

SC296-HF3L(XX)(YYY-ZZZ) Collinear omni antenna, 6 dBd gain, low PIM, HD, 148-168 MHz

- Wideband 6 dBd gain
- 500W power handling with low PIM rating
- Rugged fiberglass radome provides superior environmental protection
- Electrical downtilt available

Sinclair's SC296 series are broadband, heavy duty, omni-directional antennas that cover the 118-168 MHz frequency range in different band splits. This antenna utilizes Sinclair's new patent-pending technology, which not only delivers outstanding bandwidth, but also resulting in enhanced wind rating due to the shortened total length comparing to traditional designs. The industry-leading -150 dBc PIM rating provides low noise characteristics which makes it ideal for multi-channel systems or congested sites.

Lightning protection: the antenna is fully DC grounded and it comes with a lightning spike projecting through the top of the radome to protect the antenna from lightning strikes. It's designed according to IEC62305 part 1-4 and VDE0855-300, and fulfills the requirements of lightning protection class II.

When ordering, please refer to the chart below for the appropriate model numbers. Downtilt configurations are subject to different pricing. Null fill or inverted versions are also available. Please contact your Sinclair Sales Representative or Customer Service Representative for more information.

Model Number	Connector	PIM	Downtilt	PIP (max)
SC296-HF3LDF(D00-PIP)	7/16 DIN(F)	-150 dBc	0°	25 kW
SC296-HF3LDF(D02-PIP)	7/16 DIN(F)	-150 dBc	2°	25 kW
SC296-HF3LDF(D04-PIP)	7/16 DIN(F)	-150 dBc	4°	25 kW
SC296-HF3LDF(D06-PIP)	7/16 DIN(F)	-150 dBc	6°	25 kW
SC296-HF3LNF(D00)	N(F)	-138 dBc	0°	N/A



Antenna may not appear exactly as shown

Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
Telephone	1 800 263 3275	+1 905 727 0165 ext 232	Canada: 1 905 726 7676 International: +1 905 726 7676	+1 905 727 0165 ext 287
E-mail	salesusa@sinctech.com	salesemea@sinctech.com	salescan@sinctech.com	salesasia@sinctech.com
Product Specification Sheet		SC296-HF3L(XX)(YYY-ZZZ)	Issue: 1	Dated: 22-03-24

Electrical Specifications

Frequency Range	MHz	148 to 168
Bandwidth	MHz	20
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	16
Average Input Power (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		Lightning spike
Grounding		All metal parts DC-grounded

Notes

*1 : $\pm 5\%$

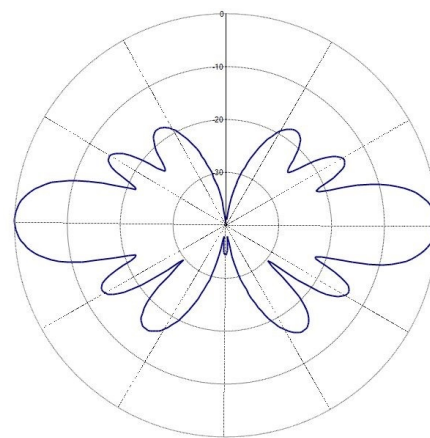
*2 : Qty 2

Mechanical Specifications

Width	in (mm)	5 (127)	
Depth	in (mm)	5 (127)	
Length/ Height	in (mm)	248.5 (6312)	*1
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	*2
Mounting configurations		upright, inverted	
Actual shipping weight	lbs (kg)	150 (68.1)	
Shipping dimensions	in (mm)	264x7x7 (6706x178x178)	

Environmental Specifications

Temperature range	$^{\circ}\text{F}$ ($^{\circ}\text{C}$)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft^2 (m^2)	5.3 (0.49)
Wind Loading Area (1/2" ice)	ft^2 (m^2)	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



Vertical, 0° downtilt shown

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