

Antennas Low Band, Aviation, and VHF Antennas SC251-HL-PIM/PIP Certified Series

A Norsat Company in Norsat

SC251D-HF4LDF(D00-G3)

Collinear dual antenna, 2.4 dBd gain, low PIM, PIP rated, HD, 156-174 MHz

- · Wideband 2.4 dBd gain, dual port with 35dB minimum isolation
- 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

A side mounting kit is Mandatory when offset mounting the antenna. The SMK-345-A7 for Offset Side Mount is available separately.

The SC251-HL is a 2.4dBd collinear omni featuring low passive intermed performance with single or dual port configuration option available. Fabricated using durable components, this series of antennas is designed for ease of installation. The foam wrapped brass construction provides a light and durable structure housed in a UV protected fiberglass radome ensuring superior resistance to harsh environmental conditions. This family is fabricated to meet the most stringent wind and ice loading requirements.

Due to its wide band and high average power and PIP power handling capability, this antenna is ideally suited for VHF trunking applications or multi-channel operations.

The reliability and durability of this antenna makes it suitable for mission critical applications such as public safety and law enforcement.

SC251D-HL integrated two identical SC251-HL antennas into one radome to simplify the installation and save tower space.

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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EPR 018872 Customer Tech Manual 005853

Dated: 14-12-16 Dated: 09-08-16



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Electrical Specifications			
Frequency Range	MHz	156 to 174	
Bandwidth	MHz	18	
Connector		7/16 DIN-Female	
Gain (nominal)	dBd (dBi)	2.4 (4.5)	*1
Input VSWR (max)	, ,	1.5:1	
Polarization		vertical	
Impedance	Ω	50	
Pattern		Omni- directional	
Vertical beamwidth (typ)	degrees	34	
Average Power Input (max)	W	500	
Isolation port to port (min)	dB	35	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	
Lightning protection		DC ground	
PIP(KW, max)		25	
Electrical tilt (available)		0. 2. 4. or 6 degrees	

Notes

*1: Gain=2.15-2.65dBd

Ordering Information

Order mounting clamp 006C and side mounting kit SMK-345 -A7 separately.

Width	in (mm)	5 (127)	
Depth	in (mm)	5 (127)	
Length/ Height	in (mm)	276 (7010)	
Base pipe diameter	in (mm)	5 (127)	
Base pipe mounting length	in (mm) 26 (660)		
Radome material		fiberglass (UV protected)	
Weight	lbs (kg)	91 (41.31)	
Weight iced (1/2" ice)	lbs (kg)	164 (74.46)	
Mounting Hardware (Optional)		Clamp006C	
Actual shipping weight	lbs (kg)	140 (63.56)	
Shipping dimensions	in (mm)	290x6x6 (7366x152x152)	
Number of ports		2	
Mounting configurations		Universal mount	
Recommended For Offset Side Mount:		SMK-345-A7	
Radome Colour		Light Blue	

0 -10 -20 -30	
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MEASURED RADIATION PATTERN	
Vertical Relative Gain - 10 dB per Division	

	Light Blue		
°F (°C)	-40 to +140 (-40 to +60)		
ft² (m²)	5.9 (0.55)		
ft² (m²)	7.2 (0.67)		
mph (km/h)	160 (258)		
mph (km/h)	140 (225)		
lbs (N)	231 (1027.5)		
ft-lbs (Nm)	2108 (2845.8)		
degrees	2.4		
	ft² (m²) ft² (m²) mph (km/h) mph (km/h) lbs (N) ft-lbs (Nm)		

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