



**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	
<b>Operating Frequency, GHz</b>	Receive	Transmit
	Standard Band 18.3~21.2 Custom band 17.70~21.20	Standard Band 29~30 Custom band 27.5~31
<b>Gain, Mid-band, dBi</b>	56.7	60
<b>Polarization</b>	Linear/Circular	
<b>XPD (on Axis), dB</b>	35	35
<b>Axial Ratio (Circular-Polarized)</b>		1.2
<b>VSWR</b>	1.3:1 max	1.3:1 max
<b>Antenna Noise Temperature</b>		
10° Elevation	142°K	
20° Elevation	124°K	
40° Elevation	112°K	
<b>-3dB Beam Width, Mid-band</b>	0.22°	0.18°
<b>Tx. Power Capability</b>		100W
<b>Feed Interface</b>	WR42	WR28
<b>Feed Insertion Loss</b>	0.6	0.4
<b>Isolation, Tx to Rx, dB</b>	90	
<b>First Sidelobe</b>	-14	
<b>90% Peaks under Following Envelop</b>	29-25logθ(1°≤θ<20°)	

**MECHANICAL SPECIFICATION**

<b>Antenna Diameter</b>	4.5m
<b>Antenna Type</b>	Cassegrain
<b>Mount Type</b>	El. over Az.
<b>Surface Accuracy (RMS)</b>	≤ 0.2mm
<b>Antenna Pointing Range</b>	
Azimuth	0° ~ 180°, ±60 °(Continuous)
Elevation	0° ~ 90°(Continuous)
Polarization	180°(Continuous)
<b>Drive Mode</b>	Manual or Motorized
<b>Materials of reflector</b>	Aluminum alloy
<b>Finish of steel parts</b>	Hot dipped zinc

**ENVIRONMENTAL SPECIFICATION**

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



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