



- Conform to CCIR 580 and INTELSAT Requirements
- High G/T, Excellent Sidelobe Performance
- Hot-dipped Galvanized Mount
- Switch for C Band Linear and Circular Polarization Feed
- Ring-focus Antenna, C/Ku Band



4.5 Meter KU Band Earth Station Antenna

Model: GA45MKUTXRX

ELECTRICAL SPECIFICATION

Item	Specification	
	Receive	Transmit
	KU-Band	
Operation Frequency, GHz	10.7~12.75	13.75~14.5
Gain, Mid-band, dBi	53.2	54.3
Polarization	Linear	
XPD (on Axis), dB	35	35
XPD (across 1dB Beam width),dB	33	33
Axial Ratio(Circular-Polarized), 2-port Feed		
VSWR	1.25	1.25
Antenna Noise Temperature		
10°Elevation	52°K	
20°Elevation	41°K	
40°Elevation	37°K	
-3dB Beam width, Mid-band	0.37°	0.33°
Typical G/T(EL>10°)	32.3dB/°K (70°LNA)	
TX. Power Capability, KW	2	
Feed Interface	WR-75	WR-75
Feed Insertion Loss	0.2	0.2
Isolation, TX to Rx,dB	85	
First Side lobe	-14	-14
90% Peaks under Following Envelop	29-25logθ(1°≤θ<20°)	29-25logθ(1°≤θ<20°)

Continued on the next page ▼

MECHANICAL SPECIFICATION

Item	Specification
Antenna Diameter	4.5 m
Antenna Type	Ring Focus
Mount Type	El. over AZ.
Surface Accuracy (RMS)	$\leq 0.5\text{mm}$
Antenna Pointing Range and speed	
Azimuth	Standard type: $+75^\circ, +60^\circ$ (Continuous), $0.05^\circ/\text{s}$ Custom type: $0^\circ \sim 360^\circ$ (Continuous), $0.05^\circ/\text{s}$
Elevation	$3^\circ \sim 90^\circ$ (Continuous), $0.05^\circ/\text{s}$
Polarization	360° (Continuous), $0.1^\circ/\text{s}$
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	$-40^\circ\text{C} \sim +60^\circ\text{C}$
Relative Humidity	100%
Seismic (Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 25mm Survival

www.geosatmicrowave.com

sales@geosatmicrowave.com

Mechanical Diagram (Unit: inch (mm))

