



- 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



5.3 Meter C Band Earth Station Antenna

Model: GA53MCTXRX

ELECTRICAL SPECIFICATION

Item	Specification	
	C-Band	
	Receive	Transmit
Operation Frequency, GHz	3.4~4.2	5.85~6.725
Gain, Mid-band, dBi	45.1	56
Polarization		Linear Linear/Circular
XPD (on Axis), dB	35	35
XPD (across 1dB Beam width),dB	33	33
Axial Ratio(Circular-Polarized), 2-port Feed	1.30	1.09
VSWR	1.25	1.25
Antenna Noise Temperature		
10°Elevation	32°K	
20°Elevation	24°K	
40°Elevation	21°K	
-3dB Beam width, Mid-band	0.98°	0.27°
Typical G/T(EL>10°)	27.6dB/K (30°LNA)	
TX. Power Capability, KW		5
Feed Interface	CPR-229G	CPR-137G
Feed Insertion Loss	0.2	0.2
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	5.3 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

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Mechanical Diagram (Unit: inch (mm))

