

## SC251D-HF2LDF(D00-G3) Collinear dual antenna, 2.3 dBd gain, low PIM, PIP rated, HD, 138-158 MHz

- Wideband 2.3 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 2.3dBd collinear omni featuring low passive intermod 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
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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Product Specification Sheet EPR 018872		SC251D-HF2LDF(D00-G3)	Issue: 2	Dated: 14-12-16 Dated: 09-08-16
Customer Tech Manual 005853		Sinclair's commitment to product leadership may result in improvement or change to this product		

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

Electrical Specifications			
Frequency Range	MHz	138 to 158	
Bandwidth	MHz 20		
Connector		7/16 DIN-Female	
Gain (nominal)	dBd (dBi) 2.3 (4.4)		*1
Input VSWR (max)		1.5:1	
Polarization		vertical	
Impedance	Ω	50	
Pattern		Omni- directional	
Vertical beamwidth (typ)	degrees	37	
Average Power Input (max)	Ŵ	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

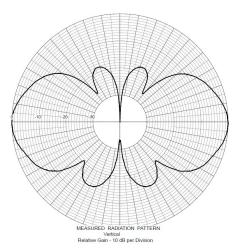
\*1 : Gain=2.2-2.4dBd over the band \*2 : for zero degree down tilt only

#### **Ordering Information**

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

## **Mechanical Specifications**

in (mm)	5 (127)	
in (mm)	5 (127)	
in (mm)	300 (7620)	
in (mm)	5 (127)	
in (mm)	26 (660)	
	fiberglass (UV protected)	
lbs (kg)	97 (44.04)	
lbs (kg)	175 (79.45)	
	Clamp006C	
lbs (kg)	148 (67.19)	
in (mm)	310x6x6 (7874x152x152)	
	2	
	Universal mount	*2
	SMK-345-A7	
	Light Blue	
	in (mm) in (mm) in (mm) in (mm) lbs (kg) lbs (kg) lbs (kg)	in (mm) 5 (127) in (mm) 300 (7620) in (mm) 5 (127) in (mm) 26 (660) fiberglass (UV protected) lbs (kg) 97 (44.04) lbs (kg) 175 (79.45) Clamp006C lbs (kg) 148 (67.19) in (mm) 310x6x6 (7874x152x152) 2 Universal mount SMK-345-A7



#### **Environmental Specifications**

	Radome Colour	Light Blue		
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ŭ	Environmental Specifications			
-	Temperature range	°F (°C)	-40 to +140 (-40 to +60)	
$\overline{\mathbf{c}}$	Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	6.4 (0.59)	
Ð	Wind Loading Area (1/2" ice)	ft² (m²)	7.8 (0.72)	
5	Rated wind velocity (no ice)	mph (km/h)	145 (233)	
ĕ	Rated wind velocity (1/2" radial ice)	mph (km/h)	125 (201)	
S.	Lateral thrust (100 mph No Ice)	lbs (N)	251 (1116.4)	
	Bending moment (100 mph No Ice)	ft-lbs (Nm)	2540 (3429)	
3	Tip deflection (100 mph No Ice)	degrees	3.1	
2				
5				

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