

SC281-HL - PIM Certified Collinear omni antenna, 5 dBd gain, low PIM, HD, 138-174 MHz

- Wide band, covers 20 MHz in each band split- true omni pattern
- 500W power handling with extremely low PIM: -150 dBc (2x20W carriers)
- Recommend using the SMK-345-A7 side mounting kit.

The SC281-HL is a collinear omni featuring Low Passive Intermod performance with 5 dBd gain. 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 power handling capability, this antenna is ideally suited for VHF trunking applications or multi-channel operation. With its superior PIM rating, the probability of interference caused by intermodulation is low.

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

Model	Description	Pattern
SC281-HF2LDF	5 dBd gain, 7/16 DIN (female) connector, 138-158 MHz	Omni-directional
SC281-HF3LDF	5 dBd gain, 7/16 DIN (female) connector, 148-168 MHz	Omni-directional
SC281-HF4LDF	5 dBd gain, 7/16 DIN (female) connector, 156-174 MHz	Omni-directional



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) 1223 42 03 03	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
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Product Specification Sheet		SC281-HL - PIM Certified		Dated: 05-02-10

[SC281-HF2LDF](#)

[SC281-HF3LDF](#)

[SC281-HF4LDF](#)

Electrical Specifications

Frequency Range, MHz	138 to 158	148 to 168	156 to 174
Gain (nominal), dBd (dBi)	5 (7.1)	5 (7.1)	5 (7.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1
Polarization	vertical	vertical	vertical
Impedance, Ω	50	50	50
Pattern	Omni-directional	Omni-directional	Omni-directional
Vertical beamwidth, degrees	18	18	18
Average Power Input (max), W	500	500	500
Passive intermod. (2x20W, 3rd ord.), dBc	-150	-150	-150
Lightning protection	DC ground	DC ground	DC ground
Bandwidth, MHz	20	20	20
Electrical tilt (available)	0,2,4	0,2,4	0,2,4
Null fill, %	20	20	20

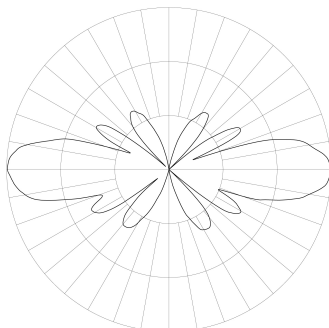
Mechanical Specifications

Connector	7/16 DIN (female)	7/16 DIN (female)	7/16 DIN (female)
Width, in (mm)	5 (127)	5 (127)	5 (127)
Base pipe diameter, in (mm)	5 (127)	5 (127)	5 (127)
Base pipe mounting length, in (mm)	30 (762)	30 (762)	30 (762)
Weight, lbs (kg)	79 (35.9)	79 (35.9)	79 (35.9)
Weight iced, lbs (kg)	142 (64.5)	142 (64.5)	142 (64.5)
Actual Shipping weight, lbs (kg)	150 (68.1)	150 (68.1)	150 (68.1)
Shipping dimensions, in (mm)	264x6x6 (6706x152x152)	264x6x6 (6706x152x152)	264x6x6 (6706x152x152)
Length, in (mm)	251 (6375)	251 (6375)	235.5 (5982)
Mounting hardware	clamps not supplied	clamps not supplied	clamps not supplied

Environmental Specifications

Temperature range, °F (°C)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent), ft ² (m ²)	5.3 (0.49)	5.3 (0.49)	5.3 (0.49)

SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Elevation
Relative Gain - 10 dB per Division

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