

SC281-HF1LNF(D00-G04)

- Collinear omni, 4 dBd, HD, 118-137 MHz
- Wideband 4 dBd gain
- 500W power handling with low PIM rating
- · Rugged fiberglass radome provides superior environmental protection

The SC281 is a collinear omni featuring Low Passive Intermod performance. Fabricated with durable components, this antenna series 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.

With the superior PIM rating, the probability of interference caused by intermodulation is low. The wideband and high power handling capability make this antenna ideally suited for VHF trunking applications or multi-channel operation.

Sinclair's commitment to product leadership may result in improvement or change to this product Copyright © Sinclair Technologies



| Electrical Specifications | | | | Notes |
|-------------------------------------|-----------|------------------|----|------------------|
| Frequency Range | MHz | 118 to 137 | | *1 : Flange Type |
| Bandwidth | MHz | 19 | | *2 : ±1 dB |
| Connector | | N-Female | *1 | *3 : ±3 degrees |
| Gain (nominal) | dBd (dBi) | 4 (6.1) | *2 | *4 : Qty 2 |
| Input VSWR (max) | . , | 1.5:1 | | |
| Polarization | | vertical | | |
| Impedance | Ω | 50 | | |
| Pattern | | Omni-directional | | |
| Vertical beamwidth (typ) | degrees | 18 | *3 | |
| Average Input Power (max) | W | 500 | | |
| Passive intermod. (2x20W, 3rd ord.) | dBc | -138 | | |
| Lightning protection | | DC ground | | |

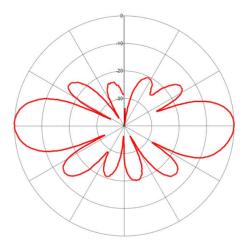
Mechanical Specifications

| Width | in (mm) | 5 (127) | |
|--|----------|---------------------------|----|
| Length | in (mm) | 243.1 (6175) | |
| Base pipe diameter | in (mm) | 5 (127) | |
| Radiating element material | brass | | |
| Radome material | | fiberglass (UV protected) | |
| Weight | lbs (kg) | 79 (35.87) | |
| Weight iced (1/2" ice) | lbs (kg) | 142 (64.47) | |
| Mounting Hardware (Optional) | | Clamp006C | *4 |
| Mounting configurations | | upright, inverted | |
| Kit for Offset Side Mount (straight tower leg) | | SMK-345-A7 | |
| Actual shipping weight | lbs (kg) | 150 (68.1) | |
| Shipping dimensions | in (mm) | 264x7x7 (6706x178x178) | |
| | | | |

Environmental Specifications

| Temperature range | °F (°C) | -40 to +140 (-40 to +60) |
|---|-------------|--------------------------|
| Wind Loading Area (Flat Plate Equivalent) | ft² (m²) | 5.3 (0.49) |
| Wind Loading Area (1/2" ice) | ft² (m²) | 6.4 (0.59) |
| Survival wind velocity (no ice) | mph (km/h) | 238 (383) |
| Survival wind velocity (1/2" radial ice) | mph (km/h) | 210 (338) |
| Rated wind velocity (no ice) | mph (km/h) | 170 (274) |
| Rated wind velocity (1/2" radial ice) | mph (km/h) | 150 (242) |
| Lateral Thrust (100 mph No Ice) | lbs (N) | 208 (925.2) |
| Bending moment (100 mph No Ice) | ft-lbs (Nm) | 1610 (2173.5) |
| Tip deflection (100 mph No Ice) | degrees | 2.2 |
| | | |





| Region | United States | Europe, Middle East, and Africa | Canada, Caribbean, and Latin America | Asia-Pacific |
|------------------------------------|-----------------------|---|--------------------------------------|------------------------------------|
| 1 800 263 3275 | | +1 905 727 0165 ext 232 Canada: 1 905 726 7676 +1 9 International: +1 905 726 7676 | | +1 905 727 0165 ext 287 |
| E-mail | salesusa@sinctech.com | salesemea@sinctech.com | salescan@sinctech.com | salesasia@sinctech.com |
| Product Specificatio EPR 017937 | | SC281-HF1LNF(D00-G04) | Issue: 1 | Dated: 15-03-23 Dated: 22-04-21 |
| Customer Tech Manual 006135 | | Sinclair's commitment to product leadership may result in improvement or change to this product | | |

Sinclair's commitment to product leadership may result in improvement or change to this product Copyright © Sinclair Technologies