



GeosSat Microwave

- High G/T, Excellent Sidelobe Performance
- Hot-dipped Galvanized All Steel Parts
- Ring-focus Antenna, KA Band
- Aluminum Reflector



1.8 Meter KA Band Earth Station Antenna

Model: GA18MKATXRX

ELECTRICAL SPECIFICATION

Item	Specification	
	Receive	Transmit
	Ka-Band	
Operation Frequency, GHz	17.7-21.2	27.5-31
Gain, Mid-band, dBi	49.1	52.4
Polarization	Linear/Circular	
XPD (on Axis), dB	35	35
XPD (across 1dB Beam width),dB	33	33
Axial Ratio(Circular-Polarized), 2-port Feed	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, W	500	
Feed Interface	WR-42	WR-28
Feed Insertion Loss	0.6	0.4.
Isolation, TX to Rx,dB	90	
First Side lobe	-14	-14
90% Peaks under Following Envelop	29-25logθ(1°≤θ<20°)	29-25logθ(1°≤θ<20°)

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MECHANICAL SPECIFICATION

Item	Specification
Antenna Diameter	1.8m
Antenna Type	Ring-focus
Mount Type	El. over AZ.
Surface Accuracy (RMS)	≤ 0.35mm
Antenna Pointing Range and speed	
Azimuth	0°~360°, ±10°(Continuous)
Elevation	0°~90° (Continuous)
Polarization	360° (Continuous)
Drive Mode	Manual or Motorized

ENVIRONMENTAL SPECIFICATION

Item	Specification
Operational Wind	72 km/h Gusting to 97 km/h
Survival Wind	216 km/h
Temperature	-40°C~+60°C
Relative Humidity	100%
Seismic (Survival)	0.3g(H), 0.15g(V)
Solar Radiation	1135Kcal/ h/ m2
Ice Loading	13mm Operational; 25mm Survival

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