

**SC476-HF1LDF(D00-E5749)** Collinear omni, 6 dBd, low PIM, PIP rated, HD, 746-869 MHz

- Covers the 746-869 MHz frequency range
- 500W average power and 25KW peak instantaneous power (PIP) for multi-channel systems
- Heavy-duty construction
- Can be mounted inverted or upright

Sinclair's SC476-HL Series of antennas are broad band covering the entire 746-869 MHz frequency range and offers 6 dBd of gain, enclosed in a rugged, UV protected fiberglass radome. Designed for multi-channel systems, it features with low intermodulation products, highly rated average power and peak instantaneous power.

**Peak Instantaneous Power (PIP):**

PIP produced by in-phase peak powers in a multicarrier system is much higher than a single carrier system. Multipaction and other effects in such a system will cause loss and distortion of the RF signal (increase of noise figure or bit-error-rate) and can damage RF components or subsystems. Sinclair antenna PIP rating is quantified by an indoor antenna and 12 channel combining system at Motorola Campus, Schaumburg. This system provided typical 110 Watts input average power per channel and a combined 575 Watts minimum average power at the antenna input port. At this level, a 25KW PIP is achieved from the calculation.

It is recommended that enough margin should be applied in the system design in order to compensate the effect of the elevation, humidity, temperature and other environment factors to the PIP handling of an antenna.

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Product Specification Sheet		SC476-HF1LDF(D00-E5749)	Issue: 1	Dated: 11-03-13

### Electrical Specifications

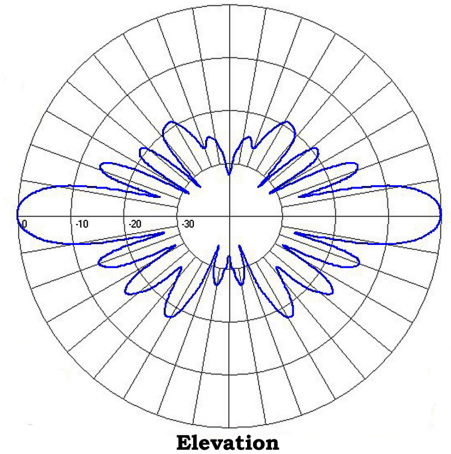
Frequency Range	MHz	746 to 869
Connector		7/16 DIN-Female
Gain (nominal)	dBd (dBi)	6 (8.1)
VSWR (max)		1.5:1
Polarization		vertical
Pattern		Omni- directional
Vertical beamwidth (typ)	degrees	12
Main Beam Electrical Tilt (Downtilt)	degrees	0,2,3, or 6 degrees
Average Power Input (max)	W	500
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Lightning protection		DC ground
PIP(KW, max)		25 *1

### Notes

\*1 : Quantified by Motorola 12 channel combining system

### Mechanical Specifications

Depth	in (mm)	3.5 (89)
Length/ Height	in (mm)	84 (2134)
Width	in (mm)	3.5 (89)
Base pipe diameter	in (mm)	3.5 (89)
Base pipe mounting length	in (mm)	18 (457)
Radiating element material		copper
Radome material		fiberglass (UV protected)
Weight	lbs (kg)	21 (9.53)
Weight iced	lbs (kg)	36 (16.34)
Mounting information		Upright
Mounting Hardware (Optional)		Clamp147, Clamp130, OR Clamp005
Shipping dimensions	in (mm)	108x6x6 (2743x152x152)
Mounting configurations		upright
Recommended For Offset Side Mount:		Not Required



### Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	1.19 (0.11)
Wind Loading Area (1/2" ice)	ft² (m²)	1.57 (0.15)
Rated wind velocity (no ice)	mph (km/h)	290 (467)
Rated wind velocity (1/2" radial ice)	mph (km/h)	255 (411)
Lateral thrust (100 mph No Ice)	lbs (N)	46 (204.6)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	104 (140.4)
Tip deflection (100 mph No Ice)	degrees	0.13

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