7 (13.3 to 15.75)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	55 to 66 (24.97 to 29.96)
Shipping dimensions	in (mm)	L(189 - 230)in W 5in H 5in
Recommended For Offset Side Mount:		SMK-325-A3 or SMK-325-A7



Elevation, 0°DT

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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.9 to 2.23 (0.18 to 0.21)
Wind Loading Area (1/2" ice)	ft² (m²)	2.66 to 3.13 (0.25 to 0.29)
Rated wind velocity (no ice)	mph (km/h)	180 to 205 (290 to 330)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 to 165 (242 to 266)
Lateral thrust (100 mph No Ice)	lbs (N)	73 to 85.5 (324.7 to 380.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	343 to 499 (463.1 to 673.7)

Ordering Information

More N-type connectors and/or Standard versions are also available, please see list below

Model	Description
SC488-SF1SNF(D00)	10 dBd, 806-869 MHz
SC488-SF1SNF(D02)	9.5 dBd, 2° DT, 806-869 MHz
SC488-SF1SNF(D04)	9.5 dBd, 4° DT, 806-869 MHz
SC488-SF1SNF(D06)	9.5 dBd, 6° DT, 806-869 MHz
SC488-SF2SNF(D00)	10 dBd, 824-896 MHz
SC488-SF2SNF(D02)	9.5 dBd, 2° DT, 824-896 MHz
SC488-SF2SNF(D04)	9.5 dBd, 4° DT, 824-896 MHz
SC488-SF3SNF(D00)	10 dBd, 890-940 MHz
SC488-SF3SNF(D06)	9.5 dBd, 6° DT, 890-940 MHz
SC488-SF4SNF(D00)	10 dBd, 928-960 MHz
SC488-HF1SNF(D00)	10 dBd, HD, 806-869 MHz
SC488-HF1SNF(D02)	9.5 dBd, HD, 2° DT, 806-869 MHz
SC488-HF1SNF(D04)	9.5 dBd, HD, 4° DT, 806-869 MHz
SC488-HF2SNF(D00)	10 dBd, HD, 824-896 MHz
SC488-HF2SNF(D02)	9.5 dBd, HD, 2° DT, 824-896 MHz
SC488-HF2SNF(D04)	9.5 dBd, HD, 4° DT, 824-896 MHz
SC488-HF3SNF(D00)	10 dBd, HD, 890-940 MHz
SC488-HF4SNF(D00)	10 dBd, HD, 928-960 MHz
SC488-SF1LDF(D00)	10 dBd, low PIM, 806-869 MHz
SC488-SF1LDF(D02)	9.5 dBd, low PIM, 2° DT, 806-866 MHz
SC488-SF1LDF(D04)	9.5 dBd, low PIM, 4° DT, 806-866 MHz
SC488-SF1LDF(D06)	9.5 dBd, low PIM, 6° DT, 806-869 MHz
SC488-SF2LDF(D00)	10 dBd, low PIM, 824-896 MHz
SC488-SF2LDF(D02)	9.5 dBd, low PIM, 2°DT, 824-896 MHz
SC488-SF2LDF(D02I)	9.5 dBd, low PIM, 2° DT, 2824-896 MHz
SC488-SF2LDF(D04)	9.5 dBd, low PIM, 4° DT, 824-896 MHz
SC488-SF2LDF(D06)	9.5 dBd, low PIM, 6° DT, 824-896 MHz
SC488-SF3LDF(D00)	10 dBd, low PIM, 890-940 MHz
SC488-SF4LDF(D00)	10 dBd, low PIM, 928-960 MHz
SC488-SF5LDF(D00)	10 dBd, low PIM, 1057-1123 MHz
SC488-SF6LDF(D00)	10 dBd, low PIM, 746-806 MHz
SC488-SF6LDF(D02)	9.5 dBd, low PIM, 2° DT, 746-806 MHz
SC488-SF9LDF(D00)	10 dBd, low PIM, 694-746 MHz

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Aurora™ collinear omni, 11.5 dBd, Low PIM, HD, 746-960 MHz

- Patent-pending Aurora™ balanced design delivers exceptional 214 MHz bandwidth
- Industry-leading -150dBc PIM rating for low noise characteristics, ideal for trunking systems
- Heavy-duty construction with outstanding 220 mph wind rating for harsh environments
- Electrical downtilt, null fill, PIP rated, or inverted versions are available

Model	Description
SC49C-HWBLDF(DXX)	11.5 dBd, low PIM
SC49C-HWBLDF(DXX-NUF)	11.5 dBd, low PIM, Null fill
SC49C-HWBLDF(DXX-NUFP)	11.5 dBd, low PIM, Null fill, PIP rated
SC49C-HWBLDF(DXX-PIP)	11.5 dBd, low PIM, PIP rated
SC49C-HWBLDF(DXXI-NUF)	11.5 dBd, low PIM, Null fill, Inverted
SC49C-HWBLDF(DXXI-NUFP)	11.5 dBd, low PIM, Null fill, Inverted, PIP rated



Electrical Specifications

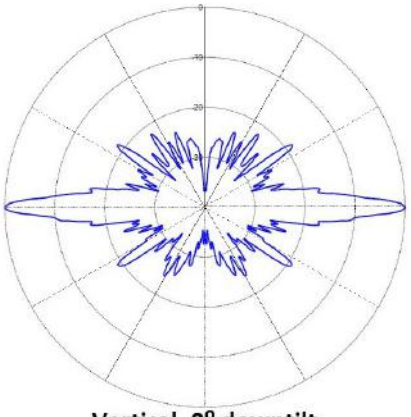
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	11.5 (13.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	3.6
Average Input Power (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications

Width	in (mm)	5 (127)
Depth	in (mm)	5 (127)
Length/ Height	in (mm)	202.5 (5144)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	26 (660)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	68 (30.87)
Weight iced (1/2" ice)	lbs (kg)	121 (54.93)
Mounting Hardware (Optional)		Clamp006C
Recommended For Offset Side Mount:		SMK-345-A7
Mounting configurations		upright, inverted
Estimated Shipping Weight	lbs (kg)	110 (49.94)
Shipping dimensions	in (mm)	L 264in W 7in H 7in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4.4 (0.41)
Wind Loading Area (1/2" ice)	ft² (m²)	5.3 (0.49)
Rated wind velocity (no ice)	mph (km/h)	220 (354)
Rated wind velocity (1/2" radial ice)	mph (km/h)	190 (306)
Lateral Thrust (100 mph No Ice)	lbs (N)	171 (760.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1062 (1433.7)
Tip deflection (100 mph No Ice)	degrees	0.9



Vertical, 0° downtilt

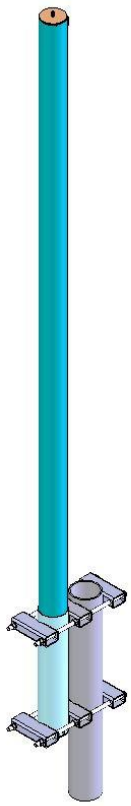
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Aurora™ collinear omni, 9 to 9.5 dBd, Low PIM, HD, wide band, 746-960 MHz

- Patent-pending Aurora™ balanced design delivers exceptional 214 MHz bandwidth
- Industry-leading -150dBc PIM rating for low noise characteristics, ideal for trunking systems
- Heavy-duty construction with outstanding 200 mph wind rating for harsh environments
- Electrical downtilt, null fill, PIP rated, or inverted versions are available

Model	Description
SC499-HWBLDF(DXX)	9.5 dBd, low PIM
SC499-HWBLDF(DXX-PIP)	9.5 dBd, low PIM, PIP rated
SC499-HWBLDF(DXX-NUF)	9 dBd, low PIM, Null fill
SC499-HWBLDF(DXX-NUFP)	9 dBd, low PIM, Null fill, PIP rated
SC499-HWBLDF(DXXI-NUFP)	9 dBd, low PIM, Null fill, PIP rated, Inverted



Clamp not supplied

Electrical Specifications

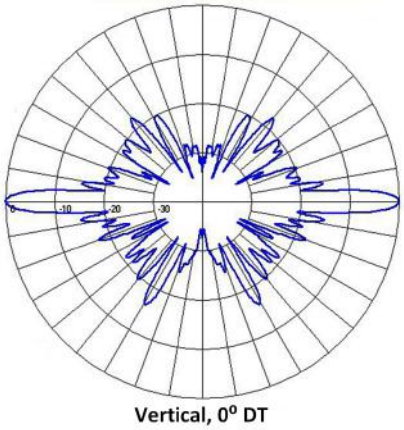
Frequency Range	MHz	746 to 960
Bandwidth	MHz	214
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9 to 9.5 (11.1 to 11.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	5.2
Average Input Power (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications

Width	in (mm)	5 (127)
Depth	in (mm)	5 (127)
Length/ Height	in (mm)	140.5 (3569)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	20 (508)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	51 (23.15)
Weight iced (1/2" ice)	lbs (kg)	88 (39.95)
Mounting Hardware (Optional)		Clamp006C
Recommended For Offset Side Mount:		SMK-345-A7
Mounting configurations		upright, inverted
Estimated Shipping Weight	lbs (kg)	85 (38.59)
Shipping dimensions	in (mm)	L 155in W 7in H 7in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3 (0.28)
Wind Loading Area (1/2" ice)	ft² (m²)	3.7 (0.34)
Rated wind velocity (no ice)	mph (km/h)	200 (322)
Rated wind velocity (1/2" radial ice)	mph (km/h)	170 (274)
Lateral Thrust (100 mph No Ice)	lbs (N)	118 (524.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	486 (656.1)
Tip deflection (100 mph No Ice)	degrees	0.3



Vertical, 0° DT

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Aurora™ collinear omni, 9 to 9.5 dBd, Low PIM, HD, 746-869 MHz

- Patent-pending Aurora™ balanced design covers the 746-869 MHz frequency range
- Industry leading -150 dBc PIM rating for low noise characteristics, ideal for trunking systems
- Heavy-duty construction with outstanding 200 mph wind rating for harsh environments
- Electrical downtilt, null fill, PIP rated, or inverted versions are available

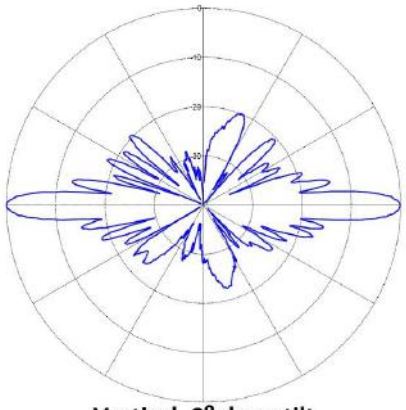
Model	Description
SC469-HF1LDF(DXX)	9.5 dBd, Low PIM
SC469-HF1LDF(DXX-PIP)	9.5 dBd, Low PIM, PIP rated
SC469-HF1LDF(DXX-NUF)	9 dBd, Low PIM, Null fill
SC469-HF1LDF(DXX-NUFP)	9 dBd, Low PIM, Null fill, PIP rated
SC469-HF1LDF(DXXI-NUFP)	9 dBd, Low PIM, Null fill, Inverted



Electrical Specifications		
Frequency Range	MHz	746 to 869
Bandwidth	MHz	123
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9 to 9.5 (11.1 to 11.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	5.2
Average Input Power (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications		
Width	in (mm)	2.88 (73)
Depth	in (mm)	2.88 (73)
Length/ Height	in (mm)	135 (3429)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	18 (457)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	23 (10.44)
Weight iced (1/2" ice)	lbs (kg)	56 (25.42)
Mounting Hardware (Optional)		Clamp005
Recommended For Offset Side Mount:		SMK-225-A3 or SMK-225-A7
Mounting configurations		upright, inverted
Estimated Shipping Weight	lbs (kg)	65 (29.51)
Shipping dimensions	in (mm)	L 170in W 5in H 5in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.6 (0.15)
Wind Loading Area (1/2" ice)	ft² (m²)	2.3 (0.21)
Rated wind velocity (no ice)	mph (km/h)	200 (322)
Rated wind velocity (1/2" radial ice)	mph (km/h)	160 (258)
Lateral Thrust (100 mph No Ice)	lbs (N)	65 (289.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	230 (310.5)
Tip deflection (100 mph No Ice)	degrees	0.2



Vertical, 0° downtilt

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Ground plane omni, 0 dBd, 806-960 MHz

- Rugged, light weight and easy to install
- Wide-band frequency applications

Model	Description
SG401-SF1SNF	0 dBd, N-Female, 806-890 MHz
SG401-SF1SNM	0 dBd, N-Male, 806-890 MHz
SG401-SF2SNF	0 dBd, N-Female, 890-960 MHz
SG401-SF2SNM	0 dBd, N-Male, 890-960 MHz
SG401-SF3SNF	0 dBd, N-Female, 768-869 MHz
SG401-SF3SNM	0 dBd, N-Female, 768-869 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	768 to 960
Connector		N-Female / N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Horizontal beamwidth (typ)	degrees	360
Vertical beamwidth (typ)	degrees	80
Average Power Input (max)	W	100
Lightning protection		DC ground

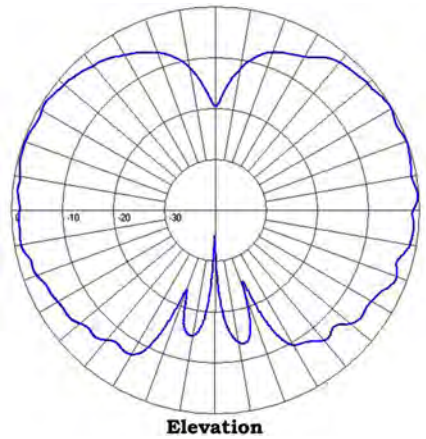
Mechanical Specifications

Length/ Height	in (mm)	21 (533)
Base pipe diameter	in (mm)	0.75 (19)
Base pipe mounting length	in (mm)	8 (203)
Weight	lbs (kg)	1 (0.45)
Mounting Hardware (Standard)		Clamp135B
Actual Shipping weight	lbs (kg)	5 (2.27)
Shipping dimensions	in (mm)	L 6in W 4in H 26in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	100 (161)
Lateral thrust (100 mph No Ice)	lbs (N)	12.3 (54.7)

Ordering Information
Specify frequency of operation.



Elevation

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Mobile omni, 0 dBd, low profile, radome, 764-960 MHz

- Omni-directional transit antenna with heavy duty fiberglass radome with polyurethane coating
- Covers both public GSM and railway GSM-R frequency bands
- Ideal for height-restricted applications
- Aerodynamic design reduces wind-loading

Model	Description
ST421R-SF1SNF	0 dBd, 764-806 MHz
ST421R-SF2SNF	0 dBd, 806-870 MHz.
ST421R-SF3SNF	0 dBd, 870-960 MHz

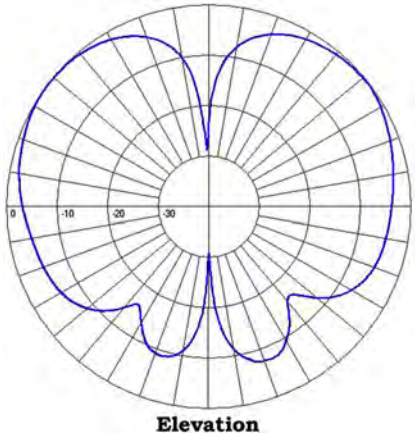


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	764 to 960
Bandwidth	MHz	42 to 90
Connector		N-Female (Socket)
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Average Power Input (max)	W	200
Lightning protection		DC ground

Mechanical Specifications		
Length	in (mm)	7.37 to 7.4 (187 to 188)
Length/ Height	in (mm)	2.09 to 2.1 (53 to 53)
Width	in (mm)	3.7 (94)
Radome material		Grey, Fiberglass
Actual Shipping weight	lbs (kg)	2.5 (1.14)
Shipping dimensions	in (mm)	L(5 - 10)in W 5in H(5 - 8)in
Ground Plane (min)	in (mm)	10x10
Mounting hardware		BOLT M6 x 25, A2

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Elevation

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Compact Trunking Transmitter Combiner, 5 Channels, 806-869 MHz

- Different versions support frequency spacings of 1 MHz, 500 KHz and 250 KHz
- 125 watts per channel
- Fits easily into 19 inch rack - only 12.25 inches vertical height
- 6 and 10 channel models available

Model	Description
RTC5800RA-1	1 MHz channel spacing, 806-824 MHz
RTC5800RA-2	1 MHz channel spacing, 851-869 MHz
RTC5800RB-1	0.5 MHz channel spacing, 806-824 MHz
RTC5800RB-2	0.5 MHz channel spacing, 851-869 MHz
RTC5800RC-1	0.25 MHz channel spacing, 806-824 MHz
RTC5800RC-2	0.25 MHz channel spacing, 851-869 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	806 to 869
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	125
Isolation Tx to Tx	dB	70
Isolation antenna to Tx	dB	60
Output VSWR		2:1
Number of channels		5

Mechanical Specifications

Depth	in (mm)	15 (381)
Length/ Height	in (mm)	12.25 (311)
Width	in (mm)	19 (483)
Weight	lbs (kg)	50 (22.7)
Actual Shipping weight	lbs (kg)	55 (24.97)
Shipping dimensions	in (mm)	L(22 - 24)in W(15 - 17)in H(19 - 21)in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information

RA = 1 MHz separation with insertion loss of 2.6 dB
RB = 0.5 MHz separation with insertion loss of 2.8 dB
RC = 0.25 MHz separation with insertion loss of 4.0 dB

6 and 10 channel models are also available, please contact your Sinclair Sales Representative for more information.

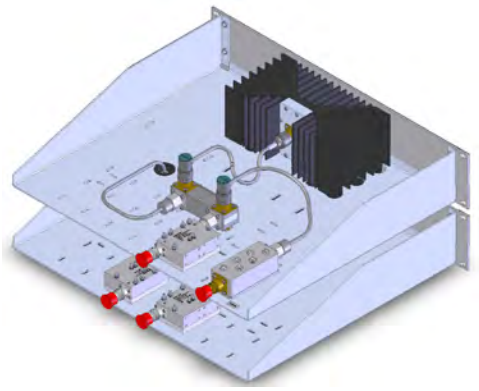
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Hybrid-ferrite transmitter combiner, 2 to 7 channels, 806-960 MHz

- Supports extremely close frequency spacings
- Two channel models easily expanded to four with second 2 channel unit, hybrid coupler and cable
- Permit combining of two, four or seven 806-960 MHz transmitters onto one antenna

Model	Description
TC4112	Single stage isolator, 2 channels, 806-960 MHz
TC4114	Single stage isolator, 4 channels, 806-960 MHz
TC4212	Dual stage isolators, 2 channels, 806-960 MHz
TC4213	Dual stage isolators, 3 channels, 806-960 MHz
TC4214	Dual stage isolators, 4 channels, 806-960 MHz
TC4217	Dual stage isolators, 7 channels, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	806 to 960
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (max)	MHz	10 to 154
Frequency separation (min)	MHz	0
Insertion loss Tx to antenna (typ)	dB	3.9 to 7.4
Isolation Tx to Tx	dB	50 to 80
Isolation antenna to Tx	dB	28 to 56
Number of channels		2 to 7

Mechanical Specifications

Depth	in (mm)	15.6 to 15.63 (396 to 397)
Length/ Height	in (mm)	3.5 to 21 (89 to 533)
Width	in (mm)	19 (483)
Weight	lbs (kg)	11.6 to 87 (5.27 to 39.5)
Shipping dimensions	in (mm)	L 19in W 26in H 7in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Compact hybrid-ferrite transmitter combiner, 2 or 4 channel, 746-960 MHz

- Connect 2 or 4 transmitters to one antenna
- Single or dual stage full band isolators
- 1U high compact tray
- No restriction on minimum Tx-Tx spacing, no retuning for frequency change within band

Model	Description
TCC4132-1	2 channel, single stage isolators, 746-869 MHz
TCC4132-2	2 channel, single stage isolators, 806-960 MHz
TCC4134-1	4 channel, single stage isolators, 746-869 MHz
TCC4232-1	2 channel, dual stage isolators, 746-869 MHz
TCC4234-1	4 channel, dual stage isolators, 746-869 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Input VSWR (max)		1.3:1
Insertion loss (typ) Tx to Ant	dB	4.1 to 7.8
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	60
Frequency separation (max)	MHz	123 to 154
Frequency separation (min)	MHz	0
Isolation Tx to Tx	dB	45 to 70
Isolation antenna to Tx	dB	28 to 56
Output VSWR		1.5:1
Number of channels		2 to 4

Mechanical Specifications		
Depth	in (mm)	10 to 14.6 (254 to 371)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	10 to 18 (4.54 to 8.17)

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

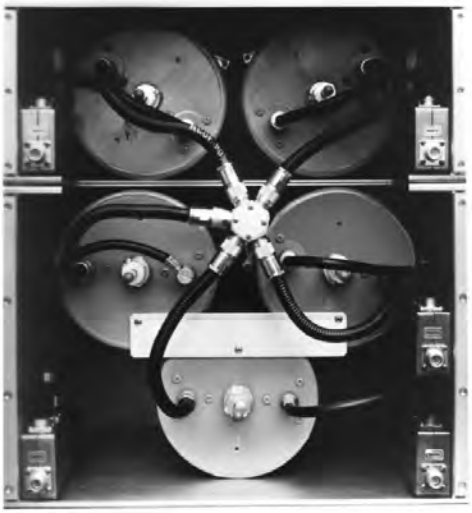
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7” cavity-ferrite transmitter combiner, 2 to 6 channel, 806-960 MHz

- Available in 2 to 6 channels
- Cavities are mounted in cabinets
- Low loss single or dual isolator per channel
- Allows for minimum Tx-Tx spacings of 250 KHz

Model	Description
TJ4132	2 channels, single stage isolator, 806-960 MHz
TJ4133	3 channels, single stage isolator, 806-960 MHz
TJ4134	4 channels, single stage isolator, 806-960 MHz
TJ4232	2 channel, dual stage isolator, 806-960 MHz
TJ4233	3 channel, dual stage isolator, 806-960 MHz
TJ4234	4 channel, dual stage isolator, 806-960 MHz
TJ4235	5 channel, dual stage isolator, 806-960 MHz
TJ4236	6 channel, dual stage isolator, 806-960 MHz



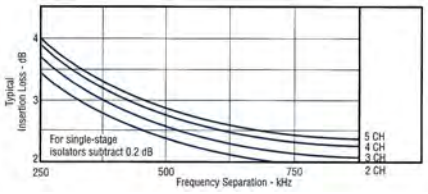
5 channel model shown

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	806 to 960
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	125
Frequency separation (min)	MHz	0.25
Insertion loss (max) Tx to Ant	dB	3.2 to 4
Isolation Tx to Tx	dB	35 to 70
Isolation antenna to Tx	dB	25 to 60
Output VSWR		2:1
Number of channels		2 to 6

Mechanical Specifications		
Depth	in (mm)	18.5 (470)
Length/ Height	in (mm)	7 to 26.25 (178 to 667)
Width	in (mm)	19 (483)
Weight	lbs (kg)	16 to 50 (7.26 to 22.7)
Actual Shipping weight	lbs (kg)	35 to 80 (15.89 to 36.32)
Shipping dimensions	in (mm)	L 23in W 23in H(12 - 18)in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



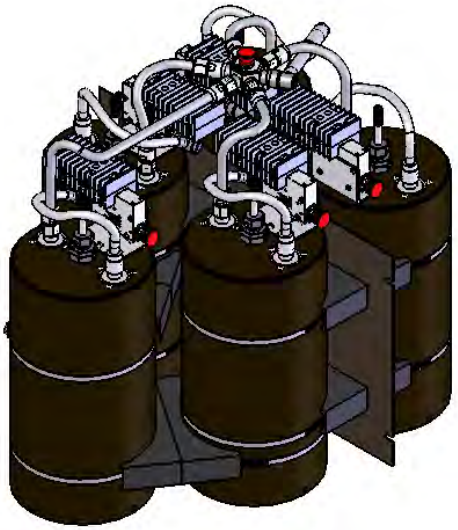
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7” cavity-ferrite transmitter combiner, 2 to 5 channel, broad band isolator, 806-960 MHz

- Available in 2 to 5 channels
- Allows for minimum Tx-Tx spacings of 250 KHz
- Expandable for more channels, panel mount
- Uses high 'Q' 3/4 wave bandpass cavity filters with low loss broad band isolators

Model	Description
TJ4135-R-2	5 channels, single stage isolator, 806-960 MHz
TJ4232-R-2	2 channels, dual stage isolator, 806-960 MHz
TJ4233-R-2	3 channels, dual stage isolator, 806-960 MHz
TJ4234-R-2	4 channels, dual stage isolator, 806-960 MHz
TJ4235-R-2	5 channels, dual stage isolator, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

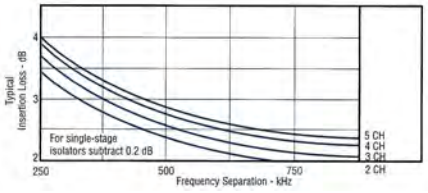
Frequency Range	MHz	806 to 960
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.25
Insertion loss (max) Tx to Ant	dB	3.5 to 4
Isolation Tx to Tx	dB	35 to 60
Isolation antenna to Tx	dB	25 to 50
Output VSWR		2:1
Number of channels		2 to 5

Mechanical Specifications

Depth	in (mm)	7.4 to 21.3 (188 to 541)
Length/ Height	in (mm)	16.1 (409)
Width	in (mm)	19 (483)
Weight	lbs (kg)	16 to 39 (7.26 to 17.71)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	35 to 80 (15.89 to 36.32)
Shipping dimensions	in (mm)	L(20 - 21)in W(10 - 21)in H(21 - 33)in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Ordering Information
Specify one Tx frequency per channel at time of order.

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Ultra High Q Ceramic Transmitter Combiner, 1 to 12 Channels

- Up to 12 channels
- Down to 150 kHz Tx-Tx spacing
- Low loss and field tunable
- Compact design (3U height for up to 3 channel models)
- Testing port equipped for easy field tuning and maintenance

Model	Description
TXC413y-1	1-12 channels, single stage, 763-776 MHz
TXC413y-2	1-12 channels, single stage, 851-869 MHz
TXC423y-1	1-12 channels, dual stage, 763-776 MHz
TXC423y-2	1-12 channels, dual stage, 851-869 MHz

y = 1 to 12, number of channels.



4 channel model

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	763 to 869
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Number of Cavities		1 to 12
Input Connectors		N-Female
Output Connectors		N-Female / 7/16 DIN-Female
Frequency separation (min)	MHz	0.15
Insertion loss Tx to antenna (typ)	dB	1.7 to 3.6
Isolation Tx to Tx	dB	40 to 70
Isolation antenna to Tx	dB	30 to 60
Output VSWR		2:1
Number of channels		1 to 12

Mechanical Specifications		
Depth	in (mm)	14 (356)
Length/ Height	in (mm)	5.3 to 21 (133 to 533)
Width	in (mm)	19 (483)
Weight	lbs (kg)	8.5 to 97 (3.86 to 44.0)

Environmental Specifications		
Temperature range	°F (°C)	+14 to +140 (-10 to +60)

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Receiver Mulitcoupler, 746-960 MHz

- Connect 2 to 16 receivers to a single antenna with BNC connectors with 1 R.U. tray
- Connect 2 to 8 receivers to a single antenna with N-type connectors with 1 R.U. tray
- For other channel configurations, please contact your Sinclair Sales Representative

Model	Description
RM4(AA-W)(BB)G(Y)(C)	Receiver Mulitcoupler, 806-960 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

RM4(AA-W)(BB)G(Y)(C)



AA-W	Frequency Range	Bandwidth
00-0	No Preselector	
15-1	806-821 MHz	15 MHz
15-2	821-849 MHz	15 MHz
15-3	850-865 MHz	15 MHz
15-4	865-880 MHz	15 MHz
15-5	880-895 MHz	15 MHz
10-1	896-901 MHz	9.6 MHz
09-9	Special See E#	

Y	Supply Voltage
1	115 VAC
2	220 VAC
3	12 VDC
4	24 VDC
5	48 VDC
6	115 VAC CE
7	220 VAC CE
10	-48 VDC
11	115 and 220 VAC

BB = Number of channels
02, 04, 08, or 16 with BNC connectors
(For 12, order 16 and 4 loads)
02, 04, or 08 with N-type connectors

C= Output Connectors
"B"- BNC- Female
"N"- N- Female

Electrical Specifications

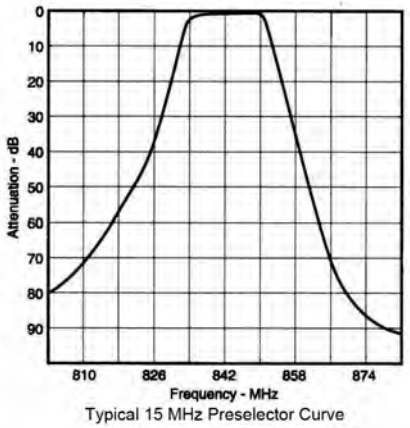
Frequency Range	MHz	746 to 960
Bandwidth	MHz	15
Input VSWR (max)		1.5:1
Input Connectors		N-Female
Output Connectors		BNC-Female or N-Female
Isolation Rx to Rx	dB	20
Output VSWR		1.25:1
System gain (min)	dB	2
Noise figure (amplifier (typ))	dB	1
Noise figure (system (typ))	dB	4.1
Third order intercept - amplifier	dBm	39
1 dB Compression point	dBm	25
Supply voltage		115 VAC

Mechanical Specifications

Depth	in (mm)	10 (254)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	5.5 (2.5)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 23in W 18in H 4in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Typical 15 MHz Preselector Curve

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Receiver Mulitcoupler, 746-806 MHz

- Connect 2 to 16 receivers to a single antenna with BNC connectors with 1 R.U. tray
- Connect 2 to 8 receivers to a single antenna with N-type connectors with 1 R.U. tray
- For other channel configurations, please contact your Sinclair Sales Representative

Model	Description
RM4(AA-W)(BB)G(Y)(C)-746-806	Receiver Mulitcoupler, 746-806 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

RM4(AA-W)(BB)G(Y)(C)-746-806



AA-W	Frequency Range	Bandwidth
00-0	No Preselector	
09-9	Special See E#	
05-1	758-763 MHz	5 MHz
05-2	788-793 MHz	5 MHz
11-3	746-757 MHz	11 MHz
11-4	776-787 MHz	11 MHz
12-5	763-775 MHz	12 MHz
12-6	793-805 MHz	12 MHz

Y	Supply Voltage
1	115 VAC
2	220 VAC
3	12 VDC
4	24 VDC
5	48 VDC
6	115 VAC CE
7	220 VAC CE
10	-48 VDC
11	115 and 220 VAC

BB = Number of channels
02, 04, 08, or 16 with BNC connectors (For 12, order 16 and 4 loads)
02, 04, or 08 with N-type connectors

C= Output Connectors
"B"- BNC- Female
"N"- N- Female

Electrical Specifications		
Frequency Range	MHz	746 to 806
Bandwidth	MHz	5
Input VSWR (max)		1.5:1
Impedance	Ω	50
Input Connectors		N-Female
Output Connectors		BNC-Female or N-Female
Isolation Rx to Rx	dB	20
Output VSWR		1.25:1
System gain (min)	dB	1
Noise figure (amplifier (typ))	dB	0.7
Noise figure (system (typ))	dB	4.3
Third order intercept - amplifier	dBm	28
1 dB Compression point	dBm	16
Number of channels		2
Supply voltage		115 VAC

Mechanical Specifications		
Depth	in (mm)	10 (254)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	11 (4.99)
Shipping dimensions	in (mm)	L 23in W 18in H 4in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

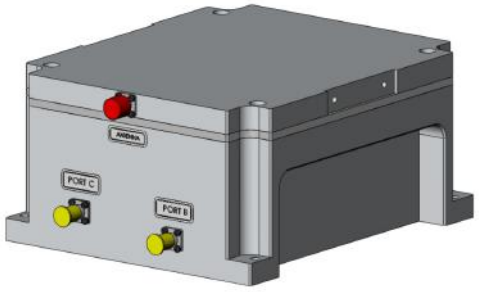
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Heavy duty 700/800 MHz vehicle mounted duplexer

- Ultra-rugged construction for off-road vehicle use
- Good protection from out-of-band frequencies with low insertion loss
- Excellent temperature compensation

Model	Description
PR4330-5	Heavy duty 700/800 MHz vehicle mounted duplexer



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Tx Frequency Range	MHz	799.15 to 800	
Reject Band 1 Frequency Range	MHz	772 to 870	*1
Reject Band 2 Frequency Range	MHz	772 to 776	*2
Reject Band 3 Frequency Range	MHz	802 to 870	*3
Number of Cavities - Tx Side		3	
Number of Cavities - Rx Side		3	
Rx Frequency Range	MHz	769.15 to 770	
Input VSWR (max)		1.5:1	
Impedance	Ω	50	
Isolation - Tx noise suppression at Rx (min)	dB	70	
Isolation - Rx carrier suppression at Tx (min)	dB	70	
Average Power Input (max)	W	50	
Connectors		N-Female (antenna), BNC-Female (Rx), TNC-Female (Tx)	
Insertion loss (max) Rx to Ant	dB	2	*4
Insertion loss (max) Tx to Ant	dB	2	*5

Notes
*1: Rx filter > 40 dB
*2: Tx filter > 40 dB
*3: Tx filter > 40 dB
*4 : 1.5 dB typical, ripple < 1 dB
*5 : 1.5 dB typical, ripple < 1 dB

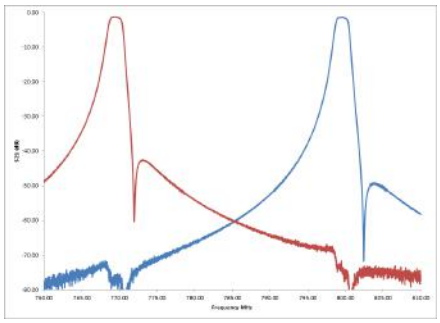
Mechanical Specifications

Width	in (mm)	9.55 (243)
Depth	in (mm)	12.64 (321)
Length/ Height	in (mm)	5.38 (137)
Weight	lbs (kg)	23 (10.44)

Environmental Specifications

Temperature range	°F (°C)	+86 to +140 (+30 to +60)

Ordering Information
Insertion loss does not include jumper cable loss.



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A Norsat Company

Duplexers
700-1000 MHz Duplexer
MR454 Series

Duplexer, mobile, 4 cavity, 45/24 MHz separation, 806-960 MHz

- Four highly stable temperature compensated helical resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 watt with 50 dB Tx to Rx isolation

Model	Description
MR454B-1-1	BNC connector, 45 MHz separation, 806-960 MHz
MR454B-1-2	BNC connector, 24 MHz separation, 806-960 MHz
MR454N-1-1	N connector, 45 MHz separation, 806-960 MHz
MR454N-1-2	N connector, 24 MHz separation, 806-960 MHz
MR454T-1-1	TNC connector, 45 MHz separation, 806-960 MHz
MR454T-1-2	TNC connector, 24 MHz separation, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	806 to 960
Number of cavites Tx Side		2
Number of Cavities Rx Side		2
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Connectors		BNC female / N female / TNC female
Insertion loss (max) Tx to Ant	dB	1
Isolation (min)	dB	50

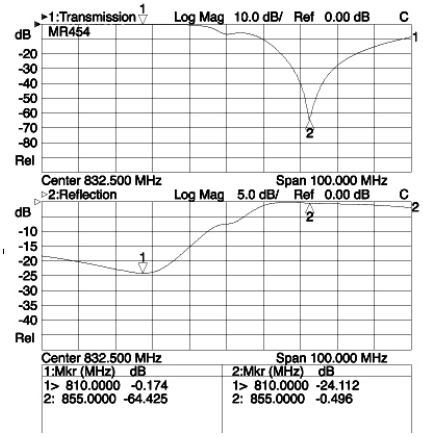
Mechanical Specifications

Depth	in (mm)	5.75 (146)
Length/ Height	in (mm)	1.25 (32)
Width	in (mm)	4.1 (104)
Weight	lbs (kg)	1.6 (0.73)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	1.6 (0.73)
Shipping dimensions	in (mm)	L 9in W 6in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
BNC-Female, TNC-Female, and N connectors.



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Duplexer, mobile, 6 cavity, 45/24/9 MHz separation, 746-960 MHz

- Six highly stable temperature compensated resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 watts with 60 dB Tx to Rx isolation

Model	Description
MR456B-1-1	BNC connector, 45 MHz separation, 806-960 MHz
MR456B-1-2	BNC connector, 24 MHz separation, 806-960 MHz
MR456B-1-3	BNC connector, 9 MHz separation, 806-960 MHz
MR456B-2-1	BNC connector, 30 MHz separation, 746-806 MHz
MR456N-1-1	N connector, 45 MHz separation, 806-960 MHz
MR456N-1-2	N connector, 24 MHz separation, 806-960 MHz
MR456N-1-3	N connector, 9 MHz separation, 806-960 MHz
MR456N-2-1	N connector, 30 MHz separation, 746-806 MHz
MR456T-1-1	TNC connector, 45 MHz separation, 806-960 MHz
MR456T-1-2	TNC connector, 24 MHz separation, 806-960 MHz
MR456T-1-3	TNC connector, 9 MHz separation, 806-960 MHz
MR456T-2-1	TNC connector, 30 MHz separation, 746-806 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

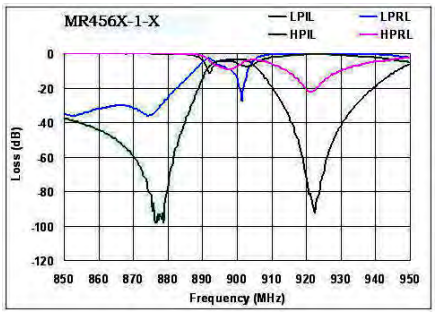
Frequency Range	MHz	746 to 960
Number of cavites Tx Side		3
Number of Cavities Rx Side		3
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Connectors		BNC Female / N female / N-Type Female / TNC Female
Insertion loss Rx to antenna (max)	dB	1
Insertion loss Tx to antenna (max)	dB	1
Isolation (min)	dB	60 to 75

Mechanical Specifications

Depth	in (mm)	5.75 to 6.7 (146 to 170)
Length/ Height	in (mm)	1.31 (33)
Width	in (mm)	6.25 (159)
Weight	lbs (kg)	1.8 to 2.1 (0.82 to 0.95)
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L 9in W 6in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Ordering Information
Available with 9, 24, 30, or 45 MHz frequency separation.
BNC-Female, TNC-Female, and N connectors.

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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A Norsat Company

Duplexers
700-1000 MHz Duplexer
P40901 Series

Combline bandpass duplexer, high selectivity, 806-824 & 851-869 MHz

- Covers entire Rx 806-824 MHz band and Tx 851-869 MHz band
- 400 Watts power handling
- 2 rack units high

Model	Description
P40901R1CL-T-1	2U high, 806-824 & 851-869 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

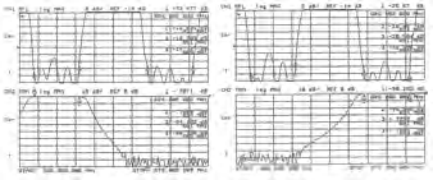
Tx Frequency Range	MHz	851 to 869
Number of cavites Tx Side		8
Number of Cavities Rx Side		7
Rx Frequency Range	MHz	806 to 824
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	95
Isolation Tx noise suppression at Rx (min)	dB	80
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss Rx to antenna (typ)	dB	0.8
Insertion loss Rx to antenna (max)	dB	0.9
Insertion loss Tx to antenna (typ)	dB	0.8
Insertion loss Tx to antenna (max)	dB	1

Mechanical Specifications

Depth	in (mm)	6 (152)
Length/ Height	in (mm)	3.5 (89)
Width	in (mm)	19 (483)
Weight	lbs (kg)	15 (6.81)
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 24in W 10in H 8in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	+32 to +122 (0 to +50)



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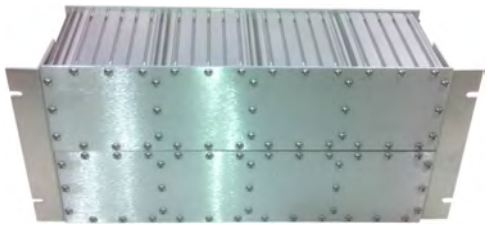
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Low Loss High Selectivity Bandpass Duplexer, 4 Cavity, 806-940 MHz

- Low loss, 4 cavity Res-Lok™ aperture-coupled filters on the transmit and receive side
- 0.5 dB insertion loss (typ) with 50 dB of noise and carrier suppression
- Ideal for trunking or cellular systems to use one antenna for Tx and Rx
- Can do tighter Tx-Rx spacing with reduced spec

Model	Description
P4440E-1	806-869 MHz
P4440E-2	890-940 MHz

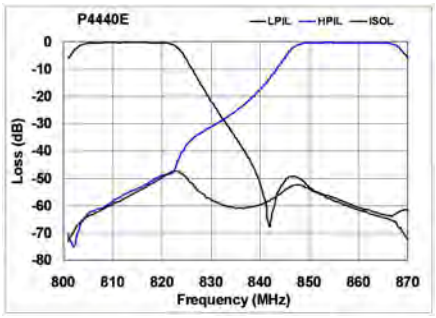


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	806 to 940
Number of cavites Tx Side		4
Number of Cavities Rx Side		4
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	50
Isolation Tx noise suppression at Rx (min)	dB	50
Average Power Input (max)	W	400
Connectors		N-Female
Insertion loss Rx to antenna (typ)	dB	0.5
Insertion loss Rx to antenna (max)	dB	1
Insertion loss Tx to antenna (typ)	dB	0.5
Insertion loss Tx to antenna (max)	dB	1
Pass bandwidth	MHz	15

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	8.75 (222)
Width	in (mm)	19 (483)
Weight	lbs (kg)	25 (11.35)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	L 22in W 10in H 13in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Duplexer, bandpass, 4 cavity Tx, 6 pole Combline Rx, 806-960 MHz

- Low loss aperture coupled Res-Lok™ 4 cavity filter on transmit with 400 Watts power handling
- 6 section high selectivity combline filter on receive saves unit space
- Ideal for trunking or cellular systems.

Model	Description
P4460E-1	806-869 MHz
P4460E-3	896-940 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

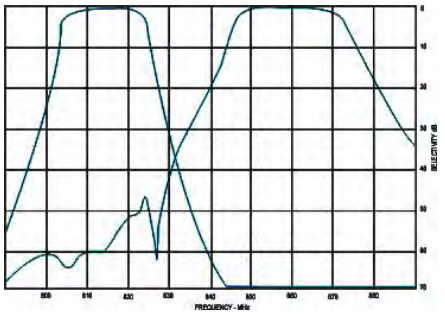
Frequency Range	MHz	806 to 940
Number of cavites Tx Side		4
Number of Cavities Rx Side		5 to 6
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	80 to 85
Isolation Tx noise suppression at Rx (min)	dB	50 to 80
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss Rx to antenna (typ)	dB	1.2 to 1.5
Insertion loss Tx to antenna (typ)	dB	0.5 to 1

Mechanical Specifications

Depth	in (mm)	8.25 (210)
Length/ Height	in (mm)	7 (178)
Width	in (mm)	19 (483)
Weight	lbs (kg)	15 (6.81)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 22in W 10in H 13in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Duplexer, Q-Circuit, Res-Lok, 4 cavity, rack mount, 746-960 MHz

- Res-Lok construction achieves maximum performance in an extremely compact package
- 45 MHz Tx-Rx separation with 80 dB isolation; 30 MHz Tx-Rx separation with 75 dB isolation

Model	Description
Q4220E-1	4 cavity, rack mount, 806-890 MHz
Q4220E-2	4 cavity, rack mount, 890-960 MHz
Q4220E-746/806	4 cavity, rack mount, 746-806 MHz

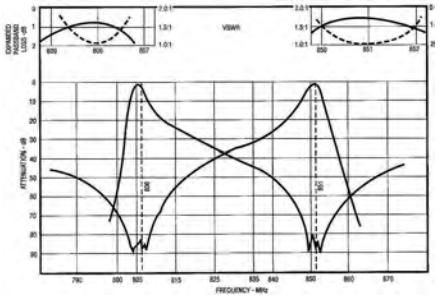


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	150
Connectors		N-Female
Frequency separation (min)	MHz	30 to 45
Insertion loss (max) Tx to Ant	dB	1
Isolation (min)	dB	75 to 80

Mechanical Specifications		
Depth	in (mm)	8.25 (210)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	12 to 13 (5.45 to 5.9)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L(6 - 19)in W(6 - 18)in H(12 - 22)in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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High Q, 3/4 Wave Bandpass Cavity, Single 7" Cavity, 806-960 MHz

- Aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating, limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift

Model	Description
FP40137	806-960 MHz

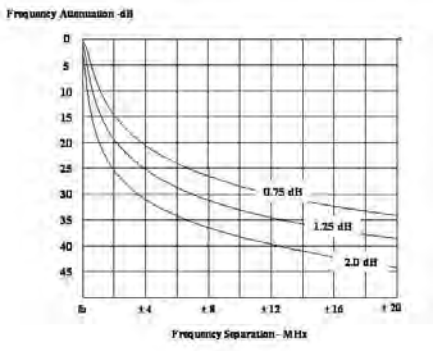


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	806 to 960
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	280
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	0.8

Mechanical Specifications		
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	16.7 (424)
Width	in (mm)	7 (178)
Weight	lbs (kg)	5.5 (2.5)

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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High Q, 3/4 Wave Bandpass Cavity, Single 7" Cavity, 746-806 MHz

- Aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated design for minimum frequency drift

Model	Description
FP40137-746/806	746-806 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

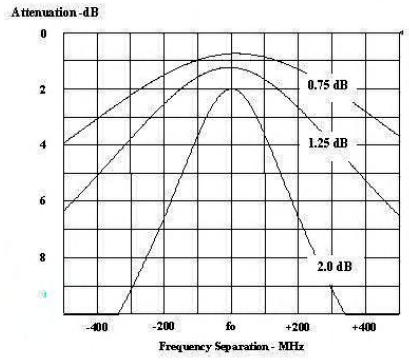
Frequency Range	MHz	746 to 806
Input VSWR (max)		1.5:1
Insertion Loss (max)	dB	2
Impedance	Ω	50
Peak Power Input (max)	W	300
Average Power Input (max)	W	1 dB I.L.= 280
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	0.8

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	20.2 (513)
Width	in (mm)	7 (178)
Weight	lbs (kg)	5.75 (2.61)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 9in W 9in H 24in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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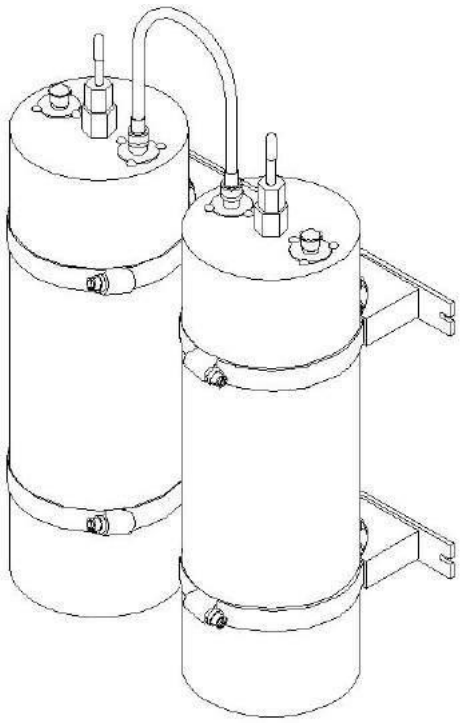
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Cavity Filters
700-1000 MHz Bandpass Cavities
FP40237 Series

High Q, 3/4 Wave Bandpass Cavity, Dual 7" Cavities, 806-960 MHz

- Aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating, limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift

Model	Description
FP40237	806-960 MHz.



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	806 to 960
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		2
Average Power Input (max)	W	1.5 dB I.L.= 280
Input Connectors		N-Female
Output Connectors		N-Female

Mechanical Specifications		
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	16.7 (424)
Width	in (mm)	19 (483)
Weight	lbs (kg)	18 (8.17)
Finish		shadow bronze
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Preselector Filters
700-1000 MHz Preselectors
FP40615CL Series

Combline preselector, various bandwidths, 763-880 MHz

- Covers the 806-880 MHz band in various sub-bands
- 1 dB insertion loss over the passband
- For receive purposes only

Model	Description
FP40615CLB-1	15 MHz B.W., BNC-Female connector, 806-821 MHz
FP40615CLB-2	15 MHz B.W., BNC-Female connector, 821-849 MHz
FP40615CLB-3	15 MHz B.W., BNC-Female connector, 850-865 MHz
FP40615CLB-4	15 MHz B.W., BNC-Female connector, 865-880 MHz
FP40615CLB-4-11	11 MHz B.W., BNC-Female connector, 776-787 MHz
FP40615CLB-5-12	12 MHz B.W., BNC-Female connector, 763-775 MHz
FP40615CLBR-1	15 MHz B.W., BNC-Female connector, right angle, 806-821 MHz
FP40615CLBR-2	15 MHz B.W., BNC-Female connector, right angle, 821-849 MHz
FP40615CLBR-3	15 MHz B.W., BNC-Female connector, right angle, 850-865 MHz
FP40615CLBR-4	15 MHz B.W., BNC-Female connector, right angle, 865-880 MHz
FP40615CLN-1	15 MHz B.W., N-Female connectors, 806-821 MHz
FP40615CLN-2	15 MHz B.W., N-Female connector, 821-849 MHz
FP40615CLN-3	15 MHz B.W., N-Female connectors, 850-865 MHz
FP40615CLN-4	15 MHz B.W., N-Female connectors, 865-880 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	763 to 880
Pass band Insertion Loss (max)	dB	1 / 1.5
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		6
Input Connectors		BNC-Female / N-Female
Output Connectors		BNC-Female / N-Female

Mechanical Specifications		
Depth	in (mm)	4.75 to 5 (121 to 127)
Length/ Height	in (mm)	1.5 (38)
Width	in (mm)	8.6 to 9.6 (218 to 244)
Mounting configurations		Mounting holes provided / Panel

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Combline preselector, various bandwidths, 746-941 MHz

- Various models over the 746-941 MHz frequency range
- 2.0 dB insertion loss over the pass band
- 60 dB attenuation

Model	Description
FP40415CL	9.6 MHz bandwidth, 896-901 MHz
FP40415CLB-1-5	5 MHz bandwidth, BNC-female connector, 758-763 MHz
FP40415CLB-3-11	11 MHz bandwidth, BNC-female connector, 746-757 MHz
FP40515CLB-2-5	5 MHz bandwidth, BNC-female connector, 788-793 MHz
FP40715CLB-6-12	12 MHz bandwidth, BNC-female connector, 793-805 MHz
FP40718CLNHP-3-11	11 MHz bandwidth, N-female connector, 746-757 MHz
FP40718CLNHP-5-12	12 MHz bandwidth, N-female connector, 763-775 MHz
FP40818CLNHP-4-11	11 MHz bandwidth, N-female connector, 776-787 MHz
FP40818CLNHP-6-12	12 MHz bandwidth, N-female connector, 793-805 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	746 to 901
Pass band Insertion Loss (max)	dB	1 / 2 / 1.5 / 1.0 / 1.2
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		4 to 8
Average Power Input (max)	W	5 / 300
Input Connectors		BNC-Female / N-Female
Output Connectors		BNC-Female / N-Female
Bandwidth at specified insertion loss	MHz	5 to 12

Mechanical Specifications

Depth	in (mm)	4.75 to 6.68 (121 to 170)
Length/ Height	in (mm)	1.5 to 1.75 (38 to 44)
Width	in (mm)	6.63 to 19 (168 to 483)
Mounting configurations		Mounting holes provided / Panel / 19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

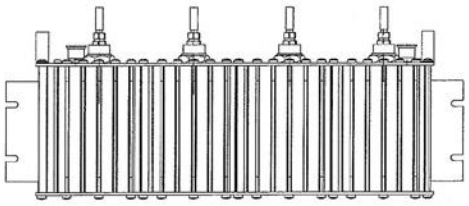
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Bandpass Preselector, Res-Lok, 4 cavity, 763-940 MHz

- Rack, wall and floor mounting options
- Res-Lok construction reduces inter-cavity cabling
- Can also be used as transmitter filter

Model	Description
PH4040E-1	10 MHz BW, 806-890 MHz
PH4040E-12	12 MHz BW, 763-805 MHz
PH4040E-2	10 MHz BW, 890-940 MHz
PH4040E-6	6 MHz BW, 763-805 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	763 to 940
Input VSWR (max)		1.5:1
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female
Approx Bandwidth @ 50 dB	MHz	34 to 60
Insertion loss (max) Tx to Ant	dB	0.5 to 0.7

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	6.5 (2.95)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 19in W 7in H 18in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Bandpass Preselector, Res-Lok, 5 MHz Bandwidth, 6 cavity, 806-960 MHz

- 19" Rack mountable
- Res-Lok construction eliminates inter-cavity cabling
- Covers the 806-870, 870-890 or 880-960 MHz frequency range
- 75 dB (min) selectivity up to 845 MHz, and 75 dB (min) selectivity 920-1300 MHz.

Model	Description
PH4060C-1	5 MHz B.W., 806-870 MHz
PH4060C-2	5 MHz B.W., 870-890 MHz
PH4060C-3	5 MHz B.W., 890-960 MHz

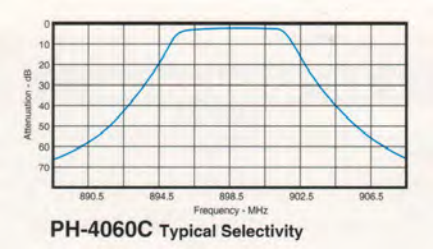


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	806 to 960
Input VSWR (max)		1.5:1
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female
Approx Bandwidth @ 50 dB	MHz	14
Bandwidth at specified insertion loss	MHz	5
Insertion loss (max) Tx to Ant	dB	2.2

Mechanical Specifications		
Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	9.7 (4.4)
Actual Shipping weight	lbs (kg)	15 (6.81)
Shipping dimensions	in (mm)	L 19in W 7in H 18in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



PH-4060C Typical Selectivity

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Tower Top Amp/Receiver Multicoupler, Test Port, 12/18 Mhz Bandwidth, 776-901 MHz

- Redundant quadrature coupled amplifiers in both the top and the base
- Auto switching to the backup amplifier on fault detection
- Preselectors in the top portions with an optional preselector in the base
- Ethernet connection allows for remote control and monitoring

Model	Description
TM4(AA-W/EE)TD(BB)G1B	Tower Top Amp/Receiver Multicoupler, Test Port, 12/18 MHz B.W., 776-901 MHz
TMEXPCH-16-32	Tower Top Amp Expansion Pack, 16 Additional Channels, 776 - 901 MHz

Naming Convention

Top Preselector

AA-W	Frequency Range	Bandwidth
00	None	
12-1	793-805 MHz	12 MHz
18-1	806-824 MHz	18 MHz

Base Preselector

EE	Frequency Range	Bandwidth
00	None	
03		3 MHz
06	See Top Preselector	6 MHz
09		9 MHz

Number of Channels
BB=16, 32



Top preselector

Electrical Specifications

Frequency Range	MHz	776 to 901
Amplifier 1 dB Compression Point	dB	25
Input VSWR (max)		1.5:1
Impedance	Ω	50
Input Connectors		N-Female
Output Connectors		BNC-Female
Isolation port to port (typ)	dB	25
System gain (min)	dB	0
Noise figure (amplifier (typ))	dB	0.9
Noise figure (system (typ))	dB	3.2
Third order intercept - amplifier	dBm	40
Third order intercept - system	dBm	15
Number of channels		16
Supply voltage		Universal

Mechanical Specifications

Shipping dimensions	in (mm)	L 16in W 28in H 18in
Height - base unit	in (mm)	1.75 (44)
Width - base unit	in (mm)	19 (483)
Depth - base unit	in (mm)	14 (356)
Height - tower top unit	in (mm)	9.88 (251)
Width - tower top unit	in (mm)	6.25 (159)
Depth - tower top unit	in (mm)	2.13 (54)
Weight - base unit	lbs (kg)	11 (4.99)
Weight - tower top unit	lbs (kg)	14 (6.36)
Rx Multicoupler		Included

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Base preselector

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Hybrid Coupler, balanced and unbalanced, 500-1000 MHz

- Teflon spacer based design for high power handling
- Max insertion loss of 3.3 dB per port for 50/50 split, low return loss
- Balanced/unbalanced splits available: 50/50, 70/30, 80/20

Model	Description
HH4140	Balanced, 3% B.W., N-Male/ N-Female, 300 Watts
HH4140B	Balanced, 3% B.W., N-Female, 300 Watts, 806-960 MHz
HH4140CB	Balanced, Broadband, N-Female, 400 Watts, 500-1000 MHz
HH4140HP	Balanced, N-male/ N-Female, 600 Watts, 806-960 MHz
HH4141BB-E6035	Unbalanced 70/30, N-male/ N-Female, 300 Watts, 806-960 MHz
HH4141C-1	70/30 split, 214 MHz bandwidth, 300 Watts, 746-960 MHz
HH4141C-2	80/20 split, 214 MHz bandwidth, 300 Watts, 746-960 MHz
HH4141HP	Unbalanced, 8.3/1.3 dB, N-Male/ N-Female, 600 Watts, 806-960 MHz





HH4140CB

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	500 to 1000
VSWR (max)		1.25:1
Impedance	Ω	50
Connectors		N-Male/N-Female / N-female / N-Female
Power Rating	W	300 to 600
Insertion loss (max) Tx to Ant	dB	3.3 to 8.3
Isolation (min)	dB	20 to 45

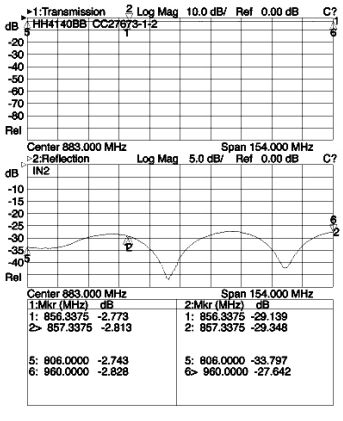
Mechanical Specifications

Depth	in (mm)	1 to 4.7 (25 to 119)
Length/ Height	in (mm)	1 to 1.3 (25 to 33)
Width	in (mm)	3.25 to 4.9 (83 to 124)
Weight	lbs (kg)	0.3 to 1.25 (0.14 to 0.57)
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L(9 - 13)in W(6 - 9)in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Specify operating frequencies.



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Single/Dual Stage Isolator/Circulator, 806-960 MHz

- Temperature compensated
- Low insertion loss, high isolation
- Each unit is optimized to customer specified frequency

Model	Description
I411(X)A	Single/Dual Stage Isolator/Circulator, 806-960 MHz
I4113A-E6159	Isolator, single, 60 watt load, 125 watt input power
I421(Y)A	Single/Dual Stage Isolator/Circulator, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	746 to 960
Bandwidth	MHz	12 to 25
VSWR (max)		1.25:1
Insertion loss (typ) Tx to Ant	dB	0.3
Isolation (typ)	dB	35
Connectors		N-Female
Power Input	W	125
Insertion loss (max) Tx to Ant	dB	0.4
Isolation (min)	dB	25

Mechanical Specifications

Length/ Height	in (mm)	2.5 to 7 (64 to 178)
Width	in (mm)	2.5 (64)
Weight	lbs (kg)	1.1 to 1.7 (0.5 to 0.77)

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Height, width, depth and weight excludes connectors and loads

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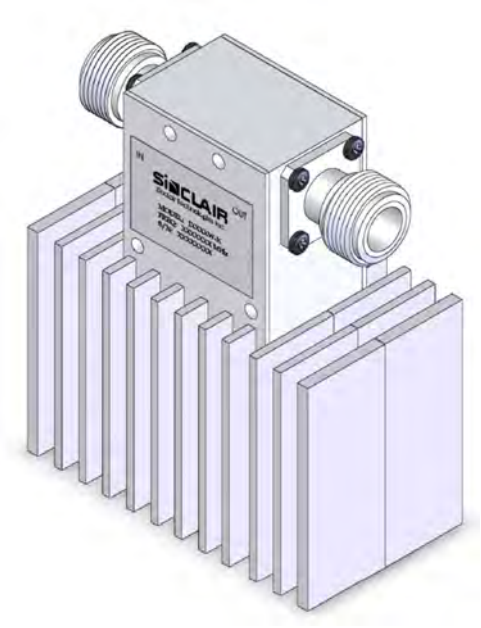
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Single/Dula Stage Wide Band Isolator/Circulator, 746-960 MHz

- Operational over the frequency range without retuning required
- Single/Dual stage 60 Watt load
- Two sub-bands available: -1 for 746-869 MHz, -2 for 806-960 MHz

Model	Description
I4113W-1	Wide band single stage, 60W reverse power, 746-869 MHz
I4113W-2	Wide band single stage, 60W reverse power, 806-960 MHz
I4213W-1	Wide band dual stage, 60W reverse power, 746-869 MHz
I4213W-2	Wide band dual stage, 60W reverse power, 806-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 960
Bandwidth	MHz	123 to 154
Discription/ Characteristics		Single Stage / Dual Stage
Field Tunable		No
VSWR (max)		1.2:1
Insertion Loss (max)	dB	0.4 to 0.8
Impedance	Ω	50
Average Power Reflected (max)	W	60
Average Power Input (max)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Isolation (min)	dB	25 to 50

Mechanical Specifications		
Net Weight (circulator only)	lbs (kg)	1.2 to 1.6 (0.54 to 0.73)
Number of Connectors		2
Depth	in (mm)	2.72 to 3.37 (69 to 86)
Height	in (mm)	3.22 (82)
Width	in (mm)	1.5 (38)
Shipping dimensions	in (mm)	L 9in W 6in H 3in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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UHF Panel, 9.5-12 dBd, 65-120º beamwidths, low PIM, 380-512 MHz

- Wideband, compact flat panel design for sector coverage
- High front-back ratio
- Durable low passive intermodulation performance
- Electrical downtilt and field adjustable mechanical downtilt options available

Model	Description
SP304C-SF1P65LDF(D00)	12 dBd, 65° beamwidth, 380-450 MHz
SP304C-SF2P65LDF(D00)	12 dBd, 65° beamwidth, 450-512 MHz
SP304V-SF1P70LDF(D00)	11.5 dBd, 70º beamwidth, 380-450 MHz
SP304V-SF2P70LDF(D00)	12 dBd, 70º beamwidth, 450-512 MHz
SP304V-SWBP120LDF(D00)	9.5 dBd, 120° beamwidth, 380-512 MHz
SP304V-SWBP90LDF(D00)	10.5 dBd, 90° beamwidth, 380-512 MHz
SP304X-SF1P65LDF(D00)	12 dBd, 65° beamwidth, 380-450 MHz
SP304X-SF2P65LDF(D00)	12 dBd, 65° beamwidth, 450-512 MHz

The specifications listed below represent the entire product series.
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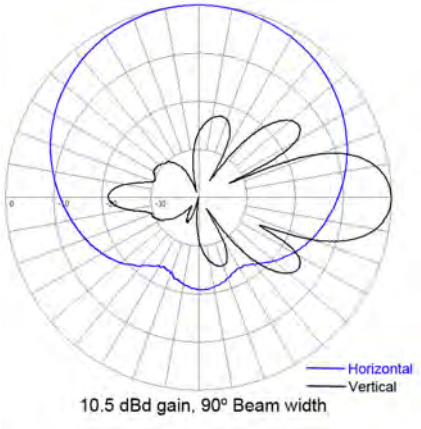


Electrical Specifications

Frequency Range	MHz	380 to 512
Bandwidth	MHz	62 to 132
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9.5 to 12 (11.6 to 14.1)
Input VSWR (max)		1.5:1
Polarization		slant 45 degrees / vertical / dual cross polarized
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	65 to 120
Vertical beamwidth (typ)	degrees	16 to 19
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,5,10, or 15 degrees
Isolation port to port (typ)	dB	25
Front-to-back ratio (typ)	dB	17 to 25

Mechanical Specifications

Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	77 (1956)
Width	in (mm)	19 (483)
Base pipe diameter	in (mm)	2.88 (73)
Radiating element material		prntd circuit bd
Reflector material		aluminum alloy
Weight	lbs (kg)	46.54 (21.13)
Weight iced	lbs (kg)	68 (30.87)
Mounting Hardware (Optional)		Clamp170 Kit without DT, Clamp191 with DT
Actual Shipping weight	lbs (kg)	61 to 64 (27.69 to 29.06)
Shipping dimensions	in (mm)	L 82in W 24in H 14in



10.5 dBd gain, 90º Beam width

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Environmental Specifications

Temperature range	°F (°C)	-40 to +158 (-40 to +70)
Rated wind velocity (no ice)	mph (km/h)	135 (217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	220 (978.6)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	140 (189)

Ordering Information

Please contact Sinclair CSR to order regular clamps Clamp170 or mechanical tilt clamps Clamp191.

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Yagi, 6 dBd, 380-490 MHz

- Rugged 3-element yagi
- Suitable for medium-gain applications
- Can be installed for either vertical or horizontal polarization

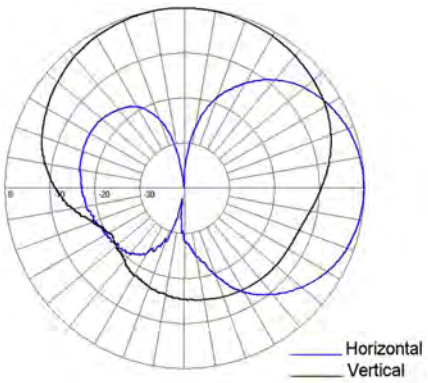
Model	Description
SY303-SF1SNM(CCC)	6 dBd, 403-430 MHz
SY303-SF2SNM(CCC)	6 dBd, 450-475 MHz
SY303-SF3SNM(CCC)	6 dBd, 380-400 MHz
SY303-SF4SNM(CCC)	6 dBd, 470-490 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	380 to 490
Bandwidth	MHz	20 to 27
Connector		N-Male
Gain (nominal)	dBd (dBi)	6 (8.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	103 to 118
Vertical beamwidth (typ)	degrees	64 to 66
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	12 to 17

Mechanical Specifications		
Depth	in (mm)	5.1 (130)
Length/ Height	in (mm)	14.5 to 15.88 (368 to 403)
Width	in (mm)	13.72 to 18.96 (348 to 482)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	1.27 to 1.41 (0.58 to 0.64)
Finish		chromate conversion
Mounting Hardware (Standard)		Clamp115
Actual Shipping weight	lbs (kg)	4.5 (2.04)
Shipping dimensions	in (mm)	L 18in W 6in H 6in
Boom Diameter	in (mm)	0.84 (21)



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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.16 to 0.2 (0.01 to 0.02)
Wind Loading Area (1/2" ice)	ft² (m²)	0.42 to 0.51 (0.04 to 0.05)
Rated wind velocity (no ice)	mph (km/h)	185 to 215 (298 to 346)
Rated wind velocity (1/2" radial ice)	mph (km/h)	108 to 145 (174 to 233)
Lateral thrust (100 mph No Ice)	lbs (N)	7.6 to 7.9 (33.8 to 35.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	3.9 to 4.86 (5.3 to 6.6)

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Yagi, 10 dBd, radome enclosed, HD, 406-512 MHz

- Heavy duty, radome enclosed 10 dBd gain directional antenna with 6 MHz bandwidth
- Ideally suited to harsh environment applications
- 25 dB Front to Back Ratio

Model	Description
SY306R-HFXSNF(FXXXX)	10 dBd, radome enclosed, HD, 406-512 MHz

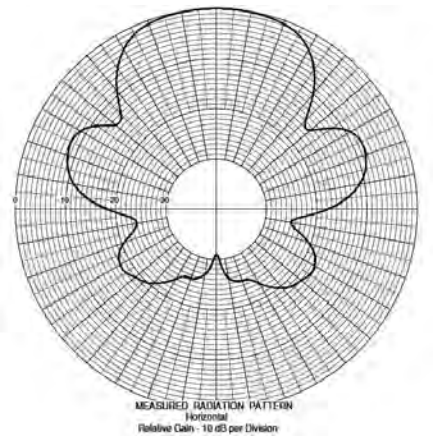


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Bandwidth	MHz	6
Connector		N-Female
Gain (nominal)	dBd (dBi)	10 (12.1)
VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	48
Vertical beamwidth (typ)	degrees	42
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	25

Mechanical Specifications		
Depth	in (mm)	14 (356)
Width	in (mm)	20 (508)
Radiating element material		aluminum
Radome material		fiberglass
Reflector material		aluminum
Weight	lbs (kg)	18 (8.17)
Weight iced	lbs (kg)	35 (15.89)
Mounting Hardware (Standard)		#2 Clamps for 2.38" O.D. Pipe
Shipping Length/ Height	in (mm)	35 (889)
Shipping dimensions	in (mm)	L 36in W 24in H 18in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.34 (0.12)
Wind Loading Area (1/2" ice)	ft² (m²)	1.48 (0.14)
Rated wind velocity (no ice)	mph (km/h)	195 (314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	175 (282)
Lateral thrust (100 mph No Ice)	lbs (N)	53 (235.7)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	56 (75.6)



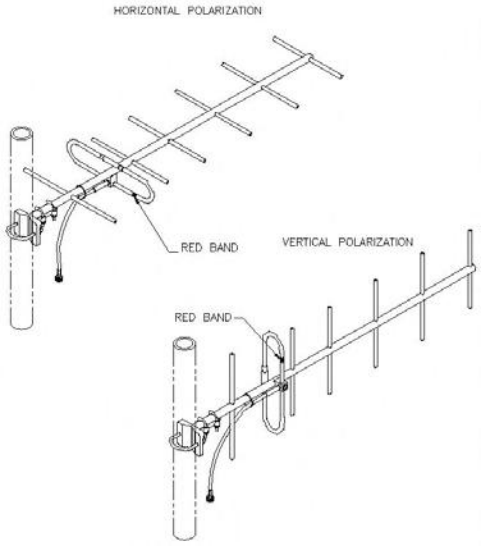
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Yagi, 10 dBd, black anodized, 335-520 MHz

- Rugged 7 element design optimized for 10 dBd gain
- 3/8 inch aluminum reflector/director elements with 360 degree welds to aluminum boom
- Anodized for extended life and superior performance in harsh environments

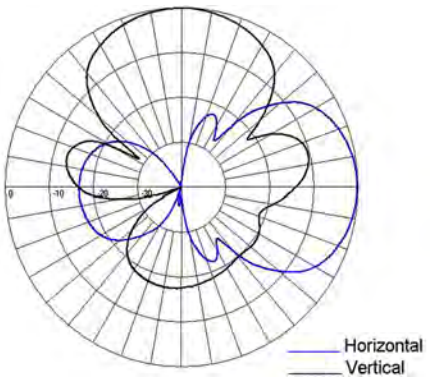
Model	Description
SY307-SF10SNM(ABK)	10 dBd, 335-345 MHz
SY307-SF11SNM(ABK)	10 dBd, 480-500 MHz
SY307-SF12SNM(ABK)	10 dBd, 500-520 MHz
SY307-SF1SNM(ABK)	10 dBd, 403-430 MHz
SY307-SF2SNM(ABK)	10 dBd, 430-450 MHz
SY307-SF3SNM(ABK)	10 dBd, 450-470 MHz
SY307-SF4SNM(ABK)	10 dBd, 470-490 MHz
SY307-SF5SNM(ABK)	10 dBd, 490-512 MHz
SY307-SF6SNM(ABK)	10 dBd, 340-360 MHz
SY307-SF7SNM(ABK)	10 dBd, 360-380 MHz
SY307-SF8SNM(ABK)	10 dBd, 380-400 MHz
SY307-SF9SNM(ABK)	10 dBd, 440-460 MHz
SY307W-SF2SNM(ABK)	10 dBd, 403-470 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	335 to 520
Bandwidth	MHz	10 to 48
Connector		N-Male
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	45 to 55
Vertical beamwidth (typ)	degrees	40 to 44
Average Power Input (max)	W	250 / 150
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications		
Depth	in (mm)	3 to 3.25 (76 to 83)
Length/ Height	in (mm)	34.7 to 50.6 (881 to 1285)
Width	in (mm)	11.8 to 17.2 (300 to 437)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	2.6 to 5 (1.18 to 2.27)
Finish		anodize black
Mounting Hardware (Standard)		Clamp115
Actual Shipping weight	lbs (kg)	7.4 to 12 (3.36 to 5.45)
Shipping dimensions	in (mm)	L(36 - 48)in W(3 - 6)in H(13 - 18)in



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.34 to 0.44 (0.03 to 0.04)
Wind Loading Area (1/2" ice)	ft² (m²)	0.92 to 1.19 (0.09 to 0.11)
Rated wind velocity (no ice)	mph (km/h)	180 to 190 (290 to 306)
Rated wind velocity (1/2" radial ice)	mph (km/h)	108 to 135 (174 to 217)
Lateral thrust (100 mph No Ice)	lbs (N)	13.6 to 18.5 (60.5 to 82.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	16.4 to 32 (22.1 to 43.2)

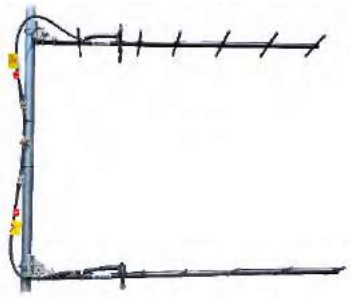
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Yagi, 12.5 dBd, dual array, black anodized, 340-512 MHz

- Two 7-element yagis arranged for higher gain
- 3/8 inch aluminum reflector/director elements with 360 degree welds
- Anodized for extended life and superior performance in harsh environments
- Can be combined for different beamwidths and polarizations

Model	Description
SY3072-SF1SNM(ABK)	12.5 dBd, 403-430 MHz
SY3072-SF2SNM(ABK)	12.5 dBd, 430-450 MHz
SY3072-SF3SNM(ABK)	12.5 dBd, 450-470 MHz
SY3072-SF4SNM(ABK)	12.5 dBd, 470-490 MHz
SY3072-SF5SNM(ABK)	12.5 dBd, 490-512 MHz
SY3072-SF6SNM(ABK)	12.5 dBd, 340-360 MHz
SY3072-SF7SNM(ABK)	12.5 dBd, 360-380 MHz
SY3072-SF8SNM(ABK)	12.5 dBd, 380-400 MHz
SY3072-SF9SNM(ABK)	12.5 dBd, 440-460 MHz

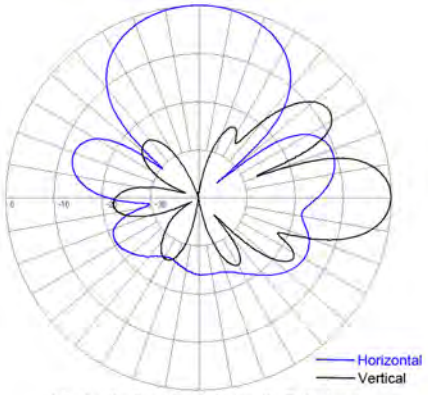


Polarization	Stacking	Beamwidth	
		E-Plane	H-Plane
Vertical	Horizontal	43	23
Horizontal	Vertical	43	23
Vertical	Vertical	19	50
Horizontal	Horizontal	19	50

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	340 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	12.5 (14.6)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	43 to 55
Vertical beamwidth (typ)	degrees	20 to 23
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications		
Depth	in (mm)	3 (76)
Length/ Height	in (mm)	46.25 (1175)
Width	in (mm)	17.25 (438)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	14 (6.36)
Mounting Hardware (Standard)		Clamp115
Actual Shipping weight	lbs (kg)	16 (7.26)
Shipping dimensions	in (mm)	L 47in W 6in H 18in



Vertically Stacked, Vertically Polarized

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.94 (0.09)
Wind Loading Area (1/2" ice)	ft² (m²)	2.52 (0.23)
Lateral thrust (100 mph No Ice)	lbs (N)	36.4 (161.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	28.1 (37.9)

Ordering Information

Qty 2- Clamp115 clamps and one support pipe included.

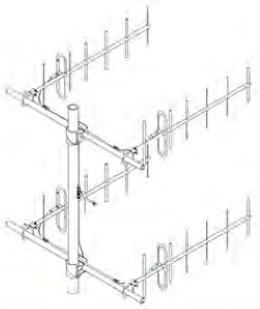
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Yagi, 15 dBd, quad array, black anodized, 340-512 MHz

- Four rugged 7-element yagis arranged for higher gain
- 3/8 inch aluminum reflector/director elements with 360 degree welds
- Anodized for extended life and superior performance in harsh environments
- Can be combined for different beamwidths and polarizations

Model	Description
SY3074-SF1SNM(ABK)	15 dBd, 403-430 MHz
SY3074-SF2SNM(ABK)	15 dBd, 430-450 MHz
SY3074-SF3SNM(ABK)	15 dBd, 450-470 MHz
SY3074-SF4SNM(ABK)	15 dBd, 470-490 MHz
SY3074-SF5SNM(ABK)	15 dBd, 490-512 MHz
SY3074-SF6SNM(ABK)	15 dBd, 340-360 MHz
SY3074-SF7SNM(ABK)	15 dBd, 360-380 MHz
SY3074-SF8SNM(ABK)	15 dBd, 380-400 MHz
SY3074-SF9SNM(ABK)	15 dBd, 440-460 MHz



4-Yagi			
Polarization	Stacking	Beamwidth	
		Horizontal	Vertical
Vertical	Vertical	46	10
Vertical	Horizontal	12	41
Horizontal	Vertical	41	12
Horizontal	Horizontal	10	46
Horizontal	2 X 2	21	23
Vertical	2 X 2	23	21

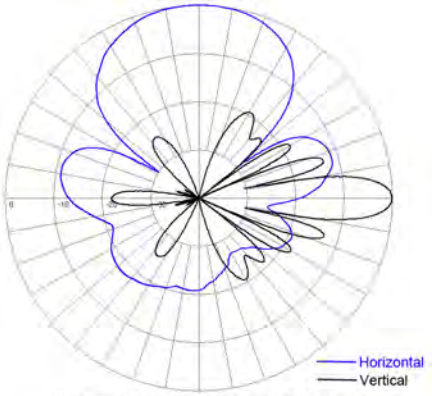
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	340 to 512
Bandwidth	MHz	20 to 27
Connector		N-Male
Gain (nominal)	dBd (dBi)	15 (17.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	22
Vertical beamwidth (typ)	degrees	19
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Depth	in (mm)	47 (1194)
Length/ Height	in (mm)	57 (1448)
Width	in (mm)	38.5 (978)
Weight	lbs (kg)	25 (11.35)
Actual Shipping weight	lbs (kg)	32 (14.53)
Shipping dimensions	in (mm)	L 60in W 8in H 18in



Vertically Stacked, Vertically Polarized

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.42 (0.22)
Wind Loading Area (1/2" ice)	ft² (m²)	5.95 (0.55)
Rated wind velocity (no ice)	mph (km/h)	165 (266)
Rated wind velocity (1/2" radial ice)	mph (km/h)	92 (148)
Lateral thrust (100 mph No Ice)	lbs (N)	95 (422.6)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	141 (190.4)

Ordering Information

Qty 4- Clamp115 clamps and three support pipes included.

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Yagi, 10 dBd, radome enclosed, HD, 403-470 MHz

- Heavy duty, fiberglass radome enclosed 10 dBd gain directional antenna
- Extremely rugged antenna withstands 195 mph winds
- Ideally suited for harsh environments

Model	Description
SY307R-HF1SNF	10 dBd, 403-430 MHz
SY307R-HF2SNF	10 dBd, 450-470 MHz
SY307R-HF3SNF	10 dBd, 430-450 MHz

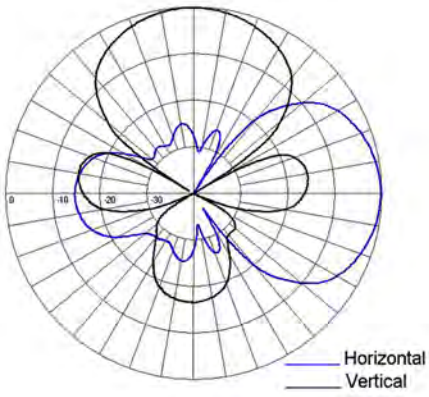


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	403 to 470
Connector		N-Female
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	48
Vertical beamwidth (typ)	degrees	42
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	15

Mechanical Specifications		
Depth	in (mm)	16 (406)
Length/ Height	in (mm)	30 (762)
Width	in (mm)	13 (330)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	18 (8.17)
Weight iced	lbs (kg)	35 (15.89)
Mounting Hardware (Standard)		Clamp002B
Actual Shipping weight	lbs (kg)	28 (12.71)
Shipping dimensions	in (mm)	L 18in W 18in H 36in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.34 (0.12)
Wind Loading Area (1/2" ice)	ft² (m²)	1.48 (0.14)
Rated wind velocity (no ice)	mph (km/h)	195 (314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	175 (282)
Lateral thrust (100 mph No Ice)	lbs (N)	53 (235.7)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	56 (75.6)



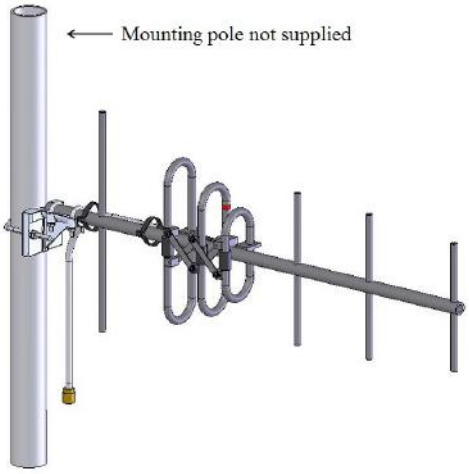
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Yagi directional, 7.5 dBd, wide band, black anodized, 380-512 MHz

- High gain, wide band yagi antenna that covers the whole 380-512 MHz frequency band
- Made of corrosion-resistant anodized aluminum for added durability and long life
- Fully welded construction for optimum performance and reliability
- Can be stacked for added gain

Model	Description
SY350-SWBSNM(ABK)	Yagi directional, 7.5 dBd, wide band, black anodized, 380-512 MHz



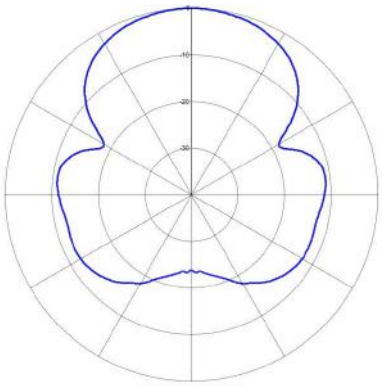
Antenna may not appear exactly as picture

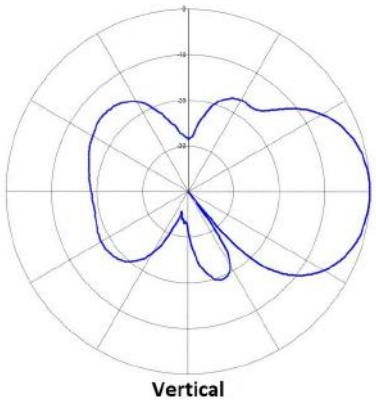
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	380 to 512
Bandwidth	MHz	132
Connector		N-Male
Gain (nominal)	dBd (dBi)	7.5 (9.6)
VSWR (typ)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	60
Average Input Power (max)	W	150
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	16

Mechanical Specifications		
Width	in (mm)	15.1 (384)
Depth	in (mm)	3.82 (97)
Length/ Height	in (mm)	34.7 (881)
Base pipe diameter	in (mm)	0.84 (21)
Radiating element material		aluminum
Finish		anodize (black)
Weight	lbs (kg)	3.5 (1.59)
Weight iced (1/2" ice)	lbs (kg)	11.6 (5.27)
Mounting Hardware (Included)		Clamp115
Actual shipping weight	lbs (kg)	7 (3.18)
Shipping dimensions	in (mm)	L 42in W 9in H 4in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.38 (0.04)
Wind Loading Area (1/2" ice)	ft² (m²)	1.04 (0.1)
Rated wind velocity (no ice)	mph (km/h)	185 (298)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105(169)
Lateral Thrust (100 mph No Ice)	lbs (N)	14.3 (63.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	15.8 (21.3)
Tip deflection (100 mph No Ice)	degrees	0.6


Horizontal


Vertical

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Corner reflector directive, 9.5 dBd, 406-512 MHz

- Broadband directional antenna
- Offers reliable operation in severe weather and ice conditions

Model	Description
SV302-HF1SNM	9.5 dBd, 406-470 MHz
SV302-HF1SNM(MABK)	9.5 dBd, 406-470 MHz, black anodized
SV302-HF2SNM	9.5 dBd, 450-512 MHz

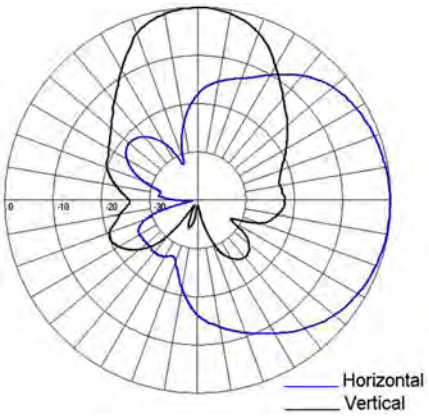


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	9.5 (11.6)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	38 to 45
Vertical beamwidth (typ)	degrees	60
Average Power Input (max)	W	125
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	20

Mechanical Specifications		
Depth	in (mm)	23 (584)
Length/ Height	in (mm)	30 (762)
Width	in (mm)	50 (1270)
Weight	lbs (kg)	30 (13.62)
Mounting Hardware (Standard)		Clamp004
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	L 32in W 10in H 31in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	125 (201)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	202 (898.5)



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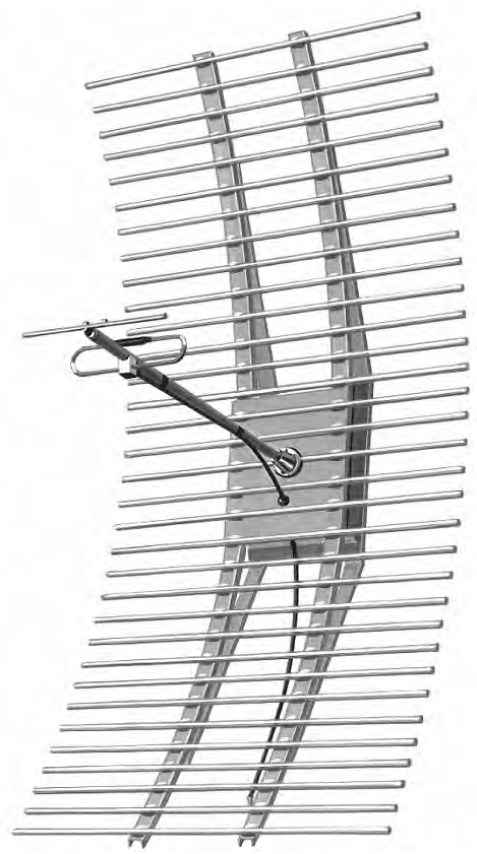
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Parabolic reflector directive, 15 dBd, 335-470 MHz

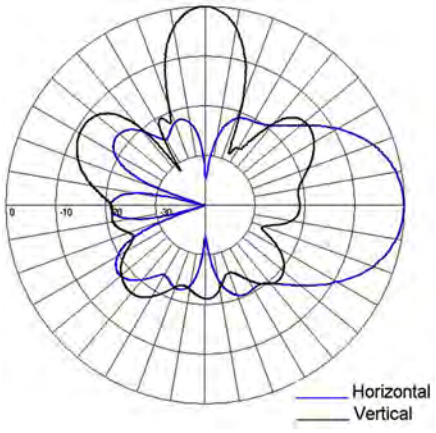
- Highly directive parabolic reflector with welded aluminum rods
- Covers 335-470 MHz range in 7 different sub-bands
- Rugged construction
- Suitable for horizontal or vertical polarization

Model	Description
SV360-SF1SNM	15 dBd, 406-420 MHz
SV360-SF2SNM	15 dBd, 450-470 MHz
SV360-SF3SNF	15 dBd, 380-400 MHz
SV360-SF3SNM	15 dBd, 380-400 MHz
SV360-SF4SNM	15 dBd, 335-365 MHz
SV360-SF5SNM	15 dBd, 365-403 MHz
SV360-SF6SNM	15 dBd, 410-430 MHz
SV360-SF6SNM(E6444)	15 dBd, 410-430 MHz, LSZH
SV360-SF7SNM	15 dBd, 435-455 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	335 to 470
Bandwidth	MHz	14 to 38
Connector		N-Male / N-Female
Gain (nominal)	dBd (dBi)	15 (17.1)
Input VSWR (max)		1.5:1 / 2:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	18
Vertical beamwidth (typ)	degrees	32 to 35
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	18 to 25



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Mechanical Specifications		
Depth	in (mm)	25 to 37 (635 to 940)
Length/ Height	in (mm)	45.8 to 82 (1163 to 2083)
Width	in (mm)	41 to 91 (1041 to 2311)
Radiating element material		aluminum
Weight	lbs (kg)	33 to 43 (14.98 to 19.52)
Mounting Hardware (Standard)		Clamp004
Actual Shipping weight	lbs (kg)	43 to 53 (19.52 to 24.06)
Shipping dimensions	in (mm)	L(47 - 56)in W(9 - 50)in H(9 - 50)in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +167 (-40 to +75)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	422 to 674 (1877.1 to 2998)

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2 dipole, 4.8 dBd, quad ports, HD, 406-512 MHz

- 4.8 dBd gain with bi-directional pattern and 150W power handling per antenna port
- Four antennas integrated on a split mast
- Heavy duty, bottom mounted

Model	Description
SD312Q-HF2P2SNM(D00B-SM)	4.8 dBd, bi-directional, HD, 406-512 MHz
SD312Q-HF2P4SNM(D00B-SM)	5.3 dBd, offset, HD, 406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	4.8 to 5.3 (6.9 to 7.4)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Vertical beamwidth (typ)	degrees	36
Average Power Input (max)	W	150
Port to Port isolation	dB	30
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	4 (102)
Width	in (mm)	10 to 15.75 (254 to 400)
Base pipe diameter	in (mm)	4 (102)
Base pipe mounting length	in (mm)	48 (1219)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	97 to 101 (44.04 to 45.85)
Weight iced	lbs (kg)	174 to 185 (79 to 83.99)
Mounting Hardware (Optional)		Clamp006 / Clamp006B
Shipping dimensions	in (mm)	L 186in W 18in H 6in
Mounting configurations		top mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.36 to 5.78 (0.5 to 0.54)
Wind Loading Area (1/2" ice)	ft² (m²)	7.68 to 8.44 (0.71 to 0.78)
Rated wind velocity (no ice)	mph (km/h)	185 to 210 (298 to 338)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 to 160 (242 to 258)
Lateral thrust (100 mph No Ice)	lbs (N)	194 to 209 (862.9 to 929.6)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	16 to 41 (21.6 to 55.4)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1224 to 1327 (1652.4 to 1791.5)
Tip deflection (100 mph No Ice)	degrees	0.3 to 0.4

Ordering Information
Clamps not included.

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

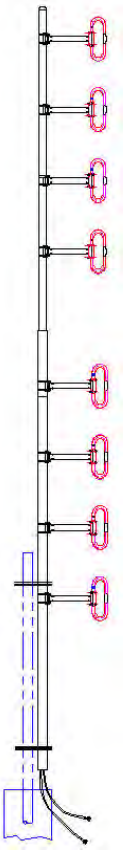
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Dual port, 4 dipole, 8.0/8.5 dBd, 406-512 MHz

- Covers the entire 406-512 MHz frequency range
- 8.0 dBd gain with bi-directional pattern; 8.5 dBd gain with offset pattern
- Two feed cables, 300W power handling.

Model	Description
SD314D-SF2P2SNM(D00)	8.0 dBd, bi-directional, HD, 406-512 MHz
SD314D-SF2P4SNM(D00)	8.5 dBd, offset, HD, 406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

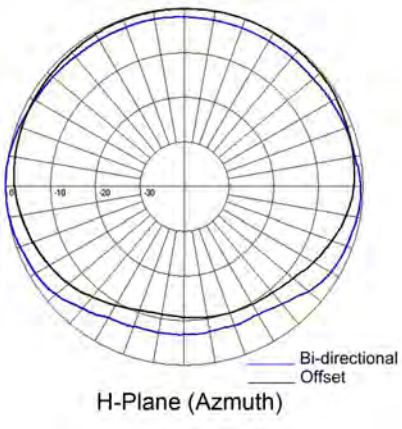


Electrical Specifications

Frequency Range	MHz	406 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	8 to 8.5 (10.1 to 10.6)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Bi-directional / Offset
Vertical beamwidth (typ)	degrees	16 to 17
Average Power Input (max)	W	300
Port to Port isolation	dB	35
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	203 (5156)
Width	in (mm)	11.25 to 16.75 (286 to 425)
Base pipe diameter	in (mm)	2.38 to 2.38 (60 to 60)
Base pipe mounting length	in (mm)	36 (914)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	40 to 42 (18.16 to 19.07)
Weight iced	lbs (kg)	89 to 97 (40.41 to 44.04)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Shipping Length/ Height	in (mm)	216 (5486)
Shipping dimensions	in (mm)	L 216in W(18 - 24)in H 6in
Mounting configurations		Universal Mount



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.16 to 3.51 (0.29 to 0.33)
Wind Loading Area (1/2" ice)	ft² (m²)	5.29 to 5.91 (0.49 to 0.55)
Rated wind velocity (no ice)	mph (km/h)	135 to 145 (217 to 233)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 to 105 (153 to 169)
Lateral thrust (100 mph No Ice)	lbs (N)	101 to 114 (449.2 to 507.1)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	23 to 46 (31.1 to 62.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	599 to 667 (808.7 to 900.5)
Tip deflection (100 mph No Ice)	degrees	0.39 to 0.43

Ordering Information

Clamps must be ordered separately.

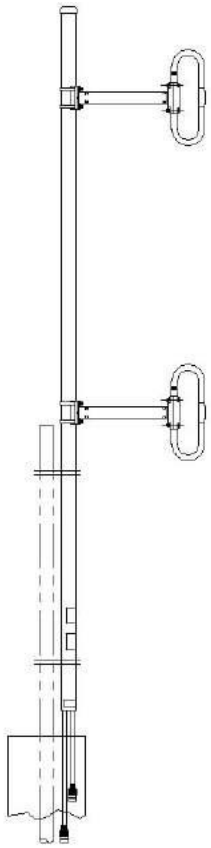
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Dual 1 dipole antennas, 2.0/2.5 dBd, HD, 406-512 MHz

- Two single dipole antennas that cover 406-512 MHz
- 2.0dBd gain with bi-directional pattern; 2.5 dBd gain with offset pattern
- Heavy duty with 75W power handling.

Model	Description
SD310D-HF2P2SNM	2.0 dBd, bi-directional, HD, 406-512 MHz

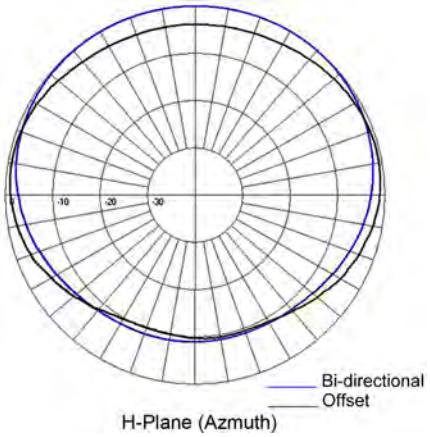


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Bandwidth	MHz	36
Connector		N-Male
Gain (nominal)	dBd (dBi)	2 (4.1)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Offset or Bi- directional
Vertical beamwidth (typ)	degrees	68
Average Power Input (max)	W	75
Port to Port isolation	dB	30
Lightning protection		DC ground

Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	80 (2032)
Width	in (mm)	17.5 (445)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	24 (610)
Radiating element material		aluminum
Weight	lbs (kg)	12.5 (5.68)
Weight iced	lbs (kg)	18.8 (8.54)
Mounting information		Top mount
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 83in W 5in H 20in
Recommended For Offset Side Mount:		SMK-125-A3

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.89 (0.08)
Wind Loading Area (1/2" ice)	ft² (m²)	1.78 (0.17)
Rated wind velocity (no ice)	mph (km/h)	240 (386)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 (250)
Lateral thrust (100 mph No Ice)	lbs (N)	39 (173.5)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	12 (16.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	83 (112.1)



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1 dipole, 2/2.5 dBd, HD, 370-512 MHz

- Covers 370-512 MHz in 2 band-splits
- 2 dBd with bi-directional pattern; 2.5 dBd gain with offset pattern
- Heavy duty wind ratings, 75W power handling
- Can be bottom or side mounted (Universal Mount)

Model	Description
SD310-HF1P2SNM	2 dBd, bi-directional, 370-430 MHz
SD310-HF1P4SNM	2.5 dBd, offset, 370-430 MHz
SD310-HF2P2SNM	2 dBd, bi-directional, 406-512 MHz
SD310-HF2P4SNM	2.5 dBd, offset, 406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

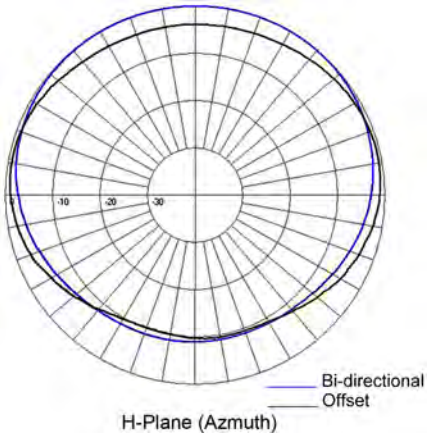


Electrical Specifications

Frequency Range	MHz	370 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	2 to 2.5 (4.1 to 4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210 to 224
Vertical beamwidth (typ)	degrees	65 to 68
Average Power Input (max)	W	75
Lightning protection		DC ground
Electrical tilt (available)		Not Available

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	60 to 68 (1524 to 1727)
Width	in (mm)	10.25 to 18.5 (260 to 470)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	24 (610)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	7.5 to 8.8 (3.41 to 4)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	15 to 24 (6.81 to 10.9)
Shipping dimensions	in (mm)	L(62 - 83)in W(4 - 19)in H(4 - 20)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.65 to 0.8 (0.06 to 0.07)
Wind Loading Area (1/2" ice)	ft² (m²)	1.22 to 2.49 (0.11 to 0.23)
Rated wind velocity (no ice)	mph (km/h)	240 to 265 (386 to 427)
Rated wind velocity (1/2" radial ice)	mph (km/h)	190 to 205 (306 to 330)
Lateral thrust (100 mph No Ice)	lbs (N)	26.1 to 30 (116.1 to 133.4)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	2.5 to 7.5 (3.4 to 10.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	14.1 to 53 (19 to 71.6)

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1 dipole, 1.5/2.0 dBd, low PIM, HD, 370-512 MHz

- Covers 370-512 MHz in 3 band-splits
- 1.5 dBd with bi-directional pattern; 2.0 dBd gain with offset pattern
- Heavy duty wind ratings, low PIM, 75W power handling
- Can be bottom or side mounted (Universal Mount)

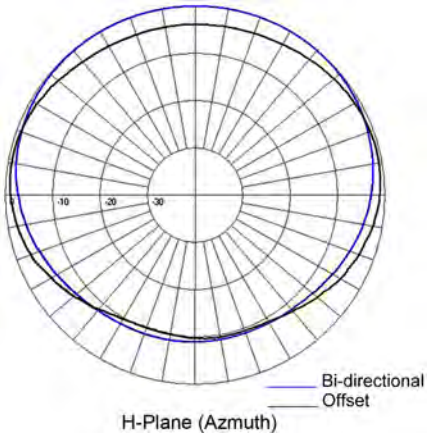
Model	Description
SD310-HF1P2LDF	1.5 dBd, bi-directional, 370-430 MHz
SD310-HF1P2LDF(ABK)	1.5 dBd, bi-directional, ABK, 370-430 MHz
SD310-HF1P4LDF	2.0 dBd, offset, 370-430 MHz
SD310-HF1P4LDF(ABK)	2.0 dBd, offset, ABK, 370-430 MHz
SD310-HF2P2LDF	1.5 dBd, bi-directional, 406-470 MHz
SD310-HF2P2LDF(ABK)	1.5 dBd, bi-directional, ABK, 406-470 MHz
SD310-HF2P4LDF	2.0 dBd, offset, 406-470 MHz
SD310-HF2P4LDF(ABK)	2.0 dBd, offset, ABK, 406-470 MHz
SD310-HF3P2LDF	1.5 dBd, bi-directional, 450-512 MHz
SD310-HF3P2LDF(ABK)	1.5 dBd, bi-directional, ABK, 450-512 MHz
SD310-HF3P4LDF	2.0 dBd, offset, 450-512 MHz
SD310-HF3P4LDF(ABK)	2.0 dBd, offset, ABK, 450-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	370 to 512
Bandwidth	MHz	60 to 64
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	1.5 to 2 (3.6 to 4.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	180 to 210
Vertical beamwidth (typ)	degrees	73 to 84
Average Power Input (max)	W	75
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground



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Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	48.13 (1223)
Width	in (mm)	11.84 to 18.75 (301 to 476)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	18 (457)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	6.5 to 7.1 (2.95 to 3.22)
Weight iced	lbs (kg)	9.5 to 11 (4.31 to 4.99)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	11 to 14 (4.99 to 6.36)
Shipping dimensions	in (mm)	L 63in W(19 - 22)in H 4in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.56 to 0.64 (0.05 to 0.06)
Wind Loading Area (1/2" ice)	ft² (m²)	0.91 to 1.1 (0.08 to 0.1)
Rated wind velocity (no ice)	mph (km/h)	265 (427)
Rated wind velocity (1/2" radial ice)	mph (km/h)	210 (338)
Lateral thrust (100 mph No Ice)	lbs (N)	21 to 23.1 (93.4 to 102.7)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	3.46 to 8.1 (4.7 to 10.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	26.3 to 29.6 (35.5 to 40)
Tip deflection (100 mph No Ice)	degrees	0.03 to 0.04

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2 dipole, 5.0/5.5 dBd, HD, 370-512 MHz

- Covers 370-512 MHz in 2 band splits
- 5.0 dBd gain with bi-directional pattern; 5.5 dBd gain with offset pattern
- Heavy duty, with 150W power handling
- Can be bottom or side mounted (Universal mount)

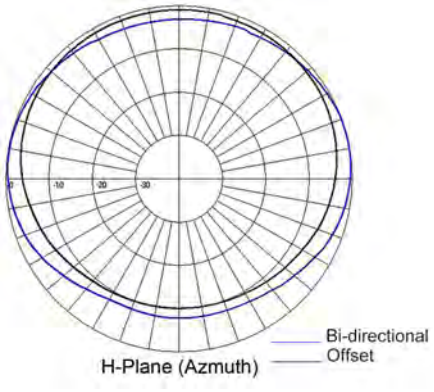
Model	Description
SD312-HF1P2SNM(D00)	5 dBd, bi-directional, 370-460 MHz
SD312-HF1P4SNM(D00)	5.5 dBd, offset, 370-460 MHz
SD312-HF2P2SNM(D00)	5 dBd, bi-directional, 406-512 MHz
SD312-HF2P2SNM(D02)	5 dBd, bi-directional, 2° DT, 406-512 MHz
SD312-HF2P2SNM(D04)	5 dBd, bi-directional, 4° DT, 406-512 MHz
SD312-HF2P2SNM(D06)	5 dBd, bi-directional, 6° DT, 406-512 MHz
SD312-HF2P2SNM(D08)	5 dBd, bi-directional, 8° DT, 406-512 MHz
SD312-HF2P2SNM(D10)	5 dBd, bi-directional, 10° DT, 406-512 MHz
SD312-HF2P4SNF(D00)	5.5 dBd, offset, 406-512 MHz
SD312-HF2P4SNM(D00)	5.5 dBd, offset, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	370 to 512
Bandwidth	MHz	90 to 106
Connector		N-Male / N-Female
Gain (nominal)	dBd (dBi)	5 to 5.5 (7.1 to 7.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210 to 224
Vertical beamwidth (typ)	degrees	34 to 36
Average Power Input (max)	W	150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8, or 10 degrees

Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	83.13 (2112)
Width	in (mm)	12.25 to 18.9 (311 to 480)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	24 (610)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	9.6 to 11 (4.36 to 4.99)
Weight iced	lbs (kg)	12.65 to 14.1 (5.74 to 6.4)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	20 to 21 (9.08 to 9.53)
Shipping dimensions	in (mm)	L 83in W 50in H 20in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.88 to 0.97 (0.08 to 0.09)
Wind Loading Area (1/2" ice)	ft² (m²)	1.69 to 3.53 (0.16 to 0.33)
Rated wind velocity (no ice)	mph (km/h)	230 to 245 (370 to 394)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 to 175 (266 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	37.2 to 42.5 (165.5 to 189)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	3.4 to 8.11 (4.6 to 10.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	105 to 122 (141.8 to 164.7)
Tip deflection (100 mph No Ice)	degrees	0.22 to 0.3

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2 dipole, 4.0/4.5dBd, HD, 370-512 MHz

- Covers 370-512 MHz in 3 band splits
- Heavy-duty wind ratings and 150W power handling
- Can be bottom or side mounted (Universal mount)
- PIM rated versions available

Model	Description
SD312-HF1P2LDF(D00)	4.0 dBd, bi-directional, low PIM, 370-430 MHz
SD312-HF1P4LDF(D00)	4.5 dBd, offset, low PIM, 370-430 MHz
SD312-HF2P2LDF(D00)	4.0 dBd, bi-directional, low PIM, 406-470 MHz
SD312-HF2P4LDF(D00)	4.5 dBd, offset, low PIM, 406-470 MHz
SD312-HF3P2LDF(D00)	4.0 dBd, bi-directional, low PIM, 450-512 MHz
SD312-HF3P4LDF(D00)	4.5 dBd, offset, low PIM, 450-512 MHz
SD312-HF3P4LNF(D00)	4.5 dBd, offset, N-Female, 450-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

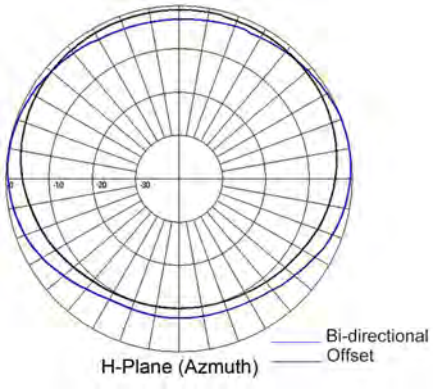


Electrical Specifications

Frequency Range	MHz	370 to 512
Bandwidth	MHz	60 to 64
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	4 to 4.5 (6.1 to 6.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	185 to 230
Vertical beamwidth (typ)	degrees	32 to 36
Average Power Input (max)	W	150
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8, or 10 degrees

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	83.13 (2112)
Width	in (mm)	11.4 to 18.9 (290 to 480)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	24 (610)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	9.6 to 10.3 (4.36 to 4.68)
Weight iced	lbs (kg)	12.1 to 14.1 (5.49 to 6.4)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 89in W 21in H 6in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.86 to 0.96 (0.08 to 0.09)
Wind Loading Area (1/2" ice)	ft² (m²)	1.66 to 1.96 (0.15 to 0.18)
Rated wind velocity (no ice)	mph (km/h)	230 to 250 (370 to 403)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 to 180 (266 to 290)
Lateral thrust (100 mph No Ice)	lbs (N)	36.8 to 42.5 (163.7 to 189)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	3 to 8.11 (4.1 to 10.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	103 to 122 (139.1 to 164.7)

Ordering Information

N-type connectors available

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Dual port, 4 dipole, 7.0/7.5 dBd, HD, 406-512 MHz

- Covers 406-512MHz in three sub-bands
- 7.0 dBd gain with bi-directional pattern; 7.5 dBd gain with offset
- Dual feed cables
- 300W power handling.

Model	Description
SD314D-HF1P2LDF(D00S)	7.0 dBd, bi-directional, 370-430 MHz
SD314D-HF1P4LDF(D00S)	7.5 dBd, offset, 370-430 MHz
SD314D-HF2P2LDF(D00S)	7.0 dBd, bi-directional, 406-470 MHz
SD314D-HF2P4LDF(D00S)	7.5 dBd, offset, 406-470 MHz
SD314D-HF3P2LDF(D00S)	7.0 dBd, bi-directional, 450-512 MHz
SD314D-HF3P4LDF(D00S)	7.5 dBd, offset, 450-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

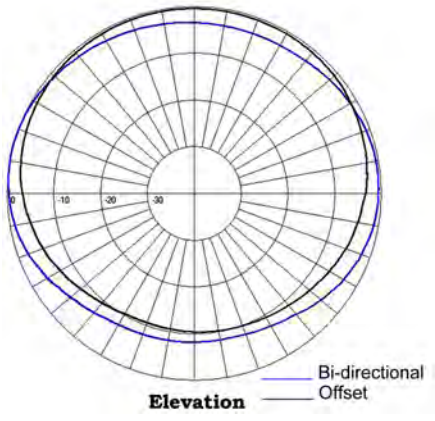


Electrical Specifications

Frequency Range	MHz	370 to 512
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	7 to 7.5 (9.1 to 9.6)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Bi- directional / Offset
Vertical beamwidth (typ)	degrees	15 to 16
Average Power Input (max)	W	300
Port to Port isolation	dB	30
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3 (76)
Length/ Height	in (mm)	220 (5588)
Width	in (mm)	12.88 to 20.31 (327 to 516)
Base pipe diameter	in (mm)	2.38 (60)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	45 to 50.2 (20.43 to 22.79)
Weight iced	lbs (kg)	97 to 113 (44.04 to 51.3)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Shipping Length/ Height	in (mm)	224 to 226 (5690 to 5740)
Shipping dimensions	in (mm)	L(192 - 228)in W(18 - 24)in H 6in
Mounting configurations		side mount
Recommended For Offset Side Mount:		SMK-135-A3 /



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.66 to 4.3 (0.34 to 0.4)
Wind Loading Area (1/2" ice)	ft² (m²)	5.94 to 7.1 (0.55 to 0.66)
Rated wind velocity (no ice)	mph (km/h)	225 to 235 (362 to 378)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 to 175 (266 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	134 to 156 (596 to 693.9)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	26 to 68 (35.1 to 91.8)

Ordering Information

Clamps must be ordered separately.

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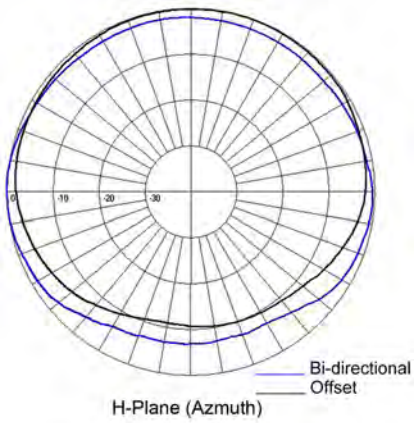
4 dipole, 8.0/8.5 dBd, HD, 370-512 MHz

- Covers 370-512 MHz in 2 band splits.
- 8.0 dBd gain bi-directional pattern, 8.5 dBd gain offset pattern.
- Heavy duty with 200W power handling
- Can be top or side mounted (Universal mount)

Model	Description
SD314-HF1P2SNM(D00)	8 dBd, bi-directional, 370-430 MHz
SD314-HF1P2SNM(D02)	8 dBd, bi-directional, 2° DT, 370-460 MHz
SD314-HF1P2SNM(D04)	8 dBd, bi-directional, 4° DT, 370-460 MHz
SD314-HF1P2SNM(D06)	8 dBd, bi-directional, 6° DT, 370-460 MHz
SD314-HF1P2SNM(D08)	8 dBd, bi-directional, 8° DT, 370-460 MHz
SD314-HF1P2SNM(D10)	8 dBd, bi-directional, 10° DT, 370-460 MHz
SD314-HF1P4SNM(D00)	8.5 dBd, bi-directional, 370-430 MHz
SD314-HF1P4SNM(D02)	8.5 dBd, offset, 2° DT, 370-460 MHz
SD314-HF1P4SNM(D04)	8.5 dBd, offset, 4° DT, 370-460 MHz
SD314-HF1P4SNM(D06)	8.5 dBd, offset, 6° DT, 370-460 MHz
SD314-HF1P4SNM(D08)	8.5 dBd, offset, 8° DT, 370-460 MHz
SD314-HF1P4SNM(D10)	8.5 dBd, offset, 10° DT, HD, 370-460 MHz
SD314-HF2P2SNM(D00)	8 dBd, bi-directional, 406-512 MHz
SD314-HF2P2SNM(D02)	8 dBd, bi-directional, 2° DT, 406-512 MHz
SD314-HF2P2SNM(D04)	8 dBd, bi-directional, 4° DT, 406-512 MHz
SD314-HF2P2SNM(D06)	8 dBd, bi-directional, 6° DT, 406-512 MHz
SD314-HF2P2SNM(D08)	8 dBd, bi-directional, 8° DT, 406-512 MHz
SD314-HF2P2SNM(D10)	8 dBd, bi-directional, 10° DT, 406-512 MHz
SD314-HF2P4SNM(D00)	8.5dBd, bi-directional, 406-512 MHz
SD314-HF2P4SNM(D02)	8.5 dBd, offset, 2° DT, 406-512 MHz
SD314-HF2P4SNM(D04)	8.5 dBd, offset, 4° DT, 406-512 MHz
SD314-HF2P4SNM(D06)	8.5 dBd, offset, 6° DT, 406-512 MHz
SD314-HF2P4SNM(D08)	8.5 dBd, offset, 8° DT, 406-512 MHz
SD314-HF2P4SNM(D10)	8.5 dBd, offset, 10° DT, 406-512 MHz
SD314-HF4PASNM(ABK-LM)	8/8.5 dBd, ABK, no mast, 340-405 MHz
SD314-HF4PASNM(LM)	8/8.5 dBd, no mast, 340-405 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



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Electrical Specifications

Frequency Range	MHz	340 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	8 to 8.5 (10.1 to 10.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset / Offset/ Bi-directional
Horizontal beamwidth (typ)	degrees	210 to 222
Vertical beamwidth (typ)	degrees	16 to 17
Average Power Input (max)	W	200 / 500
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8,or 10 degrees /

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	98.43 to 120 (2500 to 3048)
Width	in (mm)	11.5 to 17 (292 to 432)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	18 to 36 (457 to 914)
Radiating element material		aluminum
Base pipe material		aluminum /
Weight	lbs (kg)	21 to 31 (9.53 to 14.07)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	20 to 48 (9.08 to 21.79)
Shipping dimensions	in (mm)	L(24 - 124)in W(4 - 24)in H(18 - 20)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.14 to 1.99 (0.11 to 0.18)
Wind Loading Area (1/2" ice)	ft² (m²)	3.24 to 212 (0.3 to 19.69)
Rated wind velocity (no ice)	mph (km/h)	185 to 215 (298 to 346)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 to 155 (242 to 250)
Lateral thrust (100 mph No Ice)	lbs (N)	46 to 84 (204.6 to 373.6)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	11 to 112 (14.9 to 151.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	132 to 281 (178.2 to 379.4)

Ordering Information

Clamps must be ordered separately.

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4 dipole, 7.0/7.5 dBd, low PIM, HD, 370-512 MHz

- -150 dBc PIM rating, covering 370-512 MHz in 3 band splits
- 7.0 dBd gain pattern, 7.5 dBd offset pattern
- Heavy duty wind rating and 300W power handling
- Can be top or side mounted (Universal mount)

Model	Description
SD314-HF1P2LDF(D00)	7 dBd, bi-directional, 370-430 MHz
SD314-HF1P2LDF(D04)	7 dBd, bi-directional, 370-430 MHz
SD314-HF1P4LDF(D00)	7.5 dBd, offset, 370-430 MHz
SD314-HF1P8LDF(D00B-W)	9 dBd, 1/8 wave, 380-430 MHz
SD314-HF2P2LDF(D00)	7 dBd, bi-directional, 406-470 MHz
SD314-HF2P2LDF(D00B-ABK)	7 dBd, bi-directional, 406-470 MHz
SD314-HF2P4LDF(D00)	7.5 dBd, offset, 406-470 MHz
SD314-HF3P2LDF(D00)	7 dBd, bi-directional, 450-512 MHz
SD314-HF3P4LDF(D00)	7.5 dBd, offset, 450-512 MHz



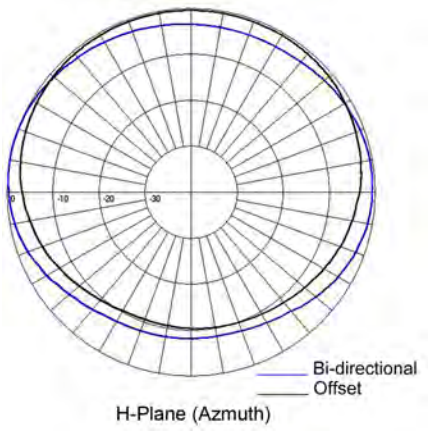
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	370 to 512
Bandwidth	MHz	50 to 64
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	7 to 9 (9.1 to 11.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	160 to 200
Vertical beamwidth (typ)	degrees	15 to 17
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8,or 10 degrees / 0,5, or 10 degrees

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	102.3 to 120.3 (2598 to 3056)
Width	in (mm)	8.25 to 18.5 (210 to 470)
Base pipe diameter	in (mm)	1.9 to 2.38 (48 to 60)
Base pipe mounting length	in (mm)	6 to 26 (152 to 660)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	13 to 25.3 (5.9 to 11.49)
Weight iced	lbs (kg)	15.3 to 42.75 (6.95 to 19.41)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	30 to 43 (13.62 to 19.52)
Shipping dimensions	in (mm)	L(118 - 125)in W 6in H(10 - 20)in
Mounting configurations		Universal Mount / Bottom mount
Recommended For Offset Side Mount:		SMK-125-A3 / Not Required



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	170 to 182 (274 to 293)
Rated wind velocity (1/2" radial ice)	mph (km/h)	130 to 150 (209 to 242)
Lateral thrust (100 mph No Ice)	lbs (N)	59.6 to 79.2 (265.1 to 352.3)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	1.35 to 32 (1.8 to 43.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	26.9 to 302 (36.3 to 407.7)

Ordering Information

Clamps must be ordered separately.

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8 dipole, 10/10.5 dBd, HD, 380-512 MHz

- Covers 380-512 MHz in 2 band-splits
- 10 dBd gain with bi-directional pattern; 10.5 dBd gain with offset pattern
- Heavy duty rating with 150 Watt power handling
- Can be bottom or side mounted (Universal mount)

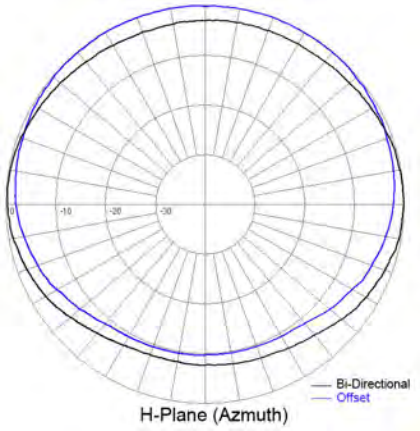
Model	Description
SD318-HF1P2SNM(D00)	10 dBd, bi-directional, 380-460 MHz
SD318-HF1P4SNM(D00)	10.5 dBd, offset, 380-460 MHz
SD318-HF2P2SNM(D00)	10 dBd, bi-directional, 406-512 MHz
SD318-HF2P2SNM(D02)	10 dBd, bi-directional, 2° DT, 406-512 MHz
SD318-HF2P2SNM(D04)	10 dBd, bi-directional, 4° DT, 406-512 MHz
SD318-HF2P2SNM(D06)	10 dBd, bi-directional, 6° DT, 406-512 MHz
SD318-HF2P2SNM(D08)	10 dBd, bi-directional, 8° DT, 406-512 MHz
SD318-HF2P2SNM(D10)	10 dBd, bi-directional, 10° DT, 406-512 MHz
SD318-HF2P4SNM(D00)	10.5 dBd, offset, 406-512 MHz
SD318-HF2P4SNM(D02)	10.5 dBd, offset, 2° DT, 406-512 MHz
SD318-HF2P4SNM(D04)	10.5 dBd, offset, 4° DT, 406-512 MHz
SD318-HF2P4SNM(D06)	10.5 dBd, offset, 6° DT, 406-512 MHz
SD318-HF2P4SNM(D08)	10.5 dBd, offset, 8° DT, 406-512 MHz
SD318-HF2P4SNM(D10)	10.5 dBd, offset, 10° DT, 406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	380 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	10 to 10.5 (12.1 to 12.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	222
Vertical beamwidth (typ)	degrees	8
Average Power Input (max)	W	150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8, or 10 degrees



H-Plane (Azmuth)

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Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	204 (5182)
Width	in (mm)	12 to 16 (305 to 406)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	48 (1219)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	46 to 48 (20.88 to 21.79)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	80 to 85 (36.32 to 38.59)
Shipping dimensions	in (mm)	L(206 - 209)in W 6in H(16 - 20)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-135-A3

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.54 (0.33)
Wind Loading Area (1/2" ice)	ft² (m²)	6.3 (0.59)
Rated wind velocity (no ice)	mph (km/h)	160 (258)
Rated wind velocity (1/2" radial ice)	mph (km/h)	120 (193)
Lateral thrust (100 mph No Ice)	lbs (N)	69 to 144 (306.9 to 640.5)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	43 (58.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	430 to 632 (580.5 to 853.2)

Ordering Information
Clamps must be ordered separately

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8 dipole, 10/10.5 dBd, low PIM, HD, 370-512 MHz

- -150 dBc PIM rating, covers 370-512 MHz in 3 band-splits
- 10.5 dBd gain with offset pattern; 10 dBd gain with bi-directional pattern
- Heavy-duty wind ratings, 300W power handling
- Can be bottom or side mounted (Universal mount)

Model	Description
SD318-HF1P2LDF(D00)	10 dBd, bi-directional, 370-430 MHz
SD318-HF1P4LDF(D00)	10.5 dBd, offset, 370-430 MHz
SD318-HF2P2LDF(D00)	10 dBd, bi-directional, 406-470 MHz
SD318-HF2P4LDF(D00)	10.5 dBd, offset, 406-470 MHz
SD318-HF3P2LDF(D00)	10 dBd, bi-directional, 450-512 MHz
SD318-HF3P4LDF(D00)	10.5 dBd, offset, 450-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

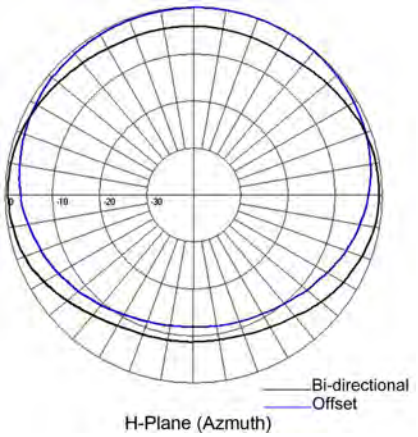


Electrical Specifications

Frequency Range	MHz	370 to 512
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	10 to 10.5 (12.1 to 12.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Vertical beamwidth (typ)	degrees	9
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	240 (6096)
Width	in (mm)	12.4 to 18.9 (315 to 480)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	46 to 121 (1168 to 3073)
Weight	lbs (kg)	58 to 60.5 (26.33 to 27.47)
Weight iced	lbs (kg)	80 to 90 (36.32 to 40.86)
Mounting Hardware (Optional)		Clamp005, Clamp015, Clamp130, or Clamp125U
Actual Shipping weight	lbs (kg)	85 (38.59)
Shipping dimensions	in (mm)	L 247in W 6in H(14 - 20)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-135-A3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4.42 (0.41)
Wind Loading Area (1/2" ice)	ft² (m²)	7.25 (0.67)
Rated wind velocity (no ice)	mph (km/h)	110 to 120 (177 to 193)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 (145)
Lateral thrust (100 mph No Ice)	lbs (N)	161 (716.1)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	64 (86.4)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1260 (1701)

Ordering Information

Clamps must be ordered separately

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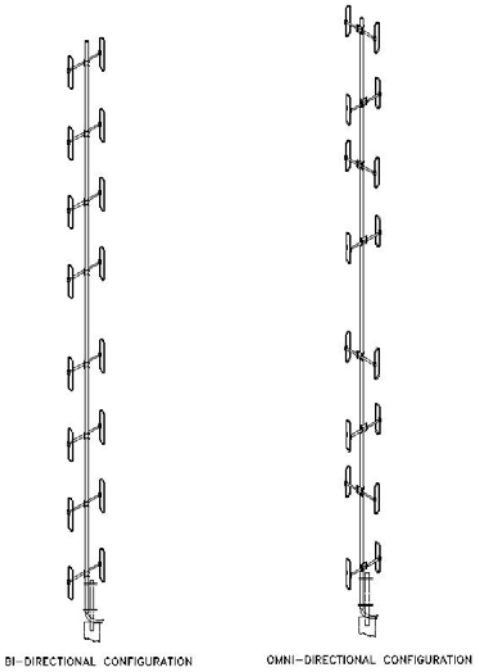
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Quad array, exposed dipole 2 cables, 6/8.5 dBd, field adj, 406-512 MHz

- Dual SD3352 antennas
- Broadband, featuring adjustable omni-directional or bi-directional pattern coverage
- Ideally suited for use in multicoupled systems

Model	Description
SD3352D-SF1PASNM	6/8.5 dBd, 406-512 MHz
SD3352D-SF1PASNM(D00I)	6/8.5 dBd, Inverted mount, 406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

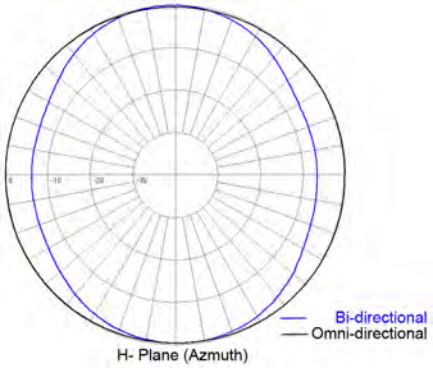
Frequency Range	MHz	406 to 512
Connector		N-Male
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni or Bi-directional, Adjustable
Vertical beamwidth (typ)	degrees	8
Average Power Input (max)	W	300
Port to Port isolation	dB	30
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	4 to 13.75 (102 to 349)
Length/ Height	in (mm)	220 (5588)
Width	in (mm)	13.75 to 15 (349 to 381)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	40 to 160 (1016 to 4064)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	83 to 87 (37.68 to 39.5)
Weight iced	lbs (kg)	159 to 194 (72.19 to 88.08)
Mounting Hardware (Standard)		Clamp005
Shipping Length/ Height	in (mm)	224 (5690)
Shipping dimensions	in (mm)	L(224 - 228)in W(15 - 18)in H(6 - 15)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4.98 to 5.63 (0.46 to 0.52)
Wind Loading Area (1/2" ice)	ft² (m²)	7.82 to 10.79 (0.73 to 1)
Rated wind velocity (no ice)	mph (km/h)	145 to 175 (233 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 to 135 (169 to 217)
Lateral thrust (100 mph No Ice)	lbs (N)	164 to 176 (729.5 to 782.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1058 (1428.3)
Tip deflection (100 mph No Ice)	degrees	1.31



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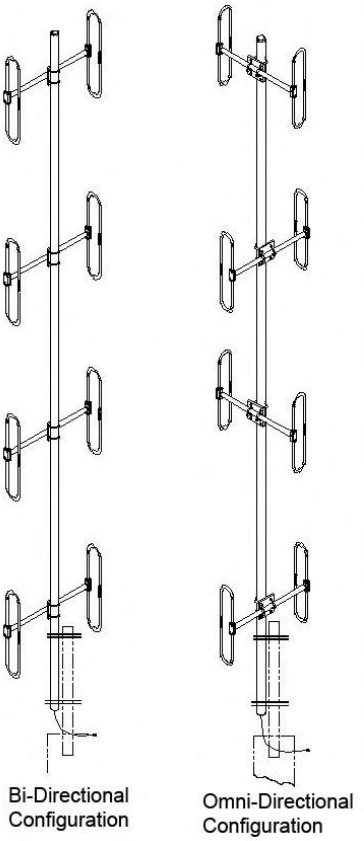
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Dual array, exposed dipole, 1 cable, 6 dBd/8.5 dBd, field adj, HD, 406-512 MHz

- 6.0 dBd gain in Omni-directional configuration; 8.5 dBd gain in bi-directional configuration
- Broadband covering entire 406-512 MHz frequency range
- 300 Watts power handling

Model	Description
SD3352-HF1PASNF	6/8.5 dBd, N-Female, 406-512 MHz
SD3352-HF1PASNF(D06)	6/8.5 dBd, 6° DT, N-Female, 406-512 MHz
SD3352-HF1PASNM	6/8.5 dBd, N-Male, 406-512 MHz
SD3352-HF1PASNM(D06)	6/8.5 dBd, 6° DT, N-Male, 406-512 MHz

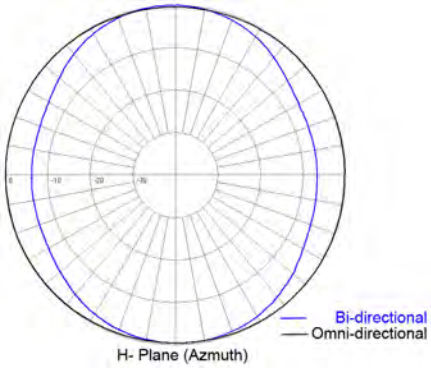
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	406 to 512
Connector		N-Female / N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Bi-directional, Adjustable
Average Power Input (max)	W	300
Lightning protection		DC ground
Electrical tilt (available)		0 or 6 degrees

Mechanical Specifications		
Depth	in (mm)	12.75 (324)
Length/ Height	in (mm)	114 (2896)
Width	in (mm)	12.75 (324)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	24 (610)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	26 (11.8)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	41 (18.61)
Shipping dimensions	in (mm)	L 120in W 18in H 12in
Mounting configurations		Bottom mount

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.12 (0.2)
Wind Loading Area (1/2" ice)	ft² (m²)	3.62 (0.34)
Rated wind velocity (no ice)	mph (km/h)	180 (290)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 (242)
Lateral thrust (100 mph No Ice)	lbs (N)	77 (342.5)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	255 (344.3)



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Exposed dipole array, 2.5/5.0 dBd, low PIM, field adj, HD, 370-512 MHz

- Broadband antenna featuring adjustable omni-directional or bi-directional pattern coverage
- Ideally suited for use in multicoupled systems
- None low PIM versions available

Model	Description
SD335-HF1PALDF	2.5/5 dBd, 370-430 MHz
SD335-HF2PALDF	2.5/5 dBd, 406-470 MHz
SD335-HF3PALDF	2.5/5 dBd, 450-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

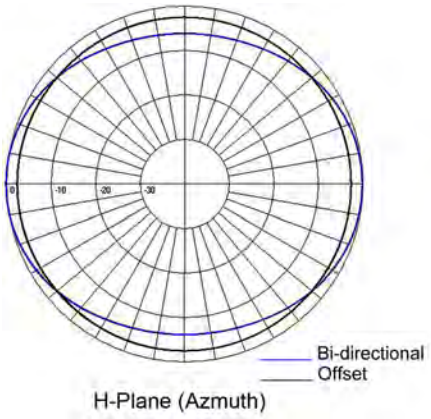


Electrical Specifications

Frequency Range	MHz	370 to 512
Connector		7/16 DIN-Female
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Bi-directional, Adjustable
Vertical beamwidth (typ)	degrees	34
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0

Mechanical Specifications

Depth	in (mm)	13.75 to 15 (349 to 381)
Length/ Height	in (mm)	96 (2438)
Width	in (mm)	6 to 15 (152 to 381)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	30 (762)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	21 (9.53)
Weight iced	lbs (kg)	48 (21.79)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp125U
Actual Shipping weight	lbs (kg)	29.5 to 30.5 (13.39 to 13.85)
Shipping dimensions	in (mm)	L 102in W 20in H 6in
Mounting configurations		Bottom mount



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.88 to 1.91 (0.17 to 0.18)
Wind Loading Area (1/2" ice)	ft² (m²)	3.2 to 3.22 (0.3 to 0.3)
Rated wind velocity (no ice)	mph (km/h)	150 to 205 (242 to 330)
Rated wind velocity (1/2" radial ice)	mph (km/h)	120 to 170 (193 to 274)
Lateral thrust (100 mph No Ice)	lbs (N)	59 to 63 (262.4 to 280.2)

Ordering Information

None low PIM and/or N-type versions are also available, please contact your Sinclair Sales Representative for more information.

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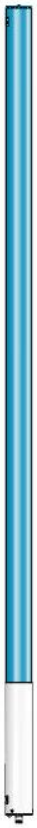
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Collinear omni antenna, 4 or 6 dBd gain, low PIM, PIP rated, HD, 380-512 MHz

- Wideband, single or dual port omni antenna
- 500W power handling with low PIM and high PIP rating
- Rugged fiberglass radome provides superior environmental protection
- 0, 2, 4, or 6 degrees of electrical downtilt available on 6 dBd gain versions

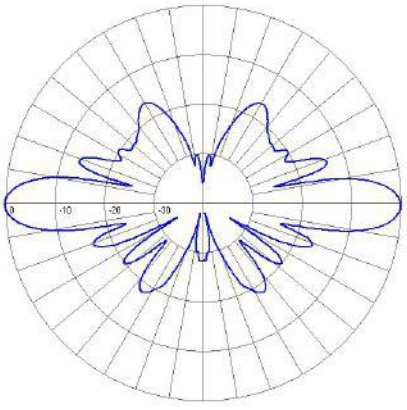
Model	Description
SC351-HF1LDF(D00-G4)	4 dBd gain, 380-430 MHz
SC351-HF1LDF(D00-G6)	6 dBd gain, 380-430 MHz, electrical DT Avail.
SC351-HF2LDF(D00-G4)	4 dBd gain, 403-470 MHz
SC351-HF2LDF(D00-G6)	6 dBd gain, 403-470 MHz, electrical DT Avail.
SC351-HF3LDF(D00-G4)	4 dBd gain, 450-512 MHz
SC351-HF3LDF(D00-G6)	6 dBd gain, 450-512 MHz, electrical DT Avail.
SC351D-HF1LDF(D00-G4)	4 dBd, dual port, 380-430 MHz
SC351D-HF1LDF(D00-G6)	6 dBd, dual port, 380-430 MHz, electrical DT Avail.
SC351D-HF2LDF(D00-G4)	4 dBd, dual port, 403-470 MHz
SC351D-HF2LDF(D00-G6)	6 dBd, dual port, 403-470 MHz, electrical DT Avail.
SC351D-HF3LDF(D00-G4)	4 dBd, dual port, 450-512 MHz
SC351D-HF3LDF(D00-G6)	6 dBd, dual port, 450-512 MHz, electrical DT Avail.

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	380 to 512
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	4 to 6 (6.1 to 8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	13 to 20
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
PIP(KW, max)		25



G6 version pattern shown

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Mechanical Specifications

Width	in (mm)	5 (127)
Depth	in (mm)	5 (127)
Length/ Height	in (mm)	93 to 280 (2362 to 7112)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	20 to 26 (508 to 660)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	47 to 92 (21.34 to 41.77)
Weight iced (1/2" ice)	lbs (kg)	71 to 165 (32.23 to 74.91)
Mounting Hardware (Optional)		Clamp006C
Actual shipping weight	lbs (kg)	76 to 140 (34.5 to 63.56)
Shipping dimensions	in (mm)	L(110 - 290)in W 7in H 7in
Number of ports		1 to 2
Mounting configurations		Universal mount
Recommended For Offset Side Mount:		SMK-345-A7
Radome Colour		Light blue

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2 to 6 (0.19 to 0.56)
Wind Loading Area (1/2" ice)	ft² (m²)	2.4 to 7.3 (0.22 to 0.68)
Rated wind velocity (no ice)	mph (km/h)	155 to 280 (250 to 451)
Rated wind velocity (1/2" radial ice)	mph (km/h)	135 to 250 (217 to 403)
Lateral thrust (100 mph No Ice)	lbs (N)	78 to 234 (346.9 to 1040.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	168 to 2176 (226.8 to 2937.6)
Tip deflection (100 mph No Ice)	degrees	0.1 to 2.1

Ordering Information

Clamps must be ordered separately.

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Aurora™ collinear omni, 6 dBd gain, heavy duty, low PIM, 320-520 MHz

- Patent-pending Aurora™ balanced design delivers exceptional bandwidth
- -150dBc PIM rating for low noise characteristics, ideal for wideband or trunking systems
- Light-weight heavy-duty antenna with outstanding 190 mph wind rating for long life
- PIP rated version available for high performance in multi-channel systems

Model	Description
SC366-HF6LDF(DXX-M)	6 dBd gain, 7/16 DIN-female connector, 320-355 MHz
SC366-HTBLDF(DXX-M)	6 dBd gain, 7/16 DIN-female connector, 380-430 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

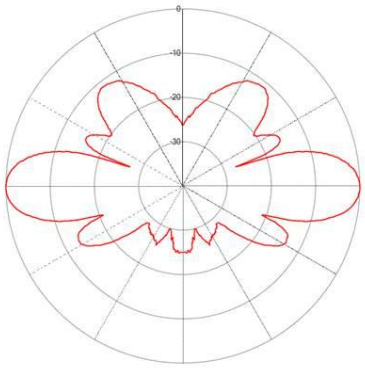
Frequency Range	MHz	320 to 520
Bandwidth	MHz	35 to 70
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	6 (8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Horizontal beamwidth (typ)	degrees	360
Vertical beamwidth (typ)	degrees	15
Average Input Power (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground, lightning spike / Lightning spike
DC Ground		YES
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications

Width	in (mm)	3.5 (89)
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	100 to 130 (2540 to 3302)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	22 to 30 (9.99 to 13.62)
Mounting Hardware (Included)		Clamp147
Mounting configurations		upright, inverted

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.5 (0.14)
Wind Loading Area (1/2" ice)	ft² (m²)	1.9 (0.18)
Rated wind velocity (no ice)	mph (km/h)	190 (306)
Rated wind velocity (1/2" radial ice)	mph (km/h)	160 (258)
Lateral Thrust (100 mph No Ice)	lbs (N)	57 (253.5)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	167 (225.5)



Vertical, 0° Downtilt

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Collinear omni, 9 dBd, low PIM, PIP rated, HD, 380-512 MHz

- Corporate feed design provides excellent pattern control
- Heavy duty radome design, low PIM and PIP rated
- Broadband omni coverage with 9 dBd gain
- 0 to 10 degrees electrical downtilt available

Model	Description
SC389-HF1LDF(DXX)	9 dBd, 380-430 MHz
SC389-HF2LDF(DXX)	9 dBd, 403-470 MHz
SC389-HF3LDF(DXX)	9 dBd, 450-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	380 to 512
Bandwidth	MHz	50 to 67
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9 (11.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	6.9
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
PIP(KW, max)		25
Electrical tilt (available)		0 to 10 degrees

Mechanical Specifications		
Width	in (mm)	5 (127)
Depth	in (mm)	5 (127)
Length/ Height	in (mm)	240 to 277 (6096 to 7036)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	26 (660)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	79 (35.87)
Weight iced (1/2" ice)	lbs (kg)	142 (64.47)
Mounting Hardware (Optional)		Clamp006C
Actual shipping weight	lbs (kg)	110 (49.94)
Shipping dimensions	in (mm)	L(264 - 282)in W 7in H 7in
Recommended For Offset Side Mount:		SMK-345-A7

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.24 (0.49)
Wind Loading Area (1/2" ice)	ft² (m²)	6.39 (0.59)
Rated wind velocity (no ice)	mph (km/h)	170 (274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 (242)
Lateral thrust (100 mph No Ice)	lbs (N)	208 (925.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1610 (2173.5)
Tip deflection (100 mph No Ice)	degrees	2.2

Ordering Information

Clamps must be ordered separately.

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Collinear omni antenna, 7.5 dBd gain, 350-368 MHz

- Wide band, high gain, omni-directional antenna of rugged construction
- DC grounded for lightning protection
- SC320 type tapered radome used to reduce wind loading

Model	Description
SC328-HT3SNM	7.5 dBd, 350-366 MHz
SC328-HT4SNM	7.5 dBd, 351-368 MHz
SC328-HT5SNM	7.5 dBd, 343-359 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

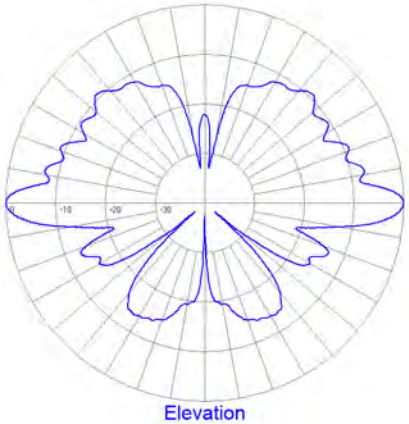
Frequency Range	MHz	343 to 368
Connector		N-Male
Gain (nominal)	dBd (dBi)	7.5 (9.6)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	9.3
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	11.43 to 13.7 (290 to 348)
Length/ Height	in (mm)	231 to 234.5 (5867 to 5956)
Width	in (mm)	11.43 to 13.7 (290 to 348)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	20 to 24 (508 to 610)
Radiating element material		brass
Radome material		fiberglass
Weight	lbs (kg)	23 to 38.5 (10.44 to 17.48)
Weight iced	lbs (kg)	59 to 92 (26.79 to 41.77)
Mounting Hardware (Standard)		Clamp005
Shipping Length/ Height	in (mm)	255.25 (6483)
Shipping dimensions	in (mm)	L(258 - 265)in W 6in H 6in
Recommended For Offset Side Mount:		SMK-225-A3-T5 or SMK-225-A7-T5

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.24 to 2.72 (0.21 to 0.25)
Wind Loading Area (1/2" ice)	ft² (m²)	3.53 to 3.84 (0.33 to 0.36)
Rated wind velocity (no ice)	mph (km/h)	155 to 175 (250 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	125 to 130 (201 to 209)
Lateral thrust (100 mph No Ice)	lbs (N)	86 to 103 (382.5 to 458.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	554 to 808 (747.9 to 1090.8)



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Collinear omni, 10 dBd, straight radome, 406-480 MHz

- Rugged fiberglass radome
- 10 dBd gain, 10 MHz minimum bandwidth with 1.5:1 VSWR
- Designed to withstand severe environmental conditions
- Side mount kit recommended for offset mount

Model	Description
SC331-SF1SNM(D00)	10 dBd, straight radome, 406-420 MHz
SC331-SF2SNM(D00)	10 dBd, straight radome, 450-460 MHz
SC331-SF3SNM(D00)	10 dBd, straight radome, 460-470 MHz
SC331-SF4SNM(D00)	10 dBd, straight radome, 440-450 MHz
SC331-SF5SNM(D00)	10 dBd, straight radome, 470-480 MHz
SC331-SF6SNM(D00)	10 dBd, straight radome, 420-430 MHz
SC331-SF7SNM(D00)	10 dBd, straight radome, 412-426 MHz
SC331-ST2SNF(D01-G10)	10 dBd, 1º DT, 410-430 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

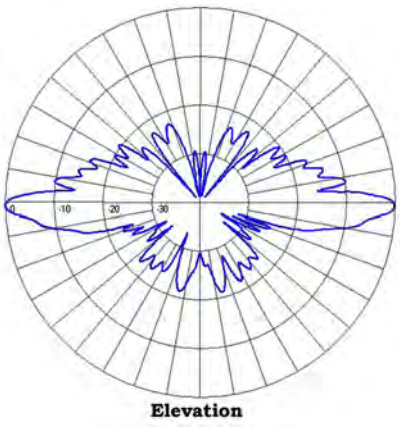


Electrical Specifications

Frequency Range	MHz	406 to 480
Bandwidth	MHz	10 to 20
Connector		N-Male / N-Female
Gain (nominal)	dBd (dBi)	10 (12.1)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	6 to 7.5
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	2.88 to 10.88 (73 to 276)
Length/ Height	in (mm)	237.3 to 275.5 (6027 to 6998)
Width	in (mm)	2.88 to 10.88 (73 to 276)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	20 (508)
Weight	lbs (kg)	34.9 to 46.4 (15.84 to 21.07)
Weight iced	lbs (kg)	93 to 104 (42.22 to 47.22)
Mounting Hardware (Standard)		Clamp005D
Actual Shipping weight	lbs (kg)	75 to 84.5 (34.05 to 38.36)
Shipping dimensions	in (mm)	L(265 - 301)in W 6in H 6in
Recommended For Offset Side Mount:		SMK-225-A3-T5 or SMK-225-A7-T5



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.73 to 3.51 (0.25 to 0.33)
Rated wind velocity (no ice)	mph (km/h)	125 to 150 (201 to 242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	100 to 120 (161 to 193)
Lateral thrust (100 mph No Ice)	lbs (N)	102 to 135 (453.7 to 600.5)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	796 to 1309 (1074.6 to 1767.2)
Tip deflection (100 mph No Ice)	degrees	5.8 to 9.6

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Collinear omni, 10 dBd, straight radome, low PIM, 406-420 MHz

- Rugged fiberglass radome
- 10 dBd gain, 10 MHz minimum bandwidth with 1.5:1 VSWR, low PIM design
- Designed to withstand severe environmental conditions
- Side mount kit recommended for offset mount

Model	Description
SC331-SF1LDF	10 dBd, straight radome, low PIM, 406-420 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

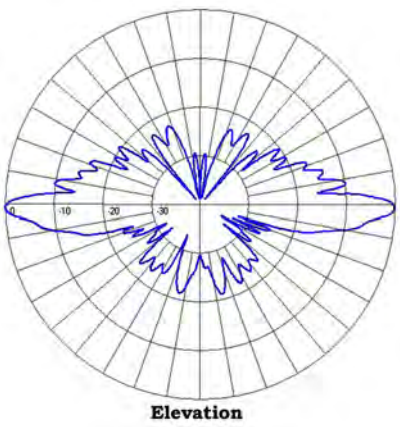
Frequency Range	MHz	406 to 420
Bandwidth	MHz	10
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	10 (12.1)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	6
Average Power Input (max)	W	250
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	12.5 (318)
Length/ Height	in (mm)	270.75 (6877)
Width	in (mm)	12.5 (318)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	20 (508)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	43.5 (19.75)
Weight iced	lbs (kg)	101 (45.85)
Actual Shipping weight	lbs (kg)	81.6 (37.05)
Shipping dimensions	in (mm)	L 301in W 6in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.44 (0.32)
Wind Loading Area (1/2" ice)	ft² (m²)	4.82 (0.45)
Rated wind velocity (no ice)	mph (km/h)	135 (217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 (169)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	132 (178.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1247 (1683.5)
Tip deflection (100 mph No Ice)	degrees	8.1



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Collinear omni, 3 dBd, HD, 311-512 MHz

- Covers 311-512 MHz frequency range in many sub-bands
- Rugged collinear omni designed for reliable operations
- No ground radials, easy to install

Model	Description
SC323-HF1SNF(D00-G03)	3 dBd, 406-420 MHz
SC323-HF1SNM(D00-G03)	3 dBd, 406-420 MHz
SC323-HF1SNM(D03-G03)	3 dBd, 3º DT, 406-420 MHz
SC323-HF2SNM(D00-G03)	3 dBd, 450-470 MHz
SC323-HF2SNM(D06-G03)	3 dBd, 6° DT, 450-470 MHz
SC323-HF3SNM(D00-G03)	3 dBd, 470-490 MHz
SC323-HF4SNM(D00-G03)	3 dBd, 3º DT, 490-512 MHz
SC323-HF5SNM(D00-G03)	3 dBd, 3º DT, 311-321 MHz
SC323-HT1SNM(D00-G03)	3 dBd,, 380-400 MHz
SC323-HT2SNM(D00-G03)	3 dBd, 3º DT, 410-430 MHz
SC323-HT2SNM(D06-G03)	3 dBd, 6° DT, 410-430 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

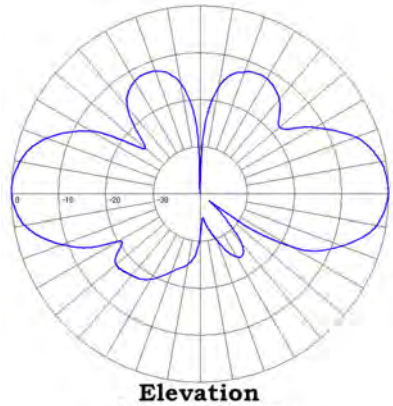


Electrical Specifications

Frequency Range	MHz	311 to 512
Bandwidth	MHz	10 to 20
Connector		N-Female / N-Male
Gain (nominal)	dBd (dBi)	3 (5.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	28
Average Power Input (max)	W	500 / 300
Lightning protection		DC ground
Electrical tilt (available)		0,3, or 6 degrees

Mechanical Specifications

Length/ Height	in (mm)	67.63 to 88 (1718 to 2235)
Width	in (mm)	2 (51)
Base pipe diameter	in (mm)	2 (51)
Base pipe mounting length	in (mm)	12 (305)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	5.8 to 6.6 (2.63 to 3)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	14 to 35 (6.36 to 15.89)
Shipping dimensions	in (mm)	L(84 - 108)in W 5in H 5in
Mounting configurations		upright
Recommended For Offset Side Mount:		Not Required
Radome Colour		Blue



Elevation
3 dBd version shown

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.6 to 0.77 (0.06 to 0.07)
Wind Loading Area (1/2" ice)	ft² (m²)	0.93 to 1.63 (0.09 to 0.15)
Rated wind velocity (no ice)	mph (km/h)	185 to 220 (298 to 354)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 to 175 (266 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	24.9 to 31 (110.8 to 137.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	42.7 to 64 (57.6 to 86.4)
Tip deflection (100 mph No Ice)	degrees	0.44 to 0.8

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Collinear omni, 3 dBd, low PIM, HD, 380-512 MHz

- Durable heavy-duty omni-directional collinear
- Designed for reliable operation
- Low PIM rating -150 dBc
- No ground radials, easy to install

Model	Description
SC323-HF1LDF(D00-G00)	0 dBd, 406-420 MHz
SC323-HF1LDF(D00-G03)	3 dBd, 406-420 MHz
SC323-HF2LDF(D00-G03)	3 dBd, 450-470 MHz
SC323-HF2LDF(D03-G03)	3 dBd, 3º DT, 450-470 MHz
SC323-HF4LDF(D00-G03)	3 dBd, 490-512 MHz
SC323-HF4LDF(D03-G03)	3 dBd, 3° DT, 490-512 MHz
SC323-HF4LDF(D06-G03)	3 dBd, 6° DT, 490-512 MHz
SC323-HF9LDF(D00-G03)	3 dBd, 470-490 MHz
SC323-HT1LDF(D00-G03)	3 dBd, 380-400 MHz
SC323-HT1LDF(D03-G03)	3 dBd, 3º DT, 380-400 MHz
SC323-HT2LDF(D00-G03)	3 dBd, 410-430 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

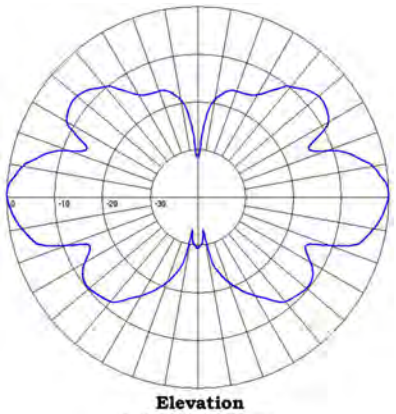


Electrical Specifications

Frequency Range	MHz	380 to 512
Bandwidth	MHz	14 to 20
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	0 to 3 (2.1 to 5.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	28 to 80
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		N/A / 0,3, or 6 degrees /

Mechanical Specifications

Length	in (mm)	27.25 to 76 (692 to 1930)
Width	in (mm)	2 (51)
Base pipe diameter	in (mm)	2 (51)
Base pipe mounting length	in (mm)	7 to 12 (178 to 305)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	3.1 to 6.2 (1.41 to 2.81)
Mounting Hardware (Standard)		Clamp120 / Clamp130
Actual Shipping weight	lbs (kg)	21 to 22 (9.53 to 9.99)
Shipping dimensions	in (mm)	L(36 - 114)in W(4 - 5)in H(4 - 5)in
Mounting configurations		upright
Recommended For Offset Side Mount:		Not Required
Radome Colour		Blue / Light blue



Elevation
3 dBd version shown

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.25 to 0.66 (0.02 to 0.06)
Wind Loading Area (1/2" ice)	ft² (m²)	0.39 to 1.15 (0.04 to 0.11)
Rated wind velocity (no ice)	mph (km/h)	205 to 265 (330 to 427)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 to 215 (266 to 346)
Lateral thrust (100 mph No Ice)	lbs (N)	10.5 to 26 (46.7 to 115.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	6.2 to 53 (8.4 to 71.6)
Tip deflection (100 mph No Ice)	degrees	0.02 to 0.7

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Collinear omni, 6 dBd, HD, 380-480 MHz

- Broadband collinear omni offers 6 dBd gain
- Rugged design offers high degree of operational reliability
- No ground radials, easy to install
- Pigtail with N-Male or N-Female connector available

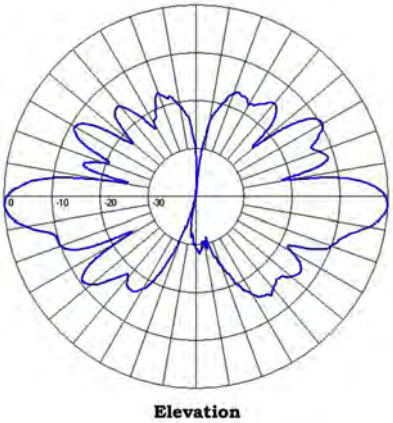
Model	Description
SC329-HF1SNF(D00-G06)	6 dBd, N-Female, 406-420 MHz
SC329-HF1SNM(D00-G06)	6 dBd, N-Male, 406-420 MHz
SC329-HF1SNM(D03-G06)	6 dBd, N-Male, 3° DT, 406-420 MHz
SC329-HF2SNF(D00-G06)	6 dBd, N-Female, 450-470 MHz
SC329-HF2SNM(D00-G06)	6 dBd, N-Male, 450-470 MHz
SC329-HF2SNM(D06-G06)	6 dBd, N-male, 6° DT, 450-470 MHz
SC329-HF3SNM(D00-G06)	6 dBd, N-Male, 470-490 MHz
SC329-HF5SNM(D00-G06)	6 dBd, N-Male, 430-450 MHz
SC329-HT1SNF(D03-G06)	6 dBd, N-Female, 3° DT, 380-400 MHz
SC329-HT1SNM(D00-G06)	6 dBd, N-Male, 380-400 MHz
SC329-HT2SNF(D00-G06)	6 dBd, N-Female, 410-430 MHz
SC329-HT2SNM(D00-G06)	6 dBd, N-Male, 410-430 MHz
SC329-HT2SNM(D03-G06)	6 dBd, N-Male, 3° DT, 410-430 MHz
SC329-HT2SNM(D06-G06)	6 dBd, N-Male, 6° DT, 410-430 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	380 to 490
Bandwidth	MHz	14 to 20
Connector		N-Female / N-Male
Gain (nominal)	dBd (dBi)	6 (8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	12
Average Power Input (max)	W	500
Lightning protection		DC ground
Electrical tilt (available)		0,3, or 6 degrees



Elevation

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Mechanical Specifications

Length	in (mm)	114 to 138.5 (2896 to 3518)
Width	in (mm)	2 (51)
Base pipe diameter	in (mm)	2 (51)
Base pipe mounting length	in (mm)	8 to 12 (203 to 305)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	6.95 to 12 (3.16 to 5.45)
Weight iced	lbs (kg)	25.5 to 27.1 (11.58 to 12.3)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	20 to 45 (9.08 to 20.43)
Shipping dimensions	in (mm)	L(132 - 228)in W 4in H 4in
Mounting configurations		upright
Recommended For Offset Side Mount:		Not Required
Radome Colour		Blue

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.04 to 1.18 (0.1 to 0.11)
Wind Loading Area (1/2" ice)	ft² (m²)	1.63 to 1.85 (0.15 to 0.17)
Rated wind velocity (no ice)	mph (km/h)	135 to 155 (217 to 250)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 to 115 (169 to 185)
Lateral thrust (100 mph No Ice)	lbs (N)	43.1 to 49 (191.7 to 218)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	174 to 194 (234.9 to 261.9)
Tip deflection (100 mph No Ice)	degrees	3.2 to 4.3

Ordering Information
Clamps included.

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Collinear omni, 6 dBd, low PIM, HD, 380-490 MHz

- Low PIM, collinear 6 dBd gain, fiberglass omni
- 20 MHz bandwidth, available with 0,3 and 6 degree downtilits
- No ground rods, simplify installation and provide reliable weatherproofing

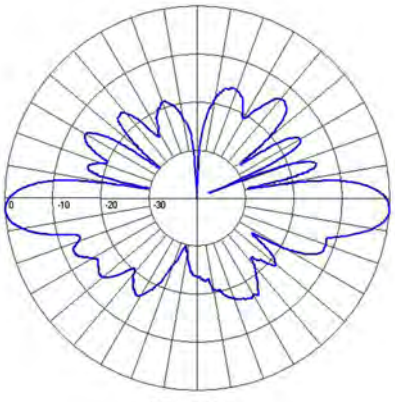
Model	Description
SC329-HF1LDF(D00-G06)	6 dBd, 406-420 MHz
SC329-HF1LDF(D03-G06)	6 dBd, 3° DT, 406-420 MHz
SC329-HF1LDF(D06-G06)	6 dBd, 6° DT, 406-420 MHz
SC329-HF2LDF(D00-G06)	6 dBd, 450-470 MHz
SC329-HF2LDF(D03-G06)	6 dBd, 3° DT, 450-470 MHz
SC329-HF2LDF(D06-G06)	6 dBd, 6° DT, 450-470 MHz
SC329-HF3LDF(D00-G06)	6 dBd, 470-490 MHz
SC329-HF5LDF(D00-G06)	6 dBd, 430-450 MHz
SC329-HT1LDF(D00-G06)	6 dBd, 380-400 MHz
SC329-HT1LDF(D03-G06)	6 dBd, 3° DT, 380-400 MHz
SC329-HT1LDF(D06-G06)	6 dBd, 6° DT, 380-400 MHz
SC329-HT2LDF(D00-G06)	6 dBd, 410-430 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	380 to 490
Bandwidth	MHz	14 to 20
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	6 (8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	12
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0, 3, or 6 degrees



Elevation

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Mechanical Specifications

Length	in (mm)	114 to 138.5 (2896 to 3518)
Width	in (mm)	2 (51)
Base pipe diameter	in (mm)	2 (51)
Base pipe mounting length	in (mm)	12 (305)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	8.9 to 12 (4.04 to 5.45)
Weight iced	lbs (kg)	25.5 to 27.1 (11.58 to 12.3)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	24 (10.9)
Shipping dimensions	in (mm)	L(132 - 228)in W 4in H 4in
Mounting configurations		upright
Recommended For Offset Side Mount:		Not Required
Radome Colour		Blue

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.09 to 118 (0.1 to 10.96)
Wind Loading Area (1/2" ice)	ft² (m²)	1.72 to 185 (0.16 to 17.19)
Rated wind velocity (no ice)	mph (km/h)	135 to 145 (217 to 233)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 to 110 (169 to 177)
Lateral thrust (100 mph No Ice)	lbs (N)	45.3 to 49 (201.5 to 218)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	186 to 194 (251.1 to 261.9)
Tip deflection (100 mph No Ice)	degrees	3.5 to 4.3

Ordering Information
Clamps included.

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Collinear omni, 6 dBd, low PIM, HD, 380-512 MHz

- Corporate feed design provides excellent pattern control
- Heavy duty radome design
- Broadband medium gain omni coverage

Model	Description
SC381-HF1LDF(D00)	6 dBd, 380-420 MHz
SC381-HF2LDF(D00)	6 dBd, 403-470 MHz
SC381-HF3LDF(D00)	6 dBd, 450-512 MHz
SC381-HF4LDF(D00)	6 dBd, 430-490 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

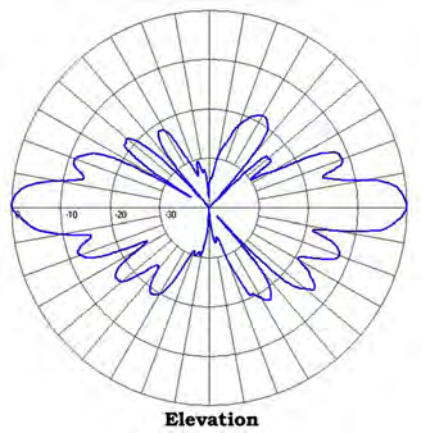


Electrical Specifications

Frequency Range	MHz	380 to 512
Bandwidth	MHz	40 to 67
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	6 (8.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	18
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4, or 6 degrees

Mechanical Specifications

Depth	in (mm)	5 (127)
Length/ Height	in (mm)	148.25 to 148.3 (3766 to 3767)
Width	in (mm)	5 (127)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	24 (610)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	44 to 47 (19.98 to 21.34)
Weight iced	lbs (kg)	82 to 99 (37.23 to 44.95)
Mounting Hardware (Optional)		Clamp006C
Actual Shipping weight	lbs (kg)	75 to 110 (34.05 to 49.94)
Shipping dimensions	in (mm)	L(165 - 171)in W 8in H 8in
Mounting configurations		upright, inverted
Recommended For Offset Side Mount:		SMK-345-A7



Elevation

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.09 to 3.32 (0.29 to 0.31)
Wind Loading Area (1/2" ice)	ft² (m²)	3.37 to 4.04 (0.31 to 0.38)
Rated wind velocity (no ice)	mph (km/h)	225 to 230 (362 to 370)
Rated wind velocity (1/2" radial ice)	mph (km/h)	185 to 190 (298 to 306)
Lateral thrust (100 mph No Ice)	lbs (N)	118 to 127 (524.9 to 564.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	501 to 595 (676.4 to 803.3)
Tip deflection (100 mph No Ice)	degrees	0.4 to 0.52

Ordering Information

Clamps must be ordered separately.

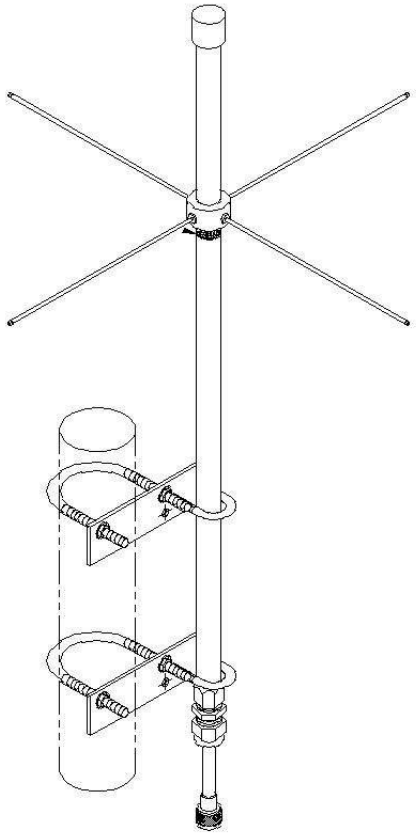
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Ground plane omni, 0 dBd, 360-512 MHz

- Covers up to 22 MHz bandwidth without adjustment
- Rugged construction, light weight and easy to install

Model	Description
SG301-SF10SNF	0 dBd, N-Female, 360-375 MHz
SG301-SF10SNM	0 dBd, N-Male, 360-375 MHz
SG301-SF1SNF	0 dBd, N-Female, 406-420 MHz
SG301-SF1SNM	0 dBd, N-Male, 406-420 MHz
SG301-SF2SNF	0 dBd, N-Female, 450-470 MHz
SG301-SF2SNM	0 dBd, N-Male, 450-470 MHz
SG301-SF3SNF	0 dBd, N-Female, 430-450 MHz
SG301-SF3SNM	0 dBd, N-Male, 430-450 MHz
SG301-SF4SNF	0 dBd, N-Female, 470-490 MHz
SG301-SF4SNM	0 dBd, N-Male, 470-490 MHz
SG301-SF5SNF	0 dBd, N-Female, 490-512 MHz
SG301-SF5SNM	0 dBd, N-Male, 490-512 MHz
SG301-SF6SNF	0 dBd, N-Female, 395-410 MHz
SG301-SF6SNM	0 dBd, N-Male, 395-410 MHz
SG301-SF9SNM	0 dBd, N-Male, 410-430 MHz



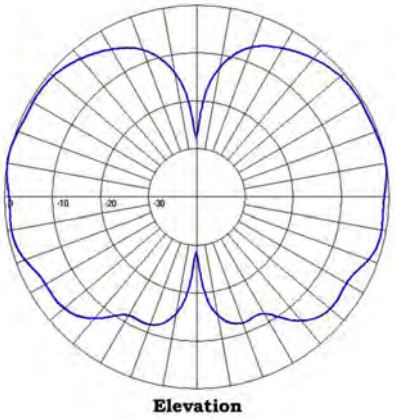
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	360 to 512
Bandwidth	MHz	14 to 22
Connector		N-Female / N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	87
Average Power Input (max)	W	100
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	16 (406)
Length/ Height	in (mm)	23 (584)
Width	in (mm)	16 (406)
Base pipe diameter	in (mm)	0.75 (19)
Base pipe mounting length	in (mm)	8 (203)
Weight	lbs (kg)	2 (0.91)
Mounting Hardware (Standard)		Clamp135
Actual Shipping weight	lbs (kg)	4 to 5 (1.82 to 2.27)
Shipping dimensions	in (mm)	L 3in W 5in H 25in



Elevation

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.09 (0.01)
Wind Loading Area (1/2" ice)	ft² (m²)	0.33 (0.03)
Rated wind velocity (no ice)	mph (km/h)	100 (161)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	3.4 (15.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	0.52 (0.7)

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Ground plane omni, 2.5 dBd, 5 MHz bandwidth, 406-512 MHz

- Frequency tunable within the sub-band with 5 MHz bandwidth
- Light weight, easy to install

Model	Description
SG317-SF1SNM	2.5 dBd, 5 MHz bandwidth, 406-420 MHz
SG317-SF2SNM	2.5 dBd, 5 MHz bandwidth, 450-470 MHz
SG317-SF3SNM	2.5 dBd, 5 MHz bandwidth, 470-490 MHz
SG317-SF4SNM	2.5 dBd, 5 MHz bandwidth, 430-450 MHz
SG317-SF5SNM	2.5 dBd, 5 MHz bandwidth, 490-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

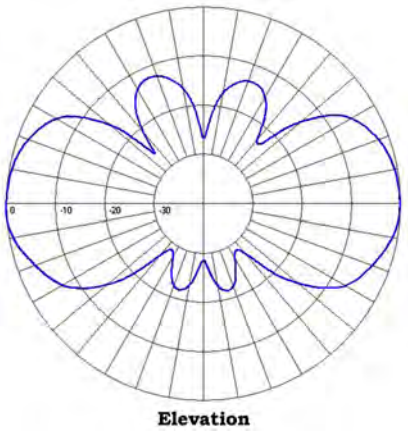
Frequency Range	MHz	406 to 512
Bandwidth	MHz	5
Connector		N-Male
Gain (nominal)	dBd (dBi)	2.5 (4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	35
Average Power Input (max)	W	100
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	18.5 (470)
Length/ Height	in (mm)	41.5 (1054)
Width	in (mm)	18.5 (470)
Base pipe diameter	in (mm)	0.75 (19)
Base pipe mounting length	in (mm)	8 (203)
Weight	lbs (kg)	1.5 (0.68)
Weight iced	lbs (kg)	5.25 (2.38)
Mounting Hardware (Standard)		Clamp135B
Actual Shipping weight	lbs (kg)	8 (3.63)
Shipping dimensions	in (mm)	L 48in W 6in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.14 (0.01)
Wind Loading Area (1/2" ice)	ft² (m²)	0.32 (0.03)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 (169)
Lateral thrust (100 mph No Ice)	lbs (N)	6.4 (28.5)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	8.47 (11.4)
Tip deflection (100 mph No Ice)	degrees	0.05



Elevation

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Mobile omni, 0 dBd, 10-20 MHz bandwidth, 380-520 MHz

- Compact, low profile solid aluminum cast design
- Renown for its years of reliable service in very harsh environmental conditions
- Covers 380-485 MHz range with 10-20 MHz bandwidth

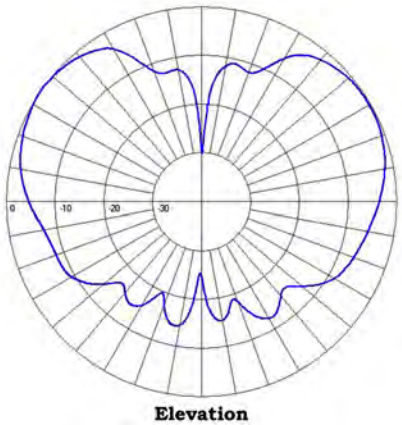
Model	Description
ST321-SF12SNF	20 MHz bandwidth, N-female, 500-520 MHz
ST321-SF1SNF	16 MHz bandwidth, N-Female, 403-419 MHz
ST321-SF1SUF	16 MHz bandwidth, UHF-Female, 403-419 MHz
ST321-SF2SNF	16 MHz bandwidth, N-Female, 407-423 MHz
ST321-SF2SUF	16 MHz bandwidth, UHF-female, 407-423 MHz
ST321-SF3SNF	15 MHz bandwidth, N-female, 450-465 MHz
ST321-SF3SUF	15 MHz bandwidth, UHF-female, 450-465 MHz
ST321-SF4SNF	15 MHz bandwidth, N-female, 455-470 MHz
ST321-SF4SUF	15 MHz bandwidth, UHF-female, 455-470 MHz
ST321-SF5SNF	15 MHz bandwidth, N-female, 470-485 MHz
ST321-SF5SUF	15 MHz bandwidth, UHF-female, 470-485 MHz
ST321-SF7SNF	16 MHz bandwidth, N-female, 427-443 MHz
ST321-SF7SUF	16 MHz bandwidth, UHF-female, 427-443 MHz
ST321-SF8SNF	16 MHz bandwidth, N-female, 437-453 MHz
ST321-SF8SUF	16 MHz bandwidth, UHF-female, 437-453 MHz
ST321-SF9SNF	16 MHz bandwidth, N-female, 417-433 MHz
ST321-SF9SUF	16 MHz bandwidth, UHF-female, 417-433 MHz
ST321-ST1SNF	20 MHz bandwidth, N-female, 380-400 MHz
ST321-ST2SNF	20 MHz bandwidth, N-female, 410-430 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	380 to 520
Bandwidth	MHz	15 to 20
Connector		N-Female / UHF-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1 / 2:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Average Power Input (max)	W	50
Lightning protection		DC ground



Elevation

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Mechanical Specifications

Depth	in (mm)	7.5 (191)
Length/ Height	in (mm)	2.5 (64)
Width	in (mm)	2.5 (64)
Actual Shipping weight	lbs (kg)	3 (1.36)
Shipping dimensions	in (mm)	L 5in W 7in H 11in
Ground Plane (min)	in (mm)	30x30
Mounting hardware		Supplied

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information

Specify exact operating frequency to the nearest 0.5 MHz.

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Mobile omni, 0 dBd, 14-22 MHz bandwidth, radome, 380-520 MHz

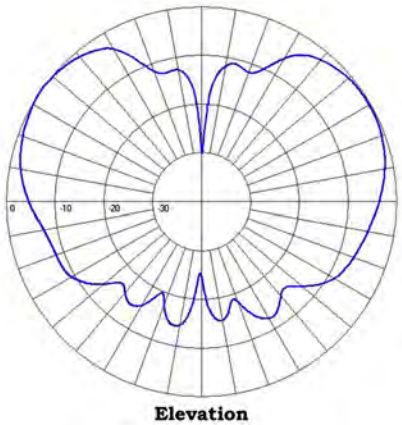
- Renown for its years of reliable service in very harsh environmental conditions
- Available with white or grey radome
- Available with N-female or BNC-female connector

Model	Description
ST321R-SF1SNF(CWH)	14 MHz B.W., N-female, White, 406-420 MHz
ST321R-SF2SNF(CWH)	20 MHz B.W., N-female, White, 420-440 MHz
ST321R-SF3SNF(CWH)	20 MHz B.W., N-female, White, 450-470 MHz
ST321R-SF4SNF(CWH)	20 MHz B.W., N-female, White, 470-490 MHz
ST321R-SF5SNF(CWH)	20 MHz B.W., N-female, White, 490-512 MHz
ST321R-SF6SNF(CWH)	20 MHz B.W., N-female, White, 380-400 MHz
ST321R-SF7SNF(CWH)	20 MHz B.W., N-female, White, 435-455 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	380 to 512
Bandwidth	MHz	14 to 22
Connector		N-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1 / 2:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Average Power Input (max)	W	30
Lightning protection		DC ground



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Mechanical Specifications

Length	in (mm)	11.8 (300)
Length/ Height	in (mm)	3 (76)
Width	in (mm)	3.8 (97)
Radome material		ABS (gray) / ABS (white)
Actual Shipping weight	lbs (kg)	5 (2.27)
Shipping dimensions	in (mm)	L 13in W 8in H 5in
Ground Plane (min)	in (mm)	30x30
Mounting hardware		Supplied

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information

Specify operating frequency to the nearest 0.5 MHz.

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Mobile omni antenna, 2-6 dBd gain, 406-512 MHz

- High quality stainless steel whips, tapered to minimize wind impact
- Integral gasket waterproofs base, conforms to various surfaces
- UV protected rugged ABS base housing
- A wide range of gain and frequency options

Model	Description
SUB-4062	2 dBd gain, 406-430 MHz
SUB-4065	5 dBd, 5/8 over 1/2 wave, 406-430 MHz
SUB-4066	6 dBd, 5/8 over 5/8 wave, 406-430 MHz
SUB-4302	2 dBd, 1/2 wave, 430-470 MHz
SUB-4303	3 dBd, 5/8 wave, 430-470 MHz
SUB-4303S	3 dBd, 5/8 wave, 430-470 MHz
SUB-4305	5 dBd, 5/8 over 1/2 wave, 430-470 MHz
SUB-4702	2 dBd, 1/2 wave, 470-512 MHz
SUB-4703	3 dBd, 5/8 wave, 470-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	406 to 512
Polarization		vertical
Pattern		Omni-directional
Average Power Input (max)	W	100 /

Environmental Specifications

Temperature range	°F (°C)	-22 to +122 (-30 to +50)

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Mobile omni, 0 dBd, 406-512 and 512-970 MHz

- High quality stainless steel whips, tapered to minimize wind impact
- Integral gasket waterproofs base, conforms to various curved surfaces
- UV protected rugged ABS base housing

Model	Description
SUT-4060EX	0 dBd, 406-512 MHz
SUT-5120S	0 dBd, 512-970 MHz
SUT-5120SP	0 dBd, 512-970 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 970
Polarization		vertical
Pattern		Omni-directional
Average Power Input (max)	W	200 / 100

Environmental Specifications		
Temperature range	°F (°C)	-22 to +122 (-30 to +50)

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Open cabinet cavity-ferrite combiner, high Q 10" 1/4 wave cavity, 406-512 MHz

- Tunable over the 406-512 MHz frequency band
- Dual stage isolators and 10 inch high 'Q' 1/4 wave bandpass cavity for each channel
- Works for inter-channel spacings as close as 100 KHz

Model	Description
CT2450F	2 channel, 406-512 MHz
CT3450F	3 channel, 406-512 MHz
CT4450F	4 channel, 406-512 MHz
CT5450F	5 channel, 406-512 MHz
CT6450F	6 channel, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

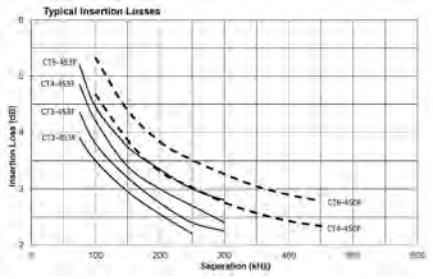
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	125
Frequency separation (min)	MHz	0.1
Isolation Tx to Tx	dB	70
Isolation antenna to Tx	dB	60
Output VSWR		2:1 / 1.5:1

Mechanical Specifications

Depth	in (mm)	21 (533)
Length/ Height	in (mm)	38 (965)
Width	in (mm)	21 (533)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	65 to 125 (29.51 to 56.75)
Shipping dimensions	in (mm)	L 22in W 22in H 43in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Open cabinet cavity-ferrite combiner, high Q 10" 1/4 wave cavity, 406-512 MHz

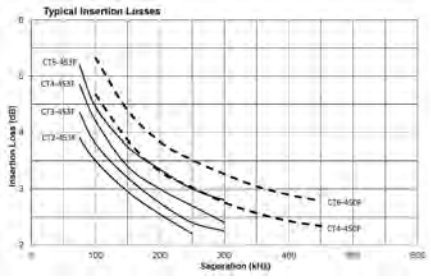
- Broad band isolators covering the specified band
- Dual stage isolators and 10 inch high 'Q' 1/4 wave bandpass cavity for each channel
- Works for inter-channel spacings as close as 100 KHz

Model	Description
CT2450F-R-3	2 channel, 406 to 440 MHz
CT2450F-R-4	2 channel, 430 to 470 MHz
CT2450F-R-5	2 channel, 459 to 512 MHz
CT3450F-R-3	3 channel, 406 to 440 MHz
CT3450F-R-4	3 channel, 430 to 470 MHz
CT3450F-R-5	3 channel, 459 to 512 MHz
CT4450F-R-3	4 channel, 406 to 440 MHz
CT4450F-R-4	4 channel, 430 to 470 MHz
CT4450F-R-5	4 channel, 459 to 512 MHz
CT5450F-R-3	5 channel, 406 to 440 MHz
CT5450F-R-4	5 channel, 430 to 470 MHz
CT5450F-R-5	5 channel, 459 to 512 MHz
CT6450F-R-3	6 channel, 406 to 440 MHz
CT6450F-R-4	6 channel, 430 to 470 MHz
CT6450F-R-5	6 channel, 459 to 512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Number of Cavities		2
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (max)	MHz	12
Frequency separation (min)	MHz	0.1
Insertion loss (max) Tx to Ant	dB	3.5 to 4.7
Isolation Tx to Tx	dB	60
Isolation antenna to Tx	dB	50
Output VSWR		2:1
Number of channels		2 to 6



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Mechanical Specifications		
Depth	in (mm)	21 (533)
Length/ Height	in (mm)	38 (965)
Width	in (mm)	21 (533)
Weight	lbs (kg)	60 to 120 (27.24 to 54.48)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	65 to 125 (29.51 to 56.75)
Shipping dimensions	in (mm)	L 22in W 22in H 43in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Open cabinet cavity-ferrite combiner, high Q 10" 3/4 wave cavity, 406-512 MHz

- Tx combiner for the 406-512 MHz frequency band
- Available in 2 to 6 channels featuring 3/4 wavelength 10" cavities
- Minimum Tx-Tx separation of 0.075 MHz
- Low loss dual stage isolators

Model	Description
CT2453F	2 channels, 406-512 MHz
CT3453F	3 channels, 406-512 MHz
CT4453F	4 channels, 406-512 MHz
CT5453F	5 channel, 406-512 MHz
CT6453F	6 channel, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

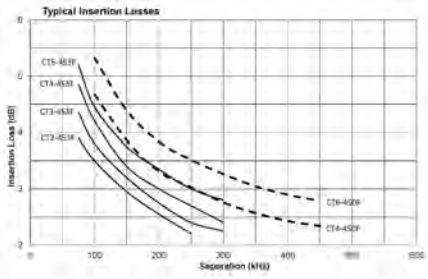
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.08
Isolation Tx to Tx	dB	70
Isolation antenna to Tx	dB	60
Output VSWR		2:1
Cavity electrical length		3/4
Number of channels		2 to 6

Mechanical Specifications

Depth	in (mm)	21 (533)
Length/ Height	in (mm)	38 to 76 (965 to 1930)
Width	in (mm)	21 (533)
Weight	lbs (kg)	103 to 206 (46.76 to 93.52)
Shipping dimensions	in (mm)	L(22 - 222)in W 22in H 43in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Open cabinet cavity-ferrite combiner, high Q 10" 3/4 wave cavity, 406-512 MHz

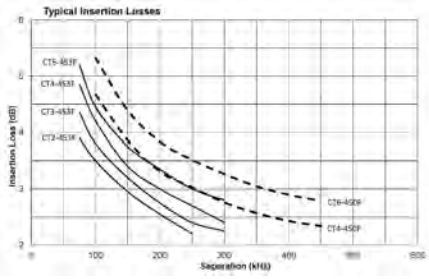
- Tx combiner for the 406-512 MHz frequency band
- Available in 2 to 6 channels featuring 3/4 wavelength 10" cavities
- Minimum Tx-Tx separation of 0.075 MHz
- Low loss broad band dual stage isolators

Model	Description
CT2453F-R-3	2 channel, 406-440 MHz
CT2453F-R-4	2 channel, 430-470 MHz
CT2453F-R-5	2 channel, 459-512 MHz
CT3453F-R-3	3 channel, 406-440 MHz
CT3453F-R-4	3 channel, 430-470 MHz
CT3453F-R-5	3 channel, 459-512 MHz
CT4453F-R-3	4 channel, 406-440 MHz
CT4453F-R-4	4 channel, 430-470 MHz
CT4453F-R-5	4 channel, 459-512 MHz
CT5453F-R-3	5 channel, 406-440 MHz
CT5453F-R-4	5 channel, 430-470 MHz
CT5453F-R-5	5 channel, 459-512 MHz
CT6453F-R-3	6 channel, 406-440 MHz
CT6453F-R-4	6 channel, 430-470 MHz
CT6453F-R-5	6 channel, 459-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.08
Isolation Tx to Tx	dB	60
Isolation antenna to Tx	dB	50
Output VSWR		2:1
Cavity electrical length		3/4



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Mechanical Specifications

Depth	in (mm)	21 (533)
Length/ Height	in (mm)	38 to 76 (965 to 1930)
Width	in (mm)	21 (533)
Weight	lbs (kg)	103 to 206 (46.76 to 93.52)

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information

Specify one Tx frequency per channel

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Compact Trunking Transmitter Combiner, 5 Channels, 406-470 MHz

- Different versions support frequency spacings of 0.8 MHz, 0.4 MHz and 0.2 MHz
- Compact 19 inch rack mount
- Mounting holes are on back pannel only

Model	Description
RTC5400RA	0.8 MHz separation, 406-470 MHz
RTC5400RB	0.4 MHz separation, 406-470 MHz
RTC5400RC	0.2 MHz separation, 406-470 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 470
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	125
Insertion loss (max) Tx to Ant	dB	2.6 to 4.5
Isolation Tx to Tx	dB	70
Isolation antenna to Tx	dB	60
Minimum Channel Spacing	MHz	0.2 to 0.8
Output VSWR		2:1
Number of channels		5

Mechanical Specifications

Depth	in (mm)	14.5 (368)
Length/ Height	in (mm)	12.25 (311)
Width	in (mm)	19 (483)
Weight	lbs (kg)	49 (22.25)
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 24in W 17in H 21in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
RA = 0.8 MHz separation with insertion loss of 2.6 dB, RB = 0.4 MHz separation with insertion loss of 3.4 dB, RC = 0.2 MHz separation with insertion loss of 4.5 dB

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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7" cavity-ferrite transmitter combiner, 2 to 6 channel, 406-512 MHz

- Available in 2 to 6 channel 406-512 MHz configurations
- Low loss single or dual isolator per channel
- Uses high Q bandpass cavity filters
- Cabinet mount

Model	Description
TJ3112	2 channel, single stage, 406-512 MHz
TJ3113	3 channel, single stage, 406-512 MHz
TJ3114	4 channel, single stage, 406-512 MHz
TJ3115	5 channel, single stage, 406-512 MHz
TJ3116	6 channel, single stage, 406-512 MHz
TJ3212	2 channel, dual stage, 406-512 MHz
TJ3213	3 channel, dual stage, 406-512 MHz
TJ3214	4 channel, dual stage, 406-512 MHz
TJ3215	5 channel, dual stage, 406-512 MHz
TJ3216	6 channel, dual stage, 406-512 MHz

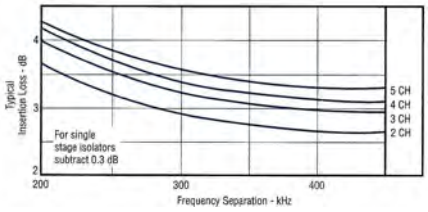


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Average Power Input (max)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.2
Isolation Tx to Tx	dB	35 to 70
Isolation antenna to Tx	dB	25 to 60
Output VSWR		2:1
Number of channels		2 to 6

Mechanical Specifications		
Depth	in (mm)	15.3 (389)
Length/ Height	in (mm)	7 to 21 (178 to 533)
Width	in (mm)	19 (483)
Weight	lbs (kg)	14 to 44 (6.36 to 19.98)

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



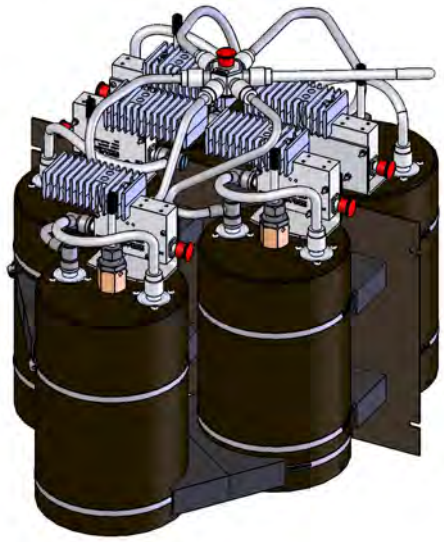
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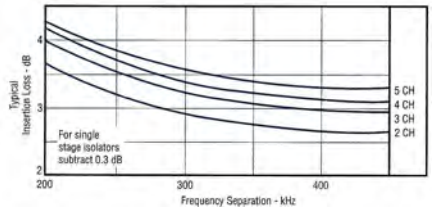
7" cavity-ferrite transmitter combiner, pannel mount, 361-512 MHz

- Available in 2 to 5 channel 361-512 MHz configurations
- Allows for minimum Tx-Tx spacings of 200 KHz
- Expandable for more channels
- Uses high 'Q' 1/4 wave bandpass cavity filters

Model	Description
TJ3112-R-3	2 Channels, single stage isolators, 406-440 MHz
TJ3112-R-4	2 Channels, single stage isolators, 430-470 MHz
TJ3112-R-5	2 Channels, single stage isolators, 459-512 MHz
TJ3113-R-3	3 Channels, single stage isolators, 406-440 MHz
TJ3113-R-4	3 Channels, single stage isolators, 430-470 MHz
TJ3113-R-5	3 Channels, single stage isolators, 459-512 MHz
TJ3114-R-3	4 Channels, single stage isolators, 406-440 MHz
TJ3114-R-4	4 Channels, single stage isolators, 430-470 MHz
TJ3114-R-5	4 Channels, single stage isolators, 459-512 MHz
TJ3115-R-3	5 Channels, single stage isolators, 406-440 MHz
TJ3115-R-4	5 Channels, single stage isolators, 430-470 MHz
TJ3115-R-5	5 Channels, single stage isolators, 459-512 MHz
TJ3212-R-3	2 Channels, dual stage isolators, 406-440 MHz
TJ3212-R-4	2 Channels, dual stage isolators, 430-470 MHz
TJ3212-R-5	2 Channels, dual stage isolators, 459-512 MHz
TJ3212-R-E6383	2 Channels, dual stage isolators, 406-440 MHz
TJ3213-R-3	3 Channels, dual stage isolators, 406-440 MHz
TJ3213-R-4	3 Channels, dual stage isolators, 430-470 MHz
TJ3213-R-5	3 Channels, dual stage isolators, 459-512 MHz
TJ3214-R-3	4 Channels, dual stage isolators, 406-440 MHz
TJ3214-R-4	4 Channels, dual stage isolators, 430-470 MHz
TJ3214-R-5	4 Channels, dual stage isolators, 459-512 MHz
TJ3214-R-E6383	4 Channels, dual stage isolators, 361-366 MHz
TJ3215-R-3	5 Channels, dual stage isolators, 406-440 MHz
TJ3215-R-4	5 Channels, dual stage isolators, 430-470 MHz
TJ3215-R-5	5 Channels, dual stage isolators, 459-512 MHz
TJ3218-R-E6383	8 Channels, dual stage isolators, 361-366 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



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Electrical Specifications		
Frequency Range	MHz	361 to 512
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Number of Cavities		2 to 8
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.2 to 0.25
Isolation Tx to Tx	dB	35 to 70
Isolation antenna to Tx	dB	25 to 60
Output VSWR		2:1
Cavity electrical length		1/4
Number of channels		2 to 5

Mechanical Specifications		
Depth	in (mm)	7 to 20.8 (178 to 528)
Length/ Height	in (mm)	15.3 to 40 (389 to 1016)
Width	in (mm)	19 (483)

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Specify one Tx frequency per channel at time of order.

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8.5" cavity-ferrite transmitter combiner, 406-512 MHz

- Available in 2 to 5 channel configurations
- Low loss single or dual stage isolators
- Extremely high Q bandpass cavity filter fits horizontally in 19" rack

Model	Description
TN3112	2 channel, single stage isolator, 406-512 MHz
TN3115	5 channel, single stage isolator, 406-512 MHz
TN3212	2 channel, dual stage isolators, 406-512 MHz
TN3213	3 channel, dual stage isolators, 406-512 MHz
TN3214	4 channel, dual stage isolators, 406-512 MHz
TN3214(DF)	4 channel, dual stage isolators, 7/16 DIN-Female, 406-512 MHz
TN3215	5 channel, dual stage isolators, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female / 7/16 DIN-Female
Power (Per Channel)	W	125
Frequency separation (min)	MHz	0.1
Isolation Tx to Tx	dB	35 to 70
Isolation antenna to Tx	dB	25 to 60
Peak total combined CW input power (max)	W	1100
Output VSWR		2:1
Number of channels		2 to 5

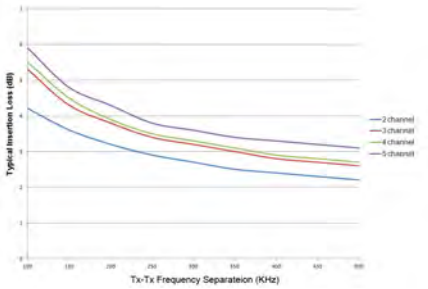
Mechanical Specifications

Depth	in (mm)	21.5 (546)
Length/ Height	in (mm)	8.75 to 26.25 (222 to 667)
Width	in (mm)	19 (483)
Weight	lbs (kg)	23.5 to 60 (10.67 to 27.24)
Finish		Black
Shipping dimensions	in (mm)	L 20in W 10in H 18in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
For 100 kHz separation, the power is limited to 80W per channel



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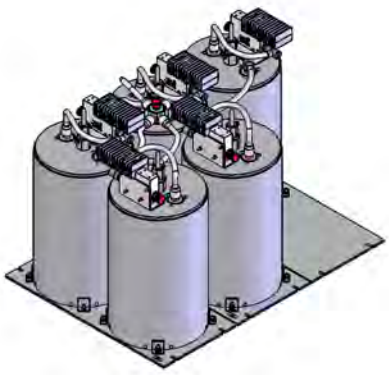
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Transmitter Combiners
UHF and Tetra Transmitter Combiners
TN321x-R-y Series

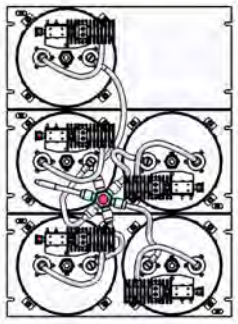
8.5" cavity-ferrite transmitter combiner, 406-512 MHz

- Available in 2 to 5 channel configurations
- Minimum Tx-Tx separation of 0.1 MHz
- Low loss broad band dual stage isolators
- Uses high 'Q' 1/4 wave bandpass cavity filters that are horizontally mounted

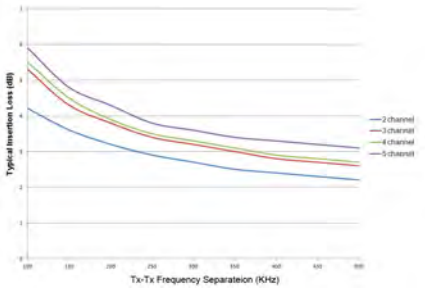
Model	Description
TN3212-R-3	2 channel, 406-440 MHz
TN3212-R-4	2 channel, 430-470 MHz
TN3212-R-5	2 channel, 459-512 MHz
TN3213-R-3	3 channel, 406-440 MHz
TN3213-R-4	3 channel, 430-470 MHz
TN3213-R-5	3 channel, 459-512 MHz
TN3214-R-3	4 channel, 406-440 MHz
TN3214-R-4	4 channel, 430-470 MHz
TN3214-R-5	4 channel, 459-512 MHz
TN3215-R-3	5 channel, 406-440 MHz
TN3215-R-4	5 channel, 430-470 MHz
TN3215-R-5	5 channel, 459-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.1
Isolation Tx to Tx	dB	60
Isolation antenna to Tx	dB	50
Output VSWR		2:1
Cavity electrical length		1/4
Number of channels		2 to 5



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Mechanical Specifications

Depth	in (mm)	21.5 (546)
Length/ Height	in (mm)	8.75 to 26.25 (222 to 667)
Width	in (mm)	19 (483)
Weight	lbs (kg)	23.5 to 60 (10.67 to 27.24)
Finish		Black
Shipping dimensions	in (mm)	L 17in W 22in H 22in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information

Specify one Tx frequency per channel.
For 100 kHz separation, the power is limited to 80W per channel.

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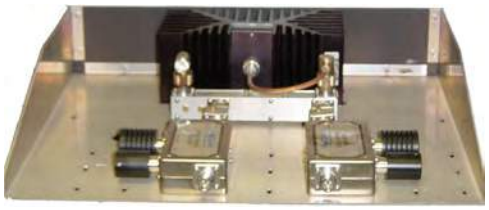
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Transmitter Combiners
UHF and Tetra Transmitter Combiners
TC3 Series

Hybrid-ferrite transmitter combiner, 2 to 4 channels, 406-512 MHz

- Supports extremely close frequency spacings
- Two channel models easily expanded to four with a second unit, hybrid, tray, and cable
- Permit combining two to four 406-512 MHz transmitters into one antenna
- Compact 19 inch rack mount

Model	Description
TC3112	2 channel, single stage isolators, 406-512 MHz
TC3113	3 channel, single stage isolators, 406-512 MHz
TC3114	4 channels, single stage isolators, 406-512 MHz
TC3212	2 channel, dual stage isolators, 406-512 MHz
TC3213	3 channel, dual stage isolators, 406-512 MHz
TC3214	4 channels, dual stage isolators, 406-512 MHz



2 channel model shown

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Maximum Input Power (per channel)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (max)	MHz	9
Frequency separation (min)	MHz	0
Insertion loss (max) Tx to Ant	dB	3.9 to 7.4
Isolation Tx to Tx	dB	50 to 80
Isolation antenna to Tx	dB	28 to 56
Number of channels		2 to 4

Mechanical Specifications		
Depth	in (mm)	12 to 15.63 (305 to 397)
Length/ Height	in (mm)	3.5 to 10.5 (89 to 267)
Width	in (mm)	19 (483)
Weight	lbs (kg)	11.6 to 29.9 (5.27 to 13.57)
Actual Shipping weight	lbs (kg)	20 to 60 (9.08 to 27.24)
Shipping dimensions	in (mm)	L(19 - 26)in W(19 - 26)in H 7in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Transmitter Combiners
UHF and Tetra Transmitter Combiners
TCC3 Series

Compact hybrid-ferrite transmitter combiner, 2 or 4 channel, 350-512 MHz

- Connect 2 or 4 60W transmitters to one antenna
- Single or dual stage full band isolators
- 1U high compact tray
- Supports extremely close frequency spacings, no retuning for frequency change within the band

Model	Description
TCC3132-1	2 channel, single stage isolator, 350-385 MHz
TCC3132-2	2 channel, single stage isolator, 380-415 MHz
TCC3132-3	2 channel, single stage isolator, 405-440 MHz
TCC3132-4	2 channel, single stage isolator, 430-470 MHz
TCC3132-5	2 channel, single stage isolator, 459-512 MHz
TCC3134-1	4 channel, single stage isolator, 350-385 MHz
TCC3134-2	4 channel, single stage isolator, 380-415 MHz
TCC3134-3	4 channel, single stage isolator, 405-440 MHz
TCC3134-4	4 channel, single stage isolator, 430-470 MHz
TCC3134-5	4 channel, single stage isolator, 459-512 MHz
TCC3232-1	2 channel, dual stage isolator, 350-385 MHz
TCC3232-2	2 channel, dual stage isolator, 380-415 MHz
TCC3232-3	2 channel, dual stage isolator, 405-440 MHz
TCC3232-4	2 channel, dual stage isolator, 430-470 MHz
TCC3232-5	2 channel, dual stage isolator, 459-512 MHz
TCC3234-1	4 channel, dual stage isolator, 350-385 MHz
TCC3234-2	4 channel, dual stage isolator, 380-415 MHz
TCC3234-3	4 channel, dual stage isolator, 405-440 MHz
TCC3234-4	4 channel, dual stage isolator, 430-470 MHz
TCC3234-5	4 channel, dual stage isolator, 459-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	350 to 512
Input VSWR (max)		1.3:1 / 1.25:1
Insertion loss (typ) Tx to Ant	dB	4.1 to 7.8
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	60
Frequency separation (max)	MHz	35 to 53
Frequency separation (min)	MHz	0
Isolation Tx to Tx	dB	45 to 70
Isolation antenna to Tx	dB	28 to 56
Output VSWR		1.5:1
Number of channels		2 to 4

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Mechanical Specifications		
Depth	in (mm)	10 to 14.6 (254 to 371)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	10 to 18 (4.54 to 8.17)
Shipping dimensions	in (mm)	L 26in W 19in H 7in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Receiver Mulitcoupler, 350-512 MHz

- Connect 2 to 16 receivers to a single antenna with BNC connectors with 1 R.U. tray
- Connect 2 to 8 receivers to a single antenna with N-type connectors with 1 R.U. tray
- For other channel configurations, please contact your Sinclair Sales Representative

Model	Description
RM3(AA-W)(BB)G(Y)(C)	Receiver Multicoupler, 350-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

RM3(AA-W)(BB)G(Y)(C)



AA-W	Frequency Range	Bandwidth
00-0	No Preselector	
01-1	406-430 MHz	1 MHz
03-1	406-440 MHz	3 MHz
05-1	406-450 MHz	5 MHz
01-2	440-470 MHz	1 MHz
03-2	440-480 MHz	3 MHz
05-2	450-480 MHz	5 MHz
01-3	470-512 MHz	1 MHz
03-3	480-512 MHz	3 MHz
05-3	480-512 MHz	5 MHz
03-4	380-400 MHz	3 MHz
09-9	Special See E#	

Y	Supply Voltage
1	115 VAC
2	220 VAC
3	12 VDC
4	24 VDC
5	48 VDC
6	115 VAC CE
7	220 VAC CE
10	-48 VDC
11	115 and 220 VAC

C= Output Connectors
"B"- BNC- Female
"N"- N- Female

BB = Number of channels
02, 04, 08, or 16 with BNC connectors (For 12, order 16 and 4 loads)

Electrical Specifications

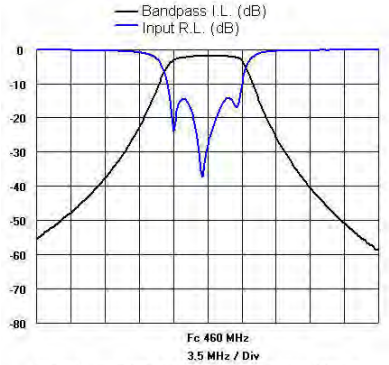
Frequency Range	MHz	350 to 512
Bandwidth	MHz	1
Input VSWR (max)		1.5:1
Input Connectors		N-Female
Output Connectors		BNC-Female or N-Female
Isolation Rx to Rx	dB	20
Output VSWR		1.25:1
System gain (min)	dB	2
Noise figure (amplifier (typ))	dB	0.8
Noise figure (system (typ))	dB	4.1
Third order intercept - amplifier	dBm	40
1 dB Compression point	dBm	24

Mechanical Specifications

Depth	in (mm)	10 (254)
Length/ Height	in (mm)	1.78 (45)
Width	in (mm)	19 (483)
Weight	lbs (kg)	5.5 (2.5)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 22in W 18in H 4in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



RM301-xxxSxB Preselector Response Curve

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UHF Receiver Multicoupler with Advanced Features, 350-512 MHz

- Preselector must be ordered separately (1, 2, 3, 4, and 5 MHz bandwidths available)
- Variable attenuator from zero to 15 dB attenuation
- Built in fault monitor with fault LED, amplifier current monitor display and DC Back-up option
- Operational over full specified band. Bandwidth dictated by preselector choice

Model	Description
RM300-008V1B	8 port, variable attenuator, fault monitor, 350-512 MHz
RM300-016V1B	16 port, variable attenuator, fault monitor, 350-512 MHz
RM300-024V1B	24 port, variable attenuator, fault monitor, 350-512 MHz
RM300-032V1B	32 port, variable attenuator, fault monitor, 350-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	350 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Input Connectors		N-Female
Output Connectors		BNC-Female
Isolation Rx to Rx	dB	20 to 25
Output VSWR		1.5:1
System gain (min)	dB	18
Noise figure (amplifier (typ))	dB	2
Third order intercept - amplifier	dBm	46
1 dB Compression point	dBm	28
Supply voltage		115 VAC / 100-240 VAC

Mechanical Specifications		
Depth	in (mm)	14.12 (359)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	14 to 14.5 (6.36 to 6.58)
Shipping dimensions	in (mm)	L 22in W 17in H 4in

Environmental Specifications		
Temperature range	°F (°C)	+32 to +140 (0 to +60)

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Duplexer, 6 cavity extremely compact, BNC con., 5 MHz separation, 406-512 MHz

- Compact six cavity mobile duplexer
- Uses low-loss internal components and copper center conductors to delivers superior performance
- Ideal for use in situations where space is extremely limited

Model	Description
MR3332B-1	BNC con. 5 MHz sep., 406-430 MHz
MR3332B-2	BNC con. 5 MHz sep., 430-450 MHz
MR3332B-3	BNC con. 5 MHz sep., 450-470 MHz
MR3332B-4	BNC con. 5 MHz sep., 470-490 MHz
MR3332B-5	BNC con. 5 MHz sep., 490-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Number of cavites Tx Side		3
Number of Cavities Rx Side		3
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	65
Isolation Tx noise suppression at Rx (min)	dB	65
Average Power Input (max)	W	50
Insertion loss Rx to antenna (max)	dB	1.5
Insertion loss Tx to antenna (max)	dB	1.5

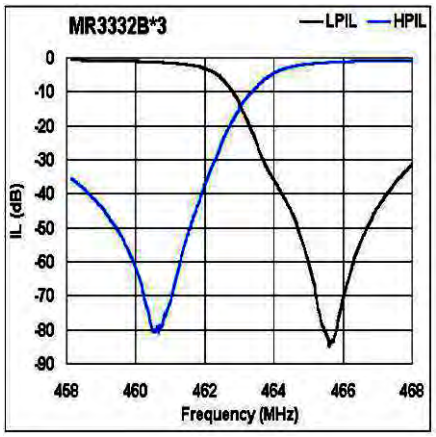
Mechanical Specifications

Depth	in (mm)	4.75 (121)
Length/ Height	in (mm)	1.31 (33)
Width	in (mm)	6.25 (159)
Weight	lbs (kg)	1.03 (0.47)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	1.6 (0.73)
Shipping dimensions	in (mm)	L 12in W 8in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Insertion loss and isolation specified at 5 MHz



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Superior then, Superior now.
A Norsat Company

Duplexers
UHF and Tetra Duplexer
MR354 Series

Duplexer, mobile, 4 cavity, 5 MHz (min)/ 10 MHz (max) sep., 380-512 MHz

- Featuring four highly stable temperature compensated resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 watts with 50 dB Tx to Rx isolation
- Available with N-type, TNC or BNC-type female connectors

Model	Description
MR354B-1	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 406-440 MHz
MR354B-2	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 440-480 MHz
MR354B-3	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 450-470 MHz
MR354B-4	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 490-512 MHz
MR354N-1	N con., 5 MHz (min)/ 10 MHz (max) sep., 406-440 MHz
MR354N-2	N con., 5 MHz (min)/ 10 MHz (max) sep., 440-480 MHz
MR354N-3	N con., 5 MHz (min)/ 10 MHz (max) sep., 480-512 MHz
MR354N-4	N con., 5 MHz (min)/ 10 MHz (max) sep., 380-400 MHz
MR354T-1	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 406-440 MHz
MR354T-2	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 440-480 MHZ
MR354T-3	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 480-512 MHz
MR354T-4	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 380-400 MHz

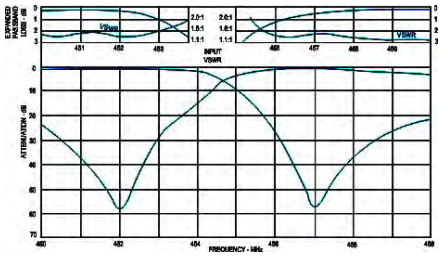


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	380 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Frequency separation range	MHz	5 min/ 10 max / 5
Insertion loss (max) Tx to Ant	dB	1
Isolation (min)	dB	50

Mechanical Specifications		
Depth	in (mm)	9 (229)
Length/ Height	in (mm)	1.3 (33)
Width	in (mm)	4.1 (104)
Weight	lbs (kg)	1.8 (0.82)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L 13in W 9in H 3in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



www.sinctech.com

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Duplexers
UHF and Tetra Duplexer
MR356 Series

Duplexer, mobile, 6 cavity, 5 MHz (min)/ 10 MHz (max) sep., 350-512 MHz

- Six highly stable temperature compensated resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 Watts average power handling with 75 dB Tx to Rx isolation
- Available with N-type, TNC-type or BNC-type female connectors

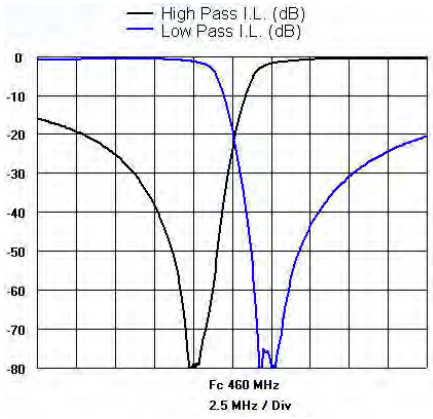
Model	Description
MR356B-1	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 406-440 MHz
MR356B-2	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 440-480 MHz
MR356B-3	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 480-512 MHz
MR356B-4	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 380-400 MHz
MR356B-5	BNC con., 5 MHz (min)/ 10 MHz (max) sep., 350-380 MHz
MR356N-1	N con., 5 MHz (min)/ 10 MHz (max) sep., 406-440 MHz
MR356N-2	N con., 5 MHz (min)/ 10 MHz (max) sep., 440-480 MHz
MR356N-3	N con., 5 MHz (min)/ 10 MHz (max) sep., 480-512 MHz
MR356N-4	N con., 5 MHz (min)/ 10 MHz (max) sep., 380-400 MHz
MR356N-5	N con., 5 MHz (min)/ 10 MHz (max) sep., 350-380 MHz
MR356T-1	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 406-440 MHz
MR356T-1-(E6428)	TNC con., 17 MHz sep.
MR356T-2	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 440-480 MHz
MR356T-3	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 480-512 MHz
MR356T-4	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 380-400 MHz
MR356T-5	TNC con., 5 MHz (min)/ 10 MHz (max) sep., 350-380 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	350 to 512
Frequency Separation	MHz	5 to 10
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Input Connectors		BNC-Female / N-Female / TNC-Female
Output Connectors		BNC-Female / N-Female / TNC-Female
Insertion loss (max) Tx to Ant	dB	1.4
Isolation (min)	dB	75



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Mechanical Specifications

Depth	in (mm)	9 (229)
Length/ Height	in (mm)	1.3 (33)
Width	in (mm)	6.25 (159)
Weight	lbs (kg)	2.5 (1.14)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	3 (1.36)
Shipping dimensions	in (mm)	L 13in W 9in H 3in
Mounting configurations		mounting holes provided

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Tetra Band Base Station Duplexer, 380-435 MHz

- Compact cross-coupled filter technology for space-restricted environments
- Insertion loss less than 1.5 dB typical with over 82 dB Tx to Rx isolation
- Covers 380-435 MHz in various sub-bands

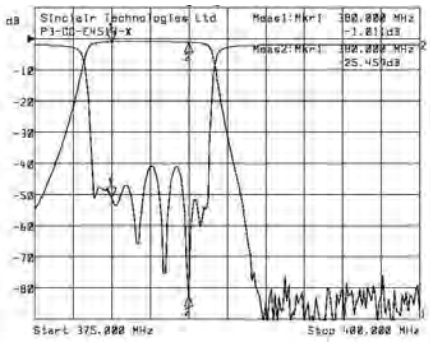
Model	Description
P3880R-CC-1(PBK)	380-395 MHz
P3880R-CC-10(PBK)	410-425 MHz
P3880R-CC-11(PBK)	412.5-427.5 MHz
P3880R-CC-12(PBK)	415-430 MHz
P3880R-CC-13(PBK)	420-435 MHz
P3880R-CC-2(PBK)	382.5-397.5 MHz
P3880R-CC-3(PBK)	385-400 MHz
P3880R-CC-4(PBK)	390-405 MHz
P3880R-CC-5(PBK)	392.5-407.5 MHz
P3880R-CC-6(PBK)	395-410 MHz
P3880R-CC-7(PBK)	400-415 MHz
P3880R-CC-8(PBK)	402.5-417.5 MHz
P3880R-CC-9(PBK)	405-420 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Tx Frequency Range	MHz	390 to 435
Number of cavites Tx Side		8
Number of Cavities Rx Side		8
Rx Frequency Range	MHz	380 to 425
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	80
Isolation Tx noise suppression at Rx (min)	dB	80
Average Power Input (max)	W	180
Connectors		N-Female
Frequency separation (min)	MHz	10
Insertion loss Rx to antenna (typ)	dB	1.2
Insertion loss Rx to antenna (max)	dB	1.5
Insertion loss Tx to antenna (typ)	dB	1.2
Insertion loss (max) Tx to Ant	dB	1.5
Isolation (min)	dB	82
Pass bandwidth	MHz	5



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Mechanical Specifications

Depth	in (mm)	7.35 (187)
Length/ Height	in (mm)	3.3 (84)
Width	in (mm)	15.7 (399)
Weight	lbs (kg)	14.3 (6.49)
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 26in W 19in H 6in
Mounting configurations		6 by 6M threaded underside holes

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Mounting tray not included.

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Q-Circuit 6 Cavity Base Station Duplexer

- High attenuation at extremely close frequency spacings in 406-512 band
- Quasi bandpass response suppresses spurious and side-band transmitter noise
- Available in either rack mount or cabinet enclosure

Model	Description
Q301GC-1	Cabinet mounted, 406-420 MHz
Q301GC-2	Cabinet mounted, 450-470 MHz
Q301GC-3	Cabinet mounted, 470-512 MHz
Q301GC-4	Cabinet mounted, 420-450 MHz
Q301GR-1	Rack Mountable, 406-420 MHz
Q301GR-2	Rack Mountable, 450-470 MHz
Q301GR-3	Rack Mountable, 470-512 MHz
Q301GR-4	Rack Mountable, 420-450 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Number of cavites Tx Side		3
Number of Cavities Rx Side		3
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	100
Isolation Tx noise suppression at Rx (min)	dB	100
Average Power Input (max)	W	250
Frequency separation (min)	MHz	0.7
Insertion loss Rx to antenna (max)	dB	2.2
Insertion loss Tx to antenna (max)	dB	2.2

Mechanical Specifications		
Depth	in (mm)	15 to 17.2 (381 to 437)
Length/ Height	in (mm)	35 to 40.4 (889 to 1026)
Width	in (mm)	19 to 22 (483 to 559)
Weight	lbs (kg)	60 to 110 (27.24 to 49.94)
Actual Shipping weight	lbs (kg)	90 to 120 (40.86 to 54.48)
Shipping dimensions	in (mm)	L(20 - 24)in W(16 - 19)in H(21 - 44)in
Mounting configurations		cabinet / 19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

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Duplexer, Q-Circuit, Res-Lok, compact, 4 cavity, rack mount, 406-512 MHz

- Compact design provides excellent performance while conserving rack space
- Isolation of greater than 70 dB at 5 MHz separation and less than 1 dB insertion loss
- Rugged Res-Lok design reduces overall size

Model	Description
Q3220C-1	4 cavity, 406-450 MHz
Q3220C-2	4 cavity, 450-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	5
Insertion loss (max) Tx to Ant	dB	0.8
Isolation (min)	dB	70

Mechanical Specifications		
Depth	in (mm)	10.5 (267)
Length/ Height	in (mm)	3.5 (89)
Width	in (mm)	19 (483)
Weight	lbs (kg)	10 (4.54)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	17 (7.72)
Shipping dimensions	in (mm)	L 7in W 17in H 19in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

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Duplexer, Q-Circuit, Res-Lok, 4 cavity, rack mount, 406-512 MHz

- Compact design provides excellent performance while conserving rack space
- Isolation of greater than 75 dB at 5 MHz separation and less than 1 dB insertion loss
- Rugged Res-Lok design reduces overall size

Model	Description
Q3220E	4 cavity, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	350
Connectors		N-Female
Frequency separation (min)	MHz	5
Insertion loss (max) Tx to Ant	dB	0.8
Isolation (min)	dB	75

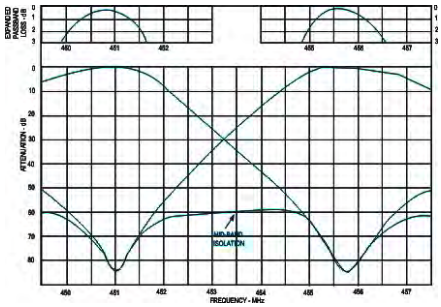
Mechanical Specifications

Depth	in (mm)	16.3 (414)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	15 (6.81)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 19in W 8in H 22in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Specify transmit and receive frequencies when ordering.



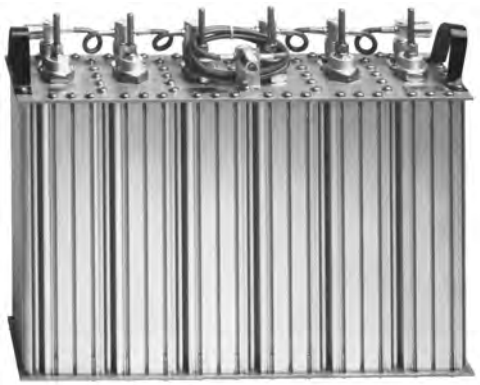
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Duplexer, Q-Circuit, Res-Lok, compact, 6 cavity, rack mount, 406-512 MHz

- Designed to provide 1 MHz pass band and reject notch at 5 MHz separation
- Minimum isolation of 85 dB at maximum insertion loss of 1.2 dB
- 5 MHz minimum Tx-Rx separation
- Rugged Res-Lok design reduces overall size

Model	Description
Q3330C-1	6 cavity, 406-420 MHz
Q3330C-2	6 cavity, 450-470 MHz
Q3330C-3	6 cavity, 420-450 MHz
Q3330C-4	6 cavity, 470-512 MHz

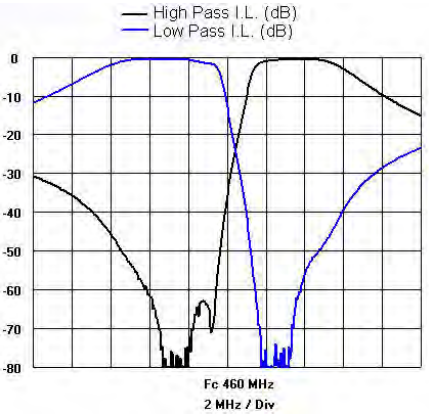


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.3:1
Impedance	Ω	50
Average Power Input (max)	W	350
Connectors		N-Female
Frequency separation (min)	MHz	5
Insertion loss (max) Tx to Ant	dB	1.2
Isolation (min)	dB	85

Mechanical Specifications		
Depth	in (mm)	16.3 (414)
Length/ Height	in (mm)	4.2 (107)
Width	in (mm)	19 (483)
Weight	lbs (kg)	16 (7.26)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 19in W 8in H 22in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Duplexer, Q-Circuit, Res-Lok, 6 cavity, rack mount, 380-512 MHz

- Designed to provide 1 MHz pass band and reject notch at 5 MHz separation
- Minimum isolation of 85 dB at maximum insertion loss of 1.2 dB
- Rugged Res-Lok design reduces overall size

Model	Description
Q3330E-1	6 cavity, 406-420 MHz
Q3330E-2	6 cavity, 420-450 MHz
Q3330E-3	6 cavity, 450-470 MHz
Q3330E-4	6 cavity, 470-512 MHz
Q3330E-5	6 cavity, 500-512 MHz
Q3330E-6	6 cavity, 380-400 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

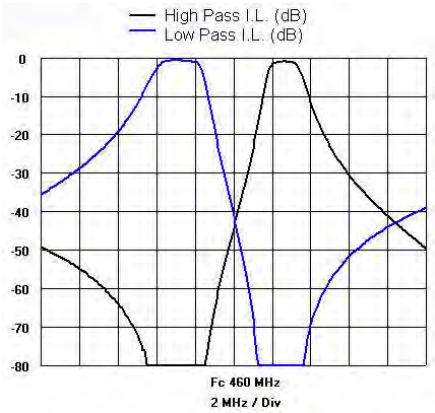
Frequency Range	MHz	380 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	350
Connectors		N-Female
Frequency separation (min)	MHz	5
Insertion loss Rx to antenna (max)	dB	1.2
Insertion loss Tx to antenna (max)	dB	1.2
Isolation (min)	dB	85

Mechanical Specifications

Depth	in (mm)	11.38 (289)
Length/ Height	in (mm)	8.3 (211)
Width	in (mm)	19 (483)
Weight	lbs (kg)	23 (10.44)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 12in W 16in H 24in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Cavity Filters
UHF and Tetra Bandpass Cavities
FP30107 Series

Cavity filter, bandpass, high Q, one 7" cavity, 225-512 MHz

- Aluminum cylinder with silverplated coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for minimum frequency drift

Model	Description
FP30107-1	225-300 MHz
FP30107-2	300-400 MHz
FP30107-3	400-512 MHz

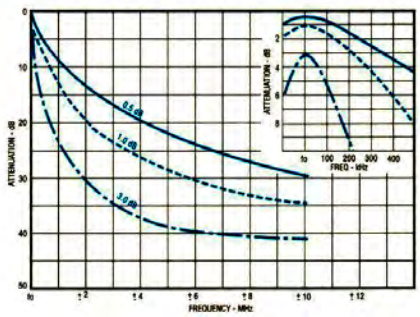
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	225 to 512
Input VSWR (max)		1.5:1
Insertion Loss (max)	dB	3
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	80-350
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	0.5

Mechanical Specifications		
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	11 to 22 (279 to 559)
Width	in (mm)	7 (178)
Weight	lbs (kg)	6 to 8 (2.72 to 3.63)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 9in W 9in H 24in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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High-Q Bandpass 1/4 Wave Cavity Filter, Single 8.5" Cavity, 406-512 MHz

- Aluminum cylinder silver plated brass coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for minimum frequency drift

Model	Description
FP30109-3	406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	80-350
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	0.5
Insertion loss (max) Tx to Ant	dB	3

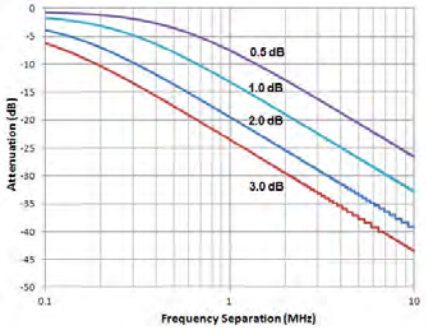
Mechanical Specifications

Depth	in (mm)	8.5 (216)
Length/ Height	in (mm)	8.75 (222)
Width	in (mm)	8.5 (216)
Weight	lbs (kg)	11.25 (5.11)
Finish		shadow bronze
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 9in W 9in H 24in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Pass frequency and insertion loss must be specified at time of order.



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Cavity Filters
UHF and Tetra Bandpass Cavities
FP30207 Series

Cavity filter, bandpass, high Q, two 7" cavities, 300-512 MHz

- Aluminum cylinder with silverplated coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift

Model	Description
FP30207-2	300-400 MHz
FP30207-3	406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

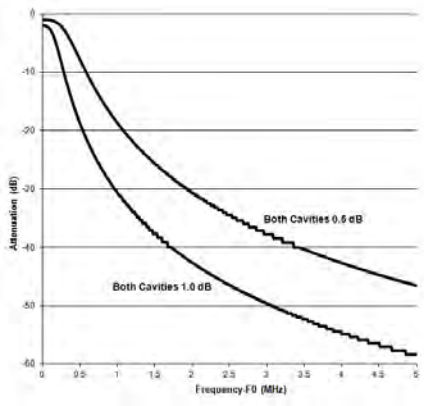
Frequency Range	MHz	300 to 512
VSWR (max)		1.5:1
Insertion Loss (max)	dB	6
Impedance	Ω	50
Number of Cavities		2
Average Power Input (max)	W	80-350
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	1 to 1.6

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	10 to 16 (254 to 406)
Width	in (mm)	19 (483)
Weight	lbs (kg)	20 (9.08)
Finish		chromate conversion
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Cavity filter, Q circuit, high Q, one 7" cavity, 406-512 MHz

- Aluminum cylinder with silverplated coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift
- Pass one frequency while rejecting one that is close

Model	Description
FQ30107-3	406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

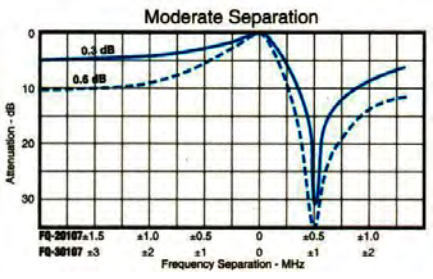
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	350
Input Connectors		N-Female
Output Connectors		N-Female

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	16.6 (422)
Width	in (mm)	7 (178)
Weight	lbs (kg)	6 (2.72)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 21in W 9in H 9in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Cavity filter, reject, high Q, one 7" cavity, 406-512 MHz

- 7 inch diameter aluminum cylinder with silverplated inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for extremely low frequency drift

Model	Description
FR30107-3	406-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

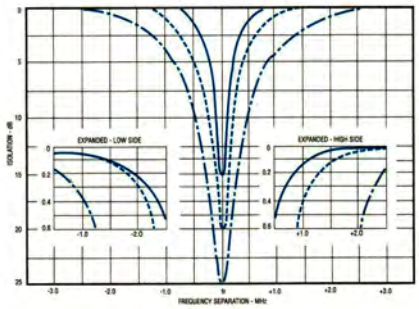
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Average Power Input (max)	W	350
Input Connectors		N-Female
Output Connectors		N-Female

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	17.5 (445)
Width	in (mm)	7 (178)
Weight	lbs (kg)	6 (2.72)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 21in W 9in H 9in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Preselector Filters
UHF and Tetra Preselectors
FP30401 Series

Preselector, 1, 3, or 5 MHz bandwidth, compact, 350-525 MHz

- Can be mounted directly on a 1.75 " high standard tray
- Covers 406-512 MHz frequency range with wide range of sub-bands available
- TNC and BNC connectors available

Model	Description
FP30401B-1-1	1 MHz bandwidth, 406-430 MHz
FP30401B-1-3	3 MHz bandwidth, 406-440 MHz
FP30401B-1-5	5 MHz bandwidth, 406-450 MHz
FP30401B-2-1	1 MHz bandwidth, 440-470 MHz
FP30401B-2-3	3 MHz bandwidth, 440-480 MHz
FP30401B-2-5	5 MHz bandwidth, 450-480 MHz
FP30401B-3-1	1 MHz bandwidth, 470-512 MHz
FP30401B-3-3	3 MHz bandwidth, 480-512 MHz
FP30401B-3-5	5 MHz bandwidth, 480-512 MHz
FP30401B-4-5	5 MHz bandwidth, 350-380 MHz
FP30401B-5-3	3 MHz bandwidth, 380-400 MHz
FP30401B-6-1	1 MHz bandwidth, 490-525 MHz

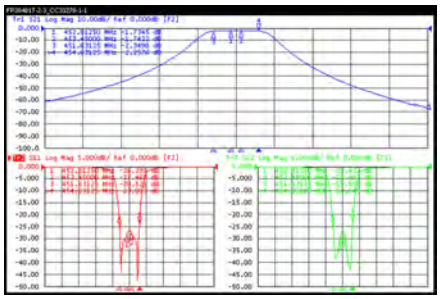


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	350 to 525
Input VSWR (max)		1.5:1
Insertion Loss (typ)	dB	2 to 3.4
Impedance	Ω	50
Input Connectors		BNC-Female
Output Connectors		BNC-Female
Approx Bandwidth @ 50 dB	MHz	11 to 25

Mechanical Specifications		
Depth	in (mm)	7 to 8.4 (178 to 213)
Length/ Height	in (mm)	1.3 (33)
Width	in (mm)	4.2 (107)
Weight	lbs (kg)	1.5 (0.68)
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L 13in W 9in H 3in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Preselector Filters
UHF and Tetra Preselectors
PH3040 Series

Highly Versatile Res-Lok Preselector, 406-512 MHz

- Rack, wall or floor mounting versions available
- Res-Lok construction eliminates inter-cavity cabling
- Covers the 406-512 MHz frequency band in various sub-bands
- Different pass bandwidth available with a very high out of band rejection

Model	Description
PH3040E-1-1	1 MHzB.W., 406-450 MHz
PH3040E-1-2	2 MHz B.W., 406-450 MHz
PH3040E-1-3	3 MHz B.W., 406-440 MHz
PH3040E-1-4	4 MHz B.W., 406-450 MHz
PH3040E-2-1	1 MHz B.W., 450-512 MHz
PH3040E-2-2	2 MHz B.W., 450-512 MHz
PH3040E-2-3	3 MHz B.W., 440-480 MHz
PH3040E-2-4	4 MHz B.W., 450-512 MHz
PH3040E-3-3	3 MHz B.W., 480-512 MHz

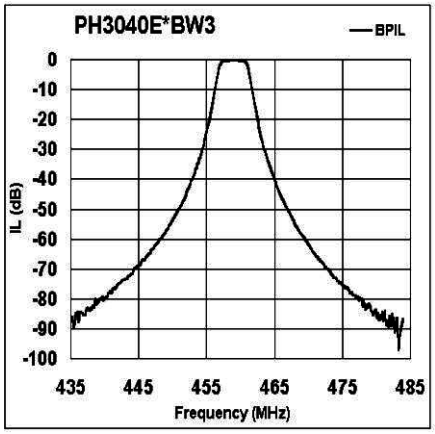


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Insertion Loss (typ)	dB	0.8 to 1.8
Impedance	Ω	50
Number of Cavities		4
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female

Mechanical Specifications		
Depth	in (mm)	16.3 (414)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	14 (6.36)
Shipping dimensions	in (mm)	L 6in W 19in H 22in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Exp Multicoupler, C Series, pass-reject, 7" Cavities, 406-512 MHz

- One bandpass cavity and one reject cavity
- Combines transmitters or receivers with interchannel spacing down to 1 MHz
- High selectivity ideally suited for applications where significant expansion is contemplated

Model **Description**

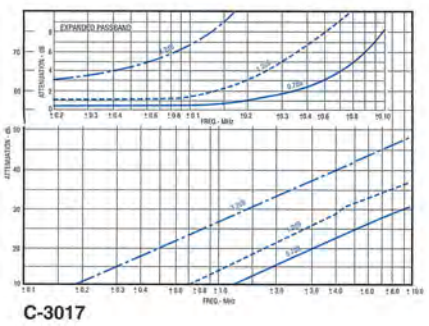
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	406 to 512
Input VSWR (max)		
Average Power Input (max)		
Input Connectors		
Output Connectors		
Frequency separation (min)	MHz	1
Insertion loss (min)	dB	0.7
Insertion loss (max) Tx to Ant	dB	3.2

Mechanical Specifications		
Depth	in (mm)	7.5 (191)
Length/ Height	in (mm)	16 (406)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	18 (8.17)

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



C-3017

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C Series Pass-Reject Expandable Multicoupler, 8.5" Cans, 406-512 MHz

- Two cavities fit horizontally on 19" rack
- Combines transmitters or receivers with inter-channel spacing down to 500 KHz
- Suited for applications where significant expansion is contemplated
- One bandpass and one reject cavity

Model	Description
C3019-1	406-415 MHz
C3019-2	415-430 MHz
C3019-3	430-450 MHz
C3019-4	450-470 MHz
C3019-5	470-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Average Power Input (max)	W	80-300
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	300
Frequency separation (min)	MHz	0.5
Insertion loss (min)	dB	0.7
Insertion loss (max) Tx to Ant	dB	3.2

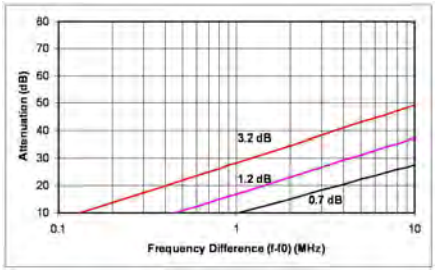
Mechanical Specifications

Depth	in (mm)	18 (457)
Length/ Height	in (mm)	8.75 (222)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	21 (9.53)
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	L 23in W 23in H 12in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Mounting plate and cavities painted black on standard model



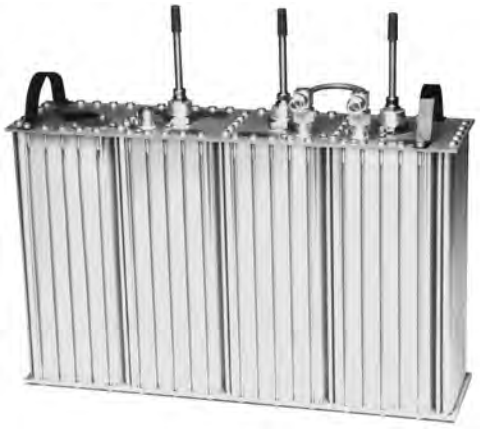
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Exp multicoupler, C-Series Res-Lok, pass-reject, two bandpass, 406-512 MHz

- Ease of field expandability with non-critical inter-channel cables and 2 MHz channel spacing
- Res-Lok design reduces inter-cavity cable requirements and losses
- Supports vertical or horizontal mounting in 19 inch rack
- Two band pass cavities and one reject cavity

Model	Description
C3024-1-1.4	1.4 dB IL, 406-440 MHz
C3024-1-2.5	2.5 dB IL, 406-440 MHz
C3024-2-1.4	1.4 dB IL, 440-475 MHz
C3024-2-2.5	2.5 dB IL, 440-475 MHz
C3024-3-1.4	1.4 dB IL, 475-512 MHz
C3024-3-2.5	2.5 dB IL, 475-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

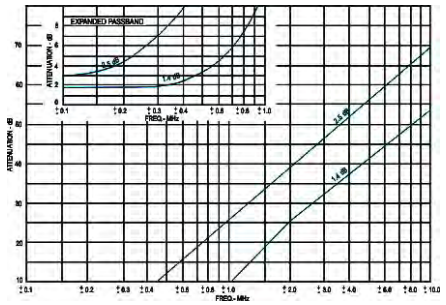
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	1000
Frequency separation (min)	MHz	1
Average Input Power (max)	W	300 / 190

Mechanical Specifications

Depth	in (mm)	14 (356)
Length/ Height	in (mm)	4.19 (106)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	13 (5.9)
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 19in W 8in H 22in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Exp multicoupler, C Series, pass-reject, 7" cavities, two bandpass, 406-512 MHz

- Two bandpass cavities and one reject cavity
- Combines transmitters or receivers with inter-channel spacing down to 1 MHz
- High selectivity ideally suited for applications where significant expansion is contemplated
- Wall mount versions also available

Model	Description
C3027-1	Two bandpass, one reject, 406-415 MHz
C3027-2	Two bandpass, one reject, 415-430 MHz
C3027-3	Two bandpass, one reject, 430-450 MHz
C3027-4	Two bandpass, one reject, 450-470 MHz
C3027-5	Two bandpass, one reject, 470-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

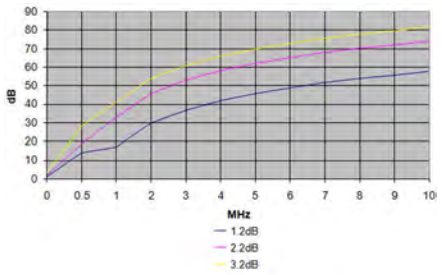
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.25:1
Average Power Input (max)	W	150-300
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	300
Frequency separation (min)	MHz	1
Insertion loss (min)	dB	1.2
Insertion loss (max) Tx to Ant	dB	3.2

Mechanical Specifications

Depth	in (mm)	14.9 (378)
Length/ Height	in (mm)	16 (406)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	26 (11.8)
Actual Shipping weight	lbs (kg)	45 (20.43)
Shipping dimensions	in (mm)	L 21in W 17in H 22in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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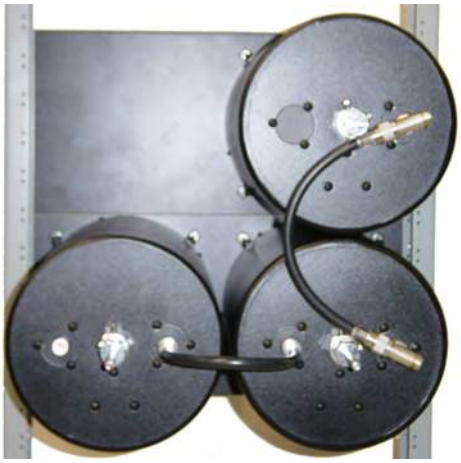
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
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C Series Pass-Reject Expandable Multicoupler, 8.5" Cans

- Fits horizontally on 19" rack
- Combines transmitters or receivers with inter-channel spacing down to 500 KHz
- High selectivity ideally suited for applications where significant expansion is contemplated
- Two bandpass cavities and one reject cavity

Model	Description
C3029-1	406-415 MHz
C3029-2	415-430 MHz
C3029-3	430-450 MHz
C3029-4	450-470 MHz
C3029-5	470-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Average Power Input (max)	W	150-300
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	300
Frequency separation (min)	MHz	0.5
Insertion loss (min)	dB	1.2
Insertion loss (max) Tx to Ant	dB	3.2

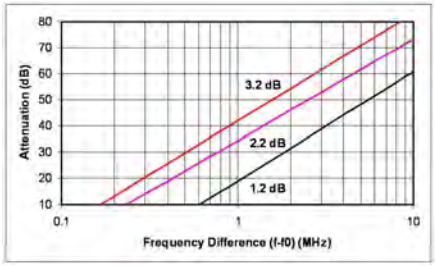
Mechanical Specifications

Depth	in (mm)	18 (457)
Length/ Height	in (mm)	17.5 (445)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	32 (14.53)
Actual Shipping weight	lbs (kg)	70 (31.78)
Shipping dimensions	in (mm)	L 23in W 23in H 12in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Mounting plate and cavities painted Motorola black on standard model



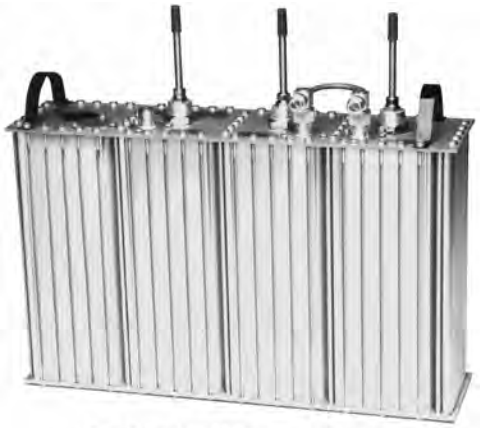
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Exp multicoupler, C Series Res-Lok, pass-reject, three bandpass, 406-512 MHz

- Ease of field expandability with non-critical cable lengths
- Reduces inter-cavity cable requirements
- Supports vertical or horizontal mounting in a 19 inch rack
- Three band pass cavities and one reject cavity

Model	Description
C3034-1-1.6	1.6 dB IL, 406-440 MHz
C3034-1-3.1	3.1 dB IL, 406-440 MHz
C3034-2-1.6	1.6 dB IL, 440-475 MHz
C3034-2-3.1	3.1 dB IL, 440-475 MHz
C3034-3-1.6	1.6 dB IL, 475-512 MHz
C3034-3-3.1	3.1 dB IL, 475-512 MHz



C3024 Model Shown Above

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

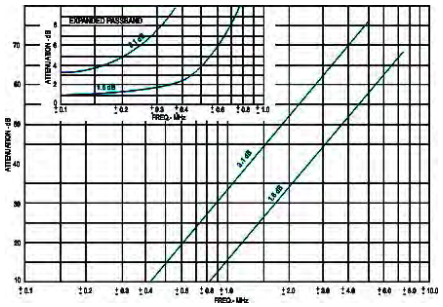
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Average Power Input (max)	W	300 / 160
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	1000
Frequency separation (min)	MHz	1

Mechanical Specifications

Depth	in (mm)	14 (356)
Length/ Height	in (mm)	4.19 (106)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	13 (5.9)
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 6in W 19in H 22in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Exp multicoupler, C Series, pass-reject, 7" cavities, three bandpass, 406-512 MHz

- Three bandpass cavities and one reject cavity
- Combines transmitters or receivers with inter-channel spacing down to 1 MHz
- High selectivity ideally suited for applications where significant expansion is contemplated

Model	Description
C3037-1	Three bandpass, one reject, 406-415 MHz
C3037-1W	Wall mount, 406-415 MHz
C3037-2	Three bandpass, one reject, 415-430 MHz
C3037-2W	Wall mount, 415-430 MHz
C3037-3	Three bandpass, one reject, 430-450 MHz
C3037-3W	Wall mount, 430-450 MHz
C3037-4	Three bandpass, one reject, 450-470 MHz
C3037-4W	Wall mount, 450-470 MHz
C3037-5	Three bandpass, one reject, 470-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

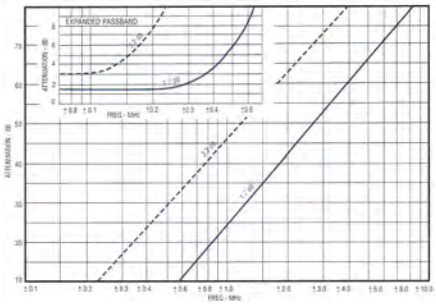
Frequency Range	MHz	406 to 512
Input VSWR (max)		1.5:1
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	300
Frequency separation (min)	MHz	1
Insertion loss (min)	dB	1.7
Insertion loss (max) Tx to Ant	dB	3.2
Average Input Power (max)	W	185-300

Mechanical Specifications

Depth	in (mm)	8 to 14.9 (203 to 378)
Length/ Height	in (mm)	16 (406)
Width	in (mm)	19 to 32 (483 to 813)
Net Weight	lbs (kg)	32 (14.53)
Actual Shipping weight	lbs (kg)	45 (20.43)
Shipping dimensions	in (mm)	L(21 - 32)in W(9 - 17)in H(22 - 42)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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Hybrid Coupler, Balanced and Unbalanced, 225-520 MHz

- Max insertion loss of 3.3 dB per port for balanced version
- VSWR less than 1.25 for T1 to T2 ports
- Available in various splits (i.e. 50/50, 70/30 or 80/20)
- Each unit is tuned for optimum performance

Model	Description
HH3140	Balanced, 3% B.W., 300 Watts, 406-512 MHz
HH3140B	Balanced, 3% B.W., 300 Watts, 406-512 MHz
HH3140CB	Balanced, broadband, 400 Watts, 225-520 MHz
HH3140HP	Balanced, 3% B.W., 600 Watts, 406-512 MHz
HH3141C-1-1	70/30 split, 65 MHz bandwidth, 300 Watts, 350-415 MHz
HH3141C-1-2	80/20 split, 65 MHz bandwidth, 300 Watts, 350-415 MHz
HH3141C-2-1	70/30 split, 65 MHz bandwidth, 300 Watts, 405-470 MHz
HH3141C-2-2	80/20 split, 65 MHz bandwidth, 300 Watts, 405-470 MHz
HH3141C-3-1	70/30 split, 53 MHz bandwidth, 300 Watts, 459-512 MHz
HH3141C-3-2	80/20 split, 53 MHz bandwidth, 300 Watts, 459-512 MHz
HH3141HP	Unbalanced, 3% B.W., 8.3/1.3 dB, 600 Watts, 406-512 MHz



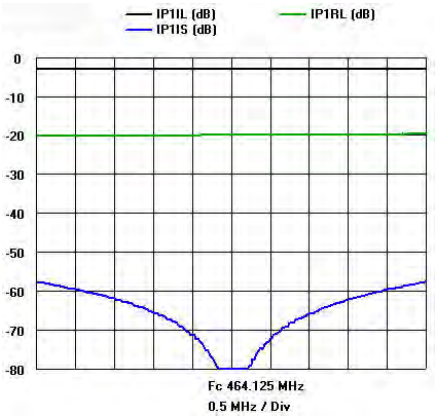
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	225 to 520
VSWR (max)		1.25:1
Impedance	Ω	50
Connectors		N-Male/N-Female / N-female / N-Female
Power Rating	W	300 to 600
Insertion loss (max) Tx to Ant	dB	3.2 to 8.3
Isolation (min)	dB	20 to 45

Mechanical Specifications		
Depth	in (mm)	1 to 2 (25 to 51)
Length/ Height	in (mm)	1 to 1.2 (25 to 30)
Width	in (mm)	3.12 to 7 (79 to 178)
Weight	lbs (kg)	0.3 to 1.25 (0.14 to 0.57)
Actual Shipping weight	lbs (kg)	2 to 3 (0.91 to 1.36)
Shipping dimensions	in (mm)	L(9 - 13)in W(6 - 9)in H 3in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Specify two transmit frequencies when ordering.



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Compact Rugged Isolator/Circulator, 406-512 MHz

- Temperature compensated
- Low insertion loss, high isolation
- Each unit is optimized to customer specified frequency

Model	Description
I311(X)A	Single stage Isolator/ Circulator, 406-512 MHz
I311(X)T-(Z)	Single stage Isolator/ Circulator, field tunable, 406-512 MHz
I321(Y)A	Dual stage Isolator/ Circulator, 406-512 MHz
I321(Y)T-(Z)	Dual stage Isolator/ Circulator, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	406 to 512
Bandwidth	MHz	12
VSWR (max)		1.25:1
Insertion loss (typ) Tx to Ant	dB	0.3 to 0.6
Isolation (typ)	dB	35 to 75
Connectors		N-Female
Power Input	W	125
Insertion loss (max) Tx to Ant	dB	0.5 to 0.9
Isolation (min)	dB	25 to 50

Mechanical Specifications

Length/ Height	in (mm)	2.5 (64)
Width	in (mm)	2.5 to 4.5 (64 to 114)
Weight	lbs (kg)	1.1 to 2.2 (0.5 to 1)
Actual Shipping weight	lbs (kg)	2 to 3.5 (0.91 to 1.59)
Shipping dimensions	in (mm)	L 13in W 9in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Height, width, depth and weight excludes connectors and loads.
Specify Tx frequency at time of order.

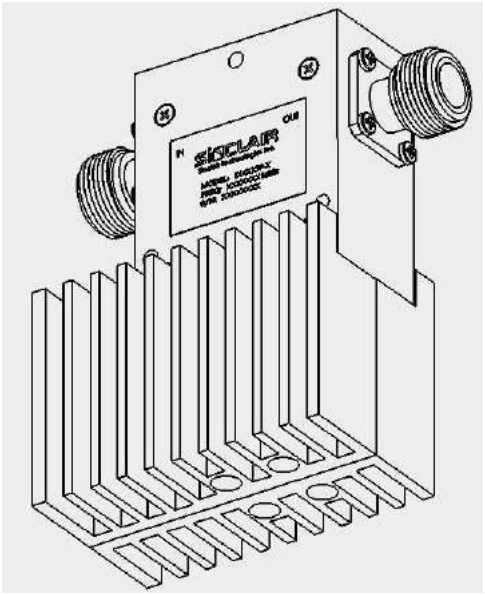
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Single/Dula Stage Wide Band Isolator/Circulator, 350-512 MHz

- Operational in an extreme wide frequency range without retuning required
- Single/Dual stage with additional heat sink for 60 Watts revers power handling
- 60 Watt Reverse Load

Model	Description
I3113W-1	Wide band, single stage, 60W reverse power, 350-385 MHz
I3113W-2	Wide band, single stage, 60W reverse power, 380-415 MHz
I3113W-3	Wide band, single stage, 60W reverse power, 405-440 MHz
I3113W-4	Wide band, single stage, 60W reverse power, 430-470 MHz
I3113W-5	Wide band, single stage, 60W reverse power, 459-512 MHz
I3213W-1	Wide band, dual stage, 60W reverse power, 350-385 MHz
I3213W-2	Wide band, dual stage, 60W reverse power, 380-415 MHz
I3213W-3	Wide band, dual stage, 60W reverse power, 405-440 MHz
I3213W-4	Wide band, dual stage, 60W reverse power, 430-470 MHz
I3213W-5	Wide band, dual stage, 60W reverse power, 459-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	350 to 512
Bandwidth	MHz	35 to 53
Discription/ Characteristics		Single Stage / Dual Stage
Field Tunable		No
VSWR (max)		1.2:1
Insertion Loss (max)	dB	0.4 to 0.8
Impedance	Ω	50
Average Power Reflected (max)	W	60
Average Power Input (max)	W	125
Input Connectors		N-Female
Output Connectors		N-Female
Isolation (min)	dB	25 to 50

Mechanical Specifications		
Net Weight (circulator only)	lbs (kg)	1.2 to 1.7 (0.54 to 0.77)
Number of Connectors		2
Depth	in (mm)	2.5 to 4.27 (64 to 108)
Height	in (mm)	3.46 (88)
Width	in (mm)	1.5 (38)
Shipping dimensions	in (mm)	L 6in W 5in H 4in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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I.M. Suppression panel, rack mount, single/dual stage isolator, 406-512 MHz

- High performance single or dual stage isolators provide 35 dB or 75 dB of isolation
- Can be tuned over 406-512 MHz frequency range
- Comes with built-in harmonic filter that provides 40 dB rejection at 2nd harmonic
- Compact design precisely tuned to customer specified frequency

Model	Description
PC3112	Single stage isolator, 30 Watt load, 406-512 MHz
PC3113	Single stage isolator, 60 Watt load, 406-512 MHz
PC3114	Single stage isolator, 125 Watt load, 406-512 MHz
PC3212	Dual stage isolator, 30+30 Watt loads, 406-512 MHz
PC3213	Dual stage isolator, 30+60 Watt loads, 406-512 MHz
PC3214	Dual stage isolator, 30+125 Watt loads, 406-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	406 to 512
Bandwidth	MHz	12
VSWR (max)		1.25:1
Average Power Input (max)	W	125
Connectors		N-Female
Insertion loss (max) Tx to Ant	dB	0.5 to 0.9
Isolation (min)	dB	25 to 50

Mechanical Specifications		
Depth	in (mm)	9.13 (232)
Length/ Height	in (mm)	1.75 to 3.5 (44 to 89)
Width	in (mm)	19 (483)
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 26in W 19in H 7in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Multi-band Multi-port Transport Antenna
Multiple Transport Antennas
SM600D(GPS) Series

GPS, WiFi, 694-2700MHz diversity low profile transport antenna

- Multi port/element antenna, dual 694-2700 MHz full band, one GPS and one WiFi
- The 694-2700 MHz twin elements are expandable for multiple radio system or diversity uses
- A maximum height of 4-1/4 inches complies with restriction for locomotives and other vehicles
- Black weather resistant and fire rated radome provides excellent environmental protection

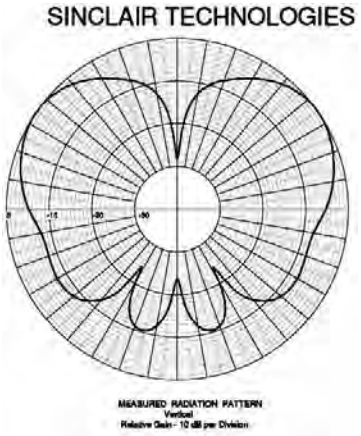
Model	Description
SM600D(WI-GPS)	GPS, WiFi, 694-2700MHz diversity low profile transport antenna



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range 1 (F1)	MHz	694 to 2700
Gain F1 (typ)	dBd (dBi)	unity (2.1)
Input VSWR 1 (nominal)		1.5:1
Pattern (F1)		Omni
Frequency Range 2 (F2)	MHz	694 to 2700
Gain F2 (typ)	dBd (dBi)	unity (2.1)
Input VSWR 2 (nominal)		1.5:1
Pattern (F2)		Omni
Frequency Range 3 (F3)	MHz	2400 to 6000
Gain F3 (typ)	dBd (dBi)	unity (2.1)
Input VSWR 3 (nominal)		1.5:1
Pattern (F3)		Omni
Polarization		vertical
Impedance	Ω	50
Pattern		Directional
Average Power Input (max)	W	5~200
Connectors		Cell=SMA Mx2,WiFi=SMA Mx1,GPS=BNC Mx1
Lightning protection		DC ground
GPS Center Frequency	MHz	1575.42
GPS Power Gain (typ)	dB	28
GPS Supply Voltage Range	VDC	3 to 5
GPS Current Consumption		12mA
GPS Output Impedance	Ω	50
GPS Noise Figure (max)	dB	2
GPS VSWR		2:1 max

Mechanical Specifications		
Height	in (mm)	4.25 (108)
Length	in (mm)	20.88 (530)
Width	in (mm)	11.5 (292)
Radome material		UV protected ABS
Weight	lbs (kg)	12.3 (5.58)
Actual Shipping weight	lbs (kg)	16.3 (7.4)
Shipping dimensions	in (mm)	L 23in W 14in H 10in
Radome Colour		Black



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Environmental Specifications

Horizontal Wind Resistance		5.03lb@100mph
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.02 (0)

Ordering Information

Specify connector options at time of order.

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Low profile, universal transport antenna, 694-6000MHz

- Covers full frequency band from 694 to 6000MHz
- Maximum 2.6 inches height with white radome
- One 3/4" hole mount for easy installation
- Operates without additional ground plate

Model	Description
SM701 SERIES WITH GPS	Low profile, universal transport antenna, 694-6000MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range 1 (F1)	MHz	694 to 6000
Gain F1 (typ)	dBd (dBi)	unity (2.1)
Input VSWR 1 (nominal)		2:1
Pattern (F1)		Omni
Bandwidth	MHz	5306
Polarization		vertical
Impedance	Ω	50
Average Power Input (max)	W	200
Bandwidth at F1 Frequency Range (typ)	MHz	5302

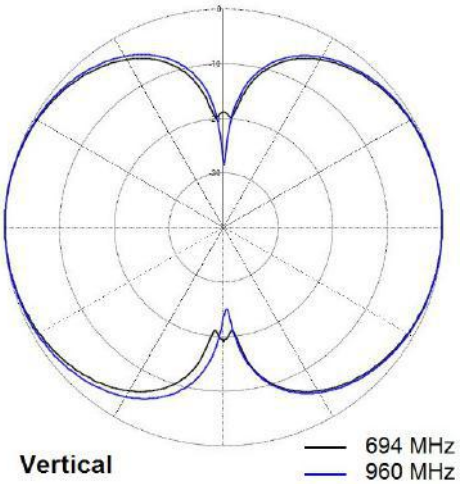
Mechanical Specifications

Height	in (mm)	2.6 (66)
Overall Diameter	in (mm)	6.3 (160)
Radome material		UV stabilized ABS
Weight	lbs (kg)	1.35 (0.61)
Actual Shipping weight	lbs (kg)	1.8 (0.82)
Shipping dimensions	in (mm)	L 11in W 8in H 5in
Radome Colour		White

Environmental Specifications

Horizontal Wind Resistance		1.53lb
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (1/2" ice)	ft² (m²)	0.06 (0.01)

Ordering Information
GPS option is available for this series.
N-Male, N-Female, BNC-male, BNC-Female, TNC-Male or TNC Female connectors available.



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Multi-band Multi-port Transport Antenna
Multi-band Antenna
SM202 Series

High performance, low profile, 2 MHz B.W. for VHF, 138-230/350-2700 MHz

- Full 350-2700 MHz; 138-230 MHz frequency range in 3 sub-bands (2 MHz (typ) bandwidth)
- A maximum height of 4-1/4 inches complies with restriction for locomotives and other vehicles
- Black weather resistant and fire rated radome provides excellent environmental protection
- Complies with IEC 68 standards

Model	Description
SM202-SF1/SWBSNF(FXXXX)	2 MHz B.W. for VHF, 138-174 MHz / 350-2700 MHz
SM202-SF1/SWBSNF(FXXXX-GPS)	2 MHz B.W. for VHF, GPS, 138-174 MHz / 350-2700 MHz
SM202-SF2/SWBSNF(FXXXX)	2 MHz B.W. for VHF, 174-216 MHz / 350-2700 MHz
SM202-SF2/SWBSNF(FXXXX-GPS)	2 MHz B.W. for VHF, GPS, 174-216 MHz / 350-2700 MHz
SM202-SF3/SWBSNF(FXXXX)	2 MHz B.W. for VHF, 216-230 MHz / 350-2700 MHz
SM202-SF3/SWBSNF(FXXXX-GPS)	2 MHz B.W. for VHF, GPS, 216-230 MHz / 350-2700 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range 1 (F1)	MHz	138 to 230
Frequency Range 2 (F2)	MHz	350 to 2700
Connector		N-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	200
Lightning protection		DC ground
GPS Center Frequency	MHz	1575.42
Bandwidth at F1 Frequency Range (typ)	MHz	2
GPS Power Gain (typ)	dB	28
Bandwidth at F2 Frequency Range (typ)	MHz	2350
GPS Supply Voltage Range	VDC	3 to 5
GPS Current Consumption		/ 12 mA typical
GPS Output Impedance	Ω	50
GPS Noise Figure (max)	dB	2
GPS VSWR		/ 2.0 Maximum

Mechanical Specifications

Depth	in (mm)	20.88 (530)
Height	in (mm)	4 (102)
Width	in (mm)	11.5 (292)
Radome material		UV stabilized ABS
Weight	lbs (kg)	7.21 (3.27)
Actual Shipping weight	lbs (kg)	11.2 (5.08)
Shipping dimensions	in (mm)	L 26in W 19in H 7in
GPS Pigtail Type		/ 16.4
Ground Plane (min)	in (mm)	36x48
Radome Colour		Black

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Environmental Specifications

Horizontal Wind Resistance		5.03 lb @ 100 mph
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.17 (0.02)
GPS Operating Temperature	°F (°C)	-22 to 140 (-30 to 60)

Ordering Information

Please specify VHF center frequency, connector and GPS options in your order. TNC and BNC Connector option available.

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Multi-band Multi-port Transport Antenna
Multi-band Antenna
SM2600D(GPS) Series

Low profile, 219-258 MHz, 694-2700MHz diversity antenna, GPS and WiFi

- 5 element antenna, one VHF, dual 694-2700 MHz full band, one GPS and one WiFi
- The 694-2700 MHz twin elements are expandable for multiple radio system or diversity uses
- A maximum height of 4-1/4 inches complies with restriction for locomotives and other vehicles
- Black weather resistant and fire rated radome provides excellent environmental protection

Model	Description
SM2600D(PTC-WI-GPS)	GPS, 220MHz PTC, WiFi, 694-2700MHz diversity low profile transport antenna
SM2600D(PTC2-WI-GPS)	GPS, 256MHz PTC, WiFi, 694-2700MHz diversity low profile transport antenna



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range 1 (F1)	MHz	219 to 258
Gain F1 (typ)	dBd (dBi)	unity (2.1)
Pattern (F1)		Omni
Frequency Range 2 (F2)	MHz	694 to 2700
Gain F2 (typ)	dBd (dBi)	unity (2.1)
Pattern (F2)		Omni
Frequency Range 3 (F3)	MHz	694 to 2700
Gain F3 (typ)	dBd (dBi)	unity (2.1)
Pattern (F3)		Omni
Frequency Range 4 (F4)	MHz	2400 to 6000
Gain F4 (typ)	dBd (dBi)	unity (2.1)
Pattern (F4)		Omni
Polarization		vertical
Impedance	Ω	50
Pattern		Directional
Average Power Input (max)	W	5~125
Lightning protection		DC ground
GPS Center Frequency	MHz	1575.42
GPS Power Gain (typ)	dB	28
GPS Supply Voltage Range	VDC	3 to 5
GPS Current Consumption		12mA
GPS Output Impedance	Ω	50
GPS Noise Figure (max)	dB	2
GPS VSWR		2:1 max

Mechanical Specifications		
Height	in (mm)	4.25 (108)
Length	in (mm)	20.88 (530)
Width	in (mm)	11.5 (292)
Radome material		UV protected ABS
Weight	lbs (kg)	12.3 (5.58)
Actual Shipping weight	lbs (kg)	16.3 (7.4)
Shipping dimensions	in (mm)	L 23in W 14in H 10in
Radome Colour		Black

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Environmental Specifications

Horizontal Wind Resistance		5.03lb@100mph
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.02 (0)

Ordering Information

Specify VHF center frequency, connector type and GPS option at time of order.

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Multi-band Multi-port Transport Antenna
Multi-band Antenna
SM300(GPS) Series

Low profile, 0 dBd, universal transportation, GPS, 350-2700 MHz

- Covers full frequency band from 350 MHz to 2700 MHz by a single port
- VSWR=1.5:1 for 380-2700 MHz;VSWR=2:1 for 360-380 MHz;VSWR=2.5:1 for 350-360 MHz
- Includes GPS receiving antenna with an additional RG174 pigtail and SMA plug
- Excellent design for waterproofing and vibration and an overall height of 3.3 inches

Model	Description
SM300-SWBSNF(CWH-GPS)	0 dBd, GPS, 350-2700 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	350 to 2700
Bandwidth	MHz	2350
Connector		N-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	200
Lightning protection		DC ground
GPS Center Frequency	MHz	1575.42
GPS Power Gain (typ)	dB	28
GPS Supply Voltage Range	VDC	3.2 to 5
GPS Current Consumption		12 mA typical at 3 to 5 VDC
GPS Output Impedance	Ω	50
GPS Noise Figure (max)	dB	2
GPS VSWR		2.0 Maximum

Mechanical Specifications		
Height	in (mm)	3.3 (84)
Length	in (mm)	8 (203)
Overall Diameter	in (mm)	9.75 (248)
Radome Diameter	in (mm)	7.5 (191)
Radome material		UV stabilized ABS
Weight	lbs (kg)	2.75 (1.25)
Actual Shipping weight	lbs (kg)	4.75 (2.16)
Shipping dimensions	in (mm)	L 12in W 12in H 6in
GPS Pigtail Type		5 meter RG-174 cable with SMA plug
Ground Plane (min)	in (mm)	24x24
Radome Colour		White

Environmental Specifications		
Horizontal Wind Resistance		4.33 lb at 100 mph
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.12 (0.01)
GPS Operating Temperature	°F (°C)	-22 to 140 (-30 to 60)

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Multi-band Multi-port Transport Antenna
Multi-band Antenna
SM600(GPS) Series

High performance, low profile, universal transport, GPS, 694-2700 MHz

- Covers full frequency band from 694 MHz to 2700 MHz, with an additional built-in GPS
- Maximum 2 inches height with a black weather resistant and fire rated radome
- Easy installation- one 3/4" hole mount
- Excellent design for waterproofing and vibration adaptive to curve surface

Model	Description
SM600-SWBSNF(CWH-GPS)	0 dBd, N-Female, GPS, 694-2700 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	694 to 2700
Bandwidth	MHz	2006
Connector		N-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	200
Lightning protection		DC ground
GPS Center Frequency	MHz	1575.42
GPS Power Gain (typ)	dB	28
GPS Supply Voltage Range	VDC	3 to 5
GPS Current Consumption		12 mA typical
GPS Output Impedance	Ω	50
GPS Noise Figure (max)	dB	2
GPS VSWR		2.0 Maximum

Mechanical Specifications		
Depth	in (mm)	5.8 (147)
Height	in (mm)	1.95 (50)
Width	in (mm)	5.8 (147)
Radome material		UV stabilized ABS
GPS Pigtail Type		16.4 feet
Ground Plane (min)	in (mm)	14x14
Radome Colour		White

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.06 (0.01)
Wind Loading Area (1/2" ice)	ft² (m²)	0.07 (0.01)
Lateral thrust (100 mph No Ice)	lbs (N)	2.2 (9.8)
GPS Operating Temperature	°F (°C)	-22 to 140 (-30 to 60)

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Multi-Service Cross-Band Coupler, 138-174/380-512 MHz

- Allow the combination/separation of any 138-174 MHz with 380-512 MHz signals
- Add a new VHF BDA or repeater to an existing UHF DAS
- Enable sharing of feedlines and antennas
- High power handling for multi-service applications

Model	Description
FX2300NF	Cross-Band Coupler, 138-174/380-512 MHz

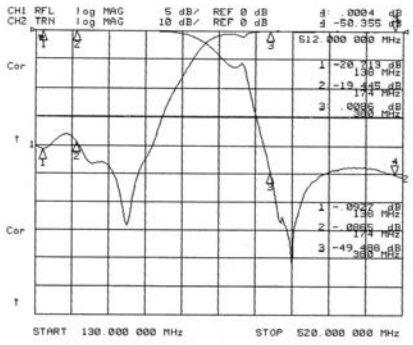


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For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
VSWR (max)		1.5:1
Isolation (typ)	dB	40
Connectors		N-Female
Frequency Band (Low Pass)	MHz	138 to 174
Frequency band (High Pass)	MHz	380 to 512
Pass band insertion loss (Low pass)	dB	0.4
Pass band insertion loss (High pass)	dB	0.4
Power handling (Low pass)	W	200
Power handling (High pass)	W	200
Input/ Output Impedance	Ω	50

Mechanical Specifications		
Weight	lbs (kg)	1 (0.45)
Shipping dimensions	in (mm)	L 9in W 6in H 3in
Dimensions (L x W x H)	in (mm)	L 5in W 2in H 2in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Multi-Service Cross-Band Coupler, 138-174/746-960 MHz

- Allow the combination/separation of any 138-174 MHz with 746-960 MHz signals
- Add a new VHF BDA or repeater to an existing 700 MHz, 800 MHz, 900 MHz DAS
- Enable sharing of feedlines and antennas
- High power handling for multi-service applications

Model	Description
FX2400NF	Cross-Band Coupler, 138-174/746-960 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
VSWR (max)		1.5:1
Isolation (typ)	dB	40
Connectors		N-Female
Frequency Band (Low Pass)	MHz	138 to 174
Frequency band (High Pass)	MHz	746 to 960
Pass band insertion loss (Low pass)	dB	0.4
Pass band insertion loss (High pass)	dB	0.4
Power handling (Low pass)	W	200
Power handling (High pass)	W	200
Input/ Output Impedance	Ω	50

Mechanical Specifications		
Weight	lbs (kg)	1 (0.45)
Shipping dimensions	in (mm)	L 9in W 6in H 3in
Dimensions (L x W x H)	in (mm)	L 5in W 2in H 2in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

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Multi-Service Cross-Band Coupler, 138-512/746-960 MHz

- Allow the combination/separation of any 138-512 MHz with 746-960 MHz signals
- Add a new VHF or UHF BDA or repeater to an existing 700 MHz, 800 MHz, 900 MHz DAS
- Enable sharing of feedlines and antennas
- High power handling for multi-service applications

Model	Description
FX3400NF	Cross-Band Coupler, 138-512/746-960 MHz

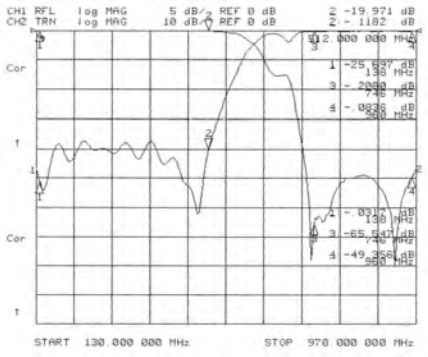


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
VSWR (max)		1.5:1
Isolation (typ)	dB	40
Connectors		N-Female
Frequency Band (Low Pass)	MHz	138 to 512
Frequency band (High Pass)	MHz	746 to 960
Pass band insertion loss (Low pass)	dB	0.4
Pass band insertion loss (High pass)	dB	0.4
Power handling (Low pass)	W	200
Power handling (High pass)	W	200
Input/ Output Impedance	Ω	50

Mechanical Specifications		
Weight	lbs (kg)	1 (0.45)
Shipping dimensions	in (mm)	L 9in W 6in H 3in
Dimensions (L x W x H)	in (mm)	L 5in W 2in H 2in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Multi-Service Cross-Band Coupler, 138-960/1710-2500 MHz

- Allow the combination/separation of any 138-960MHz with 1710-2500MHz signals
- Add a CDMA, UMTS, DCS, PCS, or AWS BDA or repeater to an existing Cellular and SMR DAS
- Enable sharing of feedlines and antennas
- High power handling for multi-service applications

Model	Description
FX4500NF	Cross-Band Coupler, 138-960/1710-2500 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
VSWR (max)		1.5:1
Isolation (typ)	dB	40
Connectors		N-Female
Frequency Band (Low Pass)	MHz	138 to 960
Frequency band (High Pass)	MHz	1710 to 2500
Pass band insertion loss (Low pass)	dB	0.4
Pass band insertion loss (High pass)	dB	0.4
Power handling (Low pass)	W	250
Power handling (High pass)	W	50
Input/ Output Impedance	Ω	50

Mechanical Specifications		
Weight	lbs (kg)	1 (0.45)
Shipping dimensions	in (mm)	L 9in W 6in H 3in
Dimensions (L x W x H)	in (mm)	L 5in W 2in H 1in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

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Concealed Antenna for Undercover Vehicles, Low band

- Compact, low profile design that is completely hidden
- Easy installation and tuning for optimum performance and durability
- 100 Watts power handling
- Ideal for both covert and overt law enforcement vehicles

Model	Description
SHA111C-SFXSUM	Concealed Antenna for Undercover Vehicles, Low band

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Example shown, antenna installed inside roof rack. The specific vehicle roof rack is to be supplied by the customer.

Electrical Specifications

Tx Frequency	MHz	42 ± 5
Rx Frequency	MHz	42 ± 5
Connector		Mini UHF-Male
Gain (nominal)		-8 to -4 dBd, depending on actual roof rack & vehicle
VSWR (typ)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	100
Lightning protection		DC ground

Mechanical Specifications

Width	in (mm)	52 (1321)
Dimensions		Varies to actual roof rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +176 (-40 to +80)

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Concealed Single/Dual Antenna for Undercover Vehicles, 138-174 MHz

- Compact design that is completely hidden
- Single unit can handle 150 Watts, dual can handle 300 Watts
- Easy installation and tuning for optimum performance and durability
- Ideal for both covert and overt law enforcement vehicles

Model	Description
SHA211-SF1SNM	3-6 MHz B.W., 150-174MHz
SHA211-SF2SNM	3-6 MHz B.W., 150-174MHz
SHA2112-SF1SNM	Dual, 138-150 MHz
SHA2112-SF2SNM	Dual, 150-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	138 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		2:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	150 / 300
Bandwidth (Min-Max)	MHz	3 to 6

Mechanical Specifications		
Depth	in (mm)	2 (51)
Length/ Height	in (mm)	22 (559)
Width	in (mm)	3 (76)
Shipping dimensions	in (mm)	L 9in W 14in H 5in
Mounting hardware		#8-32 screws (4)

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Clips are supplied to temporarily secure the radiator to the bumper. VA250 glue should be used for added support (may be ordered separately Sinclair part number 6500295).

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Concealed Single/Dual Antenna for Undercover Vehicles, 380-512 MHz

- Completely hidden does not need any existing vehicle antennas
- Wide band with 20 to 50 MHz bandwidth depending on the vehicle
- Easy installation and tuning for optimum performance in a wide variety of vehicles
- Ideal for both covert and overt law enforcement vehicles

Model	Description
SHA311-SF1SNM	20-50 MHz B.W., 380-430 MHz
SHA311-SF2SNM	20-50 MHz B.W., 430-470 MHz
SHA311-SF3SNM	20-50 MHz B.W., 470-512 MHz
SHA3112-SF1SNM	Dual, 380-430 MHz
SHA3112-SF2SNM	Dual, 430-470 MHz
SHA3112-SF3SNM	Dual, 470-512 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	380 to 512
Connector		N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		2:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	150 / 300
Bandwidth (Min-Max)	MHz	20 to 50

Mechanical Specifications

Depth	in (mm)	2 (51)
Length/ Height	in (mm)	19.5 (495)
Width	in (mm)	3 (76)
Shipping dimensions	in (mm)	L 9in W 14in H 5in
Mounting hardware		#8-32 screws (4)

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information

Clips are supplied to temporarily secure the radiator to the bumper. VA250 glue should be used for added support (may be ordered separately from Sinclair, part number 6500295).

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Concealed Single/Dual Antenna for Undercover Vehicles, 746-869 MHz

- Completely hidden-does not need any existing vehicle antennas
- Wide band with 60 to 80 MHz bandwidth depending on the vehicle
- Easy installation and tuning for optimum performance and durability in a wide variety of vehicles
- Applicable for both covert and overt law enforcement vehicles

Model	Description
SHA411-SF1SNM	40-70 MHz B.W., 746-806 MHz
SHA411-SF2SNM	40-70 MHz B.W., 806-869 MHz
SHA4112-SF1SNM	Dual, 746-806 MHz
SHA4112-SF2SNM	Dual, 806-869 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	746 to 869
Connector		N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		2:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Average Power Input (max)	W	150 / 300
Bandwidth (Min-Max)	MHz	40 to 70

Mechanical Specifications		
Depth	in (mm)	2 (51)
Length/ Height	in (mm)	10.5 (267)
Width	in (mm)	3 (76)
Shipping dimensions	in (mm)	L 9in W 14in H 5in
Mounting hardware		#8-32 screws (4)

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Clips are supplied to temporarily secure the radiator to the bumper. VA250 glue should be used for added support (may be ordered separately Sinclair part number 6500295).

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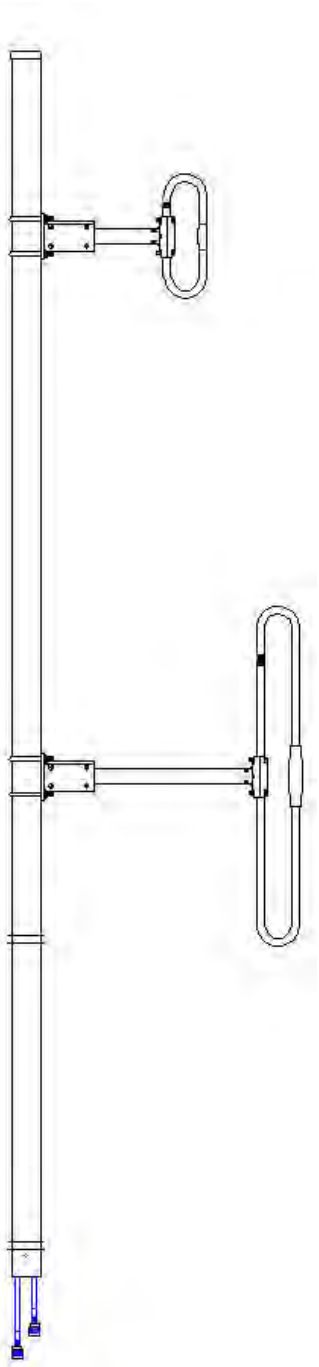
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Dual port single UHF/ VHF, 1 dipole, 2.0 dBd, 406-512 & 138-174 MHz

- UHF section covers 406-512 MHz and VHF covers 138-174
- 2.0 dBd gain with bi-directional pattern
- 75W for UHF/ 200 W for VHF power handling.

Model	Description
SD310/210D-HF2P2SNM(B)	Dual port single UHF/ VHF, 2 dipole antenna, 2.0 gain, 406-512 & 138-174 MHz
SD310/210D-SF2P2SNM(B-LS)	2.0 dBd, lightning spike, 406-512 & 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range 1 (F1)	MHz	406 to 512
Frequency Range 2 (F2)	MHz	138 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	2 (4.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Offset or Bi-directional / Bi- directional
Isolation (typ)	dB	30
Vertical beamwidth (typ)	degrees	68
Average Power Input (max)	W	200
Lightning protection		DC ground

Mechanical Specifications		
Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	132 (3353)
Width	in (mm)	42.5 (1080)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	30 (762)
Radiating element material		aluminum
Weight	lbs (kg)	25 (11.35)
Weight iced	lbs (kg)	56 (25.42)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp130
Actual Shipping weight	lbs (kg)	53 (24.06)
Shipping dimensions	in (mm)	L 132in W 48in H 6in
Mounting configurations		Bottom mount

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.24 (0.21)
Wind Loading Area (1/2" ice)	ft² (m²)	3.56 (0.33)
Rated wind velocity (no ice)	mph (km/h)	165 (266)
Rated wind velocity (1/2" radial ice)	mph (km/h)	140 (225)
Lateral thrust (100 mph No Ice)	lbs (N)	81 (360.3)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	51 (68.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	243 (328.1)
Tip deflection (100 mph No Ice)	degrees	0.62

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A Norsat Company

Lumped Element Filter
Pass-Reject Filter
FPxxxRxxx-(C) Series

Pass and Reject two VHF close frequency bands

- Suitable for close frequency band signal isolation
- Compact construction with N type connectors
- 100 watts power handling capability
- Various band configurations available.

Model	Description
FP161R220/098-NMF	Pass 160-162 MHz, Reject 217-223 & 88-108 MHz
FP220R161/098-NMF	Pass 217-223 MHz, Reject 160-162 & 88-108 MHz

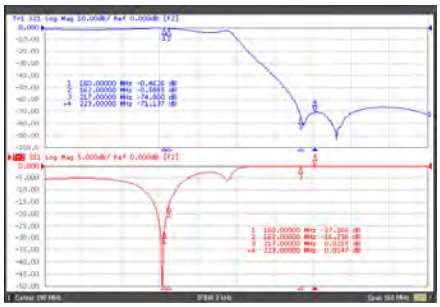


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range (Pass Band)	MHz	160 to 223
Frequency Range (Reject Band)	MHz	160 to 223
Bandwidth	MHz	2 to 6
Pass band Insertion Loss (max)	dB	0.7
Rejection level (min)	dB	70
Input VSWR (max)		1.35:1 / 1.5:1
Impedance	Ω	50
Average Power Input (max)	W	100
Input Connectors		N-Male
Output Connectors		N-Female

Mechanical Specifications		
Height	in (mm)	0.96 (24)
Length	in (mm)	4.83 (123)
Width	in (mm)	1.45 to 1.46 (37 to 37)
Net Weight	lbs (kg)	0.2 (0.09)
Mounting information		Flange Mount
Shipping dimensions	in (mm)	L 9in W 6in H 3in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



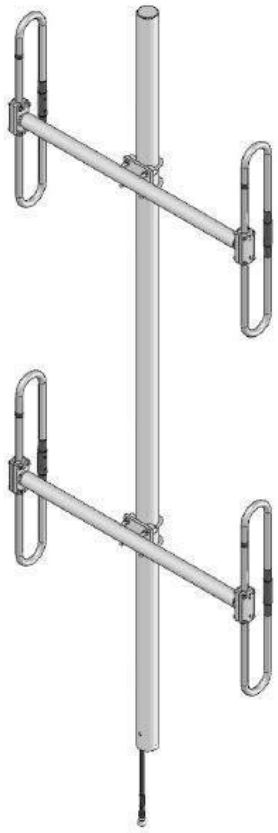
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Exposed dipole array, 7dBd, Bidirectional, 190-225 MHz

- Wide band, covering the full range of 190-225MHz
- Bidirectional pattern, perfectly suited for oil pipe, power line, highway and railroad RF coverage
- Heavier duty, black anodized and downtilt models are available on special order
- Easy to install, no on-site assembly required

Model	Description
SD236-SF3SNM(D00B)	Exposed dipole array, 7dBd, Bi-directional, 190-225 MHz

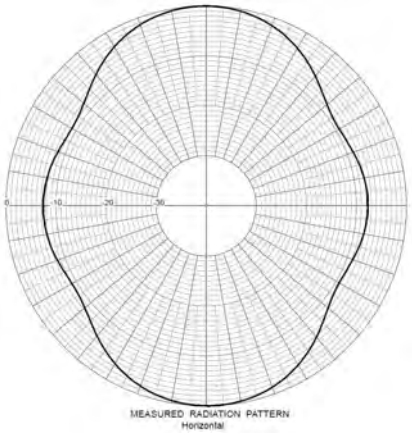


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	190 to 225
Bandwidth	MHz	35
Connector		N-Male
Gain (nominal)	dBd (dBi)	7 (9.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional
Horizontal beamwidth (typ)	degrees	55
Vertical beamwidth (typ)	degrees	33
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications		
Depth	in (mm)	5.1 (130)
Length/ Height	in (mm)	96 (2438)
Width	in (mm)	36 (914)
Base pipe diameter	in (mm)	2.38 (60)
Weight	lbs (kg)	26.5 (12.03)
Weight iced	lbs (kg)	62 (28.15)
Mounting Hardware (Optional)		Clamp005
Actual Shipping weight	lbs (kg)	43 (19.52)
Shipping dimensions	in (mm)	L 100in W 36in H 6in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.49 (0.23)
Wind Loading Area (1/2" ice)	ft² (m²)	4.23 (0.39)
Rated wind velocity (no ice)	mph (km/h)	175 (282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	125 (201)
Lateral thrust (100 mph No Ice)	lbs (N)	61 (271.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	145 (195.8)
Tip deflection (100 mph No Ice)	degrees	0.35



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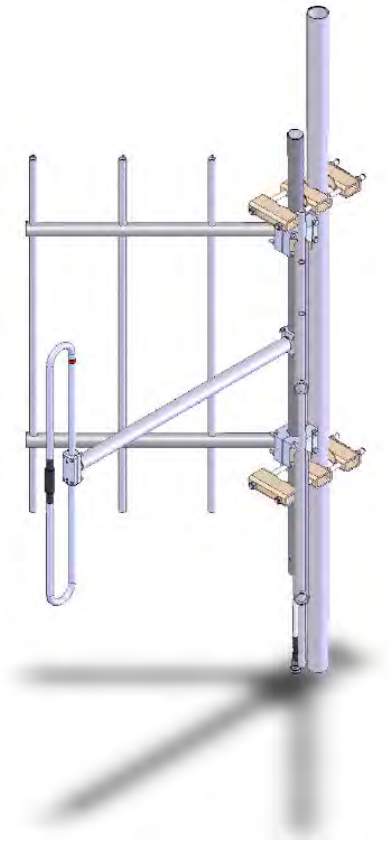
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Low PIM VHF reflector single dipole antenna, 138-174 MHz

- 60, 90 or 120 degrees horizontal beamwidth available for VHF simulcast applications
- Broadband operation, covering 138-174 MHz full band
- Unique design for low passive intermodulation
- Easy to ship and assemble

Model	Description
SD210R-SF2P120LDF(S)	120° beamwidth, 138-174MHz
SD210R-SF2P60LDF(S)	60° beamwidth, 138-174MHz
SD210R-SF2P90LDF(S)	90° beamwidth, 138-174MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

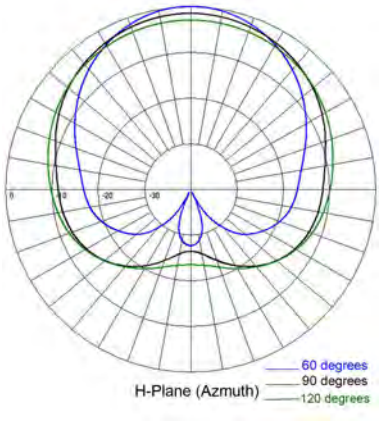
Frequency Range	MHz	138 to 174
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	4.5 to 7 (6.6 to 9.1)
Polarization		vertical
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	60 to 120
Vertical beamwidth (typ)	degrees	72
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	17 to 25

Mechanical Specifications

Depth	in (mm)	23.8 to 45 (605 to 1143)
Length/ Height	in (mm)	60 (1524)
Width	in (mm)	45 to 87.5 (1143 to 2223)
Base pipe diameter	in (mm)	1.9 (48)
Weight	lbs (kg)	33.2 to 44.5 (15.07 to 20.2)
Weight iced	lbs (kg)	75.3 to 118 (34.19 to 53.57)
Mounting Hardware (Optional)		Clamp006A OR Clamp006B
Actual Shipping weight	lbs (kg)	84 (38.14)
Shipping dimensions	in (mm)	L 66in W 6in H(38 - 62)in
Mounting configurations		side mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.37 to 5.1 (0.31 to 0.47)
Wind Loading Area (1/2" ice)	ft² (m²)	5.9 to 9.7 (0.55 to 0.9)
Rated wind velocity (no ice)	mph (km/h)	155 to 180 (250 to 290)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 to 130 (185 to 209)
Lateral thrust (100 mph No Ice)	lbs (N)	119 to 172 (529.3 to 765.1)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	108 to 295 (145.8 to 398.3)



Ordering Information
Please contact Sinclair CSR to order mounting clamps.

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Low PIM VHF reflector two dipole antenna, 138-174MHz

- 60, 90 and 120 degrees horizontal beamwidths available for VHF simulcast applications
- Broadband operation, covering 138-174 MHz full band
- Easy to ship and assemble
- PIM rated versions available

Model	Description
SD212R-SF2P120LDF(D00S)	120° beamwidth, low PIM, 138-174 MHz
SD212R-SF2P120LNF(D00S)	120° beamwidth, 138-174 MHz
SD212R-SF2P60LDF(D00S)	60° beamwidth, low PIM, 138-174 MHz
SD212R-SF2P90LDF(D00S)	90° beamwidth, low PIM, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

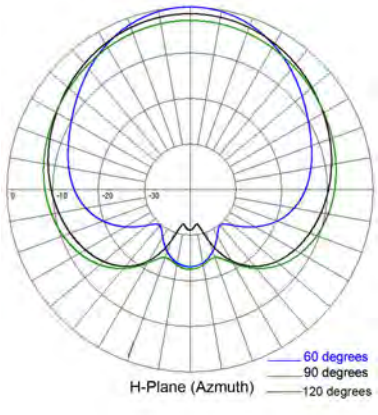
Frequency Range	MHz	138 to 174
Connector		7/16 DIN-Female / N-Female
Gain (nominal)	dBd (dBi)	7 to 10 (9.1 to 12.1)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Directional
Horizontal beamwidth (typ)	degrees	60 to 120
Vertical beamwidth (typ)	degrees	36
Main Beam Electrical Tilt (Downtilt)	degrees	0, 3, 6
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -139
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	17 to 25

Mechanical Specifications

Depth	in (mm)	28 to 42 (711 to 1067)
Width	in (mm)	45 to 87.5 (1143 to 2223)
Base pipe diameter	in (mm)	2.38 (60)
Weight	lbs (kg)	71 to 104.5 (32.23 to 47.44)
Weight iced	lbs (kg)	168 to 249 (76.27 to 113.05)
Mounting Hardware (Optional)		Clamp006A/Clamp006B & Clamp0064HD/Clamp017
Shipping dimensions	in (mm)	L 126in W 6in H(32 - 62)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	7.2 to 10.3 (0.67 to 0.96)
Wind Loading Area (1/2" ice)	ft² (m²)	12.7 to 19.8 (1.18 to 1.84)
Rated wind velocity (no ice)	mph (km/h)	155 (250)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 to 115 (177 to 185)
Lateral thrust (100 mph No Ice)	lbs (N)	148 to 376 (658.3 to 1672.4)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	127 to 579 (171.5 to 781.7)



Ordering Information
Please contact Sinclair CSR to order mounting clamps.

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Low PIM VHF reflector four dipole antenna, 138-174 MHz.

- 60, 90 or 120 degrees horizontal beamwidth for VHF simulcast applications
- Four bay stacked dipoles offering high gain directional coverage
- Unique design for low passive intermodulation
- Easy to ship and assemble

Model	Description
SD214R-SF2P120LDF(D00S)	120° beamwidth, 138-174 MHz
SD214R-SF2P60LDF(D00S)	60° beamwidth, 138-174 MHz
SD214R-SF2P90LDF(D00S)	90° beamwidth, 138-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

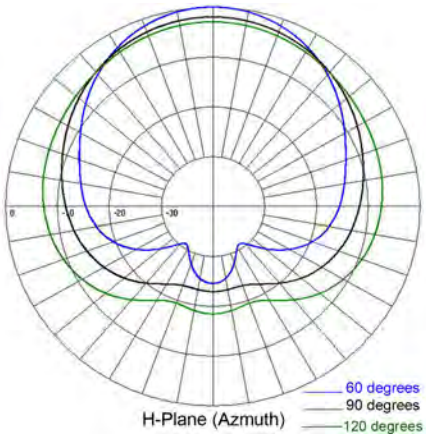
Frequency Range	MHz	138 to 174
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9.5 to 12.5 (11.6 to 14.6)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Directional
Horizontal beamwidth (typ)	degrees	60 to 120
Vertical beamwidth (typ)	degrees	18
Main Beam Electrical Tilt (Downtilt)	degrees	0, 3, 6
Average Power Input (max)	W	300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	17 to 25

Mechanical Specifications

Depth	in (mm)	23.8 to 45 (605 to 1143)
Length/ Height	in (mm)	240 (6096)
Width	in (mm)	45 to 87.5 (1143 to 2223)
Base pipe diameter	in (mm)	2.38 (60)
Weight	lbs (kg)	143 to 181 (64.92 to 82.17)
Weight iced	lbs (kg)	318 to 453 (144.37 to 205.66)
Mounting Hardware (Optional)		Clamp006A/Clamp006B & Clamp0064HD/Clamp017
Shipping dimensions	in (mm)	L 246in W 6in H(32 - 62)in
Mounting configurations		side mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	15.6 to 20.72 (1.45 to 1.92)
Wind Loading Area (1/2" ice)	ft² (m²)	29.1 to 39.52 (2.7 to 3.67)
Rated wind velocity (no ice)	mph (km/h)	155 (250)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 to 115 (177 to 185)
Lateral thrust (100 mph No Ice)	lbs (N)	303 to 752 (1347.7 to 3344.9)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	290 to 1158 (391.5 to 1563.3)



Ordering Information
Please contact Sinclair CSR to order mounting clamps.

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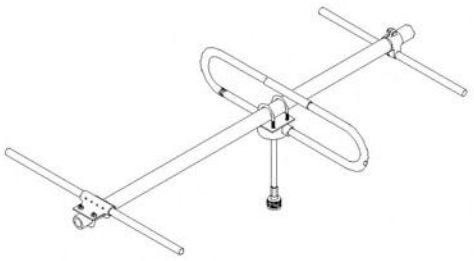
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Yagi directional, 5.5 dBd, center mount, 138-174 MHz

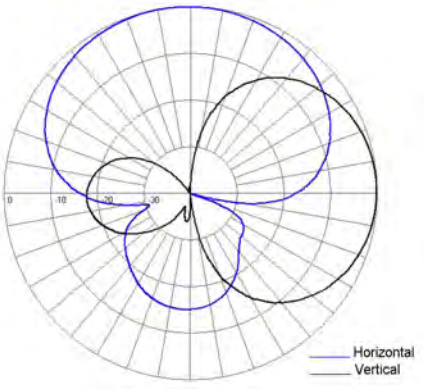
- Rugged 3-element yagi, 5.5 dBd gain
- Designed for medium gain applications
- Center-boom mounting

Model	Description
SY203-SF1SNM(C)	5.5 dBd, 138-144 MHz
SY203-SF1SNM(C-ABK)	5.5 dBd, Black Anodized, 138-144 MHz
SY203-SF2SNM(C)	5.5 dBd, 143-149 MHz
SY203-SF2SNM(C-ABK)	5.5 dBd, Black Anodized, 143-149 MHz
SY203-SF3SNM(C)	5.5 dBd, 148-154 MHz
SY203-SF3SNM(C-ABK)	5.5 dBd, Black anodized, 148-154 MHz
SY203-SF4SNM(C)	5.5 dBd, 152-159 MHz
SY203-SF4SNM(C-ABK)	5.5 dBd, Black Anodized, 152-159 MHz
SY203-SF5SNM(C)	5.5 dBd, 157-164 MHz
SY203-SF5SNM(C-ABK)	5.5 dBd, Black Anodized, 157-164 MHz
SY203-SF6SNM(C)	5.5 dBd, 162-169 MHz
SY203-SF6SNM(C-ABK)	5.5 dBd, Black Anodized, 162-169 MHz
SY203-SF7SNM(C)	5.5 dBd, 167-174 MHz
SY203-SF7SNM(C-ABK)	5.5 dBd, Black Anodized, 167-174 MHz
SY203-SF8SNM(C)	5.5 dBd, 141-148 MHz
SY203-SF8SNM(C-ABK)	5.5 dBd, Black Anodized, 141-148 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	138 to 174
Bandwidth	MHz	6 to 7
Connector		N-Male
Gain (nominal)	dBd (dBi)	5.5 (7.6)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	87
Vertical beamwidth (typ)	degrees	61
Average Power Input (max)	W	200
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	12



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Mechanical Specifications		
Depth	in (mm)	6.5 (165)
Length/ Height	in (mm)	40.1 (1019)
Width	in (mm)	42 (1067)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	3.2 (1.45)
Mounting Hardware (Standard)		Clamp001
Actual Shipping weight	lbs (kg)	15 (6.81)
Shipping dimensions	in (mm)	L(47 - 85)in W 6in H(6 - 18)in

Environmental Specifications		
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.8 (0.07)
Wind Loading Area (1/2" ice)	ft² (m²)	1.68 (0.16)
Rated wind velocity (no ice)	mph (km/h)	150 (242)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	29.5 (131.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	8.1 (10.9)

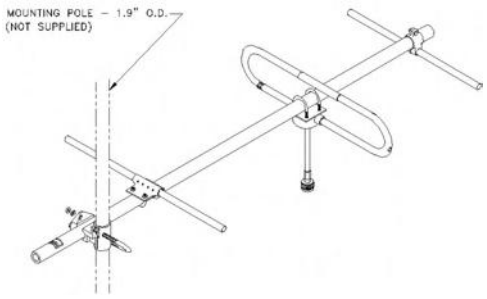
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Yagi directional, 5.5 dBd, end mount, 138-174 MHz

- Rugged 3 element yagi, 5.5 dBd gain, 138-174 MHz
- Designed for medium gain applications
- Extended boom for end mounting

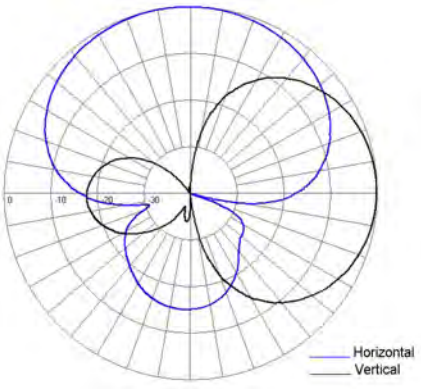
Model	Description
SY203-SF1SNM(E-ABK)	5.5 dBd, 138-144 MHz
SY203-SF2SNM(E-ABK)	5.5 dBd, 143-149 MHz
SY203-SF4SNM(E)	5.5 dBd, 152-159 MHz
SY203-SF4SNM(E-ABK)	5.5 dBd, 152-159 MHz
SY203-SF5SNM(E-ABK)	5.5 dBd, 157-164 MHz
SY203-SF6SNM(E-ABK)	5.5 dBd, 162-169 MHz
SY203-SF7SNM(E-ABK)	5.5 dBd, 167-174 MHz
SY203-SF8SNM(E-ABK)	5.5 dBd, 141-148 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	138 to 174
Bandwidth	MHz	6 to 7
Connector		N-Male
Gain (nominal)	dBd (dBi)	5.5 (7.6)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	87
Vertical beamwidth (typ)	degrees	61
Average Power Input (max)	W	200
Front-to-back Ratio	dB	12 to 17
Lightning protection		DC ground

Mechanical Specifications		
Depth	in (mm)	6.5 (165)
Length/ Height	in (mm)	75.3 (1913)
Width	in (mm)	42 to 60 (1067 to 1524)
Radiating element material		aluminum /
Reflector material		aluminum /
Weight	lbs (kg)	5.5 (2.5)
Mounting Hardware (Standard)		Clamp001
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 85in W 60in H 6in
Boom Diameter	in (mm)	1.5 (38)



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.05 (0.1)
Wind Loading Area (1/2" ice)	ft² (m²)	2.1 (0.2)
Rated wind velocity (no ice)	mph (km/h)	135 (217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 (145)
Lateral thrust (100 mph No Ice)	lbs (N)	38.7 (172.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	126 (170.1)

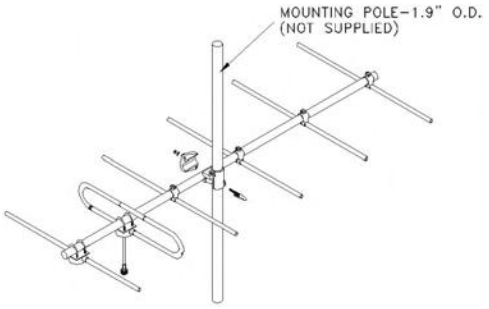
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Yagi directional, 9.5 dBd, center mount, 108-225 MHz

- Six element yagi
- DC grounded for lightning protection
- Center boom mounting

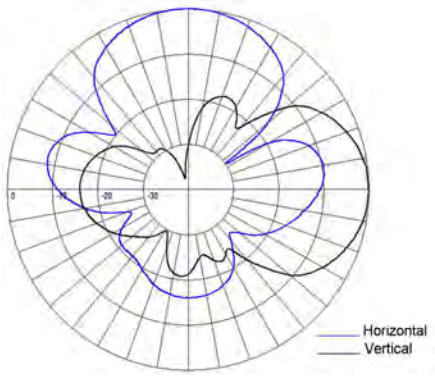
Model	Description
SY206-SF10SNM(C)	9.5 dBd, 108-118 MHz
SY206-SF1SNM(C)	9.5 dBd, 148-155 MHz
SY206-SF2SNM(C)	9.5 dBd, 152-159 MHz
SY206-SF3SNM(C)	9.5 dBd, 157-164 MHz
SY206-SF4SNM(C)	9.5 dBd, 162-169 MHz
SY206-SF5SNM(C)	9.5 dBd, 167-174 MHz
SY206-SF6SNM(C)	9.5 dBd, 138-143 MHz
SY206-SF7SNM(C)	9.5 dBd, 143-148 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	108 to 174
Bandwidth	MHz	4 to 10
Connector		N-Male
Gain (nominal)	dBd (dBi)	9.5 (11.6)
Input VSWR (max)		2:1 / 1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	48 to 56
Vertical beamwidth (typ)	degrees	46 to 56
Average Power Input (max)	W	200
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	12 to 17

Mechanical Specifications		
Depth	in (mm)	5.75 to 6 (146 to 152)
Length/ Height	in (mm)	80.91 to 109 (2055 to 2769)
Width	in (mm)	42.17 to 53 (1071 to 1346)
Base pipe diameter	in (mm)	1.5 (38)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	12.5 to 37.6 (5.68 to 17.07)
Weight iced	lbs (kg)	34.38 (15.61)
Mounting Hardware (Standard)		Clamp001
Actual Shipping weight	lbs (kg)	41 to 59.5 (18.61 to 27.01)
Shipping dimensions	in (mm)	L(112 - 127)in W(8 - 54)in H 7in



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.41 to 2.44 (0.13 to 0.23)
Wind Loading Area (1/2" ice)	ft² (m²)	2.9 to 4.41 (0.27 to 0.41)
Rated wind velocity (no ice)	mph (km/h)	115 to 145 (185 to 233)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 95 (137 to 153)
Lateral thrust (100 mph No Ice)	lbs (N)	31 to 120 (137.9 to 533.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	81 to 141 (109.4 to 190.4)

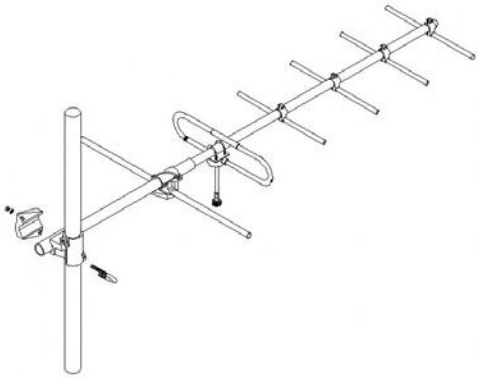
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Yagi directional, 9.5 dBd, end mount, 138-225 MHz

- Six element Yagi with extended boom for end mount
- DC grounded for lightning protection

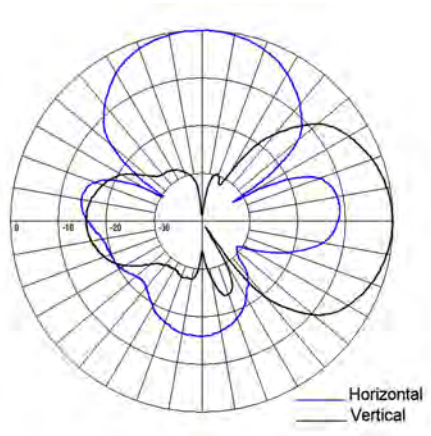
Model	Description
SY206-SF11SNM(U)	9.5 dBd, universal mount, 217-225 MHz
SY206-SF1SNM(E)	9.5 dBd, end mount, 148-152 MHz
SY206-SF2SNF(E)	9.5 dBd, end mount, 152-159 MHz
SY206-SF2SNM(E)	9.5 dBd, end mount, 152-159 MHz
SY206-SF3SNF(E)	9.5 dBd, end mount, 157-164 MHz
SY206-SF3SNM(E)	9.5 dBd, end mount, 157-164 MHz
SY206-SF4SNM(E)	9.5 dBd, end mount, 162-169 MHz
SY206-SF5SNM(E)	9.5 dBd, end mount, 167-174 MHz
SY206-SF6SNM(E)	9.5 dBd, end mount, 138-143 MHz
SY206-SF7SNM(E)	9.5 dBd, end mount, 143-148 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	138 to 225
Connector		N-Male / N-Female
Gain (nominal)	dBd (dBi)	9.5 (11.6)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	54 to 56
Vertical beamwidth (typ)	degrees	44 to 46
Average Power Input (max)	W	200
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	17

Mechanical Specifications		
Depth	in (mm)	5.25 to 6.1 (133 to 155)
Length/ Height	in (mm)	63 to 113.38 (1600 to 2880)
Width	in (mm)	26.75 to 42 (679 to 1067)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	6.5 to 12.5 (2.95 to 5.68)
Weight iced	lbs (kg)	43.5 (19.75)
Mounting Hardware (Standard)		Clamp001
Actual Shipping weight	lbs (kg)	11 to 45 (4.99 to 20.43)
Shipping dimensions	in (mm)	L(85 - 127)in W(6 - 8)in H(6 - 7)in



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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.1 to 1.92 (0.1 to 0.18)
Wind Loading Area (1/2" ice)	ft² (m²)	2.2 to 3.75 (0.2 to 0.35)
Rated wind velocity (no ice)	mph (km/h)	130 to 135 (209 to 217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 90 (137 to 145)
Lateral thrust (100 mph No Ice)	lbs (N)	72 to 81 (320.3 to 360.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	216 to 333 (291.6 to 449.6)

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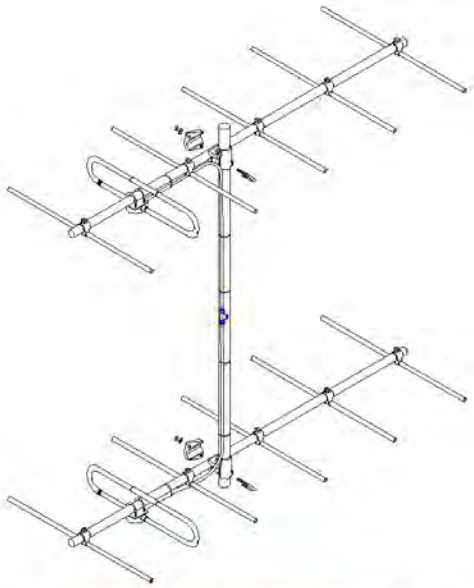
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Yagi dual stacked, 12 dBd, center mount, 137-174 MHz

- Dual stacked six element Yagi for higher gain
- Does not includes mounting pipe
- DC grounded for lightning protection
- Can be arranged horizontally or vertically stacked and horizontally or vertically polarized

Model	Description
SY2062-SF1SNM(C)	12 dBd, 148-155 MHz
SY2062-SF2SNM(C)	12 dBd, 152-159 MHz
SY2062-SF3SNM(C)	12 dBd, 157-164 MHz
SY2062-SF4SNM(C)	12 dBd, 162-169 MHz
SY2062-SF5SNM(C)	12 dBd, 167-174 MHz
SY2062-SF6SNM(C)	12 dBd, 137-143 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Polarization	Stacking	E-Plane	H-Plane
Vertical	Vertical	23	56
Vertical	Horizontal	46	28
Horizontal	Vertical	46	28
Horizontal	Horizontal	23	56

Electrical Specifications

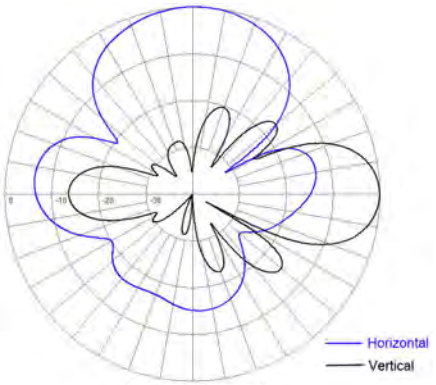
Frequency Range	MHz	137 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	12 (14.1)
VSWR (max)		1.5:1
Polarization		vertical or horizontal / vertical
Pattern		Directional
Average Power Input (max)	W	300
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	17

Mechanical Specifications

Depth	in (mm)	106.13 to 129 (2696 to 3277)
Width	in (mm)	5.5 to 5.9 (140 to 150)
Base pipe diameter	in (mm)	1.5 (38)
Radiating element material		aluminum
Reflector material		aluminum /
Weight	lbs (kg)	21.5 to 24.3 (9.76 to 11.03)
Weight iced	lbs (kg)	59 to 71 (26.79 to 32.23)
Mounting Hardware (Standard)		Clamp001
Actual Shipping weight	lbs (kg)	29 to 41 (13.17 to 18.61)
Shipping dimensions	in (mm)	L 127in W(7 - 8)in H(7 - 8)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.51 to 2.97 (0.23 to 0.28)
Wind Loading Area (1/2" ice)	ft² (m²)	5.1 to 6.1 (0.47 to 0.57)
Rated wind velocity (no ice)	mph (km/h)	145 to 165 (233 to 266)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 to 105 (145 to 169)
Lateral thrust (100 mph No Ice)	lbs (N)	61 to 159 (271.3 to 707.2)



Vertically Stacked
Vertically Polarized

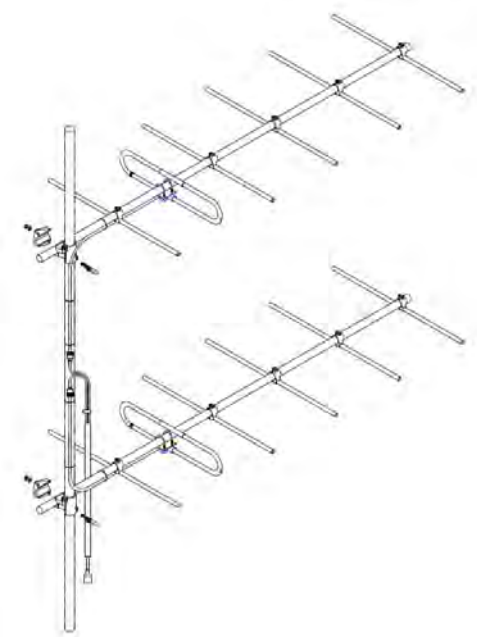
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Yagi dual stacked, 6.5/12 dBd, end mount, 138-225 MHz

- Dual stacked for higher gain or bi-directional coverage
- Outstanding durability and performance
- DC ground potential for lightning protection
- Mounting pipe is NOT included

Model	Description
SY2062-SF11SNM(U)	12 dBd, universal mount, 216-225 MHz
SY2062-SF1SNM(E)	12 dBd, end mount, 148-155 MHz
SY2062-SF2SNM(E)	12 dBd, end mount, 152-159 MHz
SY2062-SF3SNM(E)	12 dBd, end mount, 157-164 MHz
SY2062-SF4SNM(E)	12 dBd, end mount, 162-169 MHz
SY2062-SF5SNM(E)	12 dBd, end mount, 167-174 MHz
SY2062-SF7SNM(E)	12 dBd, end mount, 143-148 MHz
SY2062-SF8SNM(E)	12 dBd, end mount, 156-162 MHz



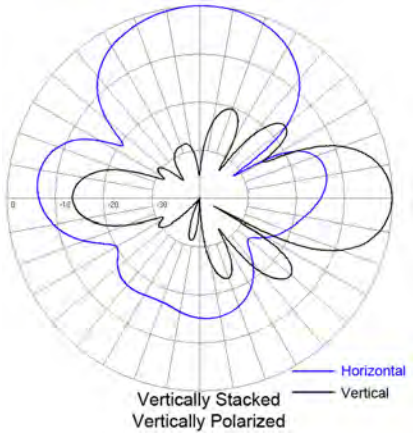
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	143 to 225
Bandwidth	MHz	4 to 9
Connector		N-Male
Gain (nominal)	dBd (dBi)	12 (14.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal / vertical
Impedance	Ω	50
Pattern		Directional
Average Power Input (max)	W	300
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	17

Mechanical Specifications

Depth	in (mm)	5.5 to 125 (140 to 3175)
Length/ Height	in (mm)	63 to 111.75 (1600 to 2838)
Width	in (mm)	5.5 to 26.75 (140 to 679)
Base pipe diameter	in (mm)	1.5 to 1.9 (38 to 48)
Radiating element material		aluminum
Reflector material		aluminum /
Weight	lbs (kg)	13 to 26.2 (5.9 to 11.89)
Weight iced	lbs (kg)	51 to 87.4 (23.15 to 39.68)
Mounting Hardware (Standard)		Clamp001 / Clamp008
Actual Shipping weight	lbs (kg)	26 to 79 (11.8 to 35.87)
Shipping dimensions	in (mm)	L(10 - 120)in W(6 - 12)in H(6 - 48)in



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.08 to 3.76 (0.19 to 0.35)
Wind Loading Area (1/2" ice)	ft² (m²)	3.88 to 7.32 (0.36 to 0.68)
Rated wind velocity (no ice)	mph (km/h)	120 to 175 (193 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 125 (137 to 201)
Lateral thrust (100 mph No Ice)	lbs (N)	77 to 142 (342.5 to 631.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	162 to 652 (218.7 to 880.2)
Tip deflection (100 mph No Ice)	degrees	1.5 to 2.4

Ordering Information

Mounting pipe is not included.

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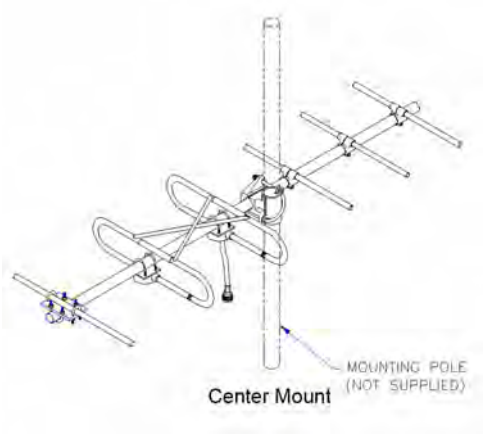
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Yagi directional, 7 dBd, broad band, 138-174 MHz

- Extremely wide bandwidth makes these antennas an excellent stocking item
- For applications requiring extra broadband operation
- Dual and quad arrays are available for higher gain needs
- Center boom mounting

Model	Description
SY250-SF2SNM(C)	7 dBd, center mount, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	138 to 174
Bandwidth	MHz	36
Connector		N-Male
Gain (nominal)	dBd (dBi)	7 (9.1)
Input VSWR (max)		2:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	60
Average Power Input (max)	W	200
Front-to-back ratio (typ)	dB	20

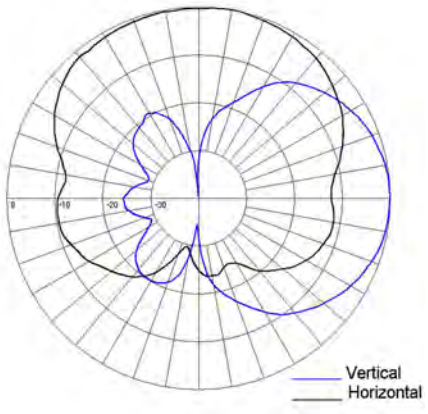
Mechanical Specifications

Depth	in (mm)	5 (127)
Length/ Height	in (mm)	80.5 (2045)
Width	in (mm)	42 (1067)
Base pipe diameter	in (mm)	1.5 (38)
Weight	lbs (kg)	9.5 (4.31)
Weight iced	lbs (kg)	31.2 (14.16)
Mounting Hardware (Standard)		Clamp001
Actual Shipping weight	lbs (kg)	27 (12.26)
Shipping dimensions	in (mm)	L 84in W 48in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.51 (0.14)
Wind Loading Area (1/2" ice)	ft² (m²)	3.09 (0.29)
Rated wind velocity (no ice)	mph (km/h)	173 (279)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	39 (173.5)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	57 (77)

Ordering Information
Mounting hardware must be ordered separately for Unversal mount version.



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Yagi directional, 7 dBd gain, end mount, 138-174 MHz

- Extremely wide bandwidth makes these antennas an excellent stocking item
- Also ideal for applications requiring extra broadband operation
- Designed to withstand severe icing and hoarfrost conditions
- Extended boom for end mount

Model	Description
SY250-SF2SNM(E)	7 dBd, end mount, 138-174 MHz
SY2504-SF2SNM(E)	12 dBd, end mount, 138-174 MHz

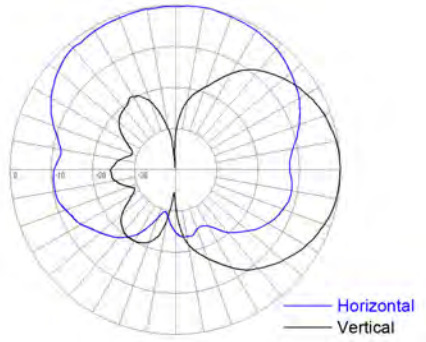


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	138 to 174
Bandwidth	MHz	36
Connector		N-Male
Gain (nominal)	dBd (dBi)	7 to 12 (9.1 to 14.1)
Input VSWR (max)		2:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	40 to 80
Vertical beamwidth (typ)	degrees	30 to 60
Front-to-back ratio (typ)	dB	20

Mechanical Specifications		
Length/ Height	in (mm)	108 (2743)
Weight	lbs (kg)	13.9 (6.31)
Mounting Hardware (Standard)		Clamp008
Actual Shipping weight	lbs (kg)	55 to 220 (24.97 to 99.88)
Shipping dimensions	in (mm)	L 111in W 7in H 44in

Environmental Specifications		
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.73 (0.16)
Rated wind velocity (no ice)	mph (km/h)	155 (250)
Rated wind velocity (1/2" radial ice)	mph (km/h)	100 (161)
Lateral thrust (100 mph No Ice)	lbs (N)	69 (306.9)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	0 (0)



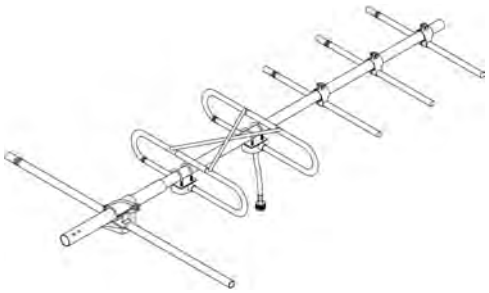
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Yagi directional, 8 dBd gain, broad band, 138-174 MHz

- Center, end or wall mount with optional mounting clamps
- Specially designed for applications requiring extra broadband operation
- Optimized for gain
- Heavy duty construction for harsh environment

Model	Description
SY250-HF2SNM(U)	8 dBd, broadband, 138-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

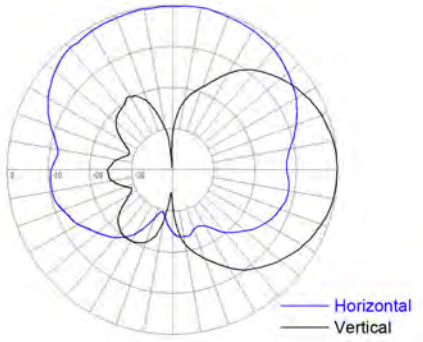
Frequency Range	MHz	138 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	8 (10.1)
VSWR (max)		2:0
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	60
Average Power Input (max)	W	200
Front-to-back ratio (typ)	dB	20

Mechanical Specifications

Depth	in (mm)	6 (152)
Length/ Height	in (mm)	81.75 (2076)
Width	in (mm)	42 (1067)
Base pipe diameter	in (mm)	1.9 (48)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	14.2 (6.45)
Weight iced	lbs (kg)	40 (18.16)
Mounting Hardware (Optional)		Clamp017
Shipping Length/ Height	in (mm)	110 (2794)
Shipping dimensions	in (mm)	L 110in W 48in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.58 (0.15)
Wind Loading Area (1/2" ice)	ft² (m²)	3.11 (0.29)
Rated wind velocity (no ice)	mph (km/h)	170 (274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 (185)
Lateral thrust (100 mph No Ice)	lbs (N)	67 (298)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	106 (143.1)



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Corner reflector directional antenna, 7 dBd, 130-174 MHz

- Folded dipole feed permits wideband operation
- Lightweight, easy to assemble and install

Model	Description
SV227-SF1SNM	7 dBd, 130-150 MHz
SV227-SF2SNM	7 dBd, 148-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

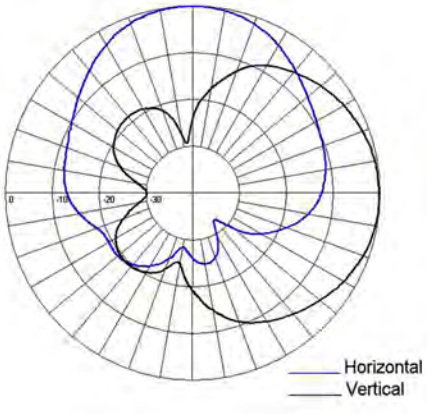
Frequency Range	MHz	130 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	7 (9.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Impedance	Ω	50
Pattern		Directional
Horizontal beamwidth (typ)	degrees	67
Vertical beamwidth (typ)	degrees	75
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	30

Mechanical Specifications

Depth	in (mm)	49 to 60 (1245 to 1524)
Length/ Height	in (mm)	48 to 55.3 (1219 to 1405)
Width	in (mm)	69.3 to 85 (1760 to 2159)
Radiating element material		aluminum
Weight	lbs (kg)	14 to 28.3 (6.36 to 12.85)
Weight iced	lbs (kg)	101 to 119 (45.85 to 54.03)
Mounting Hardware (Standard)		Clamp004
Actual Shipping weight	lbs (kg)	75 (34.05)
Shipping dimensions	in (mm)	L 120in W 15in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.3 to 9.3 (0.49 to 0.86)
Wind Loading Area (1/2" ice)	ft² (m²)	9.2 to 17 (0.85 to 1.58)
Rated wind velocity (no ice)	mph (km/h)	130 to 135 (209 to 217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 to 95 (145 to 153)
Lateral thrust (100 mph No Ice)	lbs (N)	202 to 240 (898.5 to 1067.5)



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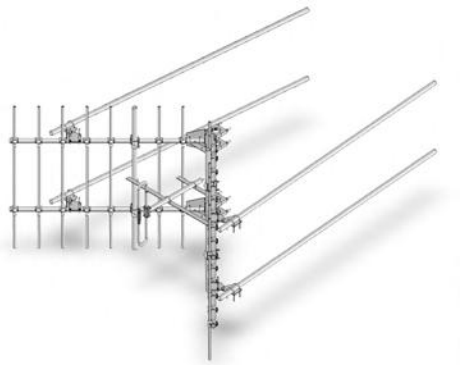
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Corner reflector directional antenna, 10 dBd, 132-225 MHz

- Equipped with larger reflector for higher gain
- Dual and quad stacked arrays available for gains of 12.5 dBd and 15 dBd respectively
- Heavy duty versions available

Model	Description
SV228-SF1SNM	132-150 MHz
SV228-SF2SNM	148-174 MHz
SV228-SF3SNM	190-225 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

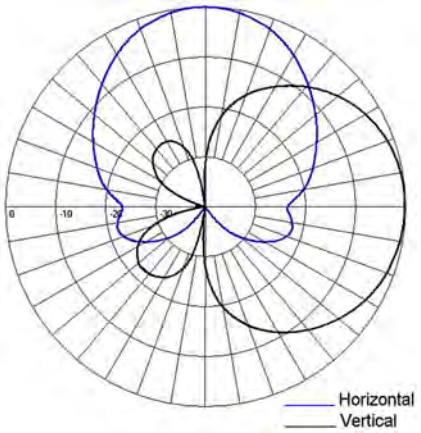
Frequency Range	MHz	132 to 225
Connector		N-Male
Gain (nominal)	dBd (dBi)	10 (12.1)
Input VSWR (max)		1.5:1
Polarization		vertical or horizontal
Pattern		Directional
Horizontal beamwidth (typ)	degrees	50
Vertical beamwidth (typ)	degrees	66
Average Power Input (max)	W	250
Lightning protection		DC ground
Front-to-back ratio (typ)	dB	30

Mechanical Specifications

Depth	in (mm)	43.2 to 66 (1097 to 1676)
Length/ Height	in (mm)	55.87 to 85 (1419 to 2159)
Width	in (mm)	86.44 to 136 (2196 to 3454)
Weight	lbs (kg)	46 to 103 (20.88 to 46.76)
Weight iced	lbs (kg)	195 to 330.3 (88.53 to 149.96)
Mounting Hardware (Standard)		Clamp004
Actual Shipping weight	lbs (kg)	145 to 166 (65.83 to 75.36)
Shipping dimensions	in (mm)	L(108 - 120)in W 6in H(15 - 24)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	7.48 to 12.66 (0.69 to 1.18)
Wind Loading Area (1/2" ice)	ft² (m²)	14.99 to 23.5 (1.39 to 2.18)
Rated wind velocity (no ice)	mph (km/h)	100 to 155 (161 to 250)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 125 (137 to 201)
Lateral thrust (100 mph No Ice)	lbs (N)	245 to 490 (1089.8 to 2179.5)



Ordering Information
Heavy duty versions available

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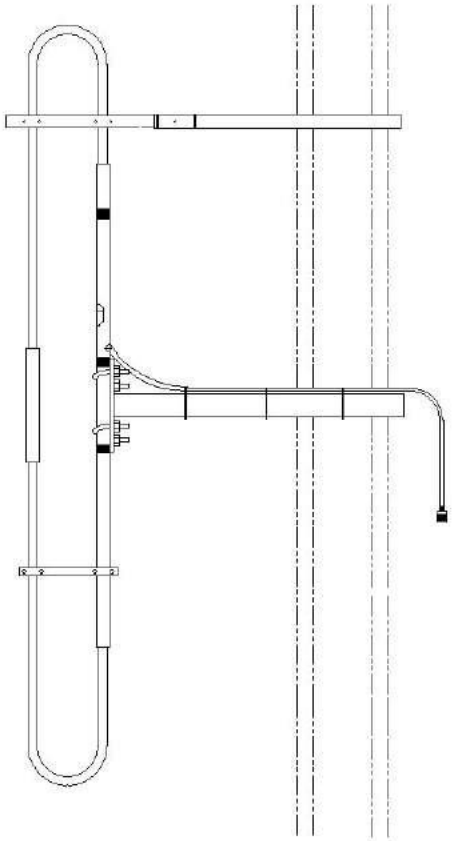
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Exposed dipole, 2.5 dBd, 10% bandwidth, 27-88 MHz

- Covers 30-76 MHz in 0.5 MHz increments with 10% band width and VSWR of 1.5:1
- 2.5 dBd gain with offset pattern
- 300 Watts power handling

Model	Description
SD110-SF1PASNM(FXXXX)	2.5 dBd, 10% Bandwidth, N-Male, 27-35 MHz
SD110-SF2PASNM(FXXXX)	2.5 dBd, 10% Bandwidth, N-Male, 35.5-61.5 MHz
SD110-SF3PASNM(FXXXX)	2.5 dBd, 10% Bandwidth, N-Male, 62-88 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

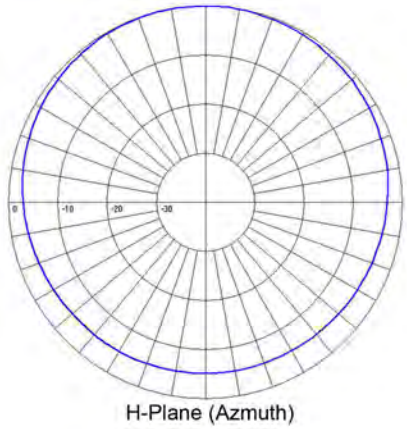
Frequency Range	MHz	27 to 88
Connector		N-Male
Gain (nominal)	dBd (dBi)	2.5 (4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Offset
Vertical beamwidth (typ)	degrees	68
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications

Length/ Height	in (mm)	84 to 189.3 (2134 to 4808)
Radiating element material		aluminum
Weight	lbs (kg)	21 to 37 (9.53 to 16.8)
Mounting Hardware (Optional)		Clamp017, Clamp033, or Clamp130
Actual Shipping weight	lbs (kg)	39 to 52 (17.71 to 23.61)
Shipping dimensions	in (mm)	L(96 - 216)in W(12 - 14)in H(4 - 12)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.44 to 3.61 (0.23 to 0.34)
Wind Loading Area (1/2" ice)	ft² (m²)	3.41 to 5.1 (0.32 to 0.47)
Rated wind velocity (no ice)	mph (km/h)	130 to 175 (209 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 to 135 (145 to 217)
Lateral thrust (100 mph No Ice)	lbs (N)	45 to 200 (200.2 to 889.6)



H-Plane (Azmuth)

Ordering Information
Specify exact frequency at time of order. (i.e. for a frequency of 48 MHz, please use model number SD110-SF2PASNM(F0480))

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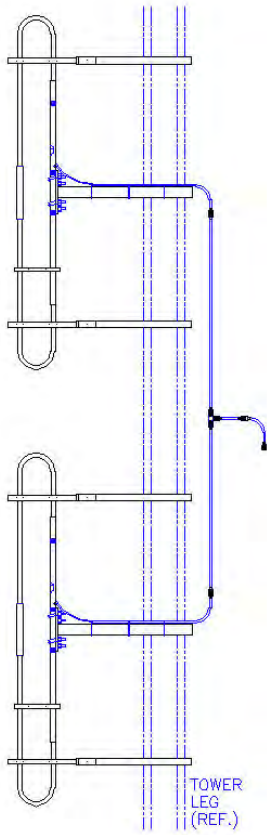
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Dual stacked exposed dipole, 5.5 dBd, 10% band width, 27-88 MHz

- Covers 27-88 MHz with 10% bandwidth for a VSWR of 1.5:1
- 5.5 dBd gain with an offset pattern
- Dual stacked low-band exposed dipole antenna
- 300W power handling

Model	Description
SD112-SF1PASNM(FXXXX)	5.5 dBd, 10% bandwidth, 27-35 MHz
SD112-SF2PASNM(FXXXX)	5.5 dBd, 10% bandwidth, 35.5-61.5 MHz
SD112-SF3PASNM(FXXXX)	5.5 dBd, 10% bandwidth, 62-88 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

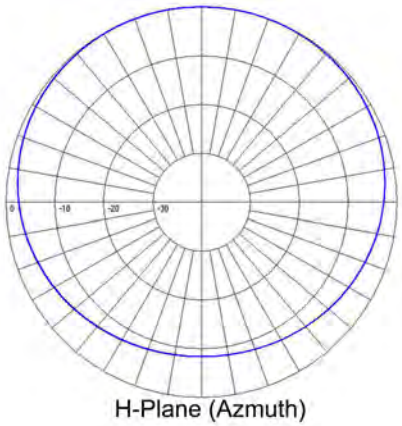
Frequency Range	MHz	27 to 88
Connector		N-Male
Gain (nominal)	dBd (dBi)	5.5 (7.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Offset
Vertical beamwidth (typ)	degrees	34
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications

Length/ Height	in (mm)	220.5 to 494 (5601 to 12548)
Radiating element material		aluminum
Weight	lbs (kg)	36 to 65 (16.34 to 29.51)
Mounting Hardware (Optional)		Clamp017, Clamp033, or Clamp130
Actual Shipping weight	lbs (kg)	85 (38.59)
Shipping dimensions	in (mm)	L(86 - 183)in W 7in H 16in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Rated wind velocity (no ice)	mph (km/h)	105 to 160 (169 to 258)
Rated wind velocity (1/2" radial ice)	mph (km/h)	70 to 120 (113 to 193)



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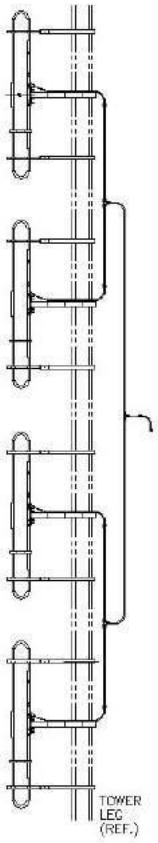
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Quad stacked exposed dipole, 7.5 dBd, 10% band width, 27-88 MHz

- Covers 27-88 MHz with 10% bandwidth for a VSWR of 1.5:1
- 7.5 dBd gain with an offset pattern
- 500W power handling

Model	Description
SD114-SF1PASNM(FXXXX)	7.5 dBd, 10% bandwidth, 27-35 MHz
SD114-SF2PASNM(FXXXX)	7.5 dBd, 10% bandwidth, 35.5-61.5 MHz
SD114-SF3PASNM(FXXXX)	7.5 dBd, 10% bandwidth, 62-88 MHz

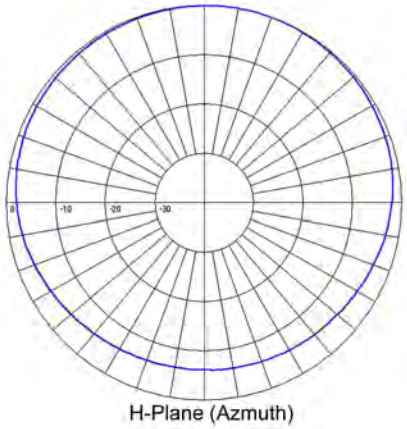
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	27 to 88
Connector		N-Male
Gain (nominal)	dBd (dBi)	7.5 (9.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Offset
Vertical beamwidth (typ)	degrees	17
Average Power Input (max)	W	500
Lightning protection		DC ground
% Bandwidth	%	10

Mechanical Specifications		
Depth	in (mm)	3 (76)
Length/ Height	in (mm)	863 to 1153.5 (21920 to 29299)
Width	in (mm)	48 to 91.37 (1219 to 2321)
Base pipe diameter	in (mm)	1.9 (48)
Radiating element material		aluminum
Weight	lbs (kg)	103 to 149.6 (46.76 to 67.92)
Weight iced	lbs (kg)	270 to 414.48 (122.58 to 188.17)
Mounting Hardware (Optional)		Clamp017, Clamp033, or Clamp130
Actual Shipping weight	lbs (kg)	141 to 236 (64.01 to 107.14)
Shipping dimensions	in (mm)	L(150 - 216)in W(14 - 24)in H(4 - 12)in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	11.88 to 14.6 (1.1 to 1.36)
Wind Loading Area (1/2" ice)	ft² (m²)	16.4 to 21.1 (1.52 to 1.96)
Rated wind velocity (no ice)	mph (km/h)	125 to 135 (201 to 217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 to 105 (145 to 169)
Lateral thrust (100 mph No Ice)	lbs (N)	262.4 to 361 (1167.2 to 1605.7)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	766.8 to 1243 (1035.2 to 1678.1)



H-Plane (Azmuth)

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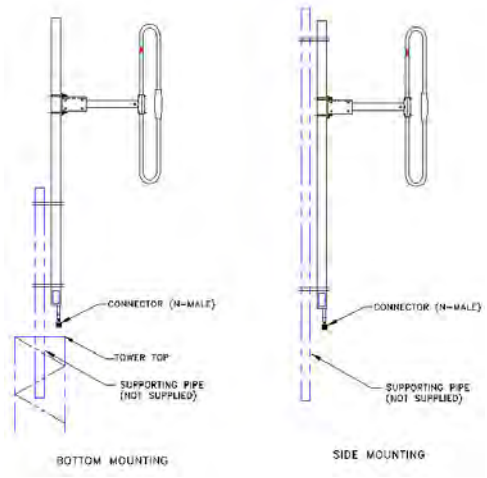
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1 dipole, 2.0/2.5 dBd, Heavy duty, 118-225 MHz

- Covers 118-225 MHz in 3 band-splits
- 2.0 dBd gain with bi-directional pattern; 2.5 dBd gain with offset pattern
- 215 mph/ 346 kph wind rating without ice; 165 mph/ 266 kph with 0.5" radial ice
- Can be top or side mounted (Universal mount)

Model	Description
SD210-HF1P2SNM	2.0 dBd, bi-directional, 118-138 MHz
SD210-HF1P4SNM	2.0 dBd, offset, 118-138 MHz
SD210-HF2P2SNM	1.5 dBd, bi-directional, 138-174 MHz
SD210-HF2P4SNM	2.0 dBd, offset, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

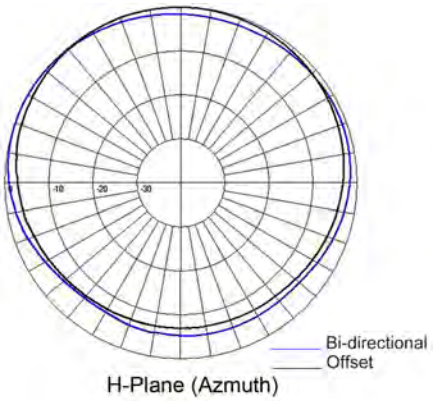


Electrical Specifications

Frequency Range	MHz	118 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	2 to 2.5 (4.1 to 4.6)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	68
Main Beam Electrical Tilt (Downtilt)	degrees	Not available
Average Power Input (max)	W	200
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 to 4.75 (89 to 121)
Length/ Height	in (mm)	60 to 80 (1524 to 2032)
Width	in (mm)	22 to 51 (559 to 1295)
Base pipe diameter	in (mm)	2.38 to 2.88 (60 to 73)
Base pipe mounting length	in (mm)	24 to 36 (610 to 914)
Radiating element material		aluminum
Weight	lbs (kg)	18.4 to 21 (8.35 to 9.53)
Weight iced	lbs (kg)	39.5 to 45.3 (17.93 to 20.57)
Mounting Hardware (Optional)		Clamp147 or Clamp015
Shipping dimensions	in (mm)	L(66 - 84)in W(24 - 48)in H(1 - 6)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-425-A3-T3 or SMK-425-A7-T3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.25 to 1.77 (0.12 to 0.16)
Wind Loading Area (1/2" ice)	ft² (m²)	1.97 to 2.82 (0.18 to 0.26)
Rated wind velocity (no ice)	mph (km/h)	215 to 225 (346 to 362)
Rated wind velocity (1/2" radial ice)	mph (km/h)	165 to 175 (266 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	45.6 to 66.3 (202.8 to 294.9)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	22.8 to 81.6 (30.8 to 110.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	50.5 to 96.3 (68.2 to 130)
Tip deflection (100 mph No Ice)	degrees	0.02 to 0.5

Ordering Information

Clamps must be ordered separately.

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2 dipole, 5.0/5.5 dBd, 118-225 MHz

- Covers 118-225 MHz in 3 band splits
- 5.0 dBd gain with bi-directional pattern; 5.5 dBd gain with offset pattern
- Can be top or side mounted (universal mount)
- 0,2,4,6,8, or 10 degrees electrical downtilt available

Model	Description
SD212-SF1P2SNM(D00)	5.0 dBd, bi-directional, 118-138 MHz
SD212-SF1P4SNM(D00)	5.5 dBd, offset, 118-138 MHz
SD212-SF2P2SNM(D00)	5.0 dBd, bi-directional, 138-174 MHz
SD212-SF2P2SNM(D04)	5.0 dBd, bi-directional, 4° DT, 138-174 MHz
SD212-SF2P4SNM(D00)	5.5 dBd, offset, 138-174 MHz
SD212-SF3P4SNM(D00)	5.5 dBd, offset, 216-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



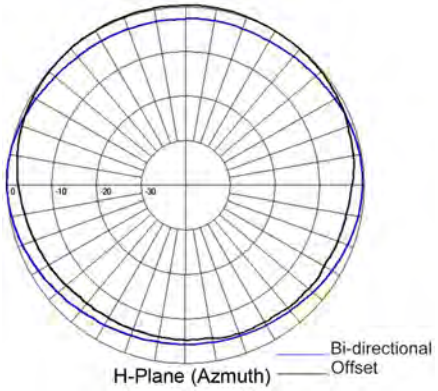
Electrical Specifications

Frequency Range	MHz	118 to 225
Bandwidth	MHz	36
Connector		N-Male
Gain (nominal)	dBd (dBi)	5 to 5.5 (7.1 to 7.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	34
Average Power Input (max)	W	300 / 250
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8, or 10 degrees

Mechanical Specifications

Depth	in (mm)	2.5 to 3 (64 to 76)
Length/ Height	in (mm)	100 to 144 (2540 to 3658)
Width	in (mm)	16.85 to 46.75 (428 to 1187)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	24 to 45 (610 to 1143)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	18 to 23 (8.17 to 10.44)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp130
Actual Shipping weight	lbs (kg)	34 to 51 (15.44 to 23.15)
Shipping dimensions	in (mm)	L(103 - 148)in W(26 - 48)in H 6in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7

1/4 wave shown



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.41 to 2.49 (0.13 to 0.23)
Wind Loading Area (1/2" ice)	ft² (m²)	2.46 to 4.37 (0.23 to 0.41)
Rated wind velocity (no ice)	mph (km/h)	140 to 175 (225 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 to 125 (153 to 201)
Lateral thrust (100 mph No Ice)	lbs (N)	52 to 96 (231.3 to 427)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	17 to 125 (23 to 168.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	162 to 288 (218.7 to 388.8)
Tip deflection (100 mph No Ice)	degrees	0.46 to 1.52

Ordering Information

Clamps must be ordered separately.

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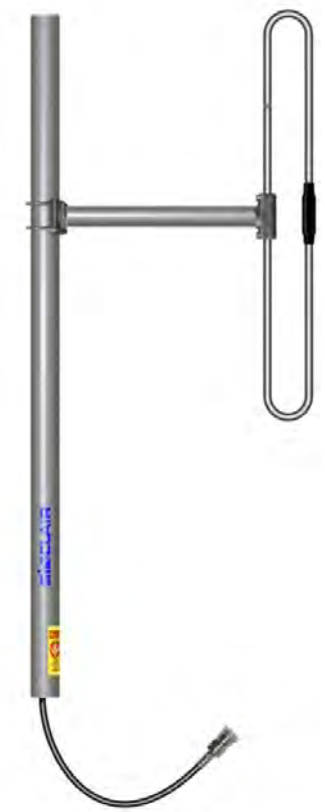
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1 dipole, 2.0/2.5 dBd, 118-225 MHz

- Covers 118-225 MHz in 3 band-splits
- 2.0 dBd gain with bi-directional pattern; 2.5 dBd gain with offset pattern
- Can be top or side mount (Universal mount)

Model	Description
SD210-SF1P2SNM	2.0 dBd, bi-directional, 118-138 MHz
SD210-SF1P4SNM	2.5 dBd, offset, 118-138 MHz
SD210-SF2P2SNM	2.0 dBd, bi-directional, 138-174 MHz
SD210-SF2P4SNM	2.5 dBd, offset,138-174 MHz
SD210-SF3P2SNM	2.0 dBd, bi-directional, 190-225 MHz
SD210-SF3P4SNM	2.5 dBd, offset,190-225 MHz
SD210-SF5P4SNM	2.5 dBd, offset, 180-210 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

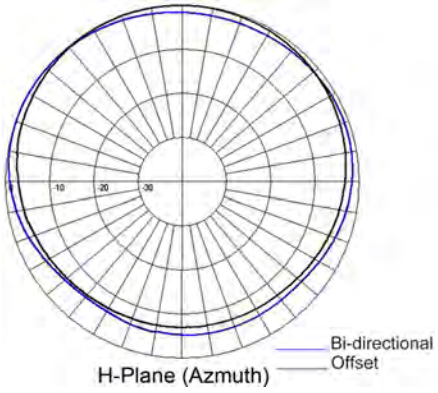


Electrical Specifications

Frequency Range	MHz	118 to 225
Connector		N-Male
Gain (nominal)	dBd (dBi)	2 to 2.5 (4.1 to 4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	68 to 93
Average Power Input (max)	W	200
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3 (76)
Length/ Height	in (mm)	60 (1524)
Width	in (mm)	18 to 31 (457 to 787)
Base pipe diameter	in (mm)	1.9 (48)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	8.1 to 9.4 (3.68 to 4.27)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp130
Actual Shipping weight	lbs (kg)	15 to 22.3 (6.81 to 10.12)
Shipping dimensions	in (mm)	L(63 - 78)in W(4 - 36)in H(6 - 42)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.81 to 0.93 (0.08 to 0.09)
Wind Loading Area (1/2" ice)	ft² (m²)	1.46 to 1.66 (0.14 to 0.15)
Rated wind velocity (no ice)	mph (km/h)	175 to 240 (282 to 386)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 175 (137 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	29.8 to 55 (132.6 to 244.6)

Ordering Information

Clamps must be ordered separately.

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1 dipole, 2.0/2.5 dBd, dual feed cables, 118-174 MHz

- Dual port antenna on same mast covering 138-174 MHz in 3 band splits
- 2.0 dBd gain with bi-directional pattern; 2.5 dBd gain with offset pattern
- 200W power handling
- Can be top or side mounted (universal mount)

Model	Description
SD210D-SF2P2SNM	2.0 dBd, bi-directional, 138-174 MHz
SD210D-SF2P4SNM	2.5 dBd, offset, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

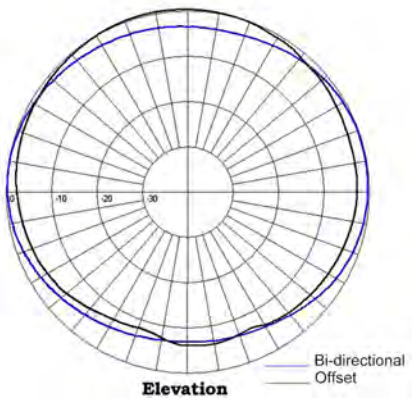


Electrical Specifications

Frequency Range	MHz	138 to 174
Bandwidth	MHz	36
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Isolation (typ)	dB	30
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	68
Average Power Input (max)	W	200
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	4 (102)
Length/ Height	in (mm)	192 (4877)
Width	in (mm)	41 (1041)
Base pipe diameter	in (mm)	2.38 (60)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	32 to 40 (14.53 to 18.16)
Weight iced	lbs (kg)	77 to 88 (34.96 to 39.95)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp130
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.83 to 3.12 (0.17 to 0.29)
Wind Loading Area (1/2" ice)	ft² (m²)	3.25 to 5.02 (0.3 to 0.47)
Rated wind velocity (no ice)	mph (km/h)	145 (233)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	114 (507.1)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	34 to 81 (45.9 to 109.4)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	218 to 719 (294.3 to 970.7)
Tip deflection (100 mph No Ice)	degrees	0.3

Ordering Information

Clamps must be ordered separately.

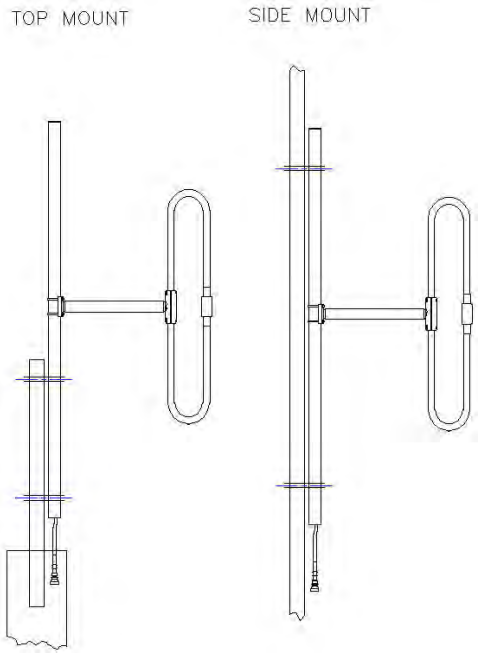
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1 dipole antenna, 1.5/2.0 dBd gain, low PIM, HD, 118-225 MHz

- -150 dBc PIM rating, covers 118-225 MHz in 3 band splits
- 1.5 dBd gain with bi-directional pattern; 2 dBd gain with offset pattern
- Heavy duty with 250 Watts power handling
- Can be top or side mount (universal mount)

Model	Description
SD210-HF1P2LDF	1.5 dBd, bi-directional, 118-138 MHz
SD210-HF1P4LDF	2.0 dBd, offset, 118-138 MHz
SD210-HF2P2LDF	1.5 dBd, bi-directional,138-174 MHz
SD210-HF2P4LDF	2.0 dBd, offset, 138-174 MHz
SD210-HF3P2LDF	1.5 dBd, bi-directional, 190-225 MHz
SD210-HF3P4LDF	2.0 dBd, offset, 190-225 MHz



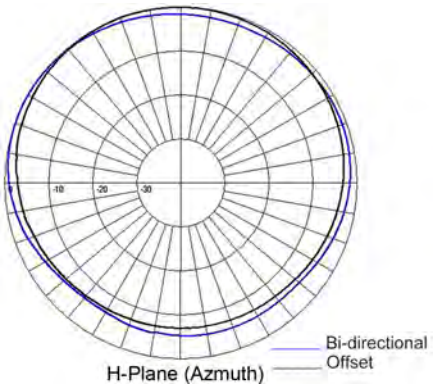
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	118 to 225
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	1.5 to 2 (3.6 to 4.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Vertical beamwidth (typ)	degrees	68
Average Power Input (max)	W	250 / 275
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3 to 3.5 (76 to 89)
Length/ Height	in (mm)	60 to 80 (1524 to 2032)
Width	in (mm)	18 to 42.1 (457 to 1069)
Base pipe diameter	in (mm)	1.9 to 2.88 (48 to 73)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	9.5 to 18.5 (4.31 to 8.4)
Weight iced	lbs (kg)	24.5 to 56.1 (11.12 to 25.47)
Mounting Hardware (Optional)		Clamp147 or Clamp015
Actual Shipping weight	lbs (kg)	20 to 38 (9.08 to 17.25)
Shipping dimensions	in (mm)	L(60 - 84)in W(4 - 48)in H(6 - 42)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-425-A3-T3 or SMK-425-A7-T3 / Not Required



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.84 to 1.46 (0.08 to 0.14)
Wind Loading Area (1/2" ice)	ft² (m²)	1.46 to 2.73 (0.14 to 0.25)
Rated wind velocity (no ice)	mph (km/h)	190 to 230 (306 to 370)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 to 175 (185 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	31 to 53.5 (137.9 to 238)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	11.5 to 52.1 (15.5 to 70.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	31 to 93.5 (41.9 to 126.2)

Ordering Information

Clamps must be ordered separately.

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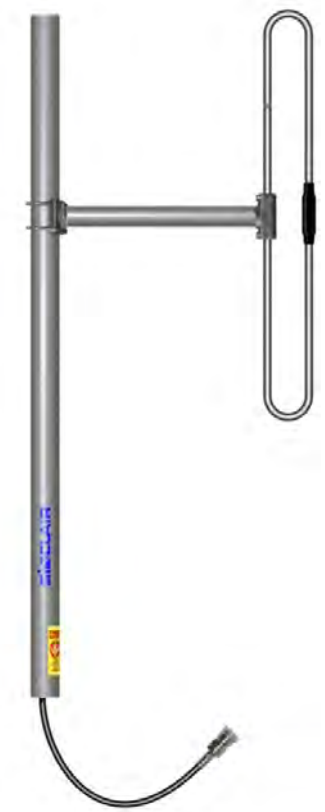
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1 dipole antenna, 1.5/2.0 dBd gain, low PIM, 118-225 MHz

- 1-bay dipole antenna with -150dBc PIM rating
- Covers 118-225 MHz in 3 band-splits
- 1.5 dBd gain with bi-directional pattern; 2.0 dBd gain with offset pattern
- Can be top or side mount (universal mount)

Model	Description
SD210-SF1P2LDF	1.5 dBd, bi-directional, 118-138 MHz
SD210-SF1P4LDF	2.0 dBd, offset, 118-138 MHz
SD210-SF2P2LDF	1.5 dBd, bi-directional, 138-174 MHz
SD210-SF2P4LDF	2.0 dBd, offset, 138-174 MHz
SD210-SF3P2LDF	1.5 dBd, bi-directional, 190-225 MHz
SD210-SF3P4LDF	2.0 dBd, offset, 190-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

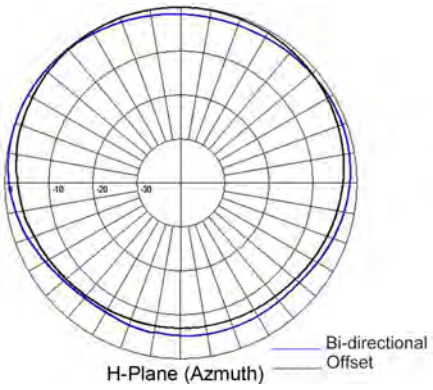


Electrical Specifications

Frequency Range	MHz	118 to 225
Bandwidth	MHz	20 to 36
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	1.5 to 2 (3.6 to 4.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	68
Average Power Input (max)	W	200
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	60 (1524)
Width	in (mm)	21 to 47.8 (533 to 1214)
Base pipe diameter	in (mm)	1.9 (48)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	10 to 11.7 (4.54 to 5.31)
Weight iced	lbs (kg)	26.2 to 32 (11.89 to 14.53)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp130
Actual Shipping weight	lbs (kg)	24.5 to 31.7 (11.12 to 14.39)
Shipping dimensions	in (mm)	L 62in W(30 - 48)in H(4 - 6)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.01 to 1.09 (0.09 to 0.1)
Wind Loading Area (1/2" ice)	ft² (m²)	1.79 to 192 (0.17 to 17.84)
Rated wind velocity (no ice)	mph (km/h)	175 to 195 (282 to 314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 to 125 (169 to 201)
Lateral thrust (100 mph No Ice)	lbs (N)	34.1 to 60.8 (151.7 to 270.4)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	17.6 to 64 (23.8 to 86.4)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	33.5 to 76.3 (45.2 to 103)

Ordering Information

Clamps must be ordered separately.

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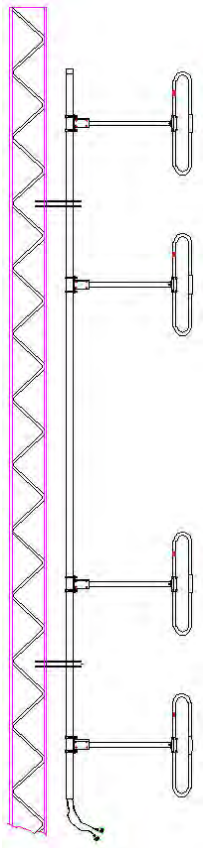
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2 dipole 5.0/5.5 dBd gain, dual, HD, 138-225 MHz

- Dual feed cables on same mast
- 5.0 dBd gain with bi-directional pattern; 5.5 dBd gain with offset pattern

Model	Description
SD212D-HF2P2SNM(D00B)	5.0 dBd, bi-directional, top mount, 138-174 MHz
SD212D-HF2P2SNM(D00S)	5.0 dBd, offset, side mount,138-174 MHz
SD212D-HF2P4SNM(D00S)	5.5 dBd, offset, side mount, 138-174 MHz
SD212D-HF3P2SNM(D00B-WABK)	5.0 dBd, bi-directional, welded, top mount, black anodized, 190-225 MHz
SD212D-HF3P4SNM(D00B-WABK)	5.5 dBd, offset, welded, top mount, black anodized, 190-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

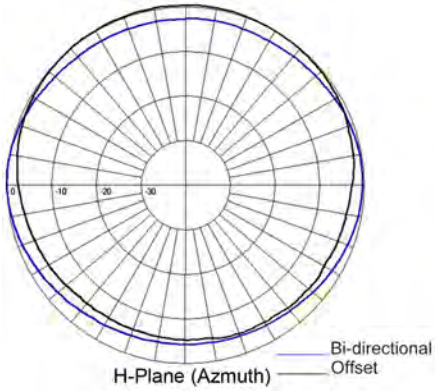


Electrical Specifications

Frequency Range	MHz	138 to 225
Connector		N-Male / N-Female
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Bi- directional / Offset
Isolation (typ)	dB	30
Vertical beamwidth (typ)	degrees	17 to 35
Average Power Input (max)	W	300 / 250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	4 to 5 (102 to 127)
Length/ Height	in (mm)	222 to 240 (5639 to 6096)
Width	in (mm)	19.5 to 45 (495 to 1143)
Base pipe diameter	in (mm)	2.38 to 4 (60 to 102)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	67 to 109 (30.42 to 49.49)
Weight iced	lbs (kg)	134 to 322 (60.84 to 146.19)
Mounting Hardware (Optional)		Clamp006C
Actual Shipping weight	lbs (kg)	109 to 144 (49.49 to 65.38)
Shipping dimensions	in (mm)	L(228 - 252)in W(23 - 48)in H 6in
Mounting configurations		top mount / side mount
Recommended For Offset Side Mount:		SMK-145-A7 / SMK-435-A3-T3 or SMK-435-A7-T3



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4.81 to 6.12 (0.45 to 0.57)
Wind Loading Area (1/2" ice)	ft² (m²)	6.98 to 9.51 (0.65 to 0.88)
Rated wind velocity (no ice)	mph (km/h)	185 to 205 (298 to 330)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 (250)
Lateral thrust (100 mph No Ice)	lbs (N)	173 to 202 (769.5 to 898.5)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	41 to 205 (55.4 to 276.8)

Ordering Information

Clamps must be ordered separately.

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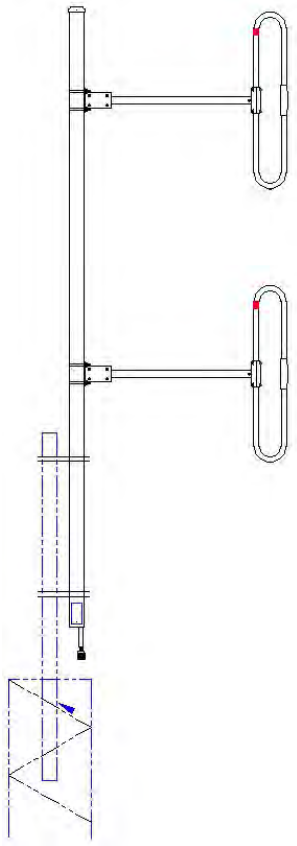
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2 dipole antenna, 5.0/5.5 dBd gain, HD, 118-225 MHz

- Covers 118-225 MHz in 3 band splits
- 5.0 dBd gain with bi-directional pattern; 5.5 dBd gain with offset pattern
- Can be top or side mount (universal mount)

Model	Description
SD212-HF1P4SNM(D00)	5.5 dBd, offset, 118-138 MHz
SD212-HF2P2SNM(D00)	5 dBd, bi-directional, 138-174 MHz
SD212-HF2P4SNM(D00)	5.5 dBd, offset, 138-174 MHz
SD212-HF2P4SNM(D04S-ABK)	5.5 dBd, side mount, offset, 4º DT, ABK, 138-174 MHz
SD212-HF3P2SNM(D00)	5 dBd, bi-directional, 190-225 MHz
SD212-HF3P4SNM(D00)	5.5 dBd, offset, 190-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

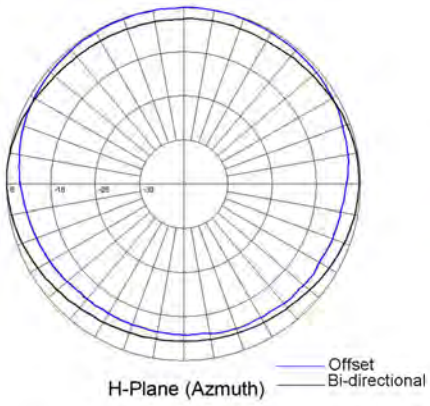


Electrical Specifications

Frequency Range	MHz	118 to 225
Bandwidth	MHz	20 to 36
Connector		N-Male
Gain (nominal)	dBd (dBi)	5 to 5.5 (7.1 to 7.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Offset / Bi- directional
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	17 to 36
Average Power Input (max)	W	300 / 250
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8, or 10 degrees

Mechanical Specifications

Depth	in (mm)	3 to 5 (76 to 127)
Length/ Height	in (mm)	100 to 144 (2540 to 3658)
Width	in (mm)	17.35 to 42.75 (441 to 1086)
Base pipe diameter	in (mm)	2.38 to 2.9 (60 to 74)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	29 to 41.3 (13.17 to 18.75)
Mounting Hardware (Optional)		Clamp006A or Clamp147
Actual Shipping weight	lbs (kg)	60 to 68 (27.24 to 30.87)
Shipping dimensions	in (mm)	L(108 - 150)in W(27 - 48)in H(1 - 6)in
Mounting configurations		Universal Mount / side mount
Recommended For Offset Side Mount:		SMK-425-A3-T3 or SMK-425-A7-T3



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.66 to 2.91 (0.15 to 0.27)
Wind Loading Area (1/2" ice)	ft² (m²)	2.74 to 4.47 (0.25 to 0.42)
Rated wind velocity (no ice)	mph (km/h)	175 to 205 (282 to 330)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 to 165 (242 to 266)
Lateral thrust (100 mph No Ice)	lbs (N)	61 to 106 (271.3 to 471.5)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	19 to 102 (25.7 to 137.7)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	182 to 440 (245.7 to 594)
Tip deflection (100 mph No Ice)	degrees	0.28 to 0.58

Ordering Information

Clamps must be ordered separately.

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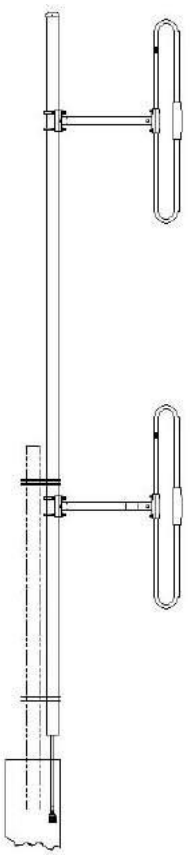
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2 dipole, 4.5/5.0 dBd, low PIM, HD, 118-225 MHz

- -150 dBc PIM rating, covers 118-225 MHz in 3 band splits
- 4.5 dBd gain with bi-directional pattern; 5.0 dBd gain with offset pattern
- Can be top or side mounted (universal mount)

Model	Description
SD212-HF1P2LDF(D00)	4.5 dBd, bi-directional, 118-138 MHz
SD212-HF1P4LDF(D00)	5.0 dBd, offset, 118-138 MHz
SD212-HF2P2LDF(D00)	4.5 dBd, bi-directional, 138-174 MHz
SD212-HF2P4LDF(D00)	5.0 dBd, offset, 138-174 MHz
SD212-HF3P2LDF(D00)	4.5 dBd, bi-directional, 190-225 MHz
SD212-HF3P4LDF(D00)	5.0 dBd, offset, 190-225 MHz

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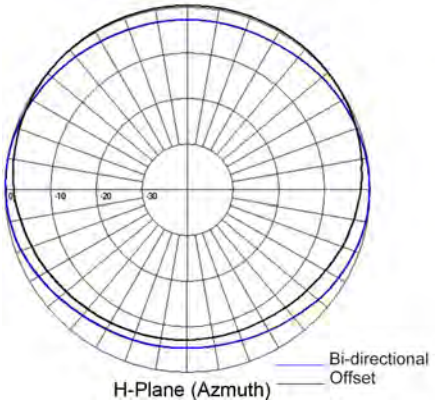


Electrical Specifications

Frequency Range	MHz	118 to 225
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	4.5 to 5 (6.6 to 7.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	34 to 36
Average Power Input (max)	W	300 / 250
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 to 4.75 (89 to 121)
Length/ Height	in (mm)	100 to 120 (2540 to 3048)
Width	in (mm)	19.9 to 50.12 (505 to 1273)
Base pipe diameter	in (mm)	2.38 (60)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	25.1 to 42 (11.4 to 19.07)
Weight iced	lbs (kg)	59 to 84 (26.79 to 38.14)
Mounting Hardware (Optional)		Clamp006A or Clamp147
Actual Shipping weight	lbs (kg)	45 to 70 (20.43 to 31.78)
Shipping dimensions	in (mm)	L(102 - 132)in W(6 - 54)in H(4 - 29)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-425-A3-T3 or SMK-425-A7-T3



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.69 to 2.84 (0.16 to 0.26)
Wind Loading Area (1/2" ice)	ft² (m²)	2.78 to 4.63 (0.26 to 0.43)
Rated wind velocity (no ice)	mph (km/h)	185 to 195 (298 to 314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 to 165 (242 to 266)
Lateral thrust (100 mph No Ice)	lbs (N)	61.5 to 104 (273.6 to 462.6)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	19.9 to 155 (26.9 to 209.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	208 to 184185 (280.8 to 248649.8)
Tip deflection (100 mph No Ice)	degrees	0.34 to 0.4

Ordering Information

Clamps must be ordered separately

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2 dipole, 4.5/5.0 dBd, low PIM, bi-directional/ offset, 118-225 MHz

- -150 dBc PIM rating, covering 118-225 MHz in 3 band splits
- 4.5 dBd gain with bi-directional pattern; 5.0 dBd gain with offset pattern
- Can be top or side mounted (universal mount)

Model	Description
SD212-SF1P2LDF(D00)	4.5 dBd, bi-directional, 118-138 MHz
SD212-SF1P4LDF(D00)	5 dBd, offset, 118-138 MHz
SD212-SF2P2LDF(D00)	4.5 dBd, bi-directional, 138-174 MHz
SD212-SF2P4LDF(D00)	5 dBd, offset, 138-174 MHz
SD212-SF3P2LDF(D00)	4.5 dBd, bi-directional, 190-225 MHz
SD212-SF3P4LDF(D00)	5 dBd, offset, 190-225 MHz

The specifications listed below represent the entire product series.
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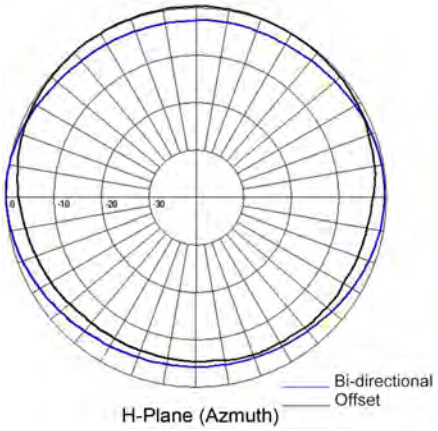


Electrical Specifications

Frequency Range	MHz	118 to 225
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	4.5 to 5 (6.6 to 7.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	34 to 36
Average Power Input (max)	W	300 / 250
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6,8, or 10 degrees

Mechanical Specifications

Depth	in (mm)	3 to 3.5 (76 to 89)
Length/ Height	in (mm)	120 (3048)
Width	in (mm)	16.8 to 42 (427 to 1067)
Base pipe diameter	in (mm)	1.9 (48)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	20 to 23.6 (9.08 to 10.71)
Weight iced	lbs (kg)	47 to 55.9 (21.34 to 25.38)
Mounting Hardware (Optional)		Clamp005, Clamp015, or Clamp130
Actual Shipping weight	lbs (kg)	32 to 125 (14.53 to 56.75)
Shipping dimensions	in (mm)	L(122 - 126)in W(6 - 44)in H(1 - 44)in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.62 to 1.86 (0.15 to 0.17)
Wind Loading Area (1/2" ice)	ft² (m²)	2.79 to 3.31 (0.26 to 0.31)
Rated wind velocity (no ice)	mph (km/h)	150 to 170 (242 to 274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 to 115 (169 to 185)
Lateral thrust (100 mph No Ice)	lbs (N)	59.1 to 79.9 (262.9 to 355.4)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	17.6 to 95.3 (23.8 to 128.7)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	200.5 to 249 (270.7 to 336.2)

Ordering Information

Clamps must be orderd separately.

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4 dipole, 8.0/8.5 dBd, 118-245 MHz

- Covers 118-245 MHz in 3 band splits
- 8.0 dBd gain with bi-directional pattern; 8.5 dBd gain with offset pattern
- Can be top or side mounted (universal mount)
- 0,2,4,6,8 or 10 degrees electrical downtilt available

Model	Description
SD214-SF1P2SNM(D00)	8.0 dBd, bi-directional, 118-138 MHz
SD214-SF1P4SNM(D00)	8.5 dBd, offset, 118-138 MHz
SD214-SF2P2SNM(D00)	8.0 dBd, bi-directional, 138-174 MHz
SD214-SF2P2SNM(D10)	8.0 dBd, bi-directional, 10º DT, 138-174 MHz
SD214-SF2P4SNM(D00)	8.5 dBd, offset, 138-174 MHz
SD214-SF3P2SNM(D00)	8.0 dBd, bi-directional, 195-245 MHz
SD214-SF3P4SNM(D00)	8.5 dBd, offset, 195-245 MHz
SD214-SF5P4SNM(D00)	8.5 dBd, offset, 180-210 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

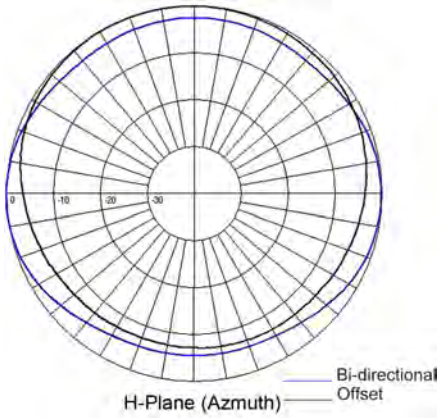


Electrical Specifications

Frequency Range	MHz	118 to 245
Connector		N-Male
Gain (nominal)	dBd (dBi)	8 to 8.5 (10.1 to 10.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	17 to 18
Average Power Input (max)	W	300 / 250
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6, or 8 degrees

Mechanical Specifications

Depth	in (mm)	4 to 6 (102 to 152)
Length/ Height	in (mm)	180 to 240 (4572 to 6096)
Width	in (mm)	19 to 47.7 (483 to 1212)
Base pipe diameter	in (mm)	2.38 (60)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	44.5 to 65 (20.2 to 29.51)
Mounting Hardware (Optional)		



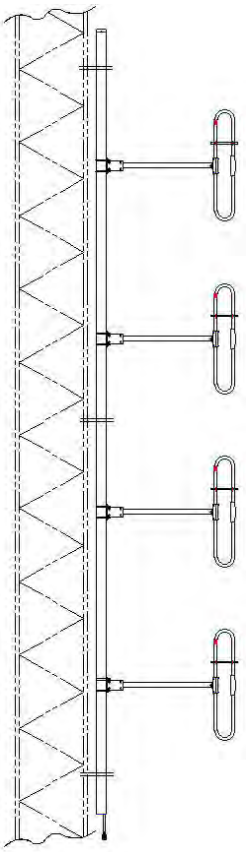
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4 dipole, 8.0/8.5 dBd, HD, 118-174 MHz

- Covers the 118-174 MHz frequency range in 2 sub-bands
- 8.0 dBd gain with bi-directional pattern; 8.5 dBd gain with offset pattern
- Heavy duty with 300W power handling

Model	Description
SD214-HF2P2SNM(D00B)	8.0 dBd, bi-directional, top mount, 138-137 MHz
SD214-HF2P2SNM(D00S)	8.0 dBd, bi-directional, side mount, 138-137 MHz
SD214-HF2P4SNM(D00B)	8.5 dBd, offset, top mount, 138-137 MHz
SD214-HF2P4SNM(D00S)	8.5 dBd, offset, side mount, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

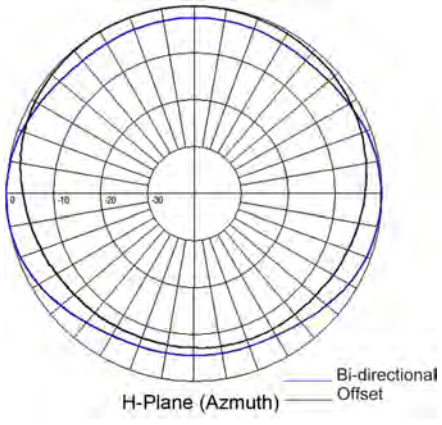


Electrical Specifications

Frequency Range	MHz	138 to 174
Connector		N-Male
Gain (nominal)	dBd (dBi)	8 to 8.5 (10.1 to 10.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Horizontal beamwidth (typ)	degrees	180
Vertical beamwidth (typ)	degrees	17
Average Power Input (max)	W	300
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6, or 8 degrees

Mechanical Specifications

Depth	in (mm)	5 (127)
Length/ Height	in (mm)	222 to 240 (5639 to 6096)
Width	in (mm)	25.3 to 43.75 (643 to 1111)
Base pipe diameter	in (mm)	2.88 to 4 (73 to 102)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	69 to 109 (31.33 to 49.49)
Weight iced	lbs (kg)	143 to 198 (64.92 to 89.89)
Mounting Hardware (Optional)		Clamp006C / Clamp147
Actual Shipping weight	lbs (kg)	122 to 162 (55.39 to 73.55)
Shipping dimensions	in (mm)	L(228 - 246)in W(30 - 48)in H 6in
Mounting configurations		top mount / side mount
Recommended For Offset Side Mount:		/ SMK-435-A3-T3 or SMK-435-A7-T3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.03 to 6.01 (0.47 to 0.56)
Wind Loading Area (1/2" ice)	ft² (m²)	7.81 to 8.96 (0.73 to 0.83)
Rated wind velocity (no ice)	mph (km/h)	195 to 205 (314 to 330)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 to 160 (250 to 258)
Lateral thrust (100 mph No Ice)	lbs (N)	182 to 223 (809.5 to 991.9)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	79 to 199 (106.7 to 268.7)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	341 to 1164 (460.4 to 1571.4)
Tip deflection (100 mph No Ice)	degrees	0.3 to 0.5

Ordering Information

Clamps must be ordered separately.
Note: For top mount, recommend Qty 2- Clamp006C. For side mount, Qty 3 Clamp147

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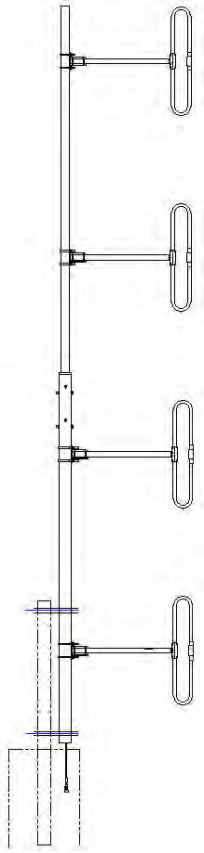
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4 dipole, 7.0/7.5 dBd, low PIM, HD, 118-225 MHz

- -150dBc PIM rating, covering 118-225 MHz in 3 band splits
- 7.0 dBd gain with bi-directional pattern; 7.5 dBd gain with offset pattern
- Heavy duty

Model	Description
SD214-HF2P2LDF(D00B)	7.0/7.5 dBd, bi-directional, top mount, 138-174 MHz
SD214-HF2P2LDF(D00S)	7.0/7.5 dBd, bi-directional, side mount, 138-174 MHz
SD214-HF2P2LNM(D00B)	7.0 dBd, bi-directional, top mount, 138-174 MHz
SD214-HF2P4LDF(D00B)	7.0/7.5 dBd, offset, top mount, 138-174 MHz
SD214-HF2P4LDF(D00S)	7.0/7.5 dBd, offset, side mount, 138-174 MHz
SD214-HF3P2LDF(D00B)	7.0 dBd, bi-directional, top mount, 190-225 MHz
SD214-HF3P2LDF(D00S)	7.0 dBd, bi-directional, side mount, 190-225 MHz
SD214-HF3P4LDF(D00B)	7.5 dBd, offset, top mount, 190-225 MHz
SD214-HF3P4LDF(D00S)	7.5 dBd, offset, side mount, 190-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

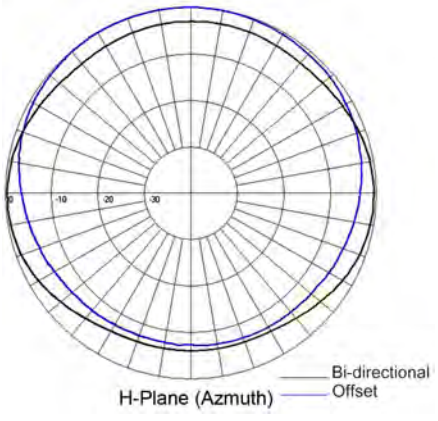


Electrical Specifications

Frequency Range	MHz	138 to 225
Connector		7/16 DIN-Female / N-Male
Gain (nominal)	dBd (dBi)	7 to 7.5 (9.1 to 9.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Vertical beamwidth (typ)	degrees	18
Average Power Input (max)	W	300 / 250
Passive intermod. (2x20W, 3rd ord.)	dBc	-150 to -138
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6, or 8 degrees

Mechanical Specifications

Depth	in (mm)	4.68 to 5.8 (119 to 147)
Length/ Height	in (mm)	189 to 240 (4801 to 6096)
Width	in (mm)	24.75 to 43.69 (629 to 1110)
Base pipe diameter	in (mm)	2.88 to 4 (73 to 102)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	50 to 121 (22.7 to 54.93)
Weight iced	lbs (kg)	108 to 215 (49.03 to 97.61)
Mounting Hardware (Optional)		Clamp006C / Clamp147 / Clamp006A
Actual Shipping weight	lbs (kg)	110 to 159 (49.94 to 72.19)
Shipping dimensions	in (mm)	L(192 - 247)in W(29 - 48)in H(6 - 7)in
Mounting configurations		top mount / side mount
Recommended For Offset Side Mount:		/ SMK-435-A3-T3 or SMK-435-A7-T3



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.96 to 6.29 (0.27 to 0.58)
Wind Loading Area (1/2" ice)	ft² (m²)	5.07 to 9.94 (0.47 to 0.92)
Rated wind velocity (no ice)	mph (km/h)	185 to 205 (298 to 330)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 to 175 (250 to 282)
Lateral thrust (100 mph No Ice)	lbs (N)	126 to 234 (560.4 to 1040.8)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	62 to 192 (83.7 to 259.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	391 to 1615 (527.9 to 2180.3)
Tip deflection (100 mph No Ice)	degrees	0.41 to 0.5

Ordering Information

Clamps must be ordered separately.
Note: For top mount, recommend Qty 2- Clamp006C. For side, Qty 3 Clamp147

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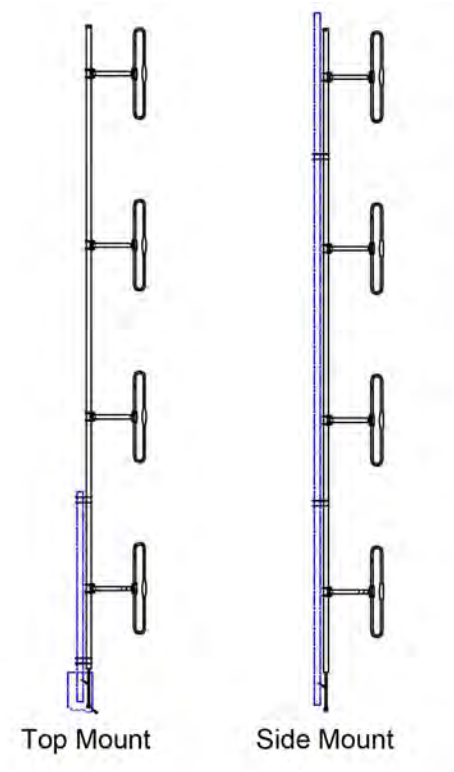
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4 dipole antenna, 7.0/7.5 dBd gain, low PIM, 118-225 MHz

- -150 dBc PIM rating, covering 118-225 MHz in 3 band splits
- 7.0 dBd gain with bi-directional pattern; 7.5 dBd gain with offset pattern
- Can be top or side mounted (universal mount)

Model	Description
SD214-SF1P2LDF(D00)	7.0/7.5 dBd, bi-directional, 118-138 MHz
SD214-SF1P4LDF(D00)	7.0/7.5 dBd, offset, 118-138 MHz
SD214-SF2P2LDF(D00)	7.0/7.5 dBd, bi-directional, 138-174 MHz
SD214-SF2P4LDF(D00)	7.0/7.5 dBd, offset, 138-174 MHz
SD214-SF3P2LDF(D00)	7.0 dBd, bi-directional, 190-225 MHz
SD214-SF3P4LDF(D00)	7.5 dBd, offset, 190-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

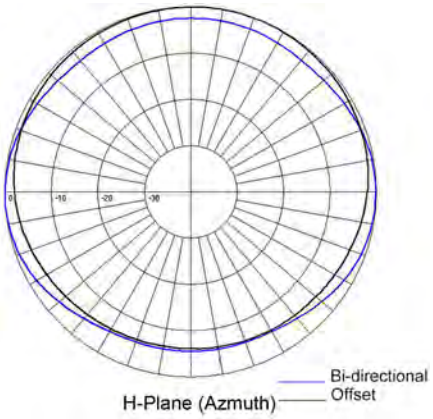


Electrical Specifications

Frequency Range	MHz	118 to 225
Bandwidth	MHz	20 to 36
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	7 to 7.5 (9.1 to 9.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	18
Average Power Input (max)	W	300 / 250
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4,6, or 8 degrees

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	240 (6096)
Width	in (mm)	23 to 42 (584 to 1067)
Base pipe diameter	in (mm)	2.38 (60)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	58 to 63.4 (26.33 to 28.78)
Weight iced	lbs (kg)	123 to 137.3 (55.84 to 62.33)
Mounting Hardware (Optional)		Clamp147, Clamp005, or Clamp015 / Clamp130
Actual Shipping weight	lbs (kg)	80 to 85 (36.32 to 38.59)
Shipping dimensions	in (mm)	L(245 - 247)in W(29 - 44)in H(6 - 7)in
FPE	ft² (m²)	4.25 to 4.89 (0.39 to 0.45)
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		Not Required



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4.3 to 4.9 (0.4 to 0.46)
Wind Loading Area (1/2" ice)	ft² (m²)	7.2 to 8.2 (0.67 to 0.76)
Rated wind velocity (no ice)	mph (km/h)	125 (201)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 (145)
Lateral thrust (100 mph No Ice)	lbs (N)	158 to 179 (702.8 to 796.2)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	81.4 to 192 (109.9 to 259.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	919 to 1025 (1240.7 to 1383.8)

Ordering Information

Clamps must be ordered separately.

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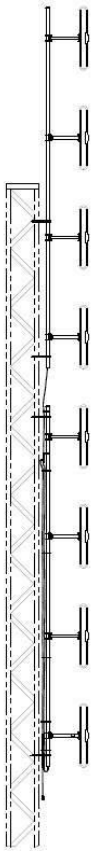
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8 dipole, 11.0/11.5 dBd, 118-225 MHz

- 11 dBd gain with bi-directional pattern; 11.5 dBd gain with offset pattern
- 3 band splits cover 118-225 MHz
- 300 watts power handling
- Two segment design for easy transport and installation

Model	Description
SD218-SF1P2SNM(D00S)	11.0 dBd, bi-directional, 118-138 MHz
SD218-SF1P4SNM(D00S)	11.5 dBd, offset, 118-138 MHz
SD218-SF2P2SNM(D00S)	11.0 dBd, bi-directional, 138-174 MHz
SD218-SF2P4SNM(D00S)	11.5 dBd, offset, 138-174 MHz
SD218-SF3P2SNM(D00S)	11.0 dBd, bi-directional, 190-225 MHz
SD218-SF3P4SNM(D00S)	11.5 dBd, offset, 190-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

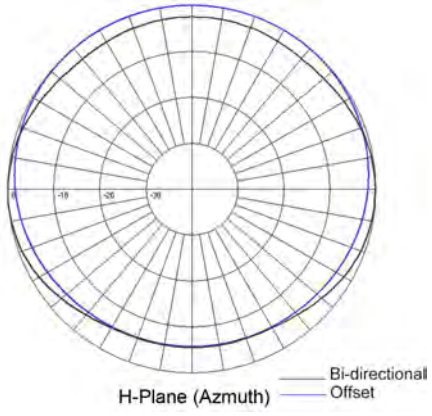


Electrical Specifications

Frequency Range	MHz	118 to 225
Connector		N-Male
Gain (nominal)	dBd (dBi)	11 to 11.5 (13.1 to 13.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Bi-directional / Offset
Horizontal beamwidth (typ)	degrees	210
Vertical beamwidth (typ)	degrees	8
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 to 4 (89 to 102)
Length/ Height	in (mm)	387 to 499 (9830 to 12675)
Width	in (mm)	19.2 to 49 (488 to 1245)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	72 to 228 (1829 to 5791)
Weight	lbs (kg)	85 to 115.5 (38.59 to 52.44)
Mounting Hardware (Optional)		Clamp147, Clamp015, or Clamp130
Actual Shipping weight	lbs (kg)	122 to 198 (55.39 to 89.89)
Shipping dimensions	in (mm)	L(187 - 244)in W(24 - 52)in H 6in
Mounting configurations		side mount



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.95 to 9.27 (0.55 to 0.86)
Wind Loading Area (1/2" ice)	ft² (m²)	11.1 to 16.22 (1.03 to 1.51)
Rated wind velocity (no ice)	mph (km/h)	125 to 165 (201 to 266)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 to 125 (145 to 201)
Lateral thrust (100 mph No Ice)	lbs (N)	241 to 349 (1072 to 1552.4)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	135 to 376 (182.3 to 507.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	251 to 932 (338.9 to 1258.2)

Ordering Information

Clamps must be ordered separately.

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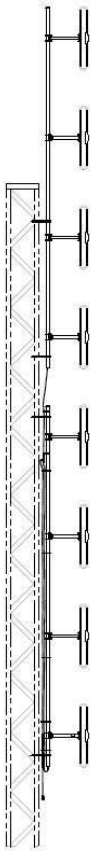
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8 dipole, 9.5/10 dBd, low PIM, 138-174 MHz

- 9.5 dBd gain with bi-directional pattern; 10 dBd gain with offset pattern
- Low PIM rating at -150 dBc
- Two segment design for easy transport and installation

Model	Description
SD218-SF2P2LDF(D00S)	9.5 dBd, bi-directional, side mount, 138-174 MHz
SD218-SF2P4LDF(D00S)	10 dBd, offset, side mount, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

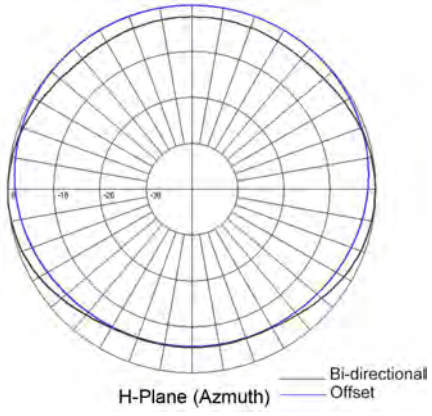
Frequency Range	MHz	138 to 174
Bandwidth	MHz	36
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	9.5 to 10 (11.6 to 12.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Bi- directional / Offset
Vertical beamwidth (typ)	degrees	9
Average Power Input (max)	W	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	4 (102)
Length/ Height	in (mm)	480 (12192)
Width	in (mm)	23.5 to 44.5 (597 to 1130)
Base pipe diameter	in (mm)	2.38 (60)
Base pipe mounting length	in (mm)	72 (1829)
Weight	lbs (kg)	115 to 128 (52.21 to 58.11)
Mounting Hardware (Optional)		Clamp130
Actual Shipping weight	lbs (kg)	161 to 204 (73.09 to 92.62)
Shipping dimensions	in (mm)	L 300in W 24in H 7in
Mounting configurations		side mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	8.4 to 9.6 (0.78 to 0.89)
Wind Loading Area (1/2" ice)	ft² (m²)	14.1 to 16.1 (1.31 to 1.5)
Rated wind velocity (no ice)	mph (km/h)	170 to 175 (274 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 to 120 (185 to 193)
Lateral thrust (100 mph No Ice)	lbs (N)	313 to 361 (1392.2 to 1605.7)
Torsional moment (100 mph No Ice)	ft-lbs (Nm)	139 to 383 (187.7 to 517.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	250 (337.5)
Tip deflection (100 mph No Ice)	degrees	0.66



Ordering Information
Clamps must be orderd separately.

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Dual exposed dipole, Omni directional, 3 dBd, 158-168/215-225 MHz

- Stacked dual port, covering 158-168/215-225 MHz
- Omni- directional pattern with 3 dBd gain
- Compact, light weight for easy installation

Model	Description
SD222D-SF6/F10SNF	3 dBd, 160/220 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

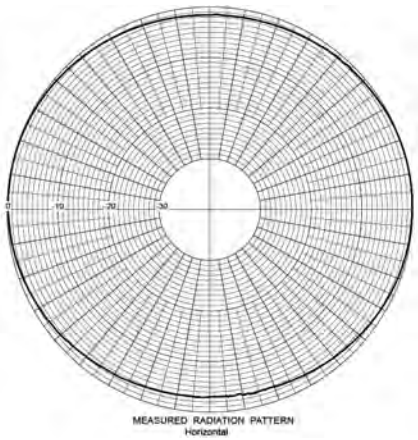


Electrical Specifications

Frequency Range 1 (F1)	MHz	158 to 168
Frequency Range 2 (F2)	MHz	215 to 225
Bandwidth	MHz	10
Connector		N-Female
Gain (nominal)	dBd (dBi)	3 (5.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	35
Average Power Input (max)- Input 1	W	300
Average Power Input (max)- Input 2	W	250
Isolation (min)	dB	20

Mechanical Specifications

Depth	in (mm)	4.5 (114)
Length/ Height	in (mm)	138 (3505)
Width	in (mm)	16.75 (425)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	24 (610)
Weight	lbs (kg)	23 (10.44)
Weight iced	lbs (kg)	58 (26.33)
Mounting information		Upright or inverted
Mounting Hardware (Standard)		Clamp130
Shipping dimensions	in (mm)	L 144in W 24in H 6in



Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.93 (0.18)
Wind Loading Area (1/2" ice)	ft² (m²)	4.1 (0.38)
Rated wind velocity (no ice)	mph (km/h)	125 (201)
Rated wind velocity (1/2" radial ice)	mph (km/h)	80 (129)
Lateral thrust (100 mph No Ice)	lbs (N)	96 (427)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	381 (514.4)
Tip deflection (100 mph No Ice)	degrees	1.6

Ordering Information
Clamps included. For offset mounting, side mount kits available separately.

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Exposed dipole array, 3/5.5 dBd gain, field adj., 118-174 MHz

- Broadband, two band splits cover 118-174 MHz range
- Field adjustable antenna allows for either omni-directional or bi-directional patterns for coverage optimization
- Heavy duty and low PIM models available

Model	Description
SD235-SF1PASNM(D00B)	3/5.5 dBd, field adj, 118-138 MHz
SD235-SF2PASNM(D00B)	3/5.5 dBd, field adj, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

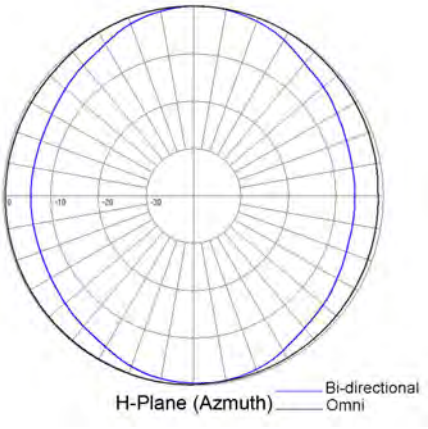
Frequency Range	MHz	118 to 174
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni or Bi-directional, Adjustable
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	36
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	30 to 32 (762 to 813)
Length/ Height	in (mm)	168 to 192 (4267 to 4877)
Width	in (mm)	30 to 32 (762 to 813)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	48 (1219)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	25 to 31.7 (11.35 to 14.39)
Mounting Hardware (Standard)		Clamp015
Actual Shipping weight	lbs (kg)	56 to 85 (25.42 to 38.59)
Shipping dimensions	in (mm)	L 168in W 36in H 12in
Mounting configurations		top mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.1 (0.29)
Wind Loading Area (1/2" ice)	ft² (m²)	5.61 (0.52)
Rated wind velocity (no ice)	mph (km/h)	130 (209)
Rated wind velocity (1/2" radial ice)	mph (km/h)	90 (145)
Lateral thrust (100 mph No Ice)	lbs (N)	98.5 (438.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	3.94 (5.3)
Tip deflection (100 mph No Ice)	degrees	2.2



Ordering Information
Mounting hardware included.

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Exposed dipole array, 6/8.5 dBd gain, field adj., 108-174 MHz

- Broadband, two band splits cover 108-174 MHz range
- Field adjustable antenna, allows for omni or bi-directional patterns for coverage optimization

Model	Description
SD2352-SF1PASNM(D00B)	6/8.5 dBd, field adj., 118-138 MHz
SD2352-SF2PASNM(D00B)	6/8.5 dBd, field adj., 138-174 MHz
SD2352-SF2PASNM(D08B)	6/8.5 dBd, field adj., 8° DT, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

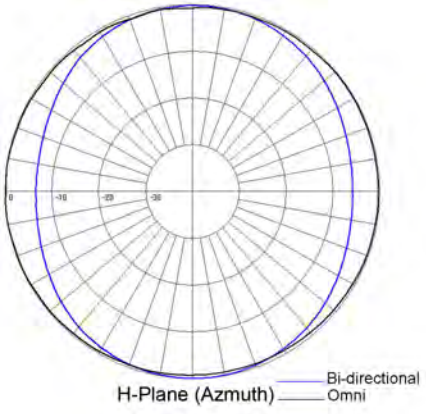
Frequency Range	MHz	118 to 174
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Bi-directional, Adjustable
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	16
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	30 to 39.25 (762 to 997)
Length/ Height	in (mm)	240 to 330 (6096 to 8382)
Width	in (mm)	30 to 39.25 (762 to 997)
Base pipe diameter	in (mm)	3.5 to 4 (89 to 102)
Base pipe mounting length	in (mm)	40 to 60 (1016 to 1524)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	76 to 134 (34.5 to 60.84)
Mounting Hardware (Optional)		Clamp147, Clamp005, or Clamp015
Actual Shipping weight	lbs (kg)	165 (74.91)
Shipping dimensions	in (mm)	L 247in W 6in H 44in
Mounting configurations		top mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.6 to 9.09 (0.52 to 0.84)
Wind Loading Area (1/2" ice)	ft² (m²)	9.59 to 14.95 (0.89 to 1.39)
Rated wind velocity (no ice)	mph (km/h)	100 to 135 (161 to 217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 100 (137 to 161)
Lateral thrust (100 mph No Ice)	lbs (N)	303 to 316 (1347.7 to 1405.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	2307 to 3123 (3114.5 to 4216.1)



Ordering Information
Clamps must be ordered separately.

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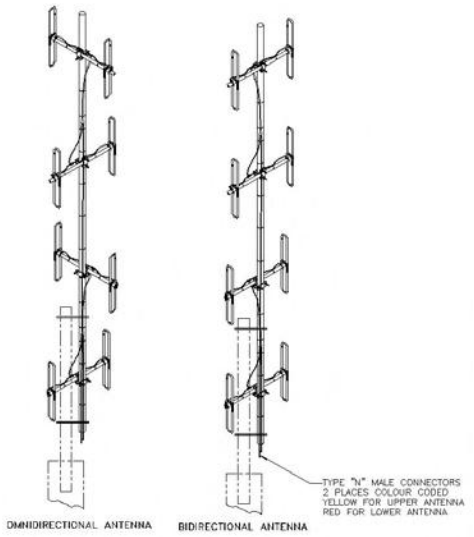
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Exposed dipole array, 3/5.5 dBd, dual, field adj., 118-174 MHz

- Broadband, covers 118-138 MHz (F1) or 138-174 MHz (F2)
- Field adjustable omni or bi directional pattern for coverage optimization
- Two antennas stacked on a single mast simplifies installation and saves tower space

Model	Description
SD235D-SF1PASNM(D00B)	3/5.5 dBd, dual, field adj., 118-138 MHz
SD235D-SF2PASNM(D00B)	3/5.5 dBd, dual, field adj., 138-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

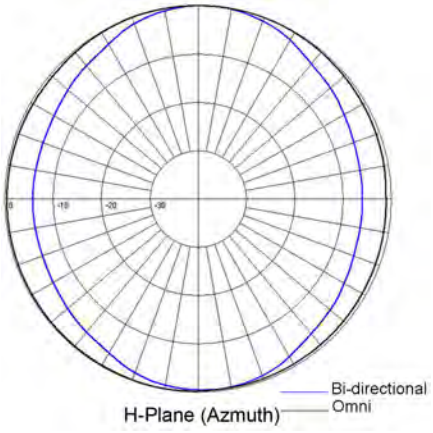
Frequency Range	MHz	118 to 174
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Bi-directional, Adjustable
Vertical beamwidth (typ)	degrees	34
Average Power Input (max)	W	300
Lightning protection		DC ground
Isolation between sections (nom)	dB	30

Mechanical Specifications

Depth	in (mm)	35.5 to 39.25 (902 to 997)
Length/ Height	in (mm)	240 to 330 (6096 to 8382)
Width	in (mm)	35.5 to 39.25 (902 to 997)
Base pipe diameter	in (mm)	2.88 to 4 (73 to 102)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	90 to 137 (40.86 to 62.2)
Mounting Hardware (Optional)		Clamp147, Clamp005, or Clamp015
Actual Shipping weight	lbs (kg)	165 (74.91)
Shipping dimensions	in (mm)	L(246 - 336)in W 42in H 12in
Mounting configurations		top mount

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.6 to 8.99 (0.52 to 0.84)
Wind Loading Area (1/2" ice)	ft² (m²)	9.6 to 14.9 (0.89 to 1.38)
Rated wind velocity (no ice)	mph (km/h)	125 to 135 (201 to 217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 (153)
Lateral thrust (100 mph No Ice)	lbs (N)	235 to 316 (1045.3 to 1405.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	2307 to 3158 (3114.5 to 4263.3)



Ordering Information
Clamps must be ordered separately.

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Exposed dipole array, 3/5.5 dBd gain, HD, field adj., 118-138 MHz

- Broadband, covering 118-138 MHz by two band-splits
- Pattern field adjustable omni or bi-directional, allowing for easy coverage optimization
- Low PIM models are also available
- Heavy duty construction for harsh enviornments

Model	Description
SD235-HF1PASNM(D00B)	3/5.5 dBd, field adj., 118-138 MHz
SD235-HF2PASNM(D00B)	3/5.5 dBd, field adj., 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

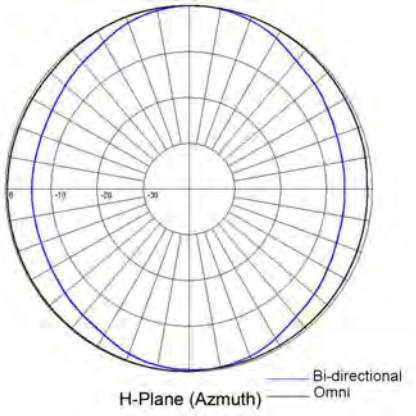
Frequency Range	MHz	118 to 174
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Bi-directional, Adjustable
Horizontal beamwidth (typ)	degrees	80
Vertical beamwidth (typ)	degrees	36
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	29.12 to 36.1 (740 to 917)
Length/ Height	in (mm)	168 to 240 (4267 to 6096)
Width	in (mm)	29.12 to 36.12 (740 to 917)
Base pipe diameter	in (mm)	2.88 to 4 (73 to 102)
Base pipe mounting length	in (mm)	48 to 72 (1219 to 1829)
Radiating element material		aluminum
Reflector material		aluminum
Weight	lbs (kg)	55 to 110 (24.97 to 49.94)
Weight iced	lbs (kg)	113 to 201 (51.3 to 91.25)
Mounting Hardware (Optional)		Clamp006A or Clamp015
Actual Shipping weight	lbs (kg)	95 to 154 (43.13 to 69.92)
Shipping dimensions	in (mm)	L(174 - 240)in W(12 - 42)in H 12in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	4 to 6.64 (0.37 to 0.62)
Wind Loading Area (1/2" ice)	ft² (m²)	6.42 to 9.7 (0.6 to 0.9)
Rated wind velocity (no ice)	mph (km/h)	175 to 180 (282 to 290)
Rated wind velocity (1/2" radial ice)	mph (km/h)	140 to 150 (225 to 242)
Lateral thrust (100 mph No Ice)	lbs (N)	133 to 225 (591.6 to 1000.8)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	554 to 1333 (747.9 to 1799.6)



Ordering Information
Clamps must be ordered separately.

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Exposed dipole, 3/6 dBd, field adj., 132-225 MHz

- 3 dBd in omni-directional configuration, 6 dBd in offset configuration
- 10 MHz bandwidth, covering 132-174 MHz band in multiple band splits
- Lightweight structure makes installation easier
- For Omni pattern top mount; For offset pattern side mount

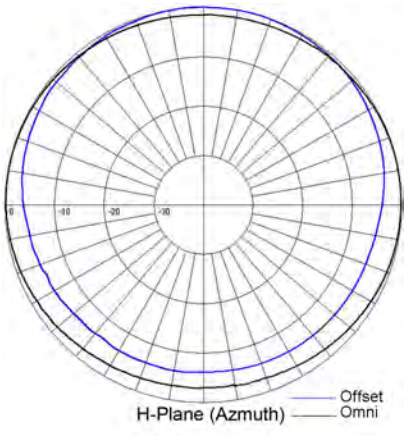
Model	Description
SD222-SF10PASNM	3/6 dBd, field adj., N-Male, 215-225 MHz
SD222-SF11PASNM	3/6 dBd, field adj., N-Male, 139-149 MHz
SD222-SF1PASNM	3/6 dBd, field adj., N-Male, 132-142 MHz
SD222-SF2PASNM	3/6 dBd, field adj., N-Male, 137-147 MHz
SD222-SF3PASNM	3/6 dBd, field adj., N-Male, 142-152 MHz
SD222-SF4PASNM	3/6 dBd, field adj., N-Male, 147-157 MHz
SD222-SF5PASNM	3/6 dBd, field adj., N-Male, 152-162 MHz
SD222-SF6PASNM	3/6 dBd, field adj., N-Male, 158-168 MHz
SD222-SF7PASNM	3/6 dBd, field adj., N-Male, 164-174 MHz
SD222-SF8PASNM	3/6 dBd, field adj., N-Male, 150-160 MHz
SD222-SF9PASNM	3/6 dBd, field adj., N-Male, 160-170 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	132 to 225
Bandwidth	MHz	10
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Offset, Adjustable
Horizontal beamwidth (typ)	degrees	0
Vertical beamwidth (typ)	degrees	34
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications		
Length/ Height	in (mm)	114 (2896)
Width	in (mm)	12 (305)
Base pipe diameter	in (mm)	1.5 (38)
Base pipe mounting length	in (mm)	15 (381)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	17 (7.72)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 117in W 4in H 14in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7



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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.13 (0.1)
Wind Loading Area (1/2" ice)	ft² (m²)	2.45 (0.23)
Rated wind velocity (no ice)	mph (km/h)	120 (193)
Rated wind velocity (1/2" radial ice)	mph (km/h)	80 (129)
Lateral thrust (100 mph No Ice)	lbs (N)	65.1 (289.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	12.8 (17.3)

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Exposed dipole, 6/9 dBd, field adjustable, 128-174 MHz

- 6 dBd in omni-directional configuration, 9 dBd in offset configuration
- 10 MHz bandwidth, covering 128-174 MHz in multiple band splits
- Easy to install light structural design
- For Omni pattern top mount; For Offset pattern side mount

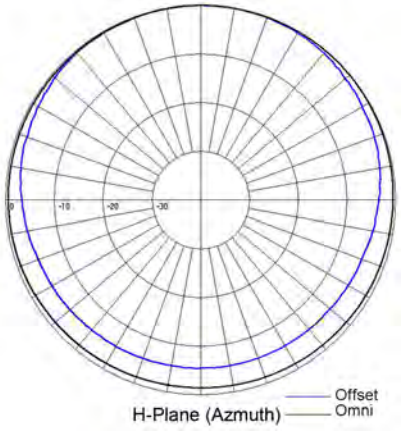
Model	Description
SD224-SF10PASNM	6/9 dBd, field adj., N-Male, 215-225 MHz
SD224-SF1PASNM	6/9 dBd, field adj., N-Male, 132-142 MHz
SD224-SF2PASNM	6/9 dBd, field adj., N-Male, 137-147 MHz
SD224-SF3PASNM	6/9 dBd, field adj., N-Male, 142-152 MHz
SD224-SF4PASNM	6/9 dBd, field adj., N-Male, 147-157 MHz
SD224-SF5PASNM	6/9 dBd, field adj., N-Male, 152-162 MHz
SD224-SF6PASNM	6/9 dBd, field adj., N-Male, 158-168 MHz
SD224-SF7PASNM	6/9 dBd, field adj., N-Male, 164-174 MHz
SD224-SF8PASNM	6/9 dBd, field adj., N-Male, 150-160 MHz
SD224-SF9PASNM	6/9 dBd, field adj., N-Male, 128-138 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	128 to 174
Bandwidth	MHz	10 to 11
Connector		N-Male
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni or Offset, Adjustable
Horizontal beamwidth (typ)	degrees	0
Vertical beamwidth (typ)	degrees	16
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications		
Depth	in (mm)	4 to 4.5 (102 to 114)
Length/ Height	in (mm)	216 (5486)
Width	in (mm)	14 (356)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	36 (914)
Radiating element material		aluminum
Base pipe material		aluminum
Weight	lbs (kg)	35 (15.89)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	49 to 55 (22.25 to 24.97)
Shipping dimensions	in (mm)	L 120in W 24in H 6in
Mounting configurations		Universal Mount
Recommended For Offset Side Mount:		SMK-125-A3 or SMK-125-A7



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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	3.2 to 3.3 (0.3 to 0.31)
Wind Loading Area (1/2" ice)	ft² (m²)	6.5 to 6.6 (0.6 to 0.61)
Rated wind velocity (no ice)	mph (km/h)	105 to 130 (169 to 209)
Rated wind velocity (1/2" radial ice)	mph (km/h)	80 to 95 (129 to 153)
Lateral thrust (100 mph No Ice)	lbs (N)	116 (516)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	539 to 549 (727.7 to 741.2)

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Exposed dipole array, 2.5/5 dBd gain, low PIM, 118-174 MHz

- Perfectly suited for multicoupled systems due to its broad band
- Omni-directional or bidirectional pattern easily changed in the field
- Low PIM -150 dBc 2 carrier, 20 watt, 3rd order

Model	Description
SD235-HF2PALDF(D00B)	3 dBd/ 5.5 dBd, field adj,low PIM, HD, 138-174 MHz
SD235-SF2PALDF(D00B)	3 dBd/ 5.5 dBd, field adj,low PIM, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

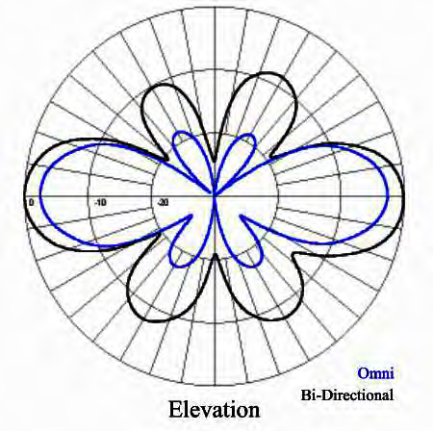
Frequency Range	MHz	138 to 174
Bandwidth	MHz	36
Connector		7/16 DIN-Female
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		omni/bi-directional, adj.
Vertical beamwidth (typ)	degrees	34 to 36
Average Power Input (max)	W	500 / 300
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Length/ Height	in (mm)	168 (4267)
Width	in (mm)	30 to 35.5 (762 to 902)
Base pipe diameter	in (mm)	2.88 to 2.88 (73 to 73)
Base pipe mounting length	in (mm)	48 to 60 (1219 to 1524)
Weight	lbs (kg)	47.3 to 58 (21.47 to 26.33)
Mounting hardware		clamps not supplied

Environmental Specifications

Rated wind velocity (no ice)	mph (km/h)	125 to 145 (201 to 233)
Rated wind velocity (1/2" radial ice)	mph (km/h)	95 to 110 (153 to 177)
Lateral thrust (100 mph No Ice)	lbs (N)	138 to 149 (613.8 to 662.8)



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Collinear omni antenna, 2.3-3.5 dBd gain, low PIM, PIP rated, HD, 138-174 MHz

- Wideband, single or dual port omni antenna
- 500W power handling with low PIM and high PIP rating
- Rugged fiberglass radome provides superior environmental protection
- 0, 2, 4, or 6 degrees of electrical downtilt available

Model	Description
SC251-HF2LDF(D00-G3)	2.3 dBd gain, 138-158 MHz
SC251-HF3LDF(D00-G3)	2.3 dBd gain, 148-168 MHz
SC251-HF3LDF(D00-G4)	3.5 dBd gain, 148-168 MHz
SC251-HF4LDF(D00-G3)	2.4 dBd gain, 156-174 MHz
SC251D-HF2LDF(D00-G3)	2.3 dBd gain, dual port, 35 dB isolation, 138-158 MHz
SC251D-HF3LDF(D00-G3)	2.3 dBd gain, dual port, 35 dB isolation, 148-168 MHz
SC251D-HF4LDF(D00-G3)	2.4 dBd gain, dual port, 35 dB isolation, 156-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

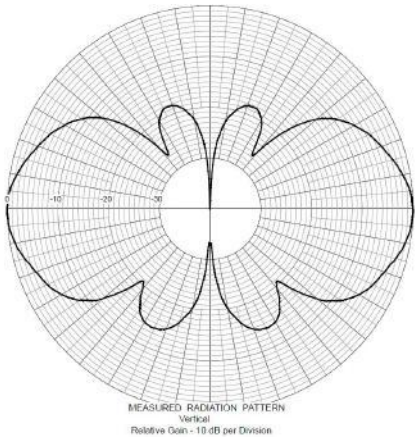


Electrical Specifications

Frequency Range	MHz	138 to 174
Bandwidth	MHz	18 to 20
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	2.3 to 3.5 (4.4 to 5.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	22 to 37.5
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
PIP(KW, max)		25
Electrical tilt (available)		0, 2, 4, or 6 degrees

Mechanical Specifications

Width	in (mm)	5 (127)
Depth	in (mm)	5 (127)
Length/ Height	in (mm)	132 to 300 (3353 to 7620)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	20 to 26 (508 to 660)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	56 to 97 (25.42 to 44.04)
Weight iced (1/2" ice)	lbs (kg)	90 to 175 (40.86 to 79.45)
Mounting Hardware (Optional)		Clamp006C
Actual shipping weight	lbs (kg)	85 to 148 (38.59 to 67.19)
Shipping dimensions	in (mm)	L(150 - 310)in W 6in H 6in
Number of ports		1 to 2
Mounting configurations		Universal mount
Recommended For Offset Side Mount:		SMK-345-A7
Radome Colour		Light Blue



G3 version pattern shown

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.8 to 6.4 (0.26 to 0.59)
Wind Loading Area (1/2" ice)	ft² (m²)	3.4 to 7.8 (0.32 to 0.72)
Rated wind velocity (no ice)	mph (km/h)	145 to 225 (233 to 362)
Rated wind velocity (1/2" radial ice)	mph (km/h)	125 to 195 (201 to 314)
Lateral thrust (100 mph No Ice)	lbs (N)	110 to 251 (489.3 to 1116.4)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	407 to 2540 (549.5 to 3429)
Tip deflection (100 mph No Ice)	degrees	0.2 to 3.1

Ordering Information

Clamps must be ordered separately

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Collinear Omni, 6 dBd, 6 MHz B.W., Straight radome, 138-225 MHz

- Rugged fiberglass radome
- High gain, omni-directional, 6 MHz band width with VSWR of 1.5:1
- Designed to withstand severe environmental conditions
- Side mount kit recommended for offset mount.

Model	Description
SC226-SFXSNM(D00-F1380)	6 MHz B.W., Straight Radome, 135-141 MHz
SC226-SFXSNM(D00-F1400)	6 MHz B.W., Straight Radome, 137-143 MHz
SC226-SFXSNM(D00-F1500)	6 MHz B.W., Straight Radome, 147-153 MHz
SC226-SFXSNM(D00-F1560)	6 MHz B.W., Straight Radome, 153-159 MHz
SC226-SFXSNM(D00-F1600)	6 MHz B.W., Straight Radome, 157-163 MHz
SC226-SFXSNM(D00-F1700)	6 MHz B.W., Straight Radome, 167-173 MHz
SC226-SFXSNM(D00-F1710)	6 MHz B.W., Straight Radome, 168-174 MHz
SC226-SFXSNM(D00-F2220)	6 MHz B.W., Straight Radome, 219-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

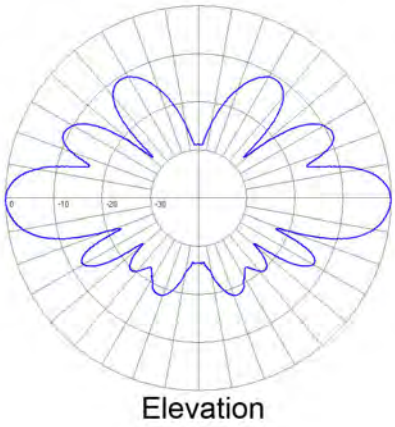


Electrical Specifications

Frequency Range	MHz	135 to 225
Bandwidth	MHz	6
Connector		N-Male
Gain (nominal)	dBd (dBi)	6 (8.1)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	17
Average Power Input (max)	W	500
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	29.75 (756)
Length/ Height	in (mm)	184.5 to 296.5 (4686 to 7531)
Width	in (mm)	29.75 (756)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	20 (508)
Radiating element material		brass
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	31.6 to 46.1 (14.35 to 20.93)
Weight iced	lbs (kg)	68.6 to 99.6 (31.14 to 45.22)
Mounting Hardware (Standard)		Clamp005
Actual Shipping weight	lbs (kg)	62.6 to 88 (28.42 to 39.95)
Shipping dimensions	in (mm)	L(215 - 326)in W 6in H 6in
Mounting configurations		upright
Recommended For Offset Side Mount:		SMK-225-A3-T5 or SMK-225-A7-T5



Elevation

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.12 to 3.41 (0.2 to 0.32)
Wind Loading Area (1/2" ice)	ft² (m²)	2.96 to 4.77 (0.27 to 0.44)
Rated wind velocity (no ice)	mph (km/h)	135 to 195 (217 to 314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	107 to 155 (172 to 250)
Lateral thrust (100 mph No Ice)	lbs (N)	85 to 134 (378.1 to 596)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	472 to 1345 (637.2 to 1815.8)
Tip deflection (100 mph No Ice)	degrees	2.1 to 8.7

Ordering Information

Specify center of frequency. Length of antenna will change with frequency.

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Collinear Omni, 6 dBd, 6 MHz B.W., Straight radome, Low PIM, 138-225 MHz

- Rugged fiberglass radome
- High gain, low PIM, omni-directional, 6 MHz band width with VSWR of 1.5:1
- Designed to withstand severe environmental conditions
- Side mount kit recommended for offset mount.

Model	Description
SC226-SFXLDF(F1380)	6 MHz B.W., Straight Radome, Low PIM, 135-141 MHz
SC226-SFXLDF(F1400)	6 MHz B.W., Straight Radome, Low PIM, 137-143 MHz
SC226-SFXLDF(F1510)	6 MHz B.W., Straight Radome, Low PIM, 148-154 MHz
SC226-SFXLDF(F1590)	6 MHz B.W., Straight Radome, Low PIM, 156-162 MHz
SC226-SFXLDF(F1700)	6 MHz B.W., Straight Radome, Low PIM, 167-173 MHz
SC226-SFXLDF(F2220)	6 MHz B.W., Straight Radome, Low PIM, 219-225 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

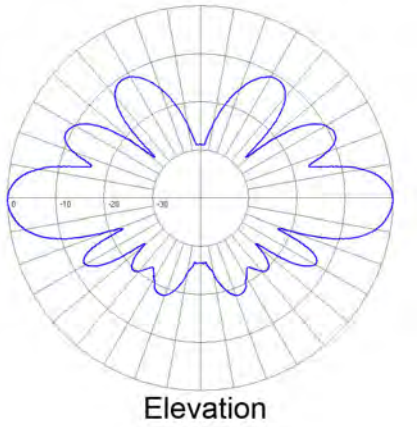


Electrical Specifications

Frequency Range	MHz	135 to 225
Bandwidth	MHz	6
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	6 (8.1)
VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	17
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	29.75 (756)
Length/ Height	in (mm)	184.5 to 296.5 (4686 to 7531)
Width	in (mm)	29.75 (756)
Base pipe diameter	in (mm)	2.88 (73)
Base pipe mounting length	in (mm)	20 (508)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	31.6 to 46.1 (14.35 to 20.93)
Weight iced	lbs (kg)	68.6 to 99.6 (31.14 to 45.22)
Mounting Hardware (Standard)		Clamp005
Actual Shipping weight	lbs (kg)	62.6 to 88 (28.42 to 39.95)
Shipping dimensions	in (mm)	L(215 - 326)in W 6in H 6in
Mounting configurations		upright
Recommended For Offset Side Mount:		SMK-225-A3-T5 or SMK-225-A7-T5



Elevation

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.12 to 3.41 (0.2 to 0.32)
Wind Loading Area (1/2" ice)	ft² (m²)	2.96 to 4.77 (0.27 to 0.44)
Rated wind velocity (no ice)	mph (km/h)	135 to 195 (217 to 314)
Rated wind velocity (1/2" radial ice)	mph (km/h)	107 to 155 (172 to 250)
Lateral thrust (100 mph No Ice)	lbs (N)	85 to 134 (378.1 to 596)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	472 to 1345 (637.2 to 1815.8)
Tip deflection (100 mph No Ice)	degrees	2.1 to 8.7

Ordering Information

Specify center of frequency. Length of antenna will change with frequency.

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Collinear omni antenna, 0 dBd gain, HD, 130-174 MHz

- Heavy-duty fiberglass radome
- Lightweight short antenna, easy to deploy

Model	Description
SC225M-HF1SNM	0 dBd, 130-139 MHz
SC225M-HF2SNM	0 dBd, 138-148 MHz
SC225M-HF3SNM	0 dBd, 147-157 MHz
SC225M-HF4SNM	0 dBd, 156-166 MHz
SC225M-HF5SNM	0 dBd, 164-174 MHz

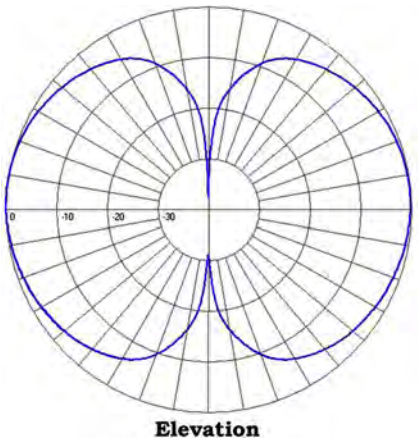
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	130 to 174
Bandwidth	MHz	9 to 10
Connector		Cable mounted N-male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	80
Average Power Input (max)	W	250
Lightning protection		DC ground
Electrical tilt (available)		0 degrees

Mechanical Specifications		
Length	in (mm)	69.1 (1755)
Width	in (mm)	2.88 (73)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	9.5 (4.31)
Mounting Hardware (Standard)		Clamp005
Actual Shipping weight	lbs (kg)	18 (8.17)
Shipping dimensions	in (mm)	L 72in W 3in H 5in
Mounting configurations		upright
Recommended For Offset Side Mount:		Not Required

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.66 (0.06)
Wind Loading Area (1/2" ice)	ft² (m²)	1.53 (0.14)
Rated wind velocity (no ice)	mph (km/h)	175 (282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	125 (201)
Lateral thrust (100 mph No Ice)	lbs (N)	26 (115.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	37 (50)



Elevation

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Collinear omni antenna, 3 dBd gain, 2 MHz B.W., 138-174 MHz

- Featuring lightweight tapered radome constructed of high strength fiberglass
- 2 MHz bandwidth with 3 dBd gain
- Easy to deploy

Model	Description
SC233-SFXSNF(FXXXX)	3 dBd, 2 MHz B.W., N-female, 138-174 MHz
SC233-SFXSNM(FXXXX)	3 dBd, 2 MHz B.W., N-male, 138-174 MHz
SC233M-HFXSUM(D00)	3 dBd, 6.5 MHz B.W., UHF-male, 156-162.55 MHz
SC233M-SFXSUM(D00)	3 dBd, 6.5 MHz B.W., N-male, 156-162.5 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

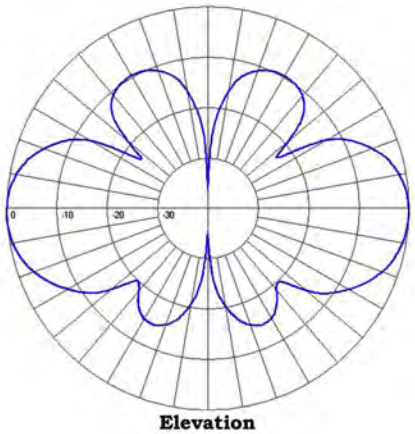


Electrical Specifications

Frequency Range	MHz	138 to 174
Bandwidth	MHz	2 to 6.5
Connector		N-Female / N-Male / UHF-Male
Gain (nominal)	dBd (dBi)	3 (5.1)
Input VSWR (max)		1.5:1 / 2:1 / 2.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	35
Average Power Input (max)	W	100 / / 60
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	1.5 (38)
Length	in (mm)	118 to 145 (2997 to 3683)
Width	in (mm)	1.5 (38)
Base pipe diameter	in (mm)	0.88 (22)
Base pipe mounting length	in (mm)	14 (356)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	3.25 to 3.5 (1.48 to 1.59)
Weight iced	lbs (kg)	13 to 15 (5.9 to 6.81)
Mounting Hardware (Standard)		Clamp135
Actual Shipping weight	lbs (kg)	20 to 25 (9.08 to 11.35)
Shipping dimensions	in (mm)	L 157in W 4in H 4in
Mounting configurations		upright



Elevation

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Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.55 to 0.61 (0.05 to 0.06)
Wind Loading Area (1/2" ice)	ft² (m²)	1.15 to 1.33 (0.11 to 0.12)
Rated wind velocity (no ice)	mph (km/h)	115 to 170 (185 to 274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	21 to 21.5 (93.4 to 95.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	52 to 66 (70.2 to 89.1)
Tip deflection (100 mph No Ice)	degrees	1.5 to 2

Ordering Information

Specify center frequency at time of order.

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Collinear omni, 0 dBd, 118-137 MHz

- Wideband unity gain antenna
- Lightweight PVC radome assembly
- Easy to install

Model	Description
SC272-SF1SNF	0 dBd, 118-137 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

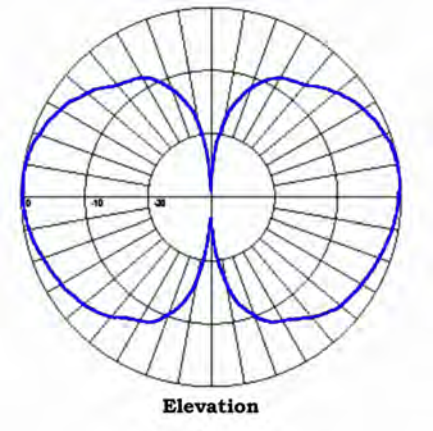
Frequency Range	MHz	118 to 137
Bandwidth	MHz	19
Connector		N-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		2:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	85
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	2.5 (64)
Length	in (mm)	65.5 (1664)
Width	in (mm)	2.5 (64)
Radome material		PVC
Weight	lbs (kg)	6.1 (2.77)
Weight iced	lbs (kg)	12 (5.45)
Mounting Hardware (Standard)		Clamp005
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 75in W 4in H 4in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.6 (0.06)
Wind Loading Area (1/2" ice)	ft² (m²)	0.9 (0.08)
Rated wind velocity (no ice)	mph (km/h)	135 (217)
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 (185)
Lateral thrust (100 mph No Ice)	lbs (N)	23 (102.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	54 (72.9)
Tip deflection (100 mph No Ice)	degrees	3.8



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Collinear omni antenna, 5 dBd gain, low PIM, HD, 138-174 MHz

- Wideband 5 dBd gain
- 500W power handling with low PIM rating
- A side mount kit is Mandatory when offset mounting the antenna
- Rugged fiberglass radome provides superior environmental protection

Model	Description
SC281-HF2LDF(D00)	5 dBd, 138-158 MHz
SC281-HF2LDF(D12)	5 dBd, 12º DT, 138-158 MHz
SC281-HF3LDF(D00)	5 dBd, 148-168 MHz
SC281-HF4LDF(D00)	5 dBd, 156-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

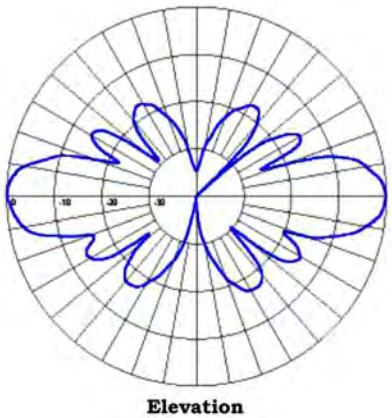


Electrical Specifications

Frequency Range	MHz	138 to 174
Bandwidth	MHz	20
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	5 (7.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	18
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
Electrical tilt (available)		0,2,4 / 12

Mechanical Specifications

Length	in (mm)	235.5 to 248.5 (5982 to 6312)
Width	in (mm)	5 (127)
Base pipe diameter	in (mm)	5 (127)
Base pipe mounting length	in (mm)	30 (762)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	79 (35.87)
Weight iced	lbs (kg)	142 (64.47)
Mounting Hardware (Optional)		Clamp006C
Actual Shipping weight	lbs (kg)	128 to 150 (58.11 to 68.1)
Shipping dimensions	in (mm)	L 264in W(6 - 7)in H(6 - 7)in
Mounting configurations		upright, inverted
Recommended For Offset Side Mount:		SMK-345-A7



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	5.3 (0.49)
Wind Loading Area (1/2" ice)	ft² (m²)	6.4 (0.59)
Rated wind velocity (no ice)	mph (km/h)	170 (274)
Rated wind velocity (1/2" radial ice)	mph (km/h)	150 (242)
Lateral thrust (100 mph No Ice)	lbs (N)	208 (925.2)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	1610 (2173.5)
Tip deflection (100 mph No Ice)	degrees	2.2

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Ground plane omni, 0 dBd, 1-3% bandwidth, 30-88 MHz

- 1-3% bandwidth
- Easy to assemble and install on-site

Model	Description
SG101-SF1PASNM	0 dBd, Field adjustable, 30-44 MHz
SG101-SF2PASNM	0 dBd, Field adjustable, 44-62 MHz
SG101-SF3PASNM	0 dBd, Field adjustable, 62-88 MHz
SG101-SFXSNM(FXXXX)	0 dBd, 2.5% bandwidth, 30-88 MHz



Electrical Specifications

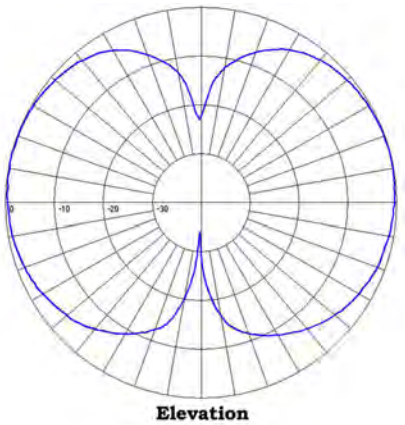
Frequency Range	MHz	30 to 88
Connector		N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	87
Average Power Input (max)	W	450
Lightning protection		DC ground

Mechanical Specifications

Width	in (mm)	110 to 218 (2794 to 5537)
Depth	in (mm)	110 to 218 (2794 to 5537)
Length/ Height	in (mm)	80 to 120 (2032 to 3048)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	15 (381)
Weight	lbs (kg)	13 to 35 (5.9 to 15.89)
Mounting Hardware (Included)		Clamp120
Actual shipping weight	lbs (kg)	30 to 60 (13.62 to 27.24)
Shipping dimensions	in (mm)	L(126 - 127)in W 7in H(8 - 15)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2 to 2.8 (0.19 to 0.26)
Wind Loading Area (1/2" ice)	ft² (m²)	3.7 to 4.7 (0.34 to 0.44)
Rated wind velocity (no ice)	mph (km/h)	105 to 130 (169 to 209)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 to 100 (137 to 161)
Lateral thrust (100 mph No Ice)	lbs (N)	45 to 55 (200.2 to 244.6)



Elevation

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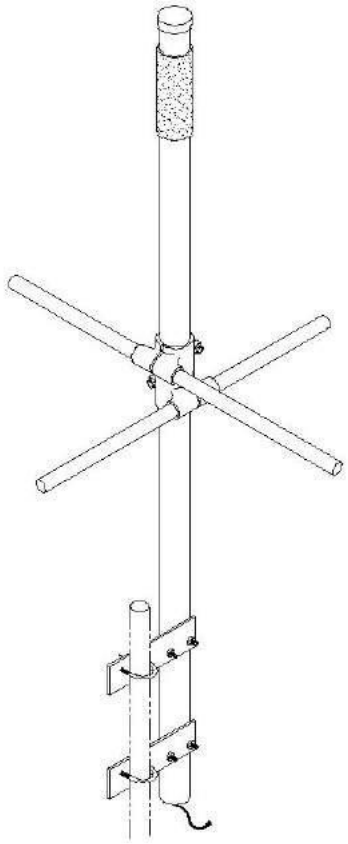
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Ground plane omni, 0 dBd, 3% bandwidth, 118-174 MHz

- Omni-directional antenna with unity gain and 3% bandwidth
- Field adjustable frequency within specified range
- Aluminum construction throughout

Model	Description
SG201-SF1SNF	0 dBd, 3.2-5.4% B.W., N-Female, 118-138 MHz
SG201-SF1SNM	0 dBd, 3.2-5.4% B.W., N-Male, 118-138 MHz
SG201-SF2SNF	0 dBd, 3.8-7.1% B.W., N-Female, 130-150 MHz
SG201-SF2SNM	0 dBd, 3.8-7.1% B.W., N-Male, 130-150 MHz
SG201-SF3SNF	0 dBd, 4.7-3.3% B.W., N-Female, 148-174 MHz
SG201-SF3SNM	0 dBd, 3.3-4.7% B.W., N-Male, 148-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

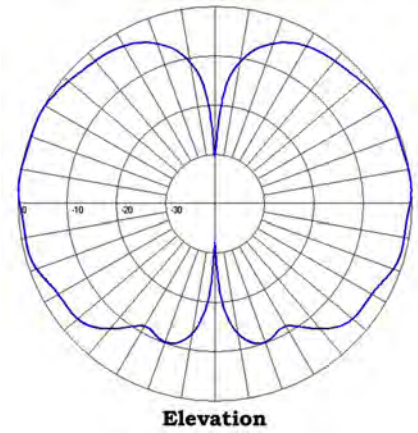
Frequency Range	MHz	118 to 174
Connector		N-Female / N-Male
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	75
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	56 (1422)
Length/ Height	in (mm)	64 (1626)
Width	in (mm)	56 (1422)
Base pipe diameter	in (mm)	1.5 (38)
Base pipe mounting length	in (mm)	12 (305)
Weight	lbs (kg)	8 (3.63)
Mounting Hardware (Standard)		Clamp135
Actual Shipping weight	lbs (kg)	15 (6.81)
Shipping dimensions	in (mm)	L 73in W 5in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.47 (0.14)
Wind Loading Area (1/2" ice)	ft² (m²)	2.48 (0.23)
Rated wind velocity (no ice)	mph (km/h)	130 (209)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	24.2 (107.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	47.7 (64.4)



Elevation

Ordering Information
Please specify connector and center frequency at time of order.

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Ground plane omni antenna, 2.5 dBd gain, 118-174 MHz

- Frequency adjustable within specified range
- Omni-directional radiation pattern and 2.5 dBd gain
- Lightweight easy to assemble and install

Model	Description
SG217-SF1SNM	2.5 dBd, 1.6-2.1 % B.W., N-Male, 118-138 MHz
SG217-SF1SUF	2.5 dBd, 1.6-2.1% B.W., UHF-Female, 118-138 MHz
SG217-SF2SNM	2.5 dBd, 2.1-2.5% B.W., N-Male, 138-174 MHz
SG217-SF2SUF	2.5 dBd, 2.1-2.5% B.W., UHF-Female, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

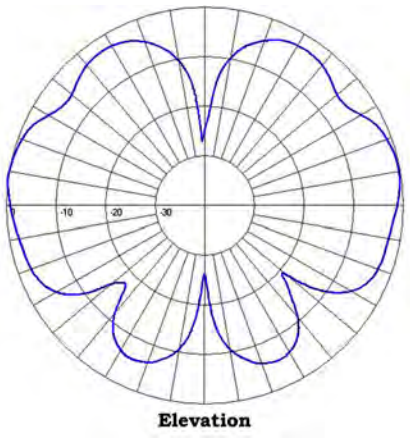
Frequency Range	MHz	118 to 174
Connector		N-Male / UHF-Female
Gain (nominal)	dBd (dBi)	2.5 (4.6)
Input VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	40
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Length/ Height	in (mm)	128 (3251)
Width	in (mm)	58 (1473)
Base pipe diameter	in (mm)	1.5 (38)
Weight	lbs (kg)	6.5 (2.95)
Mounting Hardware (Standard)		Clamp135
Actual Shipping weight	lbs (kg)	15 (6.81)
Shipping dimensions	in (mm)	L 73in W 5in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.22 (0.11)
Wind Loading Area (1/2" ice)	ft² (m²)	2.24 (0.21)
Rated wind velocity (no ice)	mph (km/h)	125 (201)
Rated wind velocity (1/2" radial ice)	mph (km/h)	85 (137)
Lateral thrust (100 mph No Ice)	lbs (N)	65 (289.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	224 (302.4)



Elevation

Ordering Information
Please specify center frequency at time of order.

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Ground plane omni, 0 dBd, 118-174 MHz

- Broadband omni-directional antenna for ground-to-air applications
- Aluminum alloy and stainless steel construction
- Heavy-duty version is also available
- Lightweight and easy to assemble and install

Model	Description
SG238-SF1SNM	0 dBd, 118-138 MHz
SG238-SF2SNM	0 dBd, 136-160 MHz
SG238-SF3SNM	0 dBd, 150-174 MHz
SG238M-SF1SNF	0 dBd, 118-138 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

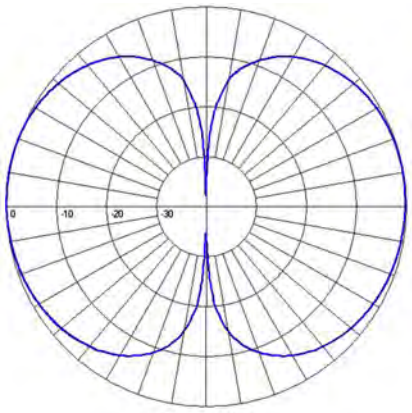
Frequency Range	MHz	118 to 174
Connector		N-Male / N-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		2:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	71
Average Power Input (max)	W	250 / 200
Lightning protection		DC ground /

Mechanical Specifications

Depth	in (mm)	2.75 to 26.5 (70 to 673)
Length/ Height	in (mm)	20.25 to 67 (514 to 1702)
Width	in (mm)	2.75 to 26.5 (70 to 673)
Base pipe diameter	in (mm)	1.5 (38)
Base pipe mounting length	in (mm)	15 (381)
Weight	lbs (kg)	1.1 to 11.5 (0.5 to 5.22)
Weight iced	lbs (kg)	3.11 to 19.8 (1.41 to 8.99)
Mounting Hardware (Standard)		Clamp135 /
Shipping dimensions	in (mm)	L(30 - 72)in W 3in H 5in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.14 to 0.57 (0.01 to 0.05)
Wind Loading Area (1/2" ice)	ft² (m²)	0.23 to 1.33 (0.02 to 0.12)
Rated wind velocity (no ice)	mph (km/h)	160 to 175 (258 to 282)
Rated wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100 mph No Ice)	lbs (N)	6.9 to 23 (30.6 to 102.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	2.7 to 38 (3.6 to 51.3)
Tip deflection (100 mph No Ice)	degrees	0.54



Elevation

Ordering Information
Specify center frequency at time of order.

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Ground plane omni antenna, 0 dBd gain, HD, 118-174 MHz

- Broadband omni-directional antenna for ground-to-air applications
- Aluminum alloy and stainless steel construction
- Light weight, easy to assemble and install
- Heavy duty construction for harsh environments

Model	Description
SG238-HF1SNM	0 dBd, HD, 118-138 MHz
SG238-HF2SNM	0 dBd, HD, 136-160 MHz
SG238-HF3SNM	0 dBd, HD, 150-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

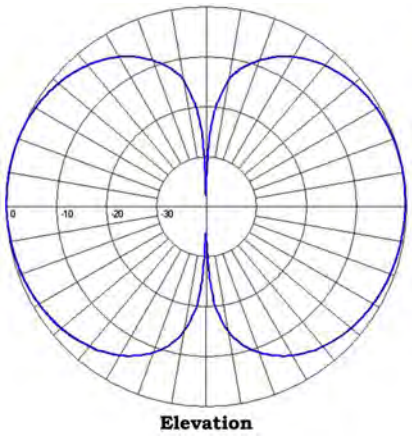
Frequency Range	MHz	118 to 174
Connector		N (male)
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		2:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	71
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	26.5 (673)
Length/ Height	in (mm)	67 (1702)
Width	in (mm)	26.5 (673)
Base pipe diameter	in (mm)	1.9 (48)
Base pipe mounting length	in (mm)	15 (381)
Weight	lbs (kg)	21.2 (9.62)
Weight iced	lbs (kg)	30 (13.62)
Mounting Hardware (Standard)		Clamp130
Actual Shipping weight	lbs (kg)	28 (12.71)
Shipping dimensions	in (mm)	L 72in W 3in H 5in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.79 (0.07)
Wind Loading Area (1/2" ice)	ft² (m²)	1.54 (0.14)
Rated wind velocity (no ice)	mph (km/h)	220 (354)
Rated wind velocity (1/2" radial ice)	mph (km/h)	155 (250)
Lateral thrust (100 mph No Ice)	lbs (N)	31 (137.9)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	51 (68.9)



Elevation

Ordering Information
Specify frequency of operation.

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Mobile omni, 0 dBd, 0.2% B.W., low profile, 25-50 MHz

- Low profile rugged design ideal for low band mobile applications
- 0.2% bandwidth
- Radome-enclosed with top tuning option
- Heavy-duty radome available upon request

Model	Description
ST121R-SFXSUF	0 dBd, 0.2% bandwidth, 25-50 MHz

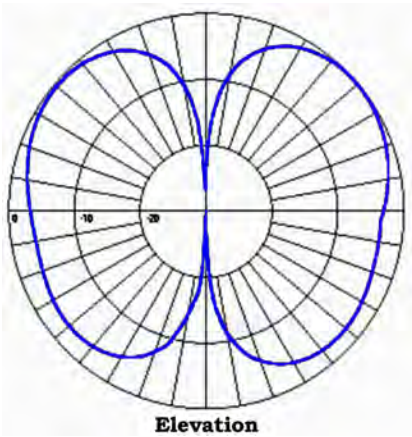


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	25 to 50
Connector		UHF-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Pattern		Omni-directional
Average Power Input (max)	W	300
Lightning protection		DC ground

Mechanical Specifications		
Length	in (mm)	57.3 (1455)
Length/ Height	in (mm)	6.8 (173)
Width	in (mm)	5.7 (145)
Radome material		ABS (white) Weatherable
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 60in W 6in H 7in
Ground Plane (min)	in (mm)	48x72

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Mobile omni, 0 dBd, 138-223 MHz

- Part of the Excaliber family known for its industry leading performance
- Solid cast aluminum design ensures maximum durability and performance
- Each unit is tuned to customer specified frequency

Model	Description
ST221-SF1SNF(FXXXX)	0 dBd, N-Female, 138-163 MHz
ST221-SF1SUF(FXXXX)	0 dBd, UHF-Female, 138-163 MHz
ST221-SF2SNF(FXXXX)	0 dBd, N-Female, 162-174 MHz
ST221-SF2SUF(FXXXX)	0 dBd, UHF-Female, 162-174 MHz
ST221-SF3SNF	0 dBd, N-Female, 217-223 MHz
ST221-SF3SUF	0 dBd, UHF-Female, 217-223 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	138 to 223
Bandwidth	MHz	2.5 to 6
Connector		N-Female / UHF-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Average Power Input (max)	W	300
Lightning protection		DC ground

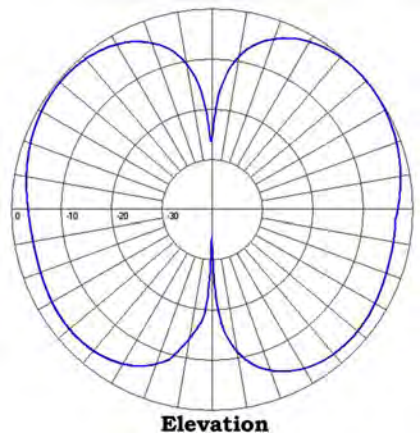
Mechanical Specifications

Depth	in (mm)	17 to 24.5 (432 to 622)
Length/ Height	in (mm)	4 to 4.06 (102 to 103)
Width	in (mm)	2.13 to 2.2 (54 to 56)
Actual Shipping weight	lbs (kg)	6.3 to 7 (2.86 to 3.18)
Shipping dimensions	in (mm)	L 3in W 5in H 25in
Ground Plane (min)	in (mm)	48x48 / 36x36
Mounting hardware		Supplied / HK221A

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Specify exact frequency to the nearest 0.5 MHz.



Elevation

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Mobile omni, 0 dBd, Low Profile, 2 MHz B.W., 170-225 MHz

- 2 MHz typical bandwidth
- Made from cast aluminum
- Highly durable and resistant to damage

Model	Description
ST221-SF2SNF(FXXXX-LP)	0 dBd, 2 MHz B.W., 170-195 MHz
ST221-SF2SUF(FXXXX-LP)	0 dBd, 2 MHz B.W., 170-195 MHz
ST221-SF3SNF(FXXXX-LP)	0 dBd, 2 MHz B.W., 190-225 MHz
ST221-SF3SUF(FXXXX-LP)	0 dBd, 2 MHz B.W., 190-225 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	170 to 225
Bandwidth	MHz	2
Connector		N-Female / UHF-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Average Power Input (max)	W	300
Lightning protection		DC ground

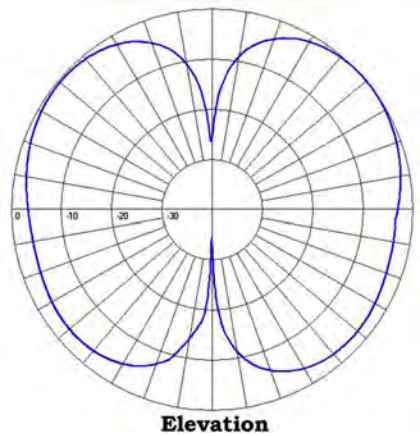
Mechanical Specifications

Height	in (mm)	2.5 (64)
Length	in (mm)	23.5 (597)
Width	in (mm)	2.2 to 2.25 (56 to 57)
Weight	lbs (kg)	3.9 (1.77)
Actual Shipping weight	lbs (kg)	6 (2.72)
Shipping dimensions	in (mm)	L 3in W 5in H 25in
Ground Plane (min)	in (mm)	36x36
Mounting hardware		HK221A

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Specify frequency at time of order.



Elevation

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Mobile omni, 0 dBd, radome, 132-174 MHz

- Low profile design
- UV protected ABS radome enclosure
- Gasket supplied to ensure waterproofing during installation
- Each unit is tuned to customer specified frequency

Model	Description
ST221R-SF1SNF(FXXXX)	0 dBd, N-Female, 132-150 MHz
ST221R-SF1SUF(FXXXX)	0 dBd, UHF-Female, 132-150 MHz
ST221R-SF2SNF(FXXXX)	0 dBd, N-Female, 150-174 MHz
ST221R-SF2SUF(FXXXX)	0 dBd, UHF-Female, 150-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	132 to 174
Bandwidth	MHz	1 to 2
Connector		N-Female / UHF-Female
Gain (nominal)	dBd (dBi)	unity (2.1)
Input VSWR (max)		1.5:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Average Power Input (max)	W	300

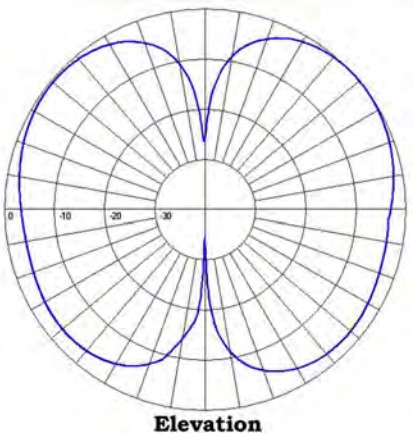
Mechanical Specifications

Length	in (mm)	18.8 (478)
Length/ Height	in (mm)	4.8 (122)
Width	in (mm)	4.6 (117)
Radome material		ABS (white) Weatherable
Actual Shipping weight	lbs (kg)	3 (1.36)
Shipping dimensions	in (mm)	L 10in W 20in H 5in
Ground Plane (min)	in (mm)	36x48
Mounting hardware		Supplied

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Specify exact frequency to the nearest 0.5 MHz.



Elevation

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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

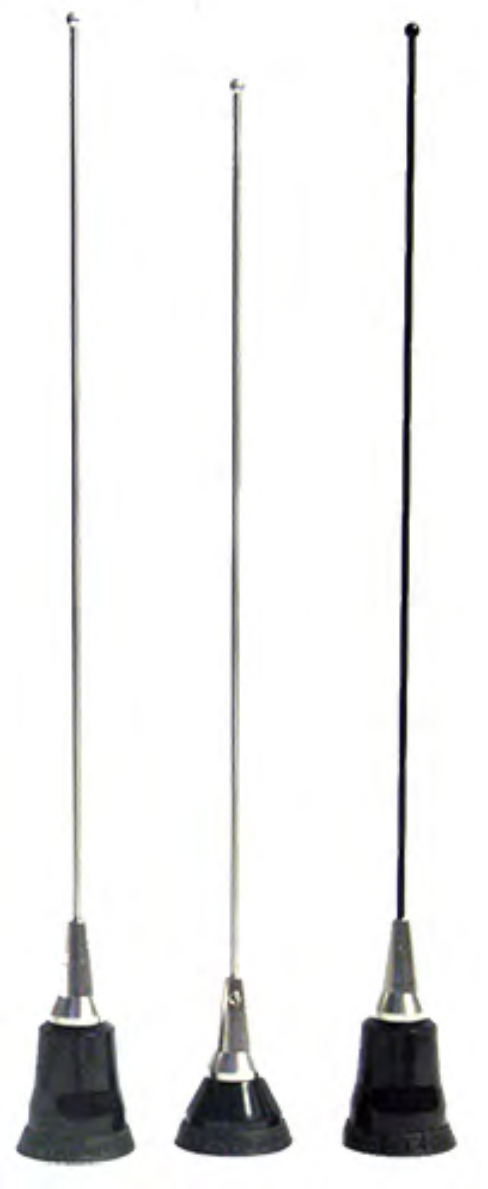
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Mobile whip antenna, 0 dBd gain, 27-118 MHz

- High quality stainless steel whips, tapered to reduce wind resistance
- Integral gasket waterproofs base conforms with curved mounting surface
- UV protected rugged ABS base housing
- A wide range of frequency options over the low band

Model	Description
SVB-0270	0 dBd, 27-30 MHz
SVB-0300	0 dBd, 30-34 MHz
SVB-0340	0 dBd, 34-40 MHz
SVB-0400	0 dBd, 40-48 MHz
SVB-0470	0 dBd, 47-54 MHz
SVB-0660	0 dBd, 66-118 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	27 to 118
Gain (nominal)	dBd (dBi)	unity (2.1)
Polarization		vertical
Pattern		Omni-directional
Average Power Input (max)	W	100

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

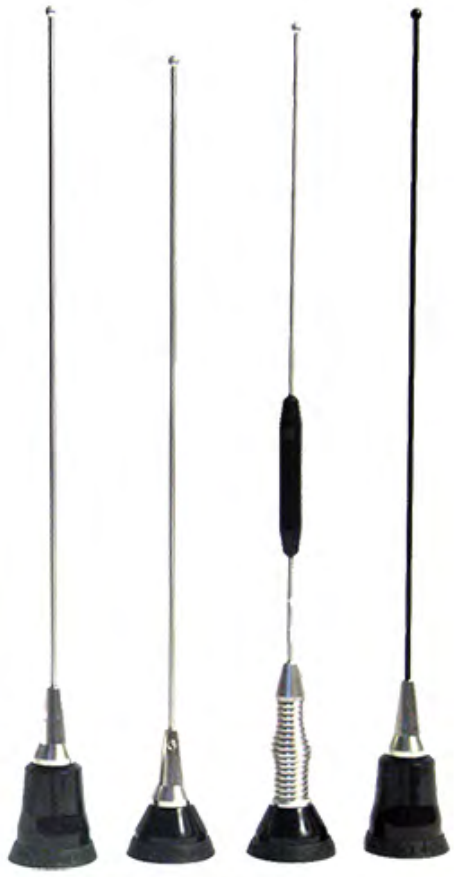
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Mobile whip, 0/2/3 dBd, 132-250 MHz

- High quality stainless steel whip, withstands severe environments
- Integral gasket waterproofs base conforms to various curved mounting surfaces
- UV protected rugged ABS base housing
- Wide range of frequency and gain options available

Model	Description
SVB-1383	3 dBd, 5/8 wave, 138-174 MHz
SVB-1383S	3 dBd, 5/8 wave, 138-174 MHz
SVB-1482	2 dBd, 1/2 wave, 132-174 MHz
SVB-1482S	2 dBd, 1/2 wave, 132-174 MHz
SVB-1560	0 dBd, 1/4 wave, 138-174 MHz
SVB-2202	2 dBd, 1/2 wave, 200-250 MHz
SVB-2203	3 dBd, 5/8 wave, 200-250 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	132 to 250
Polarization		vertical /
Pattern		Omni-directional
Average Power Input (max)	W	100 / 150 /

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Mounting kit must be order separately

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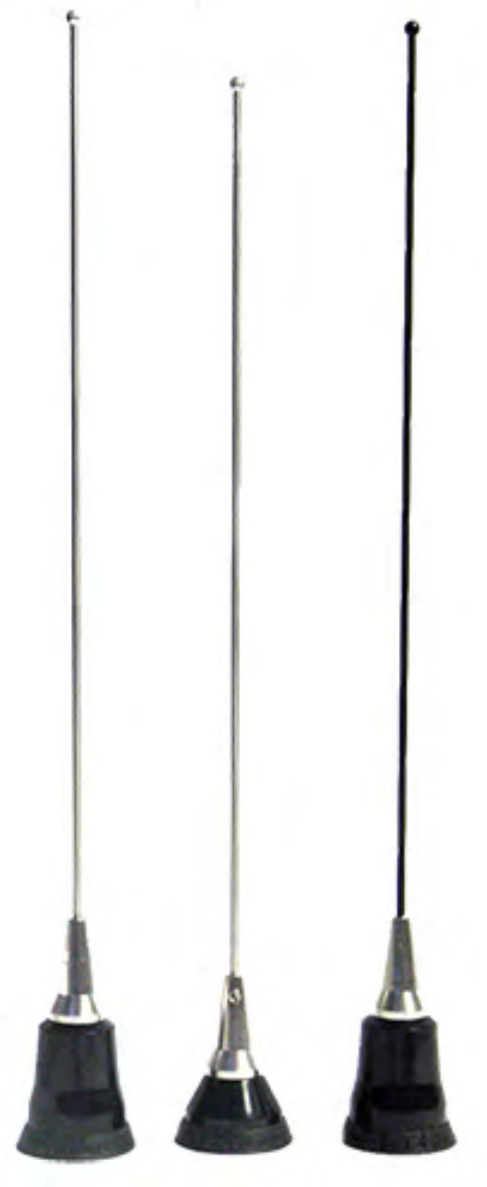
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Mobile whip antenna

- High quality stainless steel whip, withstands severe environments
- Integral gasket waterproofs base conforms to various curved mounting surfaces
- UV protected rugged ABS base housing
- Highly effective wideband 1/4 wavelength antenna design

Model	Description
SVT-1180EX	0 dBd, 5% B.W., 118-225 MHz
SVT-1180SP	0 dBd, 118-512 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

Frequency Range	MHz	118 to 512
Polarization		vertical
Pattern		/ Omni-directional
Average Power Input (max)	W	150

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

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Aviation band antenna, 1 dBi gain, dual port, HD, 118-138 MHz

- Heavy duty fiberglass radome
- Broadband, covers full 118-138 MHz
- Optional bird cap, 3 ft. extension cable, and gel coating available
- Dual or single port models are available

Model	Description
SC6172(E2712)	1 dBi, single feed cable, 118-137 MHz
SC6172(E5657)	1 dBi, single 3' feed cable, -55 to +60 deg C, 118-137 MHz
SC6172D	1 dBi, dual feed, 118-138 MHz
SC6172D(E3023)	1 dBi, dual feed, Bird cap, 118-137 MHz
SC6172D(E3818)	1 dBi, dual feed with 3' cables, 118-137 MHz
SC6172D(E5105)	1 dBi, dual feed, Bird cap, Gel coat, 118-137 MHz
SC6172D(E5106)	1 dBi, dual 3' feed, Bird cap, Gel coat, 118-137 MHz
SC6172D(E5755)	1 dBi, dual 3' feed, Bird cap, 118-137 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

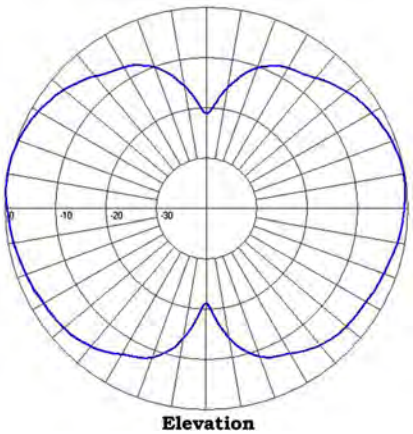


Electrical Specifications

Frequency Range	MHz	118 to 138
Connector		N-Female
Gain (nominal)	dBd (dBi)	-1.2 to -1.1 (0.9 to 1)
Input VSWR (max)		2:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	75
Average Power Input (max)	W	250
Lightning protection		DC ground

Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	55.25 to 149.25 (1403 to 3791)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	4 (102)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	18.52 to 38 (8.41 to 17.25)
Weight iced	lbs (kg)	31.1 to 69 (14.12 to 31.33)
Actual Shipping weight	lbs (kg)	28 to 55 (12.71 to 24.97)
Shipping dimensions	in (mm)	L(72 - 156)in W 6in H 6in
Mounting configurations		upright



Elevation

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Environmental Specifications		
Temperature range	°F (°C)	-67 to +140 (-55 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.9 to 2.42 (0.08 to 0.22)
Wind Loading Area (1/2" ice)	ft² (m²)	1.15 to 4.62 (0.11 to 0.43)
Rated wind velocity (no ice)	mph (km/h)	265 to 395 (427 to 636)
Rated wind velocity (1/2" radial ice)	mph (km/h)	225 to 285 (362 to 459)
Lateral thrust (100 mph No Ice)	lbs (N)	35 to 96 (155.7 to 427)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	71 to 550 (95.9 to 742.5)
Tip deflection (100 mph No Ice)	degrees	0.1 to 0.61

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Aviation band, 1 dBi, dual band/dual port antenna, HD, 118-138 & 225-400 MHz

- Heavy duty radome, ideal for severe weather conditions
- Dual port dual band antenna
- Broadband

Model	Description
SC6175D	1 dBi, dual feed, 118-138 & 225-400 MHz
SC6175D-E3818	1 dBi, dual feed (3' long), 118-138 & 225-400 MHz
SC6175D-E5109	1 dBi, Bird Cap, Gel Coat, 118-138 & 225-400 MHz
SC6175D-E5117	1 dBi, Bird Cap, Gel Coat, 3' cables, 118-138 & 225-400 MHz

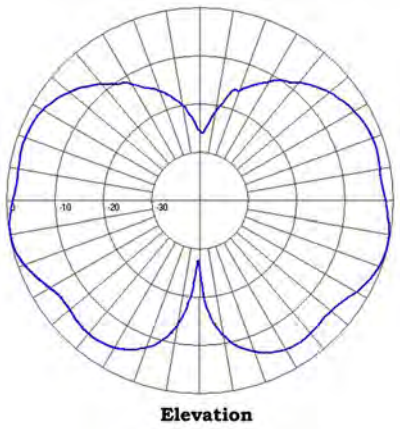
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range 1 (F1)	MHz	118 to 138
Frequency Range 2 (F2)	MHz	225 to 400
Connector		N-Female
Gain (nominal)	dBd (dBi)	-1.1 (1)
Input VSWR (max)		2:1
Polarization		vertical
Impedance	Ω	50
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	85
Average Power Input (max)	W	100

Mechanical Specifications		
Length	in (mm)	98.5 (2502)
Width	in (mm)	3.44 (87)
Radome material		fiberglass
Weight	lbs (kg)	27.5 (12.49)
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	L 110in W 6in H 6in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +158 (-40 to +70)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.59 (0.15)
Wind Loading Area (1/2" ice)	ft² (m²)	2.05 (0.19)
Rated wind velocity (no ice)	mph (km/h)	305 (491)
Rated wind velocity (1/2" radial ice)	mph (km/h)	255 (411)
Lateral thrust (100 mph No Ice)	lbs (N)	61 (271.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	246 (332.1)
Tip deflection (100 mph No Ice)	degrees	0.18



Elevation

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Aviation band, 3 dBd, HD, 225-400 MHz

- Heavy duty radome, ideal for severe weather conditions
- Single port wideband, covering 225-400 MHz full range
- Available with bird resistant cap and 3 ft. extension cable options

Model	Description
SC6185	3 dBd, 225-400 MHz
SC6185-E3818	3 dBd, 3' pig tail, 225-400 MHz
SC6185-E5107	3 dBd, bird cap, Gel coat, 225-400 MHz
SC6185-E5108	3 dBd, 3' pig tail, bird cap, Gel coat, 225-400 MHz
SC6185-E5619	3 dBd, High power, 225-400 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

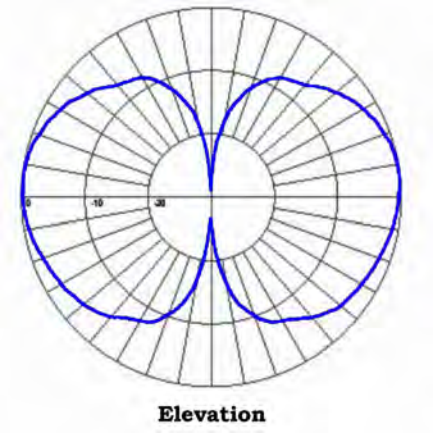
Frequency Range	MHz	225 to 400
Connector		N-Male
Gain (nominal)	dBd (dBi)	2.9 (5)
Input VSWR (max)		2.5:1
Polarization		vertical
Pattern		Omni-directional
Vertical beamwidth (typ)	degrees	30
Average Power Input (max)	W	100 / 500
Lightning protection		DC ground
Electrical tilt (available)		2-6

Mechanical Specifications

Depth	in (mm)	4 (102)
Length	in (mm)	76 (1930)
Width	in (mm)	4 (102)
Base pipe diameter	in (mm)	4 (102)
Base pipe mounting length	in (mm)	10 (254)
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	24.5 (11.12)
Weight iced	lbs (kg)	39.5 (17.93)
Actual Shipping weight	lbs (kg)	36 (16.34)
Shipping dimensions	in (mm)	L 90in W 6in H 6in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.22 (0.11)
Wind Loading Area (1/2" ice)	ft² (m²)	1.57 (0.15)
Rated wind velocity (no ice)	mph (km/h)	275 (443)
Rated wind velocity (1/2" radial ice)	mph (km/h)	225 (362)
Lateral thrust (100 mph No Ice)	lbs (N)	47 (209.1)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	144 (194.4)
Tip deflection (100 mph No Ice)	degrees	0.1



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8.5" Cavity-ferrite Pass Thru Transmitter Combiner, 132-174 MHz

- Available in 2 to 6 channel, with or without rack option
- Low loss dual isolator with -30 dB BNC sampler port per channel
- Optimized high Q 8 1/2" bandpass cavity filter fits side by side in 19" rack
- Expandable with proper starter channel and expansion channel

Model	Description
CS2211-1C	8.5", 1-channel with cable and load, 132-150 MHz
CS2211-1S	8.5", 1-channel with starter channel and load, 132-150 MHz
CS2211-2C	8.5", 1-channel with cable and load, 150-174 MHz
CS2211-2S	8.5", 1-channel with starter channel and load, 150-174 MHz
CS2211F(DF)	8.5", 1-channel, DIN-Female, rack, load, 132-174 MHz
CS2211F(NF)	8.5", 1-channel, N-Female, rack, load, 132-174 MHz
CS2212	8.5", 2-channel, N-Female, No rack, load, 132-174 MHz
CS2212F(DF)	8.5", 2-channel, DIN-Female, rack, load, 132-174 MHz
CS2212F(NF)	8.5", 2-channel, N-Female, rack, load, 132-174 MHz
CS2213	8.5", 3-channel, N-Female, No rack, load, 132-174 MHz
CS2213F(DF)	8.5", 3-channel, DIN-Female, rack, load, 132-174 MHz
CS2213F(NF)	8.5", 3-channel, N-Female, rack, load, 132-174 MHz
CS2214	8.5", 4-channel, N-Female, No rack, load, 132-174 MHz
CS2214F(DF)	8.5", 4-channel, DIN-Female, rack, load, 132-174 MHz
CS2214F(NF)	8.5", 4-channel, N-Female, rack, load, 132-174 MHz
CS2215	8.5", 5-channel, N-Female, No rack, load, 132-174 MHz
CS2215F(DF)	8.5", 5-channel, DIN-Female, rack, load, 132-174 MHz
CS2215F(NF)	8.5", 5-channel, N-Female, rack, load, 132-174 MHz
CS2216F(DF)	8.5", 6-channel, DIN-Female, rack, load, 132-174 MHz
CS2216F(NF)	8.5", 6-channel, N-Female, rack, load, 132-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	132 to 174
Input VSWR (max)		1.25:1
Average Power Input (max)	W	125
Input Connectors		N-Female
Output Connectors		N-Female / 7/16 DIN-Female
Frequency separation (min)	MHz	0.05
Isolation Tx to Tx	dB	70
Number of channels		1 to 6

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Mechanical Specifications

Depth	in (mm)	26 to 36 (660 to 914)
Length/ Height	in (mm)	8.5 to 74 (216 to 1880)
Width	in (mm)	8.5 to 21 (216 to 533)
Outer Conductor Material		aluminum
Finish		Black
Cavity width or diameter	in (mm)	8.5 (216)

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information

Consult with Sinclair Systems Engineer before purchase.

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Open Cabinet Cavity-Ferrite Transmitter Combiner

- High performance Tx combiner for the 132-174 MHz frequency band
- Dual isolators and 10 inch high Q bandpass cavity for each channel
- Available in 2 to 8 channels

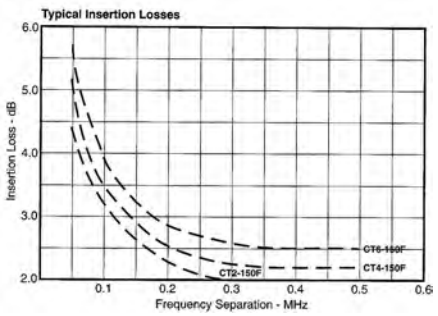
Model	Description
CT2150F-2	2-channel, 132-150 MHz
CT2150F-3	2-channel, 148-174 MHz
CT3150F-2	3-channel, 132-150 MHz
CT3150F-3	3-channel, 148-174 MHz
CT4150F-2	4-channel, 132-150 MHz
CT4150F-3	4-channel, 148-174 MHz
CT5150F-2	5-channel, 132-150 MHz
CT5150F-3	5-channel, 148-174 MHz
CT6150F-2	6-channel, 132-150 MHz
CT6150F-3	6-channel, 148-174 MHz
CT7150F-2	7-channel, 132-150 MHz
CT7150F-3	7-channel, 148-174 MHz
CT8150F-2	8-channel, 132-150 MHz
CT8150F-3	8-channel, 148-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	132 to 174
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.06
Isolation Tx to Tx	dB	70
Isolation antenna to Tx	dB	60
Output VSWR		1.5:1

Mechanical Specifications		
Depth	in (mm)	21 (533)
Length/ Height	in (mm)	38 to 76 (965 to 1930)
Width	in (mm)	21 (533)
Weight	lbs (kg)	70 to 206 (31.78 to 93.52)
Finish		chemical conversion
Shipping dimensions	in (mm)	L 21in W 21in H 42in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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7" cavity-ferrite transmitter combiner, 138-174 MHz

- Available in 2 to 5 channel configurations
- Low loss single or dual isolator per channel
- Uses high Q bandpass cavity filters

Model	Description
TJ2112	2 channels, single stage, 138-174 MHz
TJ2113	3 channels, single stage, 138-174 MHz
TJ2114	4 channels, single stage, 138-174 MHz
TJ2115	5 channels, single stage, 138-174 MHz
TJ2212	2 channel, dual stage, 138-174 MHz
TJ2213	3 channel, dual stage, 138-174 MHz
TJ2214	4 channel, dual stage, 138-174 MHz
TJ2215	5 channel, dual stage, 138-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

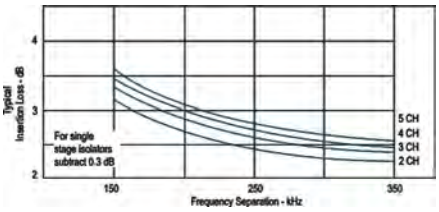
Frequency Range	MHz	138 to 174
Input VSWR (max)		1.25:1
Number of Cavities		2 to 5
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	125
Frequency separation (min)	MHz	0.15
Insertion loss (max) Tx to Ant	dB	2.9 to 3.6
Isolation Tx to Tx	dB	35 to 70
Isolation antenna to Tx	dB	25 to 60
Output VSWR		2:1
Number of channels		2 to 5

Mechanical Specifications

Depth	in (mm)	7.5 to 20.8 (191 to 528)
Length/ Height	in (mm)	30.5 (775)
Width	in (mm)	19 (483)
Weight	lbs (kg)	15 to 38 (6.81 to 17.25)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	30 to 60 (13.62 to 27.24)
Shipping dimensions	in (mm)	L(20 - 22)in W(19 - 22)in H(38 - 43)in
Cavity width or diameter	in (mm)	7 (178)

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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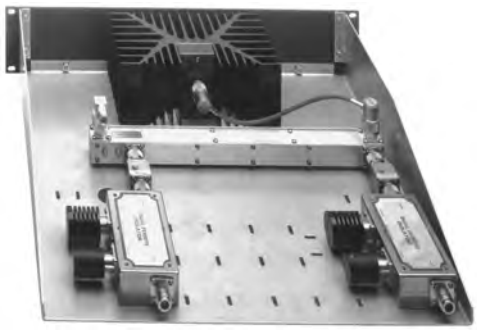
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Hybrid-ferrite transmitter combiner, 2 to 4 channels, 132-174 MHz

- Supports extremely close frequency spacings
- Provides a cost effective and space efficient combining solution
- Two channel models easily expanded to 4 with second 2 channel unit, hybrid coupler, tray and cable
- Permits combining two to four transmitters into one antenna

Model	Description
TC2112	2 channels, single stage isolator, 132-174 MHz
TC2114	4 channels, single stage isolator, 132-174 MHz
TC2212	2 channels, dual stage isolator, 132-174 MHz
TC2213	3 channels, dual stage isolator, 132-174 MHz
TC2214	4 channels, dual stage isolators, 132-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



2 channel model shown

Electrical Specifications

Frequency Range	MHz	132 to 174
Input VSWR (max)		1.25:1
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	125
Frequency separation (max)	MHz	3
Frequency separation (min)	MHz	0
Insertion loss (max) Tx to Ant	dB	3.9 to 7.6
Isolation Tx to Tx	dB	50 to 80
Isolation antenna to Tx	dB	28 to 56

Mechanical Specifications

Depth	in (mm)	15.63 (397)
Length/ Height	in (mm)	3.5 to 10.5 (89 to 267)
Width	in (mm)	19 (483)
Weight	lbs (kg)	11.6 to 29.9 (5.27 to 13.57)
Shipping dimensions	in (mm)	L 19in W 26in H 7in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information

Specify one Tx frequency per channel. Number of shipping packages depends on number of channels.

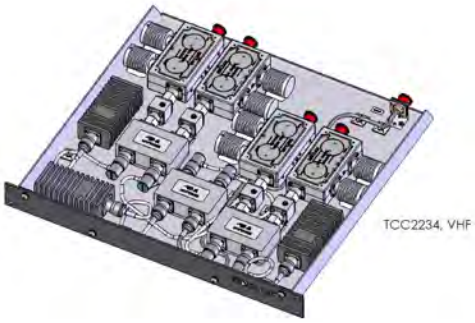
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Compact hybrid-ferrite transmitter combiner, 2 or 4 channel, 130-180 MHz

- Connect 2 or 4 transmitters to one antenna
- Support extremely close frequency spacings
- A cost effective and space efficient combining solution
- 1U high tray mount

Model	Description
TCC2132	2 channel, single stage isolators, 130-180 MHz
TCC2134	4 channel, single stage isolator, 130-180 MHz
TCC2232	2 channel, dual stage isolators, 130-180 MHz
TCC2234	4 channel, dual stage isolator, 130-180 MHz


TCC2234, VHF

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	130 to 180
Input VSWR (max)		1.3:1
Insertion loss (typ) Tx to Ant	dB	4.1 to 7.8
Input Connectors		N-Female
Output Connectors		N-Female
Power (Per Channel)	W	60
Frequency separation (max)	MHz	3
Frequency separation (min)	MHz	0
Isolation Tx to Tx	dB	45 to 70
Output VSWR		1.5:1
Number of channels		2 to 4

Mechanical Specifications

Depth	in (mm)	10 to 17 (254 to 432)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	10 to 18 (4.54 to 8.17)
Shipping dimensions	in (mm)	L(21 - 26)in W(17 - 19)in H(4 - 7)in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Receiver Mulitcoupler, 138-174 MHz

- Connect 2 to 16 receivers to a single antenna with BNC connectors with 1 R.U. tray
- Connect 2 to 8 receivers to a single antenna with N-type connectors with 1 R.U. tray
- For other channel configurations, please contact your Sinclair Sales Representative

Model	Description
RM2(AA-W)(BB)G(Y)(C)	Receiver Mulitcoupler, 138-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

RM2(AA-W)(BB)G(Y)(C)



AA-W	Frequency Range	Bandwidth
00-0	No Preselector	
01-1	138-150 MHz	1 MHz
01-2	150-160 MHz	1 MHz
02-2	150-160 MHz	2.5 MHz
01-3	160-174 MHz	1 MHz
02-3	160-174 MHz	2.5 MHz
09-9	Special See E#	

BB= Number of channels
02, 04, 08, or 16 with BNC connectors (For 12, order 16 and 4 loads)
02, 04, or 08 with N-type connectors

Y	Supply Voltage
1	115 VAC
2	220 VAC
3	12 VDC
4	24 VDC
5	48 VDC
6	115 VAC CE
7	220 VAC CE
10	-48 VDC
11	115 and 220 VAC

C= Output Connectors
"B"- BNC- Female
"N"- N- Female

Electrical Specifications

Frequency Range	MHz	138 to 174
Input VSWR (max)		1.5:1
Input Connectors		N-Female
Output Connectors		BNC-Female or N-Female
Isolation Rx to Rx	dB	20
Output VSWR		1.25:1
System gain (min)	dB	2
Noise figure (amplifier (typ))	dB	1.6
Noise figure (system (typ))	dB	4.7
Third order intercept - amplifier	dBm	43
1 dB Compression point	dBm	27

Mechanical Specifications

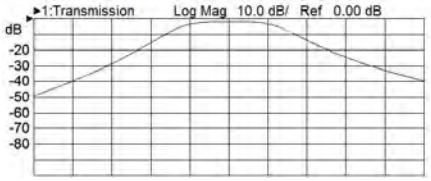
Depth	in (mm)	10 (254)
Length/ Height	in (mm)	1.78 (45)
Width	in (mm)	19 (483)
Weight	lbs (kg)	5.5 (2.5)
Actual Shipping weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 22in W 18in H 4in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information

Customer to specify frequencies for verification purposes.



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VHF Receiver Multicoupler with Advanced Features, 132-174 MHz

- Preselector must be ordered separately (1, 2, and 2.5 MHz bandwidth available)
- Variable attenuator from zero to 15 dB attenuation
- Built in fault monitor with fault LED, amplifier current monitor display and DC back-up option
- Operational over full specified band. Bandwidth dictated by preselector choice

Model	Description
RM200-008V1B	8 port, 132-174 MHz
RM200-016V1B	16 port, 132-174 MHz
RM200-024V1B	24 port, 132-174 MHz
RM200-032V1B	32 port, 132-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	132 to 174
System Gain	dB	17
Input VSWR (max)		1.5:1
Impedance	Ω	50
Input Connectors		N-Female
Output Connectors		BNC-Female
Isolation Rx to Rx	dB	20
Output VSWR		1.5:1
Noise figure (amplifier (typ))	dB	2
Third order intercept - amplifier	dBm	36 to 46
1 dB Compression point	dBm	28
Supply voltage		100-240 VAC / 115 VAC

Mechanical Specifications		
Depth	in (mm)	14.12 (359)
Length/ Height	in (mm)	1.75 (44)
Width	in (mm)	19 (483)
Weight	lbs (kg)	14 to 14.5 (6.36 to 6.58)

Environmental Specifications		
Temperature range	°F (°C)	+32 to +140 (0 to +60)

Ordering Information
Preselector must be ordered separately.

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4 Cavity Extremely Compact VHF Mobile Duplexer

- Compact four cavity mobile duplexer
- Ideal for applications with extremely limited space

Model	Description
MR2222B-1-1	5 MHz separation, 138-155 MHz
MR2222B-1-2	10 MHz separation, 138-155 MHz
MR2222B-2-1	5 MHz separation, 150-174 MHz
MR2222B-2-2	10 MHz separation, 150-174 MHz
MR2222T-1-1	5 MHz separation, 138-155 MHz
MR2222T-1-2	10 MHz separation, 138-155 MHz
MR2222T-2-1	5 MHz separation, 150-174 MHz
MR2222T-2-2	10 MHz separation, 150-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

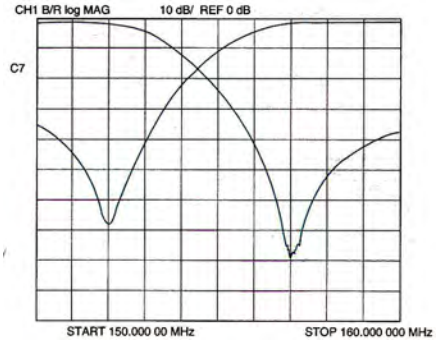
Frequency Range	MHz	138 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Connectors		BNC- female / TNC- female
Insertion loss (max) Tx to Ant	dB	1 to 1.5
Isolation (min)	dB	50

Mechanical Specifications

Depth	in (mm)	4.06 (103)
Length/ Height	in (mm)	1.31 (33)
Width	in (mm)	4.3 (109)
Weight	lbs (kg)	1 (0.45)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L 13in W 9in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Ordering Information
Variations on connectors, mounting and cavity configurations available on special order.
Can be re-tuned within the sub-band (typically 10 MHz) for which the unit was designed.

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6 Cavity Extremely Compact High Isolation Mobile Duplexer

- Compact six cavity mobile duplexer
- Minimum Tx/Rx separation is 5 MHz or 7 MHz

Model	Description
MR2332B-1-1	BNC Connectors, 5 MHz separation, 148-160 MHz
MR2332B-1-2	BNC Connectors, 7 MHz separation, 148-160 MHz
MR2332B-2-1	BNC Connectors, 5 MHz separation, 160-174 MHz
MR2332B-2-2	BNC connectors, 7 MHz seperation, 160-174 MHz
MR2332T-1-1	TNC Connector, 5 MHz separation, 148-160 MHz
MR2332T-1-2	TNC Connector, 7 MHz separation, 148-160 MHz
MR2332T-2-1	TNC Connector, 5 MHz separation, 160-174 MHz
MR2332T-2-2	TNC Connector, 7 MHz seperations, 160-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	148 to 174
Number of cavites Tx Side		3
Number of Cavities Rx Side		3
Input VSWR (max)		1.5:1
Isolation Tx noise suppression at Rx (min)	dB	70
Average Power Input (max)	W	50
Connectors		BNC-Female / TNC-Female
Insertion loss Rx to antenna (max)	dB	1.5 to 1.8
Insertion loss (max) Tx to Ant	dB	1.5 to 1.8
Isolation (min)	dB	70

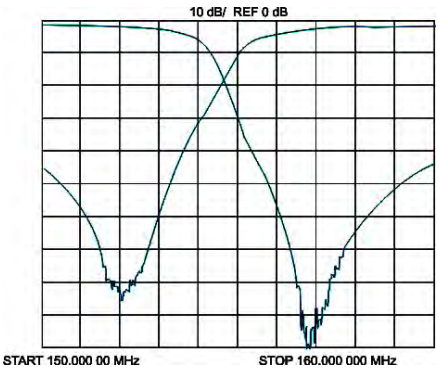
Mechanical Specifications

Depth	in (mm)	4.06 (103)
Length/ Height	in (mm)	1.31 (33)
Width	in (mm)	6.25 (159)
Weight	lbs (kg)	1.04 (0.47)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	1.5 (0.68)
Shipping dimensions	in (mm)	L 9in W 6in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Variations on connectors, mounting and cavity configurations available on special order
Can be re-tuned within the sub-band (typically 10 MHz) for which the unit was designed.



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4 Cavity Compact VHF Mobile Duplexer

- Utilizes four rugged, temperature compensated helical resonators
- Enclosure is made of lightweight rugged aluminum extrusion
- 50 Watts power handling with 60 dB Tx to Rx isolation
- 4.5 MHz minimum/ 10 MHz maximum spacing

Model	Description
MR254B-1	BNC con., 4.5 MHz (min)/10 MHz (max) sep., 136-148 MHz
MR254B-2	BNC con., 4.5 MHz (min)/10 MHz (max) sep., 148-160 MHz
MR254B-3	BNC con., 4.5 MHz (min)/10 MHz (max) sep., 160-174 MHz
MR254N-1	N con., 4.5 MHz (min)/10 MHz (max) sep., 136-148 MHz
MR254N-2	N con., 4.5 MHz (min)/10 MHz (max) sep., 148-160 MHz
MR254N-3	N con., 4.5 MHz (min)/10 MHz (max) sep., 160-174 MHz
MR254T-1	TNC con., 4.5 MHz (min)/10 MHz (max) sep., 136-148 MHz
MR254T-2	TNC con., 4.5 MHz (min)/10 MHz (max) sep., 148-160 MHz
MR254T-3	TNC con., 4.5 MHz (min)/10 MHz (max) sep., 160-174 MHz



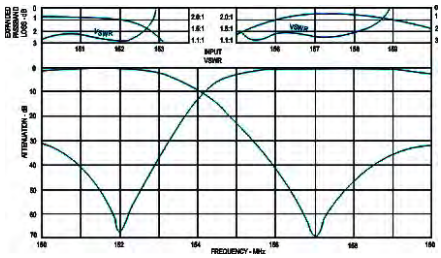
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	136 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Connectors		BNC-Female / N-Female / TNC-Female
Frequency separation (min)	MHz	4.5
Insertion loss (max) Tx to Ant	dB	1.2
Isolation (min)	dB	60

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	1.31 (33)
Width	in (mm)	4.13 (105)
Weight	lbs (kg)	1.8 (0.82)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L 13in W 9in H 3in



Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Specify Tx and Rx frequencies at time of order.

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6 Cavity Compact VHF Mobile Duplexer

- Six highly stable temperature compensated helical resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 Watts power handling with 80 dB Tx to Rx isolation
- Minimum Tx-Rx spacing of 4.5 MHz, Maximum of 10 MHz

Model	Description
MR256B-1	BNC con., 4.5 MHz (min)/10 MHz (max) sep., 136-148 MHz
MR256B-2	BNC con., 4.5 MHz (min)/10 MHz (max) sep., 148-160 MHz
MR256B-3	BNC con., 4.5 MHz (min)/10 MHz (max) sep., 160-174 MHz
MR256N-1	N con., 4.5 MHz (min)/10 MHz (max) sep., 136-148 MHz
MR256N-2	N con., 4.5 MHz (min)/10 MHz (max) sep., 148-160 MHz
MR256N-3	N con., 4.5 MHz (min)/10 MHz (max) sep., 160-174 MHz
MR256N-5	N con., 4.5 MHz (min)/10 MHz (max) sep., 153-166 MHz
MR256T-1	TNC con., 4.5 MHz (min)/10 MHz (max) sep., 136-148 MHz
MR256T-2	TNC con., 4.5 MHz (min)/10 MHz (max) sep., 148-160 MHz
MR256T-3	TNC con., 4.5 MHz (min)/10 MHz (max) sep., 160-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

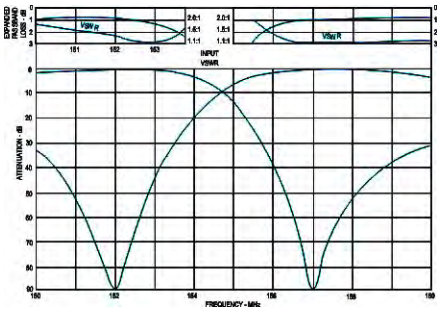
Frequency Range	MHz	136 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	50
Connectors		BNC-Female / N-Female / TNC-Female
Frequency separation range	MHz	4.5 min/ 10 max
Insertion loss (max) Tx to Ant	dB	1.5
Isolation (min)	dB	80

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	1.31 (33)
Width	in (mm)	6.26 (159)
Weight	lbs (kg)	2 (0.91)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	2.5 (1.14)
Shipping dimensions	in (mm)	L 13in W 9in H 3in
Mounting configurations		mounting holes on unit

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Ordering Information
Comes with pre-set separation of 5 MHz. Standard separations between 4.5 to 10 MHz are available.

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4 Cavity High Selectivity Bandpass Duplexer

- Easily field-tunable
- Available in rack-mounted or cabinet configurations

Model	Description
P201GC-1	4 cavity, cabinet mount, 132-150 MHz
P201GC-2	4 cavity, cabinet mount, 148-174 MHz
P201GR-1	4 cavity, rack mount, 132-150 MHz
P201GR-2-N	4 cavity, rack mount, 146-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Cabinet Version



Rack Mount Version

Electrical Specifications

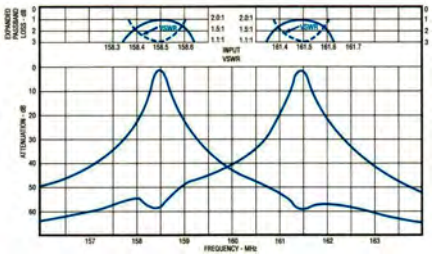
Frequency Range	MHz	132 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	400
Connectors		N-Female
Frequency separation (min)	MHz	3
Insertion loss (max) Tx to Ant	dB	1.2
Isolation (min)	dB	55

Mechanical Specifications

Depth	in (mm)	15 to 17.2 (381 to 437)
Length/ Height	in (mm)	33 to 40.4 (838 to 1026)
Width	in (mm)	19 to 22 (483 to 559)
Weight	lbs (kg)	55 to 128 (24.97 to 58.11)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	60 (27.24)
Shipping dimensions	in (mm)	L 20in W 19in H 40in
Mounting configurations		cabinet / 19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Q-Circuit 6 Cavity Base Station Duplexer

- Six cavity configuration provides very high isolationat even with close frequency separation
- Quasi-bandpass response results in suppression of spurious and sideband transmitter noise
- Easy rack or cabinet mount configuration

Model	Description
Q201GC-1	Cabinet mount, 132-148 MHz
Q201GC-2	Cabinet mount, 148-174 MHz
Q201GR-1	Rack mount, 132-148 MHz
Q201GR-2	Rack mount, 148-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Rack mount version shown.

Electrical Specifications

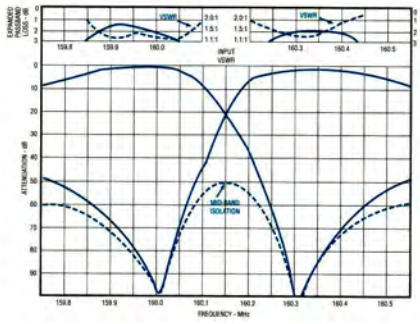
Frequency Range	MHz	132 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	350
Connectors		N-Female
Frequency separation (min)	MHz	0.3
Insertion loss (max) Tx to Ant	dB	2.2
Isolation (min)	dB	95

Mechanical Specifications

Depth	in (mm)	15 to 18 (381 to 457)
Length/ Height	in (mm)	40.4 to 61 (1026 to 1549)
Width	in (mm)	19 to 22 (483 to 559)
Weight	lbs (kg)	95 to 214 (43.13 to 97.16)
Shipping dimensions	in (mm)	L(20 - 22)in W(18 - 22)in H(38 - 43)in
Mounting configurations		cabinet / 19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Four Cavity Q-Circuit Base Station Duplexer

- Four cavity configuration provides very high isolation at close frequency separation
- Quasi-bandpass response results in suppression of spurious and sideband transmitter noise
- Easy cabinet mount or rack mount configurations available

Model	Description
Q202GC-1	4 cavity, cabinet mount, 132-148 MHz
Q202GC-2	4 cavity, cabinet mount, 148- 174 MHz
Q202GR-1	4 cavity, rack mount, 132-148 MHz
Q202GR-2	4 cavity, rack mount, 148-174 MHz

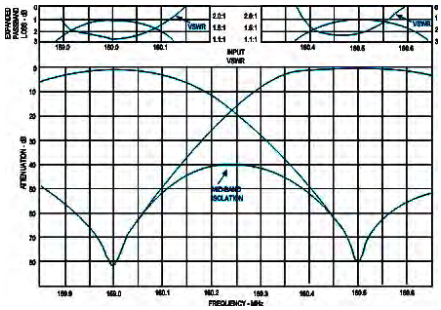


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	132 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	350
Connectors		N-Female
Frequency separation (min)	MHz	0.5
Insertion loss (max) Tx to Ant	dB	1.5
Isolation (min)	dB	80

Mechanical Specifications		
Depth	in (mm)	14.9 to 18 (378 to 457)
Length/ Height	in (mm)	32.5 to 40.4 (826 to 1026)
Width	in (mm)	19 to 22 (483 to 559)
Weight	lbs (kg)	60 to 132 (27.24 to 59.93)
Actual Shipping weight	lbs (kg)	70 to 145 (31.78 to 65.83)
Shipping dimensions	in (mm)	L 22in W 22in H 43in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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4 Cavity Res-Lok Q-Circuit VHF Duplexer, 138-174 MHz

- Can be tuned over the entire 138-174 MHz frequency range
- 70 dB isolation and 1.5 dB insertion loss at 0.5 MHz spacing

Model	Description
Q2220E	4 cavity, 138-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

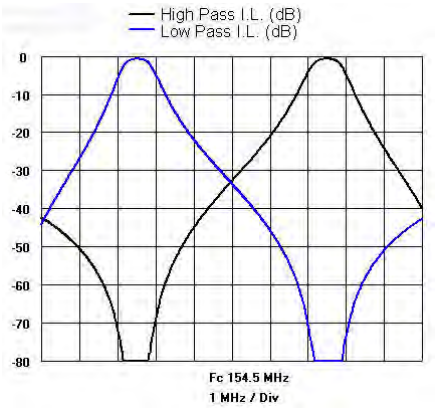
Frequency Range	MHz	138 to 174
Number of cavites Tx Side		2
Number of Cavities Rx Side		2
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	350
Input Connectors		N-Female
Output Connectors		N-Female
Frequency separation (min)	MHz	0.5
Insertion loss (max) Tx to Ant	dB	1.5
Isolation (min)	dB	70

Mechanical Specifications

Depth	in (mm)	30.3 (770)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	28 (12.71)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	33 (14.98)
Shipping dimensions	in (mm)	L 19in W 7in H 31in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



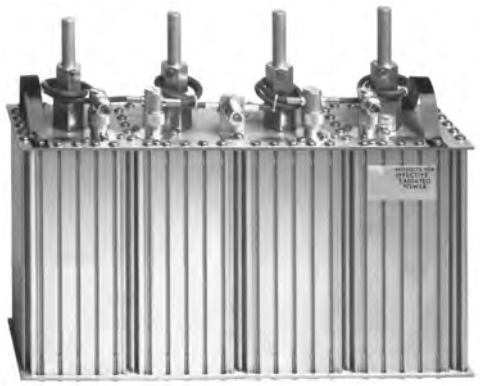
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4 Cavity Res-Lok Q-Circuit Duplexer, 220-225 MHz

- Four cavity duplexer with 70 dB of isolation and only 1.5 dB insertion loss
- 350 W power rating
- Variety of mounting options available

Model	Description
Q2221E	4 cavity, 220-225 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Tx Frequency Range	MHz	220 to 225
Number of cavites Tx Side		2
Number of Cavities Rx Side		2
Rx Frequency Range	MHz	220 to 225
Input VSWR (max)		1.5:1
Impedance	Ω	50
Isolation Rx carrier suppression at Tx (min)	dB	70
Isolation Tx noise suppression at Rx (min)	dB	70
Average Power Input (max)	W	350
Input Connectors		N (female)
Output Connectors		N (female)
Insertion loss Rx to antenna (max)	dB	1.5
Insertion loss Tx to antenna (max)	dB	1.5

Mechanical Specifications		
Depth	in (mm)	23.3 (592)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	33 (14.98)
Shipping dimensions	in (mm)	L 19in W 7in H 24in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)

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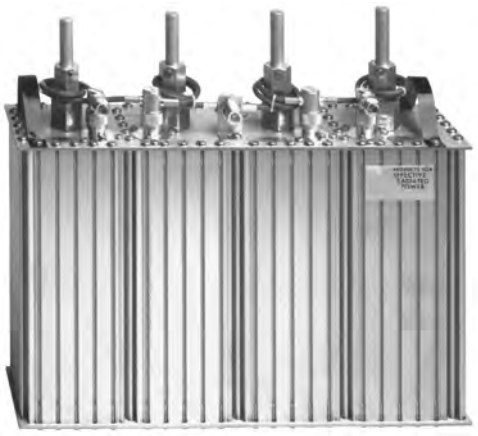
Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
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4 Cavity Compact Res-Lok Q-Circuit Duplexer, 139-216 MHz

- Shortened version of Q2220E for space saving
- Applicable for 3 MHz minimum frequency separation for 75 dB isolation
- Covers 139-216 MHz in three sub-bands
- Can be tuned to 0.5 MHz separation with 1.5 dB I.L. and 60 dB isolation

Model	Description
Q2222E-1	4 cavity, 139-165 MHz
Q2222E-2	4 cavity, 160-174 MHz

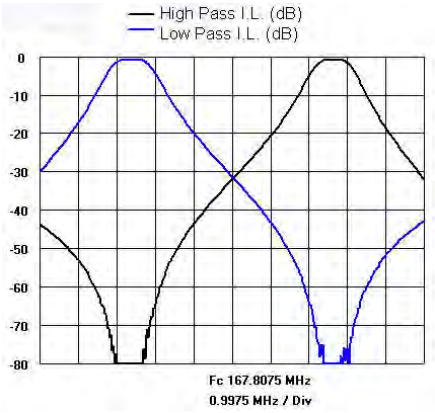


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	139 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	120
Connectors		N-Female
Frequency separation (min)	MHz	3
Insertion loss Rx to antenna (max)	dB	0.8
Insertion loss Tx to antenna (max)	dB	0.8
Isolation (min)	dB	75

Mechanical Specifications		
Depth	in (mm)	17 (432)
Length/ Height	in (mm)	4.17 (106)
Width	in (mm)	19 (483)
Weight	lbs (kg)	18 (8.17)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	25 (11.35)
Shipping dimensions	in (mm)	L 19in W 8in H 22in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



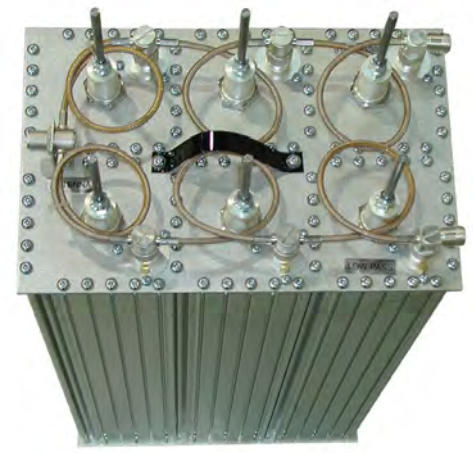
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6 Cavity Res-Lok Q-Circuit VHF Duplexer, 138-174 MHz

- Res-Lok design reduces overall size
- Provides up to 85 dB isolation at frequency separation of 500 KHz

Model	Description
Q2330E	6 cavity, 138-174 MHz
Q2331E	6 cavity, 216-225 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

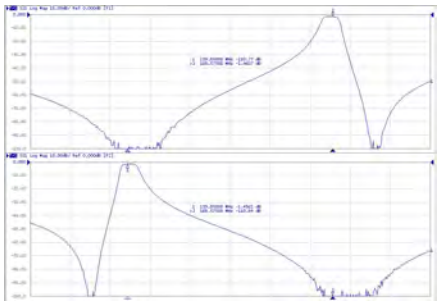
Frequency Range	MHz	138 to 225
Number of cavites Tx Side		3
Number of Cavities Rx Side		3
Insertion Loss Low Pass to Ant (max)	dB	1.5
Insertion Loss High Pass to Ant (max)	dB	1.5
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	350
Connectors		N-Female
Frequency separation (min)	MHz	0.5
Insertion loss Rx to antenna (typ)	dB	1.4 to 1.5
Insertion loss Tx to antenna (typ)	dB	1.4 to 1.5
Isolation (min)	dB	85

Mechanical Specifications

Depth	in (mm)	24 to 30.3 (610 to 770)
Length/ Height	in (mm)	8.37 to 8.4 (213 to 213)
Width	in (mm)	19 (483)
Weight	lbs (kg)	43 to 45 (19.52 to 20.43)
Finish		chromate conversion /
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 12in W 16in H 37in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Cavity Filters
Low Band, Aviation, and VHF Bandpass Cavities
FP20107 Series

Cavity filter, bandpass, high Q, one 7" cavity, 108-174 MHz

- Aluminum cylinder with brass and copper coaxial inner conductor
- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Optional black finish available

Model	Description
FP20107-1	108-138 MHz
FP20107-1-E3150	Reduced size, 118-137MHz
FP20107-2	132-150 MHz
FP20107-3	148-174 MHz
FP20107-4	132-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

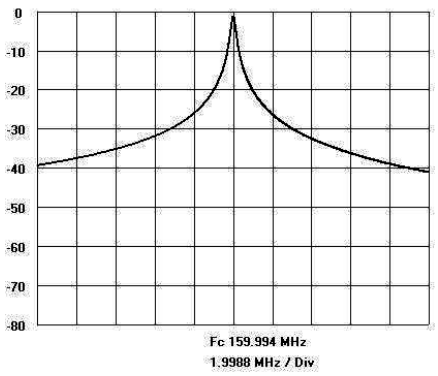
Frequency Range	MHz	108 to 174
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	0.5dB= 400 W, 3dB= 90 / 1 dB= 120
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	0.5
Insertion loss (max) Tx to Ant	dB	3

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	17.25 to 43.75 (438 to 1111)
Width	in (mm)	7 (178)
Weight	lbs (kg)	8 to 15 (3.63 to 6.81)
Finish		chemical conversion / shadow bronze
Shipping dimensions	in (mm)	L 9in W 9in H(18 - 45)in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Cavity Filters
Low Band, Aviation, and VHF Bandpass Cavities
FP20207 Series

Cavity filter, bandpass, high Q, two 7" cavities, 132-230 MHz

- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Two temperature compensated bandpass cavities with minimum frequency drift

Model	Description
FP20207-2	132-150 MHz
FP20207-3	148-174 MHz
FP20207-5	174-230 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	132 to 230
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		2
Average Power Input (max)	W	1 dB= 350 /
Input Connectors		N-Female
Output Connectors		N-Female
Insertion loss (min)	dB	0.7
Insertion loss (max) Tx to Ant	dB	1

Mechanical Specifications		
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	32.5 to 35 (826 to 889)
Width	in (mm)	19 (483)
Weight	lbs (kg)	27 (12.26)
Finish		chemical conversion
Actual Shipping weight	lbs (kg)	35 (15.89)
Shipping dimensions	in (mm)	L 20in W 10in H 33in
Mounting configurations		19 inch rack

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

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Cavity filter, Q circuit, high Q, one 7" cavity, 108-174 MHz

- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for minimum frequency drift

Model	Description
FQ20107-1	108-138 MHz
FQ20107-2	132-150 MHz
FQ20107-3	150-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

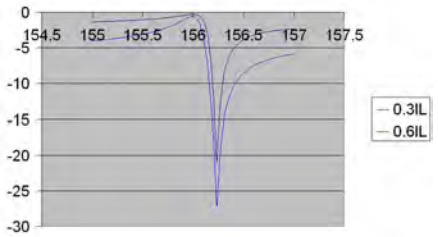
Frequency Range	MHz	108 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	350
Input Connectors		N-Female
Output Connectors		N-Female

Mechanical Specifications

Depth	in (mm)	7 (178)
Length/ Height	in (mm)	33.25 to 43.75 (845 to 1111)
Width	in (mm)	7 (178)
Weight	lbs (kg)	8.5 to 15 (3.86 to 6.81)
Actual Shipping weight	lbs (kg)	10 to 20 (4.54 to 9.08)
Shipping dimensions	in (mm)	L(36 - 46)in W 9in H 9in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Cavity filter, reject, high Q, one 7" cavity, 108-174 MHz

- Silver plating and chromate conversion coating limit corrosion and enhance performance
- Temperature compensated for minimum frequency drift

Model	Description
FR20107-1	108-136 MHz
FR20107-2	132-150 MHz
FR20107-3	138-174 MHz

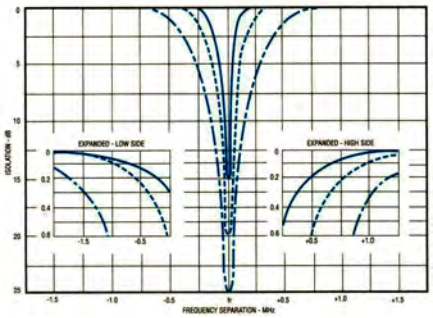
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications		
Frequency Range	MHz	108 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		1
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female

Mechanical Specifications		
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	32.5 to 43.75 (826 to 1111)
Width	in (mm)	7 (178)
Weight	lbs (kg)	8.5 to 15 (3.86 to 6.81)
Finish		chromate conversion
Actual Shipping weight	lbs (kg)	10 to 20 (4.54 to 9.08)
Shipping dimensions	in (mm)	L(36 - 48)in W 9in H 9in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Preselector, 1/2.5 MHz bandwidth, compact, BNC con., 138-222 MHz

- Suitable for most standard multicoupling receiving systems
- Can be mounted directly 1 U high tray
- 1 or 2.5 MHz bandwidth available
- 138-222 MHz frequency range with wide range of sub-bands available

Model	Description
FP20401B-1-1	BNC connector, 1 MHz bandwidth, 138-150 MHz
FP20401B-1-2.5	BNC connector, 2.5 MHz bandwidth, 138-150 MHz
FP20401B-2-1	BNC connector, 1 MHz bandwidth, 150-160 MHz
FP20401B-2-2.5	BNC connector, 2.5 MHz bandwidth, 150-160 MHz
FP20401B-3-1	BNC connector, 1 MHz bandwidth, 160-174 MHz
FP20401B-3-2.5	BNC connector, 2.5 MHz bandwidth, 155-174 MHz
FP20401B-4-1	BNC connector, 1 MHz bandwidth, 174-222
FP20401T-1-1	TNC connector, 1 MHz bandwidth, 138-150 MHz
FP20401T-1-2.5	TNC connector, 2.5 MHz bandwidth, 138-150 MHz
FP20401T-2-1	TNC connector, 1 MHz bandwidth, 150-160 MHz
FP20401T-3-1	TNC connector, 1 MHz bandwidth, 160-174 MHz
FP20401T-3-2.5	TNC connector, 2.5 MHz bandwidth, 160-174 MHz
FP20401T-4-1	TNC connector, 1 MHz bandwidth, 174-222 MHz

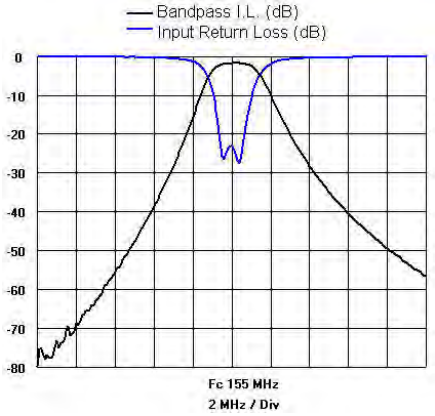


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	138 to 222
Input VSWR (max)		1.5:1
Input Connectors		BNC-Female / TNC-Female
Output Connectors		BNC-Female / TNC-Female
Bandwidth at specified insertion loss	MHz	1 to 2.5
Insertion loss (max) Tx to Ant	dB	1.5 to 2.8

Mechanical Specifications		
Depth	in (mm)	4.9 (124)
Length/ Height	in (mm)	1.3 (33)
Width	in (mm)	4.2 (107)
Weight	lbs (kg)	1.1 (0.5)
Actual Shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	L 13in W 9in H 3in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Preselector, High Performance, N-Female, 130-170 MHz

- Compact low profile high performance preselector
- Easy to tune in specified range
- Available for 130-174 MHz with two sub-bands
- 1 or 2 MHz passband available

Model	Description
FP20402N-1-1.0	1 MHz bandwidth, 130-150 MHz
FP20402N-1-2.0	2 MHz bandwidth, 130-150 MHz
FP20402N-2-1.0	1 MHz bandwidth, 150-174 MHz
FP20402N-2-2.0	2 MHz bandwidth, 150-174 MHz
FP20402N-2-E6030	2.15 MHz bandwidth, 163.025-165.175 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

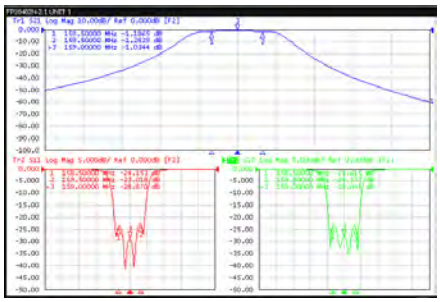
Frequency Range	MHz	130 to 174
Input VSWR (max)		1.5:1
Insertion Loss (typ)	dB	1.3 to 2
Impedance	Ω	50
Number of Cavities		4
Input Connectors		N-Female
Output Connectors		N-Female
Approx Bandwidth @ 50 dB	MHz	6.5 to 12

Mechanical Specifications

Depth	in (mm)	17 (432)
Length/ Height	in (mm)	3.5 (89)
Width	in (mm)	19 (483)
Weight	lbs (kg)	9 (4.09)
Shipping dimensions	in (mm)	L 22in W 17in H 4in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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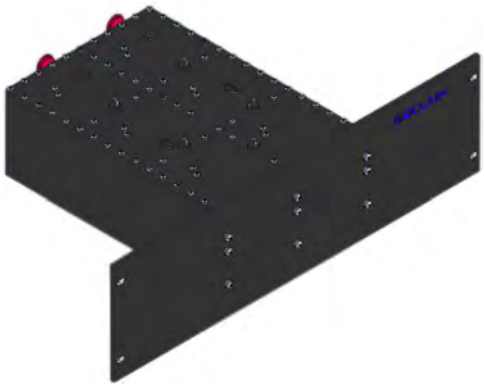
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Preselector Filters
Low Band, Aviation, and VHF Preselectors
FP20603 Series

Compact high performance VHF Tx/ Rx filter, 1 or 2 MHz bandwidth, 132-174 MHz

- Compact design, high selectivity with minimum of 75 dB isolation with 3 MHz guard band
- 150 Watt power handling
- Unit is mounted on 5.25" panel and can be paired for duplexing uses (2 can be mounted onto a single panel)
- 1 MHz or 2 MHz pass band available

Model	Description
FP20603N-1-1	1 MHz bandwidth, 132-138 MHz
FP20603N-1-2	2 MHz bandwidth, 132-138 MHz
FP20603N-2-1	1 MHz bandwidth, 138-144 MHz
FP20603N-2-2	2 MHz bandwidth, 138-144 MHz
FP20603N-3-1	1 MHz bandwidth, 144-150 MHz
FP20603N-3-2	2 MHz bandwidth, 144-150 MHz
FP20603N-4-1	1 MHz bandwidth, 150-158 MHz
FP20603N-4-2	2 MHz bandwidth, 150-158 MHz
FP20603N-5-1	1 MHz bandwidth, 158-166 MHz
FP20603N-5-2	2 MHz bandwidth, 158-166 MHz
FP20603N-6-1	1 MHz bandwidth, 166-174 MHz
FP20603N-6-2	2 MHz bandwidth, 166-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

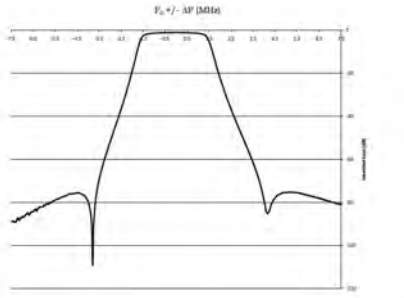
Frequency Range	MHz	132 to 174
Pass band Insertion Loss (max)	dB	1.8
Isolation at specified Guard Band		75 dB at 3 MHz
Input VSWR (max)		1.5:1
Impedance	Ω	50
Number of Cavities		6
Average Power Input (max)	W	150
Input Connectors		N-Female
Output Connectors		N-Female
Bandwidth at specified insertion loss	MHz	1 to 2

Mechanical Specifications

Depth	in (mm)	11.25 (286)
Length/ Height	in (mm)	5.25 (133)
Width	in (mm)	19 (483)
Weight	lbs (kg)	10 (4.54)
Shipping dimensions	in (mm)	L 19in W 26in H 7in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



Ordering Information
Specify the center frequency of your application at time of order since each unit is factory tuned and cannot be retuned by the customer.

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Superior then, Superior now.
A Norsat Company

Preselector Filters
Low Band, Aviation, and VHF Preselectors
PH2040 Series

Highly Versatile Res-Lok 1 or 2 MHz Preselector

- Rack, wall and floor mounting options - can also be used as transmitter filter
- Res-Lok construction eliminates inter-cavity cabling
- Covers the 137-174 MHz frequency band with 1 or 2 MHz passband

Model	Description
PH2040E-1-2	2 MHz B.W., 138-155 MHz
PH2040E-1-2-PBK	2 MHz B.W., Black, 138-155 MHz
PH2040E-2-2	2 MHz B.W., 155-174 MHz
PH2040E-2-2-PBK	2 MHz B.W., black, 155-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.



Electrical Specifications

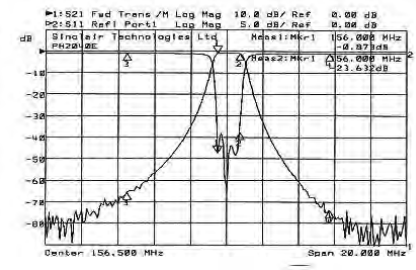
Frequency Range	MHz	138 to 174
Input VSWR (max)		1.5:1
Impedance	Ω	50
Average Power Input (max)	W	400
Input Connectors		N-Female
Output Connectors		N-Female
Approx Bandwidth @ 50 dB	MHz	12
Bandwidth at specified insertion loss	MHz	2
Insertion loss (max) Tx to Ant	dB	1

Mechanical Specifications

Depth	in (mm)	4.7 (119)
Length/ Height	in (mm)	31.5 (800)
Width	in (mm)	19 (483)
Weight	lbs (kg)	26 (11.8)
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 19in W 7in H 38in
Mounting configurations		19 inch rack

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



www.sinctech.com

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Expandable multicoupler, 7" cans, pass-reject, 108-174 MHz

- High performance single bandpass - one reject cavity combining system
- Cable lengths between channels are not critical making expansion a simple process
- Support inter-channel frequency spacings down to 0.8 MHz

Model	Description
C2017-1	C Series, pass-reject, 108-136 MHz
C2017-2	C Series, pass-reject, 132-150 MHz
C2017-3	C Series, pass-reject, 148-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	108 to 174
Input VSWR (max)		1.5:1
Average Power Input (max)	W	90-400
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	500
Frequency separation (min)	MHz	0.8
Insertion loss (min)	dB	0.7
Insertion loss (max) Tx to Ant	dB	3.2

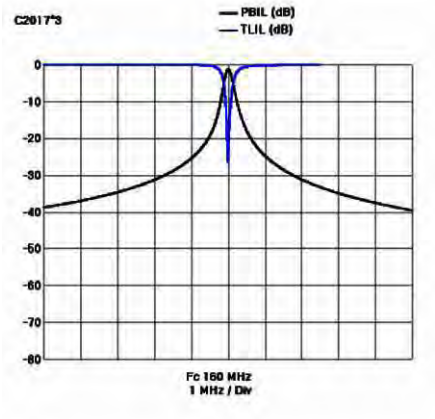
Mechanical Specifications

Depth	in (mm)	7.5 (191)
Length/ Height	in (mm)	32.5 (826)
Width	in (mm)	19 (483)
Weight	lbs (kg)	30 (13.62)
Shipping dimensions	in (mm)	L 20in W 10in H 33in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information
Specify pass frequency and desired insertion loss at time of order.



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Exp multicoupler, C-Series Res-Lok, pass-reject, 118-174 MHz

- Ease of field expandability with non-critical cable lengths
- Reduces inter-cavity cable requirements
- Supports vertical or horizontal mounting in 19 inch rack

Model	Description
C2024-1-1.1	1.1 dB I.L., 118-136 MHz
C2024-1-2.1	2.1 dB I.L., 118-136 MHz
C2024-2-1.1	1.1 dB I.L., 136-155 MHz
C2024-2-2.1	2.1 dB I.L., 136-155 MHz
C2024-3-1.1	1.1 dB I.L., 155-174 MHz
C2024-3-2.1	2.1 dB I.L., 155-174 MHz

The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

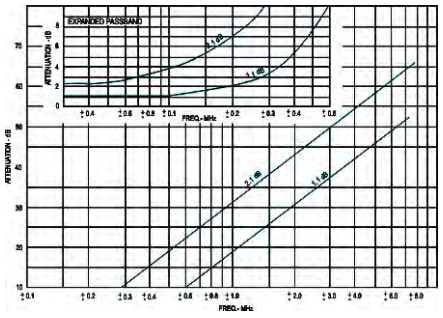
Frequency Range	MHz	118 to 174
Input VSWR (max)		1.5:1
Average Power Input (max)	W	400 / 210
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	1300
Frequency separation (min)	MHz	1
Insertion loss (min)	dB	1.1 to 2.1

Mechanical Specifications

Depth	in (mm)	4.16 (106)
Length/ Height	in (mm)	38 (965)
Width	in (mm)	19 (483)
Weight	lbs (kg)	36 (16.34)
Actual Shipping weight	lbs (kg)	40 (18.16)
Shipping dimensions	in (mm)	L 6in W 19in H 36in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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C Series Pass-Reject Expandable Multicoupler, 7" Cavities, 108-174 MHz

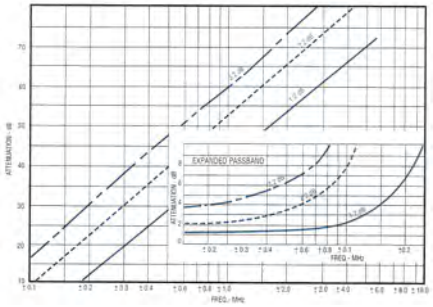
- High performance two bandpass - one reject cavity combining system
- Cable lengths between channels are not critical making expansion a simple process
- Support inter-channel frequency spacings down to 0.5 MHz

Model	Description
C2027-1-1	Two bandpass, one reject, 108-114 MHz
C2027-1-2	Two bandpass, one reject, 114-120 MHz
C2027-1-3	Two bandpass, one reject, 120-126 MHz
C2027-1-4	Two bandpass, one reject, 126-132 MHz
C2027-1-5	Two bandpass, one reject, 132-136 MHz
C2027-2-1	Two bandpass, one reject, 132-136 MHz
C2027-2-2	Two bandpass, one reject, 136-140 MHz
C2027-2-3	Two bandpass, one reject, 140-146 MHz
C2027-2-4	Two bandpass, one reject, 146-150 MHz
C2027-3-1	Two bandpass, one reject, 146-150 MHz
C2027-3-2	Two bandpass, one reject, 150-155 MHz
C2027-3-3	Two bandpass, one reject, 155-160 MHz
C2027-3-4	Two bandpass, one reject, 160-165 MHz
C2027-3-5	Two bandpass, one reject, 165-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	108 to 174
Input VSWR (max)		1.5:1
Average Power Input (max)	W	150-400
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	500
Frequency separation (min)	MHz	0.5
Insertion loss (min)	dB	1.2
Insertion loss (max) Tx to Ant	dB	3.2



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Mechanical Specifications

Depth	in (mm)	14.9 (378)
Length/ Height	in (mm)	33.25 to 43.75 (845 to 1111)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	41 (18.61)
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 20in W 18in H 38in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information

Specify pass frequency and desired insertion loss at time of order.

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Exp multicoupler, C-Series Res-Lok, pass-reject, 118-174 MHz

- Compact high-performance three bandpass and one reject cavity multicoupling system
- Cable lengths between channels are not critical making expansion a simple process
- Support inter-channel frequency spacings down to 1 MHz

Model	Description
C2034-1-1.6	1.6 dB I.L., 118-136 MHz
C2034-2-1.6	1.6 dB I.L., 136-155 MHz
C2034-2-3.1	3.1 dB I.L., 136-155 MHz
C2034-3-1.6	1.6 dB I.L., 155-174 MHz
C2034-3-3.1	3.1 dB I.L., 155-174 MHz

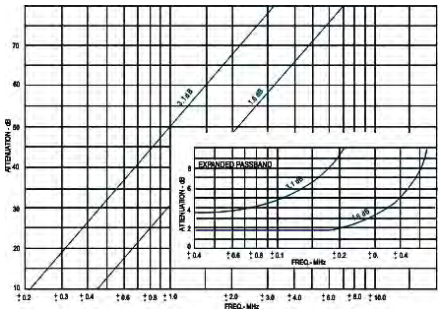


The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	118 to 174
Input VSWR (max)		1.5:1
Average Power Input (max)	W	400 / 210
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	1300
Frequency separation (min)	MHz	1
Insertion loss (min)	dB	1.6 to 3.1

Mechanical Specifications		
Depth	in (mm)	4.16 (106)
Length/ Height	in (mm)	38 (965)
Width	in (mm)	19 (483)
Weight	lbs (kg)	36 (16.34)
Actual Shipping weight	lbs (kg)	50 (22.7)
Shipping dimensions	in (mm)	L 6in W 19in H 36in

Environmental Specifications		
Temperature range	°F (°C)	-40 to +140 (-40 to +60)



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Exp multicoupler, C Series, pass-reject, 7" cavities, three bandpass, 108-174 MHz

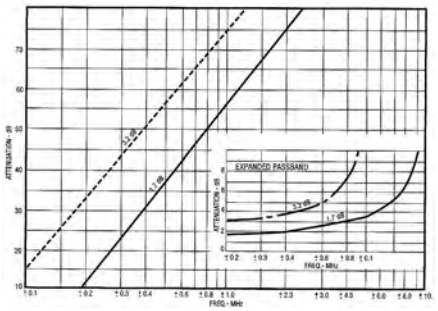
- Three bandpass cavities and one reject cavity
- Combines transmitters or receivers with inter-channel spacing down to 500 KHz
- Non-critical length cables between channels make expansion a simple process

Model	Description
C2037-1-1	Three bandpass, one reject, 108-114 MHz
C2037-1-2	Three bandpass, one reject, 114-120 MHz
C2037-1-3	Three bandpass, one reject, 120-126 MHz
C2037-1-4	Three bandpass, one reject, 126-132 MHz
C2037-1-5	Three bandpass, one reject, 132-136 MHz
C2037-2-1	Three bandpass, one reject, 132-136 MHz
C2037-2-2	Three bandpass, one reject, 136-140 MHz
C2037-2-3	Three bandpass, one reject, 140-146 MHz
C2037-2-4	Three bandpass, one reject, 146-150 MHz
C2037-3-1	Three bandpass, one reject, 146-150 MHz
C2037-3-2	Three bandpass, one reject, 150-155 MHz
C2037-3-3	Three bandpass, one reject, 155-160 MHz
C2037-3-4	Three bandpass, one reject, 160-165 MHz
C2037-3-5	Three bandpass, one reject, 165-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	108 to 174
Input VSWR (max)		1.5:1
Average Power Input (max)	W	210-400
Input Connectors		N-Female
Output Connectors		N-Female
Thru Line Average Power (max)	W	500
Frequency separation (min)	MHz	0.5
Insertion loss (min)	dB	1.7
Insertion loss (max) Tx to Ant	dB	3.2



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Mechanical Specifications

Depth	in (mm)	15.5 (394)
Length/ Height	in (mm)	35 to 43.75 (889 to 1111)
Width	in (mm)	19 (483)
Net Weight	lbs (kg)	51 (23.15)
Actual Shipping weight	lbs (kg)	50 to 60 (22.7 to 27.24)
Shipping dimensions	in (mm)	L 20in W 18in H 38in

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)

Ordering Information

Specify pass frequency and desired insertion loss at time of order.

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Hybrid Coupler, 66-100 MHz

- Low input port return loss
- Balanced and unbalanced versions are available
- Each unit is tuned for customer specified frequency for optimum isolation and return loss

Model	Description
HH1140	Balanced, 3% bandwidth, N-Male/ N-Female connector, 350 Watts, 66-100 MHz
HH1141	Unbalanced, 3º Bandwidth, N-Male/ N-Female connector, 350 Watts, 66-100 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications		
Frequency Range	MHz	66 to 100
VSWR (max)		1.25:1
Connectors		N-male and N-female / N-Male and N-Female
Power Rating	W	350
Insertion loss (max) Tx to Ant	dB	3.3 to 5.2
Isolation (min)	dB	45

Mechanical Specifications		
Depth	in (mm)	1.4 (36)
Length/ Height	in (mm)	1.2 (30)
Width	in (mm)	14 (356)
Weight	lbs (kg)	1.4 (0.64)
Actual Shipping weight	lbs (kg)	3 (1.36)
Shipping dimensions	in (mm)	L 26in W 6in H 4in

Environmental Specifications		
Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
T1 to T2 inputs N-Male- Load and antenna termination N-Female.
Specify operating frequencies.
HH-1140 specs shown at series level.

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Hybrid Coupler, 132-174 MHz

- Low return loss
- Wideband version available
- Narrowband version is tuned to customer specified frequency for optimum isolation and return loss

Model	Description
HH2140	Balanced, 3% bandwidth, 350 Watts, 132-174 MHz
HH2140-220-E2632	3% bandwidth, N-Male/ N-Female, 350 Watts, 200-230 MHz
HH2140CB	Balanced, 50 MHz bandwidth, N-Female, 200 Watts, 130-180 MHz
HH2141C-1-1	70/30 split, 30 MHz bandwidth, 300 Watts, 130-160 MHz
HH2141C-1-2	80/20 split, 30 MHz bandwidth, 300 Watts, 130-160 MHz
HH2141C-2-1	70/30 split, 30 MHz bandwidth, 300 Watts, 150-180 MHz
HH2141C-2-2	80/20 split, 30 MHz bandwidth, 300 Watts, 150-180 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	130 to 230
VSWR (max)		1.25:1
Impedance	Ω	50
Connectors		N-male and N-female / / N-female / N-Male and N-Female
Power Rating	W	200 to 350
Insertion loss (max) Tx to Ant	dB	3.2 to 3.3
Isolation (min)	dB	20 to 45

Mechanical Specifications

Depth	in (mm)	1.4 to 2.2 (36 to 56)
Length/ Height	in (mm)	1.15 to 1.2 (29 to 30)
Width	in (mm)	3.12 to 16 (79 to 406)
Actual Shipping weight	lbs (kg)	3 (1.36)
Shipping dimensions	in (mm)	L(9 - 26)in W(4 - 6)in H(3 - 6)in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
T1 to T2 inputs N-Male- Load and antenna termination N-Female.
Specify operating frequencies.

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Compact Rugged Isolator/Circulator, 132-174 MHz

- Temperature compensated
- Low insertion loss, high isolation
- Each unit is optimized to customer specified frequency

Model	Description
I211(X)A	Single stage Isolator/ Circulator, 132-174 MHz
I211(X)T-(Z)	Single stage Isolator/ Circulator, Field Tunable, 132-174 MHz
I221(Y)A	Dual stage Isolator/ Circulator, 132-174 MHz
I221(Y)T-(Z)	Dual stage Isolator/ Circulator, field tunable, 132-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

Frequency Range	MHz	132 to 174
Bandwidth	MHz	5
VSWR (max)		1.25:1
Insertion loss (typ) Tx to Ant	dB	0.4 to 0.7
Isolation (typ)	dB	35 to 75
Connectors		N-Female
Power Input	W	125
Insertion loss (max) Tx to Ant	dB	0.6 to 1
Isolation (min)	dB	25 to 50

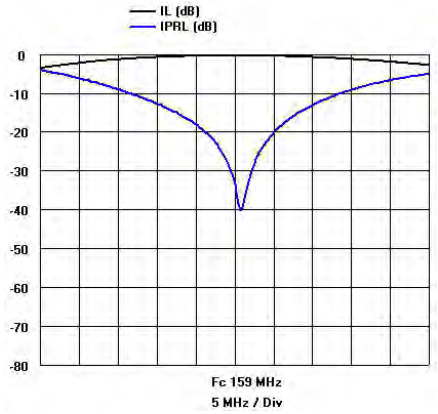
Mechanical Specifications

Depth	in (mm)	1.4 (36)
Length/ Height	in (mm)	2.5 (64)
Width	in (mm)	2.5 to 4.5 (64 to 114)
Weight	lbs (kg)	1.1 to 2.2 (0.5 to 1)
Actual Shipping weight	lbs (kg)	2 to 3 (0.91 to 1.36)
Shipping dimensions	in (mm)	L 13in W 9in H 3in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)

Ordering Information
Height, width, depth and weight excludes connectors and loads.
Specify Tx frequency at time of order.



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Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

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Rack Mounted Ferrite Intermod Suppression Panel, 132-174 MHz

- High performance single or dual stage isolators provide 35 dB or 75 dB of isolation
- Covers 132-174 MHz band and comes with built-in harmonic filters providing 40 dB attenuation at 2nd harmonic
- Compact design precisely tuned to customer specified frequency

Model	Description
PC2112	Single stage isolator, 30 watt load 132-174 MHz
PC2113	Single stage isolator, 60 watt load 132-174 MHz
PC2114	Single stage isolator, 125 watt load 132-174 MHz
PC2212	Dual stage isolator, two 30 Watt loads, 132-174 MHz
PC2213	Dual stage isolator, 30+60 Watt loads, 132-174 MHz
PC2214	Dual stage isolator, 30+125 Watt loads, 132-174 MHz



The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Electrical Specifications

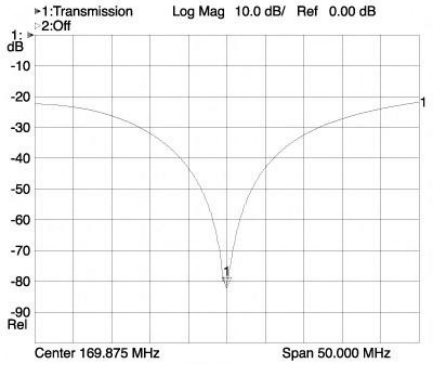
Frequency Range	MHz	132 to 174
Bandwidth	MHz	4.6 to 5
VSWR (max)		1.25:1
Insertion loss (typ) Tx to Ant	dB	0.4 to 0.7
Isolation (typ)	dB	35 to 75
Average Power Input (max)	W	125
Connectors		N-Female

Mechanical Specifications

Depth	in (mm)	9.13 (232)
Length/ Height	in (mm)	1.75 to 3.5 (44 to 89)
Width	in (mm)	19 (483)
Actual Shipping weight	lbs (kg)	20 (9.08)
Shipping dimensions	in (mm)	L 19in W 26in H 7in

Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)



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Heavy duty fiberglass Antenna and Radio Equipment Shelter

- Proven protection for communication systems
- Cedar wood and steel base options available
- Several height options available to accommodate varying space needs.
- Various specially designed compact Base station antennas available for Comshels.

Model	Description
COMSHEL 15-W	15'-6" height, timber frame base
COMSHEL 28-M	28' height, Steel frame base
COMSHEL 28-W	28' height, timber frame base
COMSHEL 35-M	35' height, steel frame base
COMSHEL 35-W	35' height, timber frame base
COMSHEL D	6' height, timber frame base



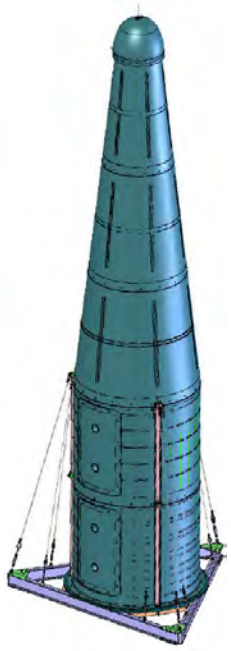
The specifications listed below represent the entire product series.
For specifications on a specific model, visit our web site at www.sinctech.com or view our CD catalogue.

Mechanical Specifications

Length	in (mm)	96 to 430 (2438 to 10922)
Weight	lbs (kg)	1851 (840.35)
Base Diameter	in (mm)	78.12 to 84.75 (1984 to 2153)
Top Diameter	in (mm)	34.38 to 84.6 (873 to 2149)
HFC (Horizontal force center)	in (mm)	49 to 168 (1245 to 4267)
Weight, base frame	lbs (kg)	619 (281.03)
Mounting hardware		Timber Base Frame / Steel Base Frame
Wind Loading Area	ft² (m²)	57.1 to 188 (5.3 to 17.47)

Environmental Specifications

Temperature range	°F (°C)	-58 to +158 (-50 to +70)
Rated wind velocity (no ice)	mph (km/h)	135 to 245 (217 to 394)
Rated Wind Velocity (2" Radial Ice)	mph (km/h)	105 to 150 (169 to 242)



Ordering Information
Sinclair also offers VHF antennas configured for comshel shelter, please contact your Sinclair Sales Representative for more information.

www.sinctech.com

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1487 84 28 19	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

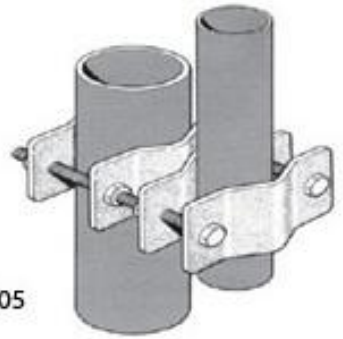
Sinclair's commitment to product leadership may result in improvement or change to this product
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How To Use The Sinclair Clamp Selection Guide

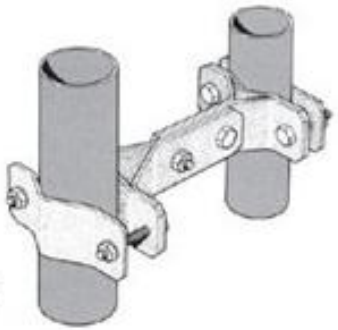
Clamp Selection Guide

Clamps and Mounting Hardware

Our standard clamps are designed for mounting base station antennas to a number of different fixtures including pipes, angle rods, wood poles, braces and flat surfaces. We also offer an extensive range of mounting hardware on special order basis. Please contact your Sinclair customer service representative for details.



Clamp005



Clamp125U

Sinclair Clamps

The table on the next set of slides summarizes a selection of the clamps offered. For further details including corresponding Sinclair antenna models, please download our comprehensive clamp selection guide available at sinctech.com or contact your Sinclair customer service representative at 1-800-263-3275.

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Available Clamps

Pipe Parallel to Pipe			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp005	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5 " Diameter	1.5 - 3.5 " Diameter
Clamp006A	Carbon Steel, Hot Dip Galvanized	1.9 - 3.56" Diameter	1.9 - 3.56" Diameter
Clamp006B	Carbon Steel, Hot Dip Galvanized	2.37 - 4.5" Diameter	2.37 - 4.5" Diameter
Clamp006C	Carbon Steel, Hot Dip Galvanized	3.5 - 5.563" Diameter	3.5 - 5.563" Diameter
Clamp006E	Carbon Steel, Hot Dip Galvanized	4.0 - 8.63" Diameter	4.0 - 8.63" Diameter
Clamp009	Aluminum	1.5 - 3.5" Diameter	1.9" Diameter
Clamp013	Aluminum	1.5 - 1.9" Diameter	1.5 - 1.9" Diameter
Clamp015	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.5 - 3.5" Diameter
Clamp015A	Carbon Steel, Hot Dip Galvanized	0.75 - 1.5" Diameter	1.5 - 3.5" Diameter
Clamp117	Aluminum	1.5 - 2.38" Diameter	1.9" Diameter
Clamp120	Carbon Steel, Hot Dip Galvanized	1.50 - 2.38" Diameter	1.50 - 2.38" Diameter
Clamp133	Carbon Steel, Hot Dip Galvanized	3.5 - 6.63" Diameter	3.5 - 6.63" Diameter
Clamp134HD	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	3.5-6.6" Diameter
Clamp135	Carbon Steel, Hot Dip Galvanized	1.5" OR 3/4" & 0.84" Diameter	1.5 - 2.38" Diameter
Clamp135SS	Stainless Steel	1.5" OR 3/4" & 0.84" Diameter	1.5 - 2.38" Diameter

Universal Pipe Parallel to Pipe or Pipe 90 Degrees Clamp Kit			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp120	Carbon Steel, Hot Dip Galvanized	1.50 - 2.38" Diameter	1.50 - 2.38" Diameter
Clamp130	Aluminum	1.5 - 2.88" Diameter	1.5 - 2.88" Diameter
Clamp147	Aluminum	2.88 - 4.5" Diameter	2.88 - 4.5" Diameter
Clamp148	Aluminum	2.88 - 4.5" Diameter	1.5 - 2.88" Diameter

Universal Parallel Clamp Kit			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp125U (Pipe Parallel to Pipe)	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.5 - 3.5" Diameter
Clamp125U (Pipe Parallel to 90 Degree Angle)	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.25 - 2.75" Angle Depth, 90 Degrees
Clamp125U (Pipe Parallel to 60 Degree Angle)	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.75 - 3.5" Angle Depth, 60 Degrees

Available Clamps- Continued

Pipe 90 Degree to Pipe			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp001	Aluminum	1.5" Diameter	1.9" Diameter
Clamp008	Aluminum	1.9" Diameter	1.9" Diameter
Clamp010	Aluminum	1.31 - 1.5" Diameter	1.31 - 1.5" Diameter
Clamp011	Aluminum	1.0" Diameter	1.9" Diameter
Clamp017	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.5 - 3.5" Diameter
Clamp017HD	Carbon Steel, Hot Dip Galvanized	1.5 - 3.0" Diameter	2.88 - 4" Diameter
Clamp017S	Carbon Steel, Hot Dip Galvanized	0.75 - 1.5" Diameter	1.5 - 3.5" Diameter
Clamp028	Carbon Steel, Hot Dip Galvanized	2.88" Diameter	2.88" Diameter
Clamp033	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	4.0 - 5.56" Diameter
Clamp073	Carbon Steel, Hot Dip Galvanized	2.88" Diameter	5.5" Diameter
Clamp073A	Carbon Steel, Hot Dip Galvanized	1.9" Diameter	5.56" Diameter
Clamp102	Carbon Steel, Hot Dip Galvanized	1.9" Diameter	6.63" Diameter
Clamp103	Carbon Steel, Hot Dip Galvanized	2.88" Diameter	6.63" Diameter
Clamp104	Carbon Steel, Hot Dip Galvanized	2.88" Diameter	8.63" Diameter
Clamp115	Aluminum	0.84" Diameter	1.5 - 2.38" Diameter
Clamp120	Carbon Steel, Hot Dip Galvanized	1.5 - 2.38" Diameter	1.5 - 2.38" Diameter
Clamp120SS	Stainless Steel	1.5 - 2.38" Diameter	1.5 - 2.38" Diameter
Clamp121A	Carbon Steel, Hot Dip Galvanized	1.5 - 2.38" Diameter	2.88" Diameter
Clamp121C	Carbon Steel, Hot Dip Galvanized	2.88" Diameter	5.0" Diameter
Clamp123A-1	Carbon Steel, Hot Dip Galvanized	1.6" Diameter	2.88" Diameter
Clamp123B-1	Carbon Steel, Hot Dip Galvanized	1.66" Diameter	4.0" Diameter

Pipe Parallel or 90 Degree to Pipe			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp130	Aluminum	1.5 - 2.88" Diameter	1.5 - 2.88" Diameter

Pipe Omni-directional to Pipe			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp017H	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.5 - 3.5" Diameter
Clamp064	Carbon Steel, Hot Dip Galvanized	1.5 - 2.38" Diameter	1.5 - 2.38" Diameter
Clamp064HD	Carbon Steel, Hot Dip Galvanized	1.5 - 2.38" Diameter	1.5 - 2.38" Diameter

Available Clamps- Continued

Pipe Parallel to Angle			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp015B	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	2 - 4" Angle Depth, 60 Degrees
Clamp015C	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.5 - 4" Angle Depth, 90 Degrees
Clamp111	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	3.5 - 6" Angle Depth, 90 Degrees
Clamp113A	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	4 - 8" Angle Depth, 60 Degrees
Clamp128	Carbon Steel, Hot Dip Galvanized	3.5 - 6.63" Diameter	4 - 8" Angle Depth, 60 Degrees

Pipe 90 Degrees to Angle			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp035	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	2 - 4" Angle Depth, 60 Degrees
Clamp042	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	4 - 8" Angle Depth, 60 Degrees
Clamp122	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	1.5 - 4" Angle Depth, 90 Degrees

Pipe Omni-directional to Angle			
Clamp	Material Type	Pipe 1	Pipe 2
Clamp052A	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	2 - 4" Angle Depth, 60 Degrees
Clamp052B	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter	4 - 8" Angle Depth, 60 Degrees

Pipe Parallel to Wood Pole or Wall		
Clamp	Material Type	Pipe
Clamp017A	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter Parallel to Wood Post/ Wall
Clamp017AS	Carbon Steel, Hot Dip Galvanized	0.75-1.5" Diameter Parallel to Wood Post/ Wall
Clamp017B	Carbon Steel, Hot Dip Galvanized	1.5 - 2.3" Dimeter Perpendicular to Wood Post
Clamp033B	Carbon Steel, Hot Dip Galvanized	4.0" Diameter Parallel to Wood Post/ Wall

Pipe to Brace		
Clamp	Material Type	Pipe
Clamp017MX	Carbon Steel, Hot Dip Galvanized	1.5 - 2.88" Diameter to Brace

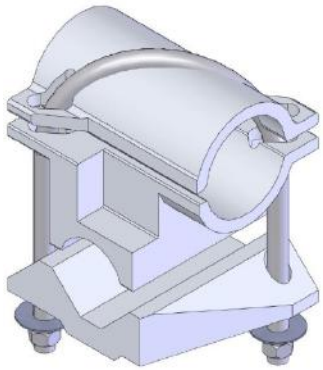
Available Clamps- Continued

Pipe to Flat Surface		
Clamp	Material Type	Pipe
Clamp002	Aluminum	1.9" Diameter to Flat Surface (Plate)
Clamp002B	Aluminum	2.38" Diameter to Flat Surface (Plate)
Clamp004 (Aluminum)	Aluminum	2.88" Diameter to Flat Surface (Plate)
Clamp004B (Iron Casting)	Iron Casting, Hot Dip Galvanized	2.88" Diameter to Flat Surface (Plate)
Clamp131	Carbon Steel, Hot Dip Galvanized	3.5 - 6.63" Diameter to Flat Surface (13 1/4 Thick Max)
WMK-250	Aluminum	1.5 IPS (80) pipe with a Clamp008 to allow for rotation

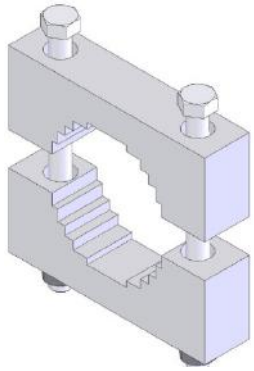
Pipe to Wall Surface		
Clamp	Material Type	Pipe
Clamp136	Carbon Steel, Hot Dip Galvanized	1.5 - 3.5" Diameter to Flat Surface

Downtilt Clamps		
Clamp170	Aluminum/ Steel, Hot Dip Galvanized	1.5 - 2.88" Diampeter Pipe Mounted, No Downtilt (SP304 Series)
Clamp141	Steel, Hot Dip Galvanized	2.38 - 2.88" Diameter Pipe Mounted, 0 to 20° Mechanical Downtilt (SE414 Series)
Clamp142	Steel, Hot Dip Galvanized	2.38 - 2.88" Diameter Pipe Mounted, 0 to 20° Mechanical Downtilt (SE419 Series)
Clamp191	Steel, Hot Dip Galvanized/ Aluminum	1.5 - 2.88" Diampeter Pipe Mounted, 0 to 12° Mechanical Downtilt (SP304 Series)
Clamp191M	Steel, Hot Dip Galvanized/ Aluminum	38 - 73mm Diameter Pipe Mounted, 0 to 12° Mechanical Downtilt (SP304 Series)

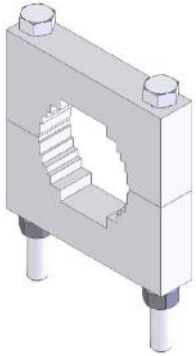
Images of Various Clamps



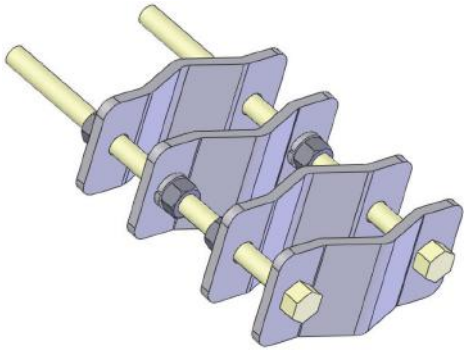
Clamp001



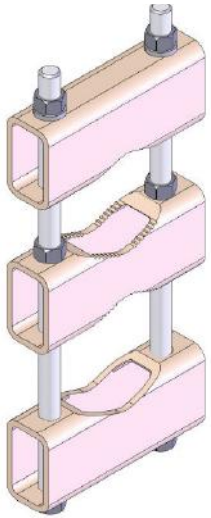
Clamp002B



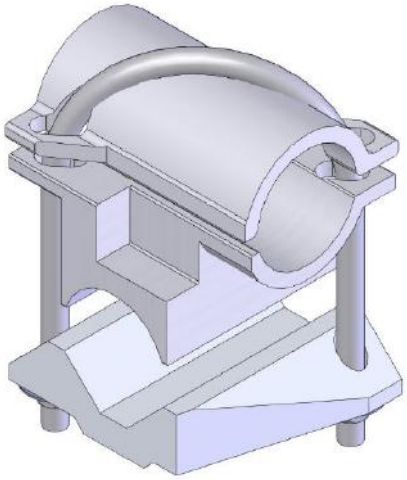
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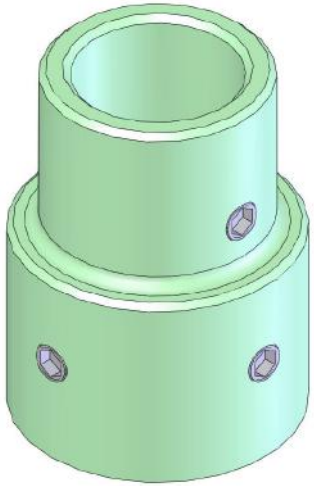
Clamp005



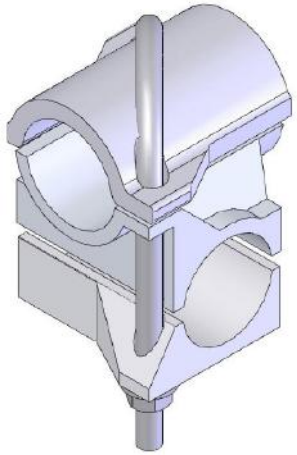
Clamp006A



Clamp008



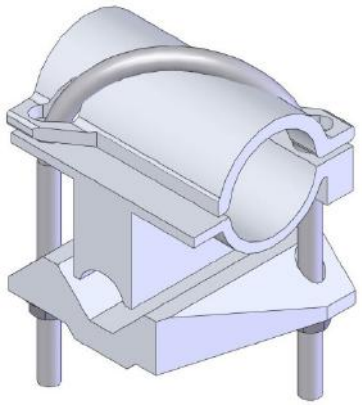
Clamp009



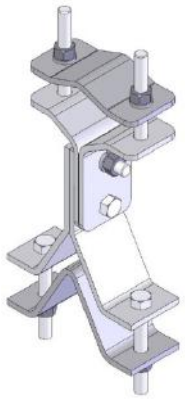
Clamp010

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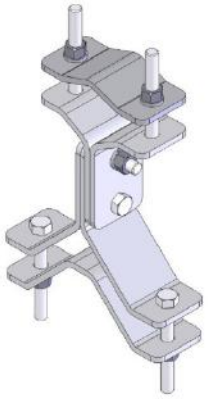
Images of Various Clamps



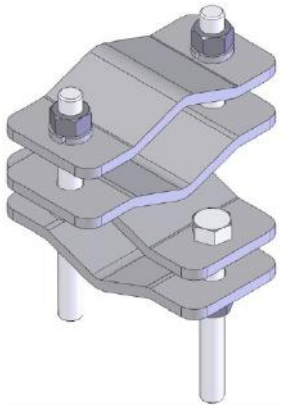
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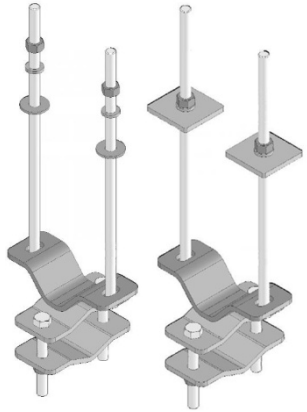
Clamp015B



Clamp015C



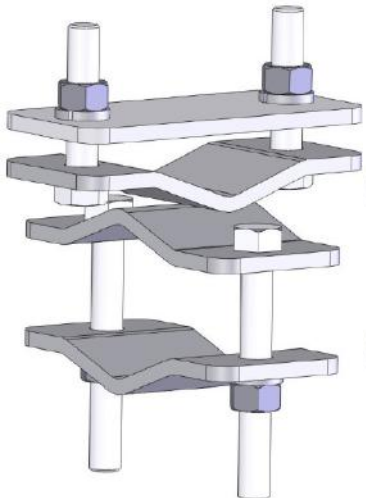
Clamp017



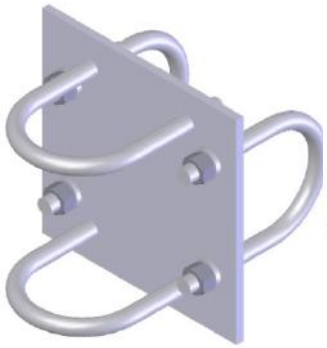
Clamp017A



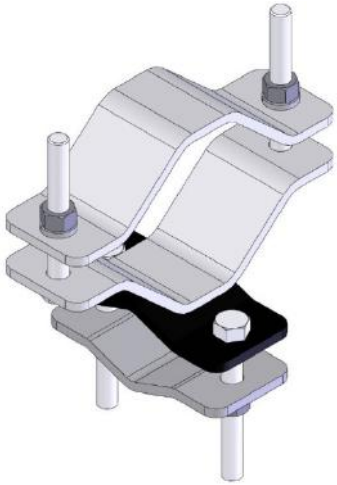
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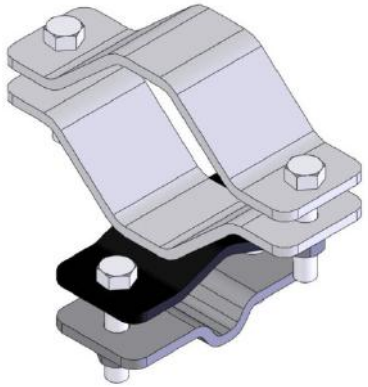
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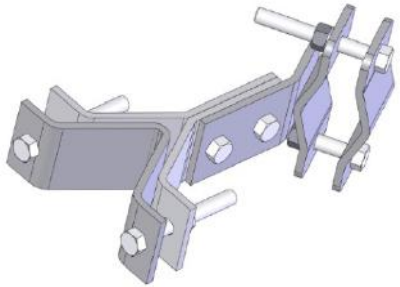
Clamp028



Clamp033

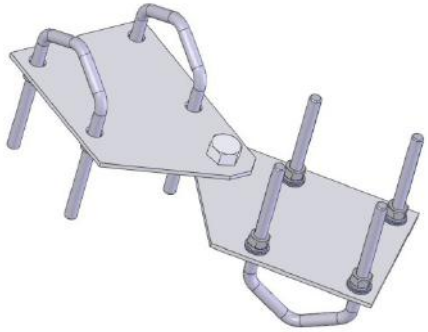


Clamp033C



Clamp035

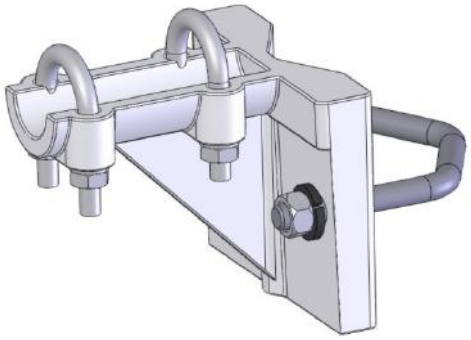
Images of Various Clamps



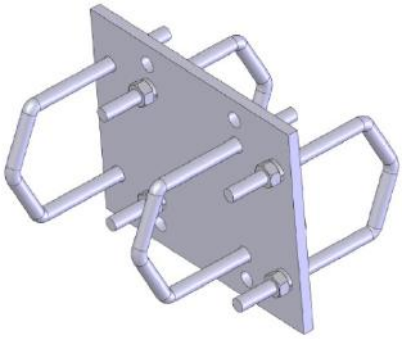
Clamp064



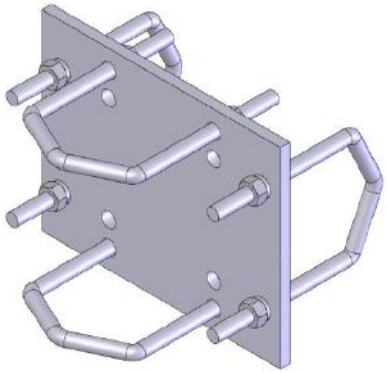
Clamp113A



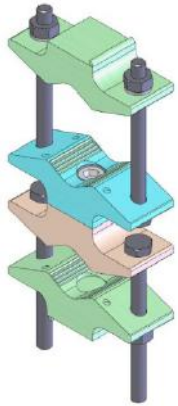
Clamp115



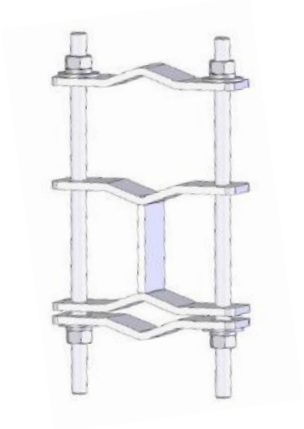
Clamp120 Parallel



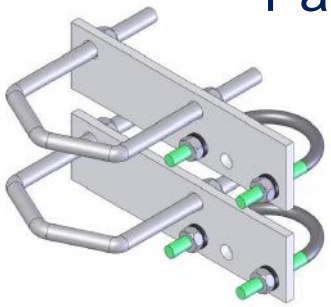
Clamp120 Perpendicular



Clamp130



Clamp134HD

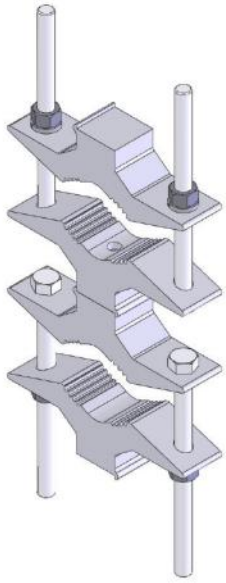


Clamp135 & 135SS

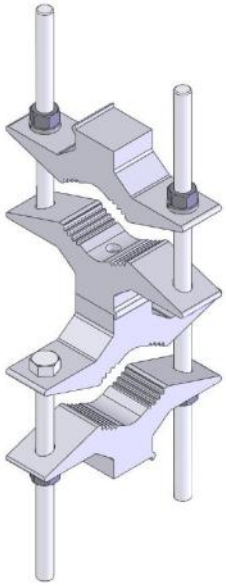


Clamp136

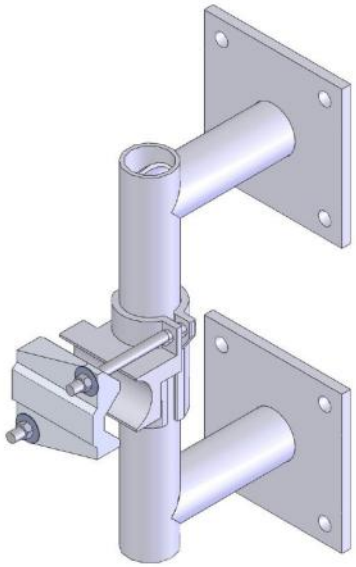
Images of Various Clamps



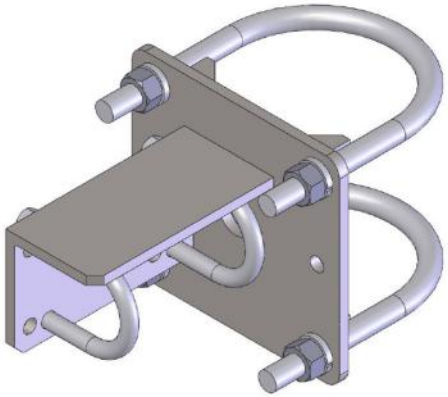
Clamp147 Parallel



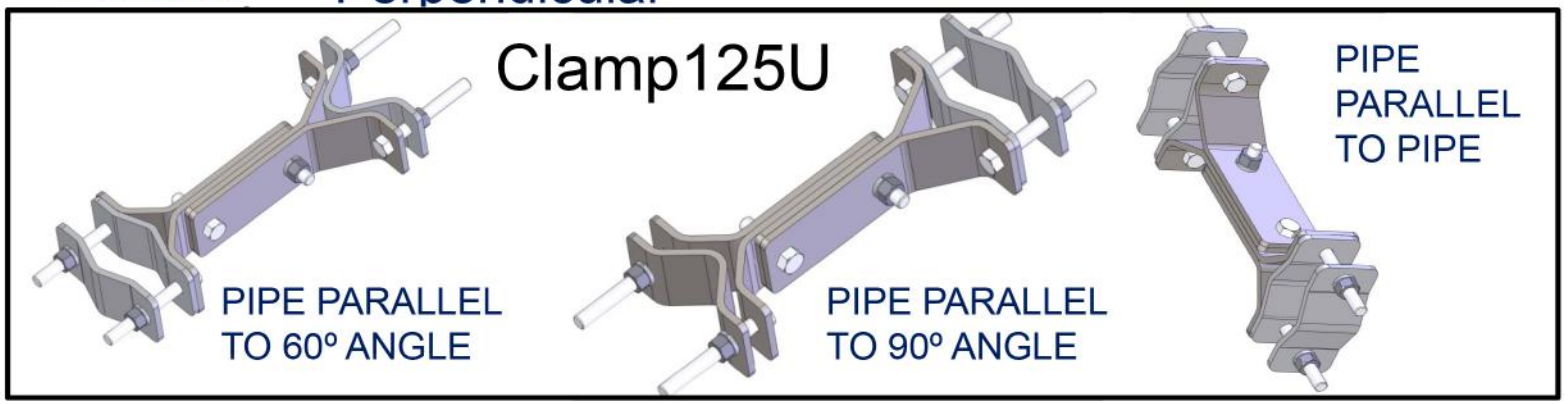
Clamp147 Perpendicular



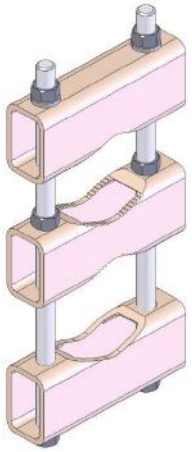
WMK-250



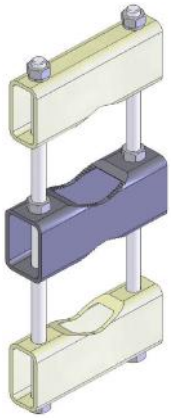
Clamp123B



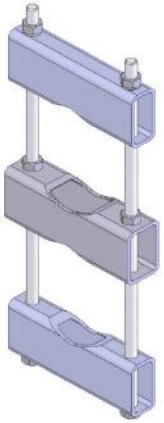
Images of Various Clamps



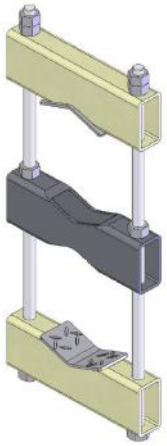
Clamp006A



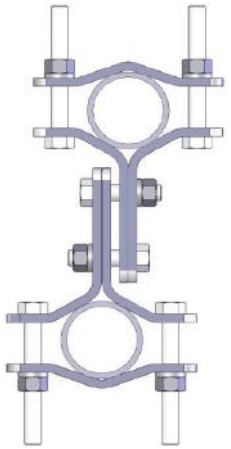
Clamp006B



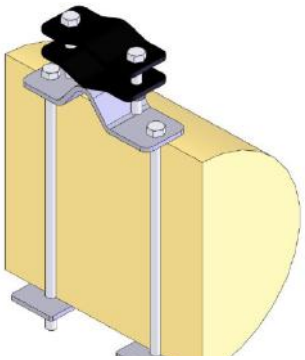
Clamp006C



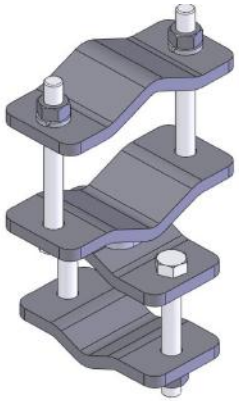
Clamp006E



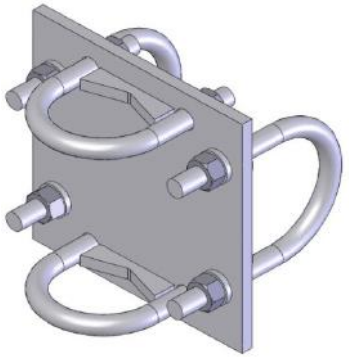
Clamp015



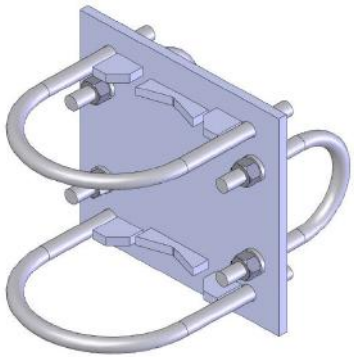
Clamp017B



Clamp017HD



Clamp121A



Clamp121C

Clamp Selection Guide

Sinclair Antenna Models	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamp Included	Qty Required	Round	60°	90°	wall, wood pole
SC226 Series, SC229 Series, SC328 Series, SC331 Series	**Clamp005**	2	Clamp006A OR Clamp147			Clamp017A OR Clamp136
SC225-M Series, SC225-H Series	**Clamp005**	2	Clamp147, Clamp15, OR Clamp130			Clamp017AS OR Clamp136
SC233 Series, SC233M Series	**Clamp135**	1	Qty 2- Clamp015A			Clamp017AS OR Clamp136
SC281-H Series, SC412-H Series		2	Clamp006C			Clamp136A
SC323 Series, SC323-H Series	**Clamp130**	2	Clamp005			Clamp017A OR Clamp136
SC329-H Series, SC369H Series	**Clamp130**	2	Clamp005, OR Clamp120			Clamp017AS OR Clamp136
SC381-H Series		2	Clamp006C			
SC488 Series, SC488-H Series	**Clamp130**	2	Clamp147, OR Clamp005			Clamp017A OR Clamp136
SC489 Series, SC489-H Series, SC420-H Series	**Clamp130**	2	Clamp147, OR Clamp015			Clamp017A OR Clamp136
SC432D-H Series, SC432T Series, 432T-H Series		2	Clamp006B, OR Clamp147			Clamp017A OR Clamp136
SC433 Series	**Clamp130**	1	Clamp147, OR Clamp005			Clamp017A OR Clamp136
SC746-HL Series		2	Clamp147, Clamp130, OR Clamp005			Clamp017A OR Clamp136
SC479-HL Series		2	Clamp006B, OR Clamp147			Clamp017A OR Clamp136
SD110 Series, (6 Clamps <35.5 MHz; 4 Clamps for >35.5 MHz)		6 or 4	Clamp017, Clamp033, OR Clamp130	Clamp035 OR Clamp042	Clamp122	Clamp017A OR Clamp136
SD112 Series, (12 Clamps <35.5 MHz; 8 Clamps for >35.5 MHz)		12 or 8	Clamp017, Clamp033, OR Clamp130	Clamp035 OR Clamp042	Clamp122	Clamp017A OR Clamp136
SD114 Series, (24 Clamps <35.5 MHz; 16 Clamps for >35.5 MHz)		24 or 16	Clamp017, Clamp033, OR Clamp130	Clamp035 OR Clamp042	Clamp122	Clamp017A OR Clamp136

* Clamps listed in bold type are those normally included with selected standard antennas as indicated in this document.

** No of clamps per antenna. Sinclair reserves the right to supply suitable equivalents if necessary without prior notice.

Clamp Selection Guide- Continued

Sinclair Antenna Models	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamp Included	Qty Required	Round	60°	90°	wall, wood pole
SD210 Series, SD210D Series, SD212 Series		2	Clamp005, Clamp015, OR Clamp130	Clamp015B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD210-H Series		2	Clamp147, OR Clamp015	Clamp015B, Clamp113A	Clamp015C, OR Clamp111	Clamp017A OR Clamp136
SD210R-SF2P60LDF(D00S)		2	Clamp006A OR Clamp130			Clamp136
SD210R-SF2P90LDF(D00S)		2	Clamp006A OR Clamp130			Clamp136
SD210R-SF2P120LDF(D00S)		2	Clamp006A OR Clamp130			Clamp136
SD212R-SF2P60LDF(D00S)		2 and 4	Clamp006A OR Clamp006B (antenna) and Clamp064HD (supports)			Clamp136
SD212R-SF2P90LDF(D00S)		2 and 4	Clamp006A OR Clamp006B (antenna) and Clamp064HD (supports)			Clamp136
SD212R-SF2P120LDF(D00S)		2	Clamp006A OR Clamp006B			Clamp136
SD214R-SF2P60LDF(D00S)		3 and 8	Clamp006A OR Clamp006B (antenna) and Clamp064HD (supports)			Clamp136
SD214R-SF2P90LDF(D00S)		3 and 8	Clamp006A OR Clamp006B (antenna) and Clamp064HD (supports)			Clamp136
SD214R-SF2P120LDF(D00S)		3	Clamp006A or Clamp006B			Clamp136

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Clamp Selection Guide- Continued

Sinclair Antenna Models	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamp Included	Qty Required	Round	60°	90°	wall, wood pole
SD212-H Series		2	Clamp006A, OR Clamp147	Clamp015B OR Clamp113A	Clamp015C OR Clamp111	Clamp017A OR Clamp136
SD212D Series		2	Clamp147,Clamp005, OR Clamp015	Clamp15B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD212D-H Series		2	Clamp006C	Clamp128		
SD212T-H Series		2	Clamp006E	Clamp128		
SD214 Series, SD2352 Series		2	Clamp147,Clamp005, OR Clamp015	Clamp15B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD214-H Series (Side mount)		3	Clamp147	Clamp128		Clamp017A OR Clamp136
SD214-H Series (Top mount)		2	Clamp006C	Clamp128		Clamp136
SD218 Series, SD218 Series		4	Clamp147, Clamp015, OR Clamp130	Clamp15B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD222 Series, SD224 Series	**Clamp130**	2	Clamp005, OR Clamp015			Clamp017AS OR Clamp136
SD235 Series	**Clamp015**	2	Clamp005, Clamp015, OR Clamp125U			Clamp017A OR Clamp136
SD235-H Series		2	Clamp006B			Clamp017A OR Clamp136
SD235D Series, SD2352 Series		2	Clamp006B			Clamp136
SD2352-H Series		2	Clamp006C			
SD235D-H Series		2	Clamp006E			

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Clamp Selection Guide- Continued

Sinclair Antenna Models	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamp Included	Qty Required	Round	60°	90°	wall, wood pole
SD310-H Series, SD312-H Series, SD314-H Series		2	Clamp005, Clamp130, OR Clamp125U	Clamp15B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD314D-H Series		3	Clamp005, Clamp130, OR Clamp125U	Clamp15B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD318-H Series		3	Clamp005, Clamp130, OR Clamp125U	Clamp15B, Clamp113A, OR	Clamp015C, Clamp111, OR	Clamp017A OR Clamp136
SD335 Series		2	Clamp005, Clamp015, Clamp130, OR Clamp125U			Clamp017A OR Clamp136
SD335-H Series		2	Clamp005, Clamp015, OR Clamp125U			Clamp017A OR Clamp136
SD3352 Series	**Clamp130**	2	Clamp005, Clamp015, OR Clamp125U			Clamp017A OR Clamp136
SD3352D Series		2	Clamp006B			
SD3352D-H Series		2	Clamp006C			
SD3352-H Series	**Clamp130**	2	Clamp147, Clamp005, OR Clamp015,			Clamp017A OR Clamp136
SE412 Series, SE414 Series, SE419 Series	**Clamp130**	1	Clamp 141 DT(for SE414); 142 DT(for SE419)	N/A	N/A	N/A
SG101A Series, SG101C Series, SC101-Series	**Clamp120**	2	Clamp005, OR Clamp015	Clamp015B OR Clamp113A	Clamp015C OR Clamp111	Clamp002, Clamp017A, OR
SG201 Series, SG217 Series	**Clamp135**	1		Clamp015B OR Clamp113A	Clamp015C OR Clamp111	Clamp017AS OR Clamp136
SG238 Series	**Clamp135**	1				
SG238-H Series	**Clamp130**	2		Clamp015B, Clamp113A	Clamp015C OR Clamp111	Clamp017AS OR Clamp136
SG301 Series, SG317 Series, SG401 Series	**Clamp135**	1		Clamp015B, Clamp113A	Clamp015C OR Clamp111	Clamp017AS OR Clamp136

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Clamp Selection Guide- Continued

Sinclair Antenna Models	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamp Included	Qty Required	Round	60°	90°	wall, wood pole
SP440 Series, SP441 Series	**Clamp167**	1		N/A	N/A	N/A
SP470 Series	**Clamp166**	1		N/A	N/A	N/A
SP304V Series		1	Clamp170 kit without DT, Clamp191 kit with DT	N/A	N/A	Clamp kit 191 with down tilt
SV227 Series, SV228 Series	**Clamp004**	2		N/A	N/A	N/A
SV260 Series, SV227 Series, SV228-H Series	**Clamp004**	2		N/A	N/A	N/A
SV302-H Series, SV360 Series, SV460 Series	**Clamp004**	2		N/A	N/A	N/A
SV402 Series	**Clamp130**	2	249678-1 only	N/A	N/A	N/A
SY203 Series, SY203-H Series	**Clamp001**	1		N/A	N/A	N/A
SY206(E) Series, SY250(E) Series (F2 thru F5)	**Clamp008**	1		N/A	N/A	N/A
SY206-SF1SNM(E), SY250-SF1SNM(E)	**Clamp008**	1		N/A	N/A	N/A
SY206(C) Series	**Clamp001**			N/A	N/A	N/A
SY206-H (E) Series	**Clamp017, Clamp064**	1, 2		N/A	N/A	N/A

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Clamp Selection Guide- Continued

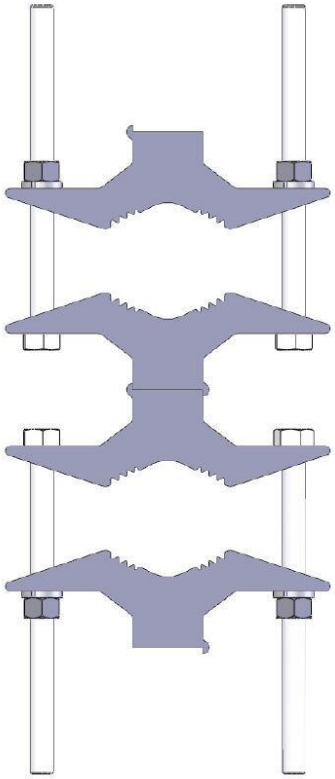
Sinclair Antenna Models	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamp Included	Qty Required	Round	60°	90°	wall, wood pole
SY2062(C)Series	**Clamp001**	2		N/A	N/A	N/A
SY2062(E) Series	**Clamp008**	2		N/A	N/A	N/A
SY2066-H(E) Series (Heated Array)	**Clamp184**	1	Doughnut Clamp	N/A	N/A	N/A
SY250 Series	**Clamp001**	1	Clamp017B, pole mtg	N/A	N/A	N/A
SY260 Series	**Clamp004**	2		N/A	N/A	N/A
SY303 Series, SY307 Series, SY350 Series, SY3072 Series	**Clamp115**	1		N/A	N/A	N/A
SY360 Series, SY460 Series, SY260 Series	**Clamp004**	2		N/A	N/A	N/A
SY3074 Series	**Clamp115, Clamp001**	4,2		N/A	N/A	N/A
SY407 Series, SY406 Series, SY415 Series, SY4062 Series, SY450 Series	**Clamp115**	1		N/A	N/A	N/A
SY306R-H Series	**Clamp002B**	2		N/A	N/A	N/A
SY406R-H Series, SY415R-H Series, SY4152R-H Series	**Clamp002B**	2		N/A	N/A	N/A

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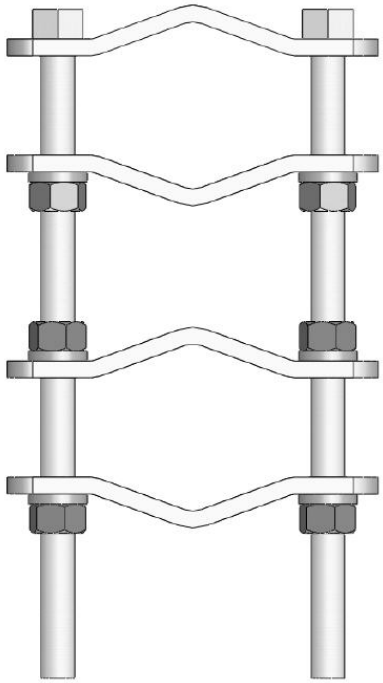
Model Of Interest: SD214-SF2P2SNM(D00)

For A Round Tower Leg,
the three clamps that can
be used are the Clamp147, Clamp005, or the Clamp015.



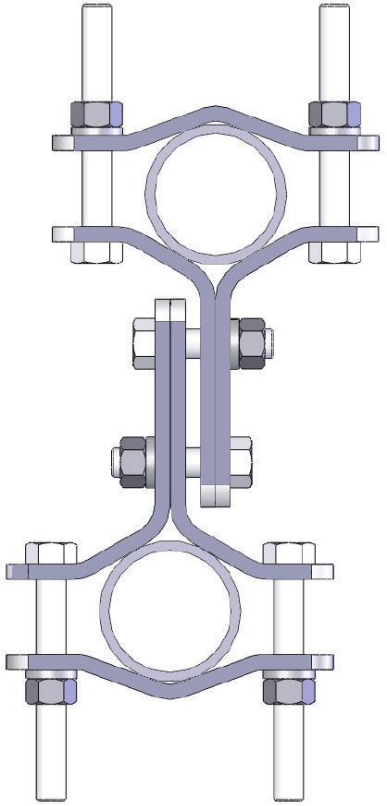
Clamp147

Specification: 2.88 - 4.5” O.D.
To 2.88 - 4.5” O.D Pipe



Clamp005

Specifications: 1.5 - 3.5” OD
To 1.5 – 3.5” OD Pipe



Clamp015

Specifications: 1.5 - 3.5” OD
To 1.5 – 3.5” OD Pipe

Clamp147 vs. Clamp005 vs. Clamp015

- The first Pipe specification is for the antenna.
- The base pipe diameter for the SD214-HF2P2SNM(D0S) is 2.88 inches.
- The Clamp147 spec for the first pipe is 2.88 - 4.5” O.D. Pipe
- The Clamp005 and Clamp015 spec for the first pipe is 1.5 - 3.5” OD Pipe.
- Both clamps will accommodate the 2.88 inch pipe diameter. Either the Clamp005 or Clamp015 may be better since the diameter of the antenna is somewhere in the middle of the spec versus the Clamp147 where the diameter is the starting point.
- The next thing to look at is the diameter of the tower leg where you want to secure the antenna.

Clamp147 vs. Clamp005 vs. Clamp015

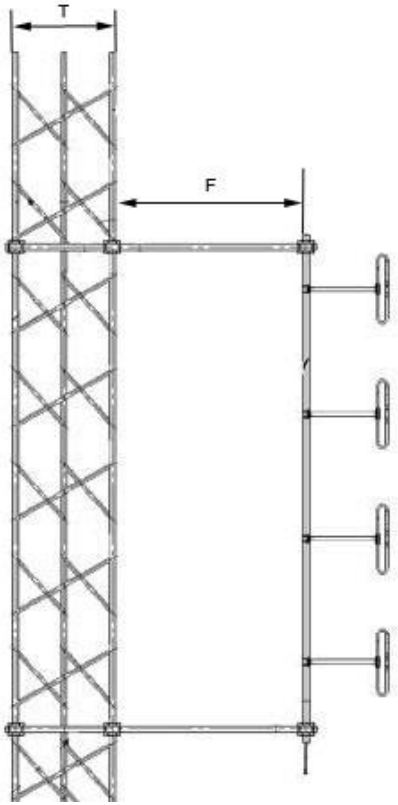
- The Clamp147 spec for the second pipe is 2.88 - 4.5” O.D. Pipe
- The Clamp005 and Clamp015 spec for the second pipe is 1.5 - 3.5” OD Pipe.
- If the tower leg or support pipe has an outer diameter that is greater than 3.5 inches, then the only clamp that will work is the Clamp147.
- If the tower leg or support pipe has an outer diameter is greater than 1.5 inches, but less than 2.88 inches, then either the Clamp005 or Clamp015.
- If the tower leg or support pipe has an outer diameter between 2.88 inches and 3.5 inches, either clamp will work.

Sinclair Side Mount Kits

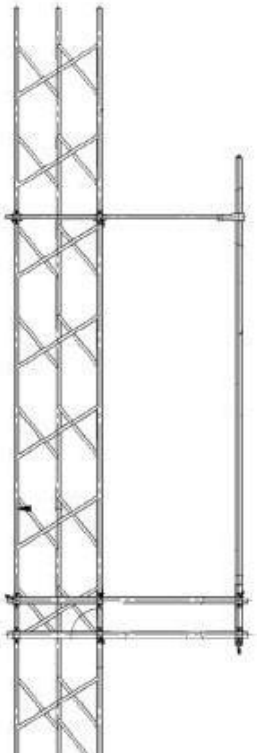
Sinclair Side Mount Kits

Sinclair's side-mounting kits offer sturdy support for antennas that can be side mounted in situations where top mounting is not the best option.

SMK-125-A7
ADJUSTABLE SIDE MOUNTING KIT ASSEMBLY



SMK-325-A3
ADJUSTABLE SIDE MOUNTING KIT ASSEMBLY



Sinclair Side Mount Kits

SMK Model Number	Spacing From Tower (F)	Tower Leg Spacing (T)	Note
SMK-225-A3	3 feet 6 inches (max)	60 inches (max)	3 pipes, for SC229
SMK-225-A7	7 feet 6 inches (max)	60 inches (max)	3 pipes, for SC229
SMK-225-A3-T5	3 feet 6 inches (max)	60 inches (max)	3 pipes, for SC226,328
SMK-225-A7-T5	7 feet 6 inches (max)	60 inches (max)	3 pipes, for SC226,328
SMK-325-A3	3 feet 6 inches (max)	60 inches (max)	3 pipes, for SC420, 48x
SMK-325-A7	7 feet 6 inches (max)	60 inches (max)	3 pipes, for SC420, 48x
SMK-335-A3	3 feet 6 inches (max)	60 inches (max)	3 pipes, for SC43x, 479
SMK-335-A7	7 feet 6 inches (max)	60 inches (max)	3 pipes, for SC43x, 479
SMK-345-A7	7 feet 6 inches (max)	60 inches (max)	3 pipes, SC281, 381, 412
SMK-125-A3	3 feet 6 inches (max)	36 inches (max)	2 pipes, for SD antenna
SMK-125-A7	7 feet 6 inches (max)	36 inches (max)	2 pipes, for SD antenna
SMK-135-A3-T3	3 feet 6 inches (max)	36 inches (max)	3 pipes, for SD318-H
SMK-425-A3-T3	3 feet 6 inches (max)	36 inches (max)	2 pipes, for SD212-H
SMK-425-A7-T3	7 feet 6 inches (max)	36 inches (max)	2 pipes, for SD212-H
SMK-435-A3-T5	3 feet 6 inches (max)	60 inches (max)	3 pipes, for SD214-H
SMK-435-A7-T5	7 feet 6 inches (max)	60 inches (max)	3 pipes, for SD214-H

Antenna Side Mounting Kits

Antenna Side Mounting Kits for Offset Mounting:	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamps Included For Securing Side Mount Kit to Antenna and Tower	Qty Included	Round	60°	90°	wall, pole
For SD222-Series, SD224-Series, SD210-Series, SD212-Series, OR SD214-Series; Recommend **SMK-125-A3**	**Clamp120**	6	Included	Clamp035,pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to 3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
For SD222-Series, SD224-Series, SD210-Series, SD212-Series, OR SD214-Series; Recommend **SMK-125-A7**	**Clamp120**	6	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
For SD310-H Series, SD312-H Series, SD314-H Series, SD310D, OR SD312D Series; Recommend **SMK-125-A3**	**Clamp120**	6	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
For SD314D-H Series OR SD318-H SeriesSeries (three support pipes); Recommend **SMK-135-A3-T3**	**Clamp017**	9	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
For SD210-H Series, SD212-H Series; Recommend **SMK-425-A3-T3**	**Clamp017 (tower); Clamp017HD (antenna)**	4, 2	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
For SD210-H Series, SD212-H Series; Recommend **SMK-425-A7-T3**	**Clamp017 (tower); Clamp017HD (antenna)**	4, 2	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
SD214-H Series; Recommend **SMK-435-A3-T5** (Three support pipes)	**Clamp017HD**	9	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only
SD214-H Series; Recommend **SMK-435-A7-T5** (Three support pipes)	**Clamp017HD**	9	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	Clamp136, pipe 1.5" to 3.5", wall only

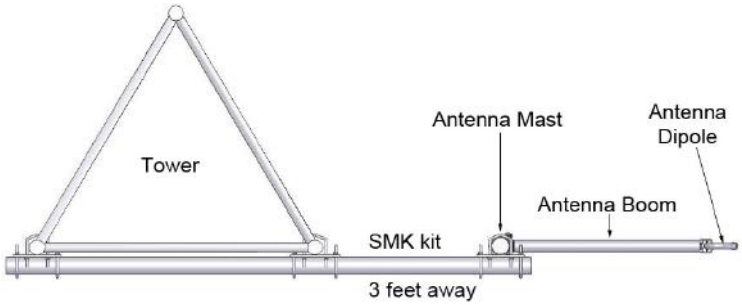
* Clamps listed in bold type are those normally included with selected standard antennas as indicated in this document.

** No of clamps per antenna. Sinclair reserves the right to supply suitable equivalents if necessary without prior notice.

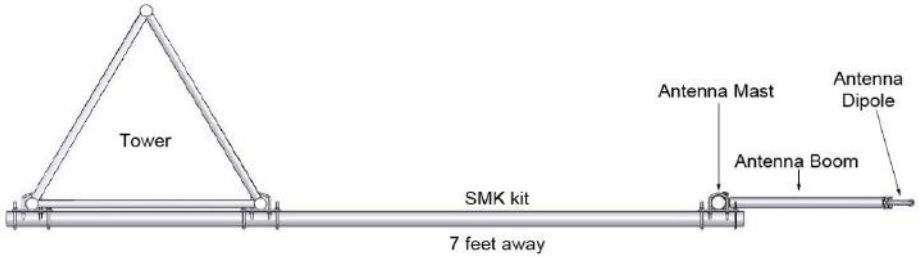
Antenna Side Mounting Kits- Continued

Antenna Side Mounting Kits For Offset Mounting:	Clamps: Antenna to Tower Leg or Support Pipe					
	Clamps Included For Securing Side Mount Kit to Antenna and Tower	Qty Included	Round	60°	90°	wall, pole
For SC229-Series, SC320-Series, OR SC249-Series; Recommend **SMK-225-A3**	**Clamp120 (Tower), Clamp017 (Antenna)**	6, 2	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	N/A
For SC229-SFXSNM(F2210-E6011), SC226, OR SC328; Recommend **SMK-225-A3-T5**	**Clamp017**	8	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	
For SC229-Series, SC320-Series, OR SC249-Series; Recommend **SMK-225-A7**	**Clamp120 (Tower), Clamp017 (Antenna)**	6, 2	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	N/A
For SC229-SFXSNM(F2210-E6011), SC226, OR SC328; Recommend **SMK-225-A7-T5**	**Clamp017**	8	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	
For SC420, SC480, SC481, OR SC488 Series; Recommend **SMK-325-A3**	**Clamp017**	8	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	N/A
For SC420, SC480, SC481, OR SC488 Series; Recommend **SMK-325-A7**	**Clamp017**	8	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	N/A
For SC432, SC432D, SC432T, SC479, OR SC412-Series; Recommend **SMK-335-A3**	**Clamp017**	8	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	N/A
For SC432, SC432D, SC432T, SC479, OR SC412-Series; Recommend **SMK-335-A7**	**Clamp017**	8	Included	Clamp035, pipe 1.5" to 3.5", angle 2" to 4"	Clamp122, pipe 1.5" to3.5", angle 1.5" to 4"	N/A
For SC281-H Series, SC381-H Series, OR SC412-H Series; Recommend **SMK-345-A7**	**Clamp121C (Antenna Only)**	2	Not Supplied. Recommend Clamp017 HD (1.5"-4.0" diameter)	N/A	N/A	N/A

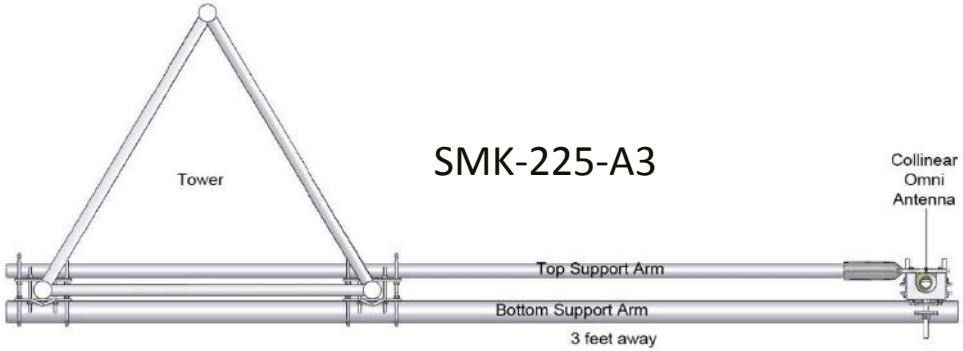
Top View of Side Mount Kits



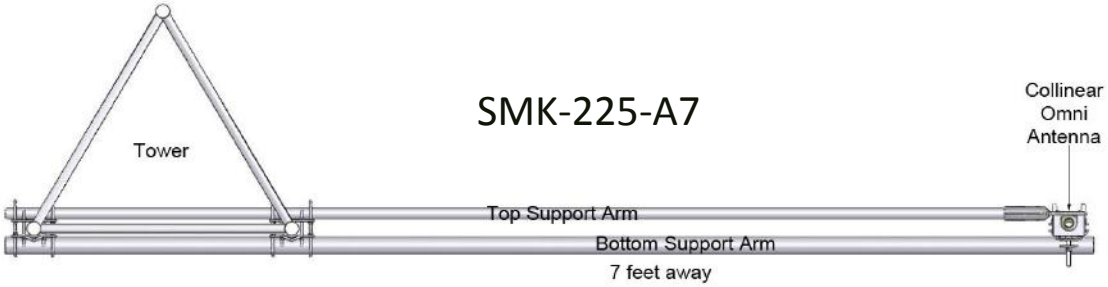
SMK-125-A3



SMK-125-A7

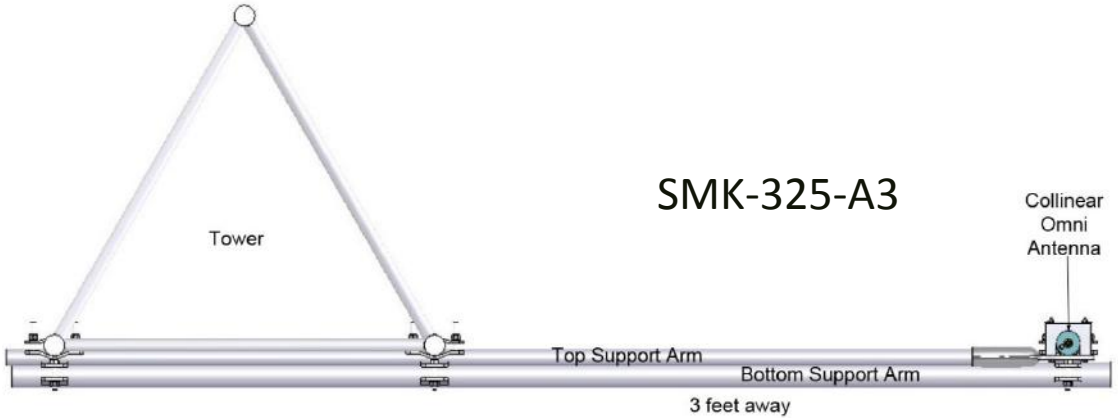


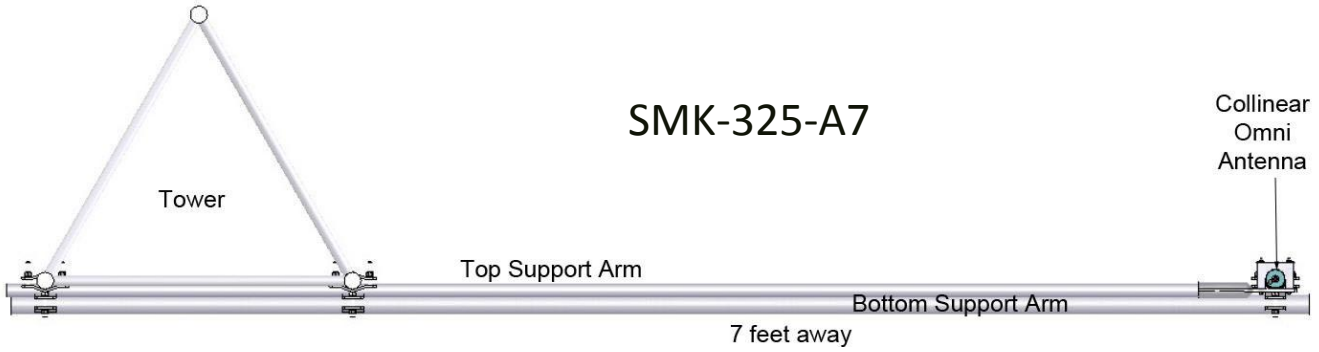
SMK-225-A3



SMK-225-A7

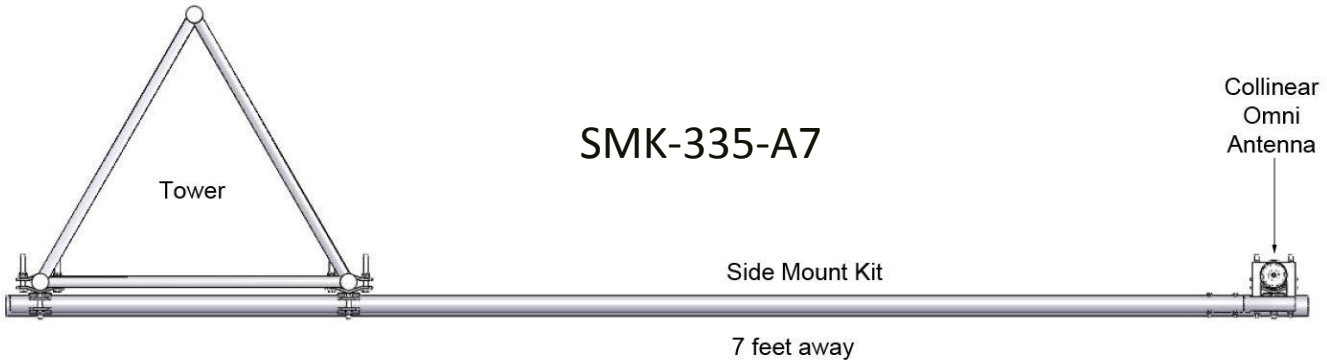
Top View of Side Mount Kits- Continued





Top View of Side Mount Kits- Continued





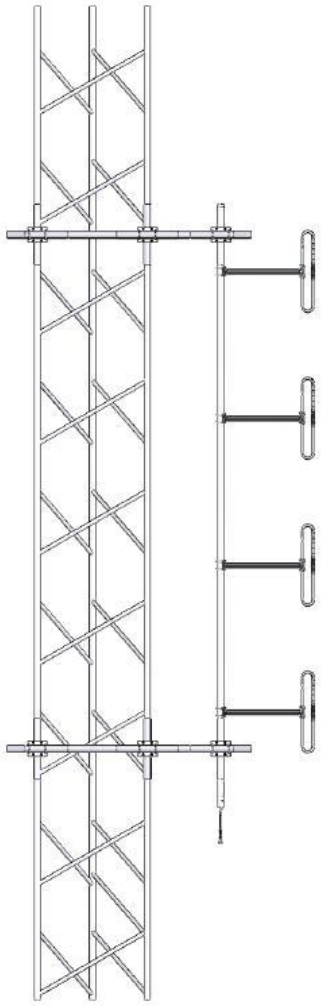
Selecting the right Side Mount Kit

When side mounting the SD222-SF, SD224-SF, SD210-SF, SD212-SF, or SD214-SF series, we recommend that the customer supports the antenna at both the top and bottom of the mast. The Sinclair SMK kits should be recommended to the customer when they order any antenna.

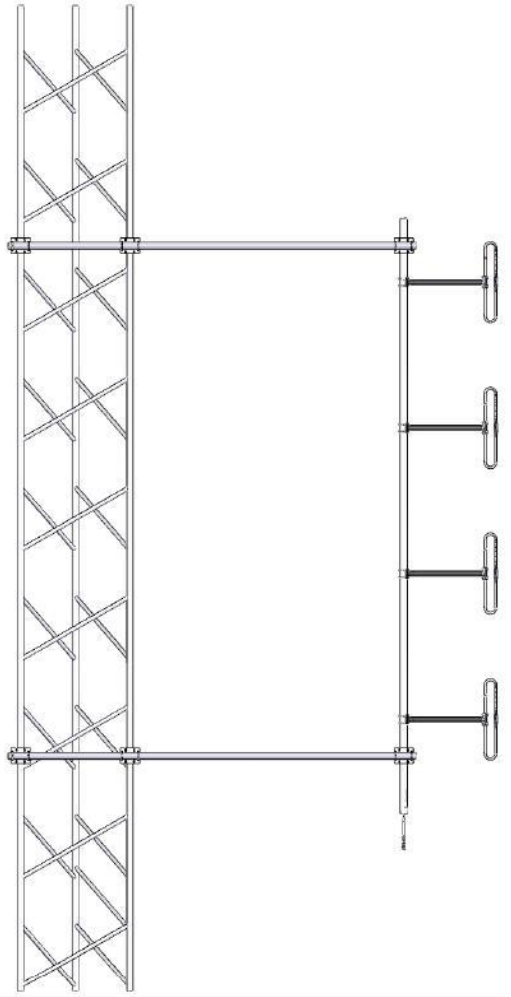
For the above mentioned series, there are two kits that can be recommended:

SMK-125-A3 or SMK-125-A7

SMK-125-A3 vs. SMK-125-A7

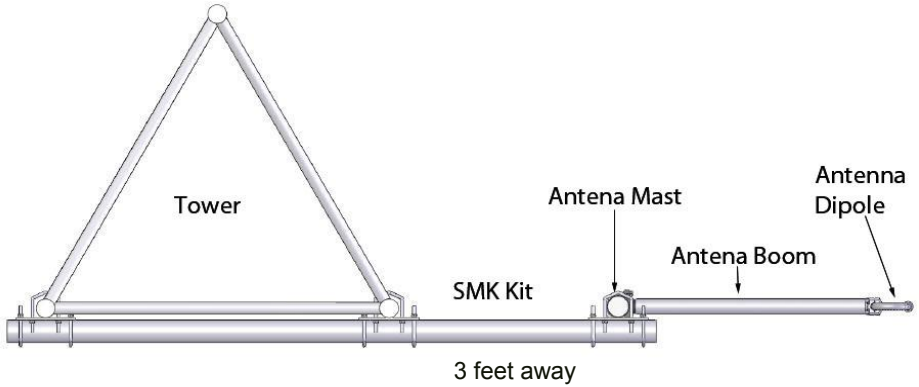


SMK-125-A3

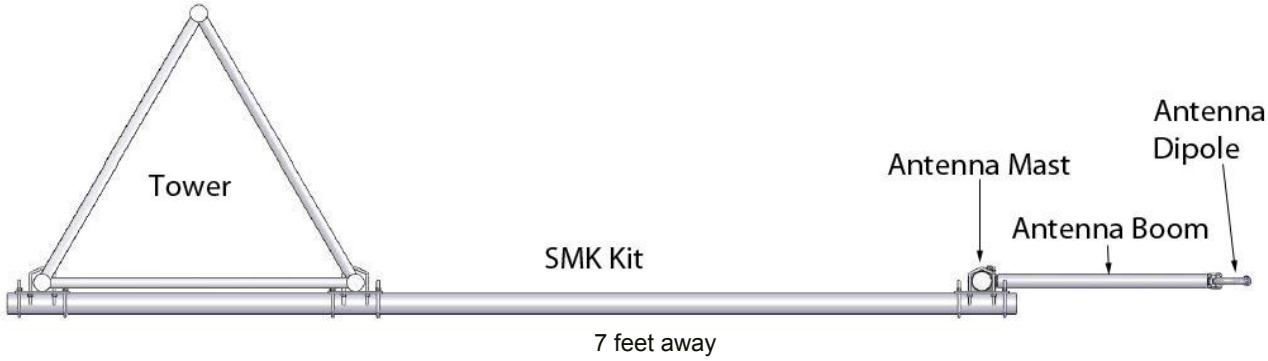


SMK-125-A7

SMK-125-A3 vs. SMK-125-A7



SMK-125-A3



SMK-125-A7

SMK-125-A3 vs. SMK-125-A7

- Difference between the two is how far the antenna will be away from the tower.
- For the A3, it will be 3 feet away.
- For the A7, it will be 7 feet away.
- Both include a top and bottom support arm for the antenna
- Only for Exposed Dipole type of antenna

Top View of Side Mount Kits- Continued

SMK-335-A7





Sinclair remains committed to staying at the forefront of innovation by tailoring solutions that meet specific customer needs.

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