

SC229-SFXLDF

Collinear omni antenna, 6 dBd gain, low PIM, 138-174 MHz

(SC229DFLN)

- Rugged fiberglass radome
- High gain, omni-directional
- Designed to withstand severe environmental conditions
- Broad band (6 MHz Bandwidth with 1.5:1 VSWR, and wider for 2:1 VSWR)

The SC229-L series of antennas have been specifically designed for VHF applications requiring high performance, wideband and exceptional electrical and mechanical specifications. This series of omni-directional antennas are constructed of a rugged fiberglass radome which allows them to withstand severe environmental conditions.

It is enclosed in fiberglass radome with lightning spike projecting through the top of the radome to protect the antenna from a lightning strike. This series of antenna also utilizes a tapered radome, which results in less wind resistance, decreases the overall weight, and results in lower tip deflection at high wind speeds.

The SC229-L is also high-performance low PIM collinear omni's which use industry-leading designs that offer high gain, excellent bandwidth and high reliability.



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Product Specification Sheet EPR 017860		SC229-SFXLDF	Issue: 39	Dated: 19-12-07 Dated: 16-11-05

Electrical Specifications

Bandwidth	MHz	6	
Frequency Range	MHz	138 to 174	*1
Gain	dBd (dBi)	6 (8.1)	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	
Pattern		Omni- directional	
Input VSWR (max)		1.5:1	
Polarization		vertical	
Vertical beamwidth	degrees	17	
Average power input (max)	W	300	
Impedance	Ω	50	
Lightning protection		DC ground	

Mechanical Specifications

Length	in (mm)	238 (6045)	*2
Width	in (mm)	3 (76)	*3
Connector		7/16 DIN (female)	
Weight	lbs (kg)	32 (14.5)	
Weight iced	lbs (kg)	73 (33.1)	
Base pipe diameter	in (mm)	2.9 (73)	
Mounting hardware		#5 clamp	
Shipping dimensions	in (mm)	248x4x4in ()	
Shipping weight	lbs (kg)	75 (34.1)	

Environmental Specifications

Survival wind velocity (no ice)	mph (km/h)	195 (314)	
Survival wind velocity (1/2" radial ice)	mph (km/h)	161 (259)	
Rated wind velocity (no ice)	mph (km/h)	150 (242)	
Rated wind velocity (1/2" radial ice)	mph (km/h)	115 (185)	
Tip deflection	degrees	6	*4
Rated radial ice	in (mm)	0.5 (13)	
Projected area (Flat Plate Equivalent)	ft ² (m ²)	2.88 (0.27)	*5
Projected area (ice)	ft ² (m ²)	5.36 (0.5)	*6
Lateral thrust (100mph)	lbs (N)	110 (489.3)	*7
Bending moment	ft-lbs (Nm)	950 (1282.5)	*8
Temperature range	°F (°C)	-40 to +140 (-40 to +60)	

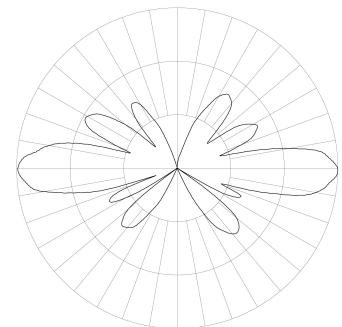
Notes

- *1 : "Fxxxx" option specifies center frequency to nearest 0.5MHz. 220MHz version also available.
- *2 : may vary with frequency
- *3 : incl. ground plane reflectors
- *4 : 100mph, no ice
- *5 : flat plate equivalent
- *6 : flat plate equivalent
- *7 : 100mph, no ice
- *8 : 100mph, no ice

Ordering Information

Specify center frequency band of operation.
Gain and vertical beamwidth will change with downtilt option.

SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Elevation
Relative Gain - 10 dB per Division