

SC246 SERIES Aurora™ collinear omni, 6 dBd, 8 MHz B.W., low PIM, 136-225 MHz

- Patent-pending Aurora™ design for stable pattern
- Rugged design and UV protected radome for harsh environment
- High gain, omni-directional, 8 MHz bandwidth with max VSWR of 1.5:1
- -150 dBc PIM rating for low noise characteristics in trunking system

The Aurora™ SC family is Sinclair's next-generation of public safety collinear antennas. The patent-pending design utilizes cutting-edge yet field-proven technology to deliver an unparalleled combination of highly stable RF pattern, higher gain, and wider bandwidth.

Specifically, the SC246 series collinear omni-directional antenna offers 6 dBd gain in 8 MHz band splits covering the 136-225 MHz VHF frequency range. This antenna is designed for a high degree of operational reliability in extreme wind, ice, and corrosive conditions. Its relatively low mass and small wind-loading profile make it easy to install. The antenna is fully DC grounded for protection against lightning and static conditions.

Different connector and PIM ratings are available, subject to various list price, see below chart for details. Please contact your Sinclair Sales Representative or Customer Service Representative for more information.

Model Number	Connector	PIM rating
SC246-SFXLDF(D00-FXXXX)	DIN female	-150 dBc
SC246-SFXSNF(D00-FXXXX)	N female	NA
SC246-SFXSNM(D00-FXXXX)	N male	NA

Note: frequency must be specified at the time of order and the complete part number will be provided accordingly.



www.sinctech.com

Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
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Electrical Specifications

Frequency Range	MHz	136 to 225	*1
Bandwidth	MHz	8	
Connector		Various options avail.	*2
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	17	
Average Input Power (max)	W	500	
Lightning protection		DC ground	
Main Beam Electrical Tilt (Downtilt)	degrees	0	*3

Mechanical Specifications

Width	in (mm)	2.88 (73)	
Depth	in (mm)	2.88 (73)	
Length/ Height	in (mm)	257 (6528)	*4
Base pipe diameter	in (mm)	2.88 (73)	
Radome material		fiberglass (UV protected)	
Weight	lbs (kg)	44 (19.98)	*5
Weight iced (1/2" ice)	lbs (kg)	76 (34.5)	
Mounting Hardware (Optional)		Clamp005, or Clamp005X	*6
Mounting configurations		upright	
Actual shipping weight	lbs (kg)	78 (35.41)	*7
Shipping dimensions	in (mm)	267x4.5x4.5 (6782x114x114)	*8

Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	2.9 (0.27)
Wind Loading Area (1/2" ice)	ft² (m²)	4 (0.37)
Rated wind velocity (no ice)	mph (km/h)	130 (209)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 (169)
Lateral Thrust (100 mph No Ice)	lbs (N)	110 (489.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	984 (1328.4)
Tip deflection (100 mph No Ice)	degrees	7.8

Notes

- *1 : "Fxxxx" option specifies center frequency to the nearest 0.5 MHz.
- *2 : See the previous page for details.
- *3 : 2, 4 or 6 degrees downtilt available upon request.
- *4 : Maximum, varies with frequency.
- *5 : Maximum, varies with frequency.
- *6 : Qty: 2
- *7 : Maximum, varies with frequency.
- *8 : Maximum, varies with frequency.

Ordering Information

Specify center of frequency when ordering.
Length of antenna varies with frequency.
Clamps must be purchased separately.

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