



4.5m KA Band Antenna

Feature

- * 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 and Cable-Mounting Kit
- * Turnkey installation and testing
- * Non-penetrating mount
- * High wind configuration



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ELECTRICAL SPECIFICATION		
Type	FS450-KA	
Operating Frequency, GHz	Receive	Transmit
	Standard Band 18.3~21.2	Standard Band 29~30
	Custom band 17.70~21.20	Custom band 27.5~31
Gain, Mid-band, dBi	56.7	60
Polarization	Linear/Circular	
XPD (on Axis), dB	35	35
Axial Ratio (Circular-Polarized)		1.2
VSWR	1.3:1 max	1.3:1 max
Antenna Noise Temperature		
10° Elevation	142°K	
20° Elevation	124°K	
40° Elevation	112°K	
-3dB Beam Width, Mid-band	0.22°	0.18°
Tx. Power Capability		100W
Feed Interface	WR42	WR28
Feed Insertion Loss	0.6	0.4
Isolation, Tx to Rx, dB	90	
First Sidelobe	-14	
90% Peaks under Following Envelop	29-25log θ (1° $\leq\theta < 20^\circ$)	
MECHANICAL SPECIFICATION		
Antenna Diameter	4.5m	
Antenna Type	Cassegrain	
Mount Type	El. over Az.	
Surface Accuracy (RMS)	$\leq 0.2\text{mm}$	
Antenna Pointing Range		
Azimuth	0° ~ 180°, $\pm 60^\circ$ (Continuous)	
Elevation	0° ~ 90°(Continuous)	
Polarization	180°(Continuous)	
Drive Mode	Manual or Motorized	
Materials of reflector	Aluminum alloy	
Finish of steel parts	Hot dipped zinc	
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	