



1.8m 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	FS180-KA	
	Receive	Transmit
Operating Frequency, GHz	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	49.1	52.4
Polarization	Linear/Circular	
XPD (on Axis), dB	35	35
Axial Ratio (Circular-Polarized)		1.2
VSWR	1.3	1.3
Antenna Noise Temperature		
5° Elevation	160°K	
10° Elevation	130°K	
20° Elevation	105°K	
40° Elevation	92°K	
-3dB Beam Width, Mid-band	0.5°	0.32°
-10dB Beam Width, Mid-band	1.09°	0.65°
Tx. Power Capability		500W
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 $\theta$ (1° $\leq\theta < 20^\circ$ )	
MECHANICAL SPECIFICATION		
Antenna Diameter	1.8m	
Antenna Type	Ring focus	
Mount Type	El. over Az.	
Surface Accuracy (RMS)	$\leq 0.2\text{mm}$	
Antenna Pointing Range		
Azimuth	0° ~ 360°, $\pm 10^\circ$ (Continuous)	
Elevation	0° ~ 90°(Continuous)	
Polarization	360°(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 <sup>2</sup>	
Seismic (Survival)	0.3g (H), 0.15g (V)	
Ice Loading	13mm Operational; 25mm Survival	