



SUNCOM 4.5METER ANTENNA

Features

- Meets or exceeds ITU-RS 580-5 and INTELSAT requirements
- High G/T, excellent pattern characteristics
- Self-aligning aluminum reflector, no field alignment
- Factory feed system testing
- All of steel parts to be processed by hot dipped zinc
- 2-port or 4-port Linear/Circular Feed
- Field changeable feed system, switchable circular to linear C-band
- Foundation hardware kit included
- Air or ocean transport packing

Options

- Specialized feed systems (e.g extended ,multi-band, Ka Band,DBS band)
- Antenna control system with tracking (Steptrack, Program Tracking and Inclined Orbit Tracking)
- Reflector and feed deicing systems
- ODU Support Kits
- Lightning Rod Kit
- Grounding Kit
- Cable-Mounting Kit
- Turnkey installation and testing
- Non-penetrating mount
- High wind configuration
- Extended Az travel



Notice: For any specialized request please contact Suncom sales office

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ELECTRICAL SPECIFICATION

Type	450FC		450FK	
	C-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
Operating Frequency, GHz	3.4~4.2	5.85~6.725	10.95~12.75	13.75~14.5
Gain, Mid-band, dBi	44	47.3	53.7	55.1
Polarization	Linear/ Circular		Linear	
XPD (on Axis), dB	35	35	35	35
XPD across 1dB Beam Width, dB	33	33	33	33
Axial Ratio (Circular-Polarized) 2 port/4 port	1.30/1.06	1.09/1.06		
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temperature				
10° Elevation	34°K		52°K	
30° Elevation	24°K		41°K	
50° Elevation	21°K		37°K	
-3dB Beam Width, Mid-band	1.12°	0.72°	0.37°	0.33°
Typical G/T (EI > 10°)	25.9dB/K (30° LNA)		32.3dB/K (70° LNA)	
Tx. Power Capability, KW		5		2
Feed Interface	CPR-229G	CPR-137G	WR-75	WR-75
Feed Insertion Loss	0.2	0.2	0.25	0.2
Isolation, Tx to Rx, dB	90		85	
First Sidelobe	-14		-14	
90% Peaks under Following Envelop	29-25log θ (1° ≤ θ < 20°)		29-25log θ (1° ≤ θ < 20°)	

MECHANICAL SPECIFICATION

Antenna Diameter	4.5 m
Antenna Type	Ring Focus
Mount Type	El. over Az.
Surface Accuracy (RMS)	≤ 0.5mm
Antenna Pointing Range	
Azimuth	±90°, ±65° (Continuous)
Elevation	0°~90° (Continuous)
Polarization	180° (Continuous)
Drive Mode	Manual or Motorized
Motor Drive System	
Azimuth Travel Rate	0.11° /S (0.06° /S)
Elevation Travel Rate	0.17° /S (0.04° /S)
Polarization	1° /S

ENVIRONMENTAL SPECIFICATION

Operational Wind	72km/h Gusting to 97km/h
Survival Wind	216km/h
Temperature	-40°C ~ + 60°C
Relative Humidity	100%
Solar Radiation	1135Kcal/ h/ m ²
Seismic (Survival)	0.3g (H), 0.15g (V)
Ice Loading	13mm Operational; 25mm Survival