

### **GS16M EARTH STATION ANTENNA**

#### **Key Features**

- \* Meets CCIR 580 and INTELSAT Requirements
- \* CP/LP switchable feed
- \* High RF performance
- \* Galvanized steel hardware
- \* Step-track control system
- \* Different frequency ranges from many feed configurations
- \* Antenna reflector be pre-assembly in works, special designed taper-pin easy installation and ensure on site assembly accuracy.

#### **Antenna Accessories**

- \* Motorization Kits
- \* Limit Switches
- \* ODU Support Kits
- \* Factory Feed System Testing and Documentation
- \* Ocean Transport Packing
- \* Foundation Kit
- \* Lightening Rod Kit
- \* Grounding Kit Cable-Mounting Kit
- \* Anti-icing and Deicing

#### **Options**

- \* L,S,X bands and multi-bands
- \* 800MHz band with is available
- \* Full motion antenna
- \* Feed blower or deicing with automatic controls
- \* Two or four Tx/Rx port in linear or circular polarized feeds

#### **ELECTRICAL SPECIFICATION**

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	C-Band		Ku-Band	
Operating Frequency, GHz	Receive	Transmit	Receive	Transmit
	3.625~4.2	5.85~6.425	12.25~12 <b>.7</b> 5	14.0~14.5
Gain, Mid-band, dBi	54.66	58.24	64.42	65.35
Polarization	Linear/ Circular		Linear	
XPD (on Axis), dB	35	35	35	35
XPD across 1dB Beam Width, dB	33	33	33	33
Axial Ratio (Circular-Polarized)	0.5	0.5		100
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temperature	2/4 port feed		2/4 port feed	
10° Elevation	35°K/40°K		60°K/66°K	E 1811



20° Elevation 40° Elevation	27°K/34°K 24°K/30°K	14/14/14	50°K/56°K 44°K/50°K	
-3dB Beam Width, Mid-band	0.304°	0.201°	0.1°	0.09°
Tx. Power Capability, KW		5		2
Feed Interface	CPR-229G	CPR-137G	WR-75	WR-75
Feed Insertion Loss,dB	0.2	0.2	0.25	0.25
Isolation, Tx to Rx, dB	85	85		
Radiation Pattern:First Sidelobe	≤-14, Meet ITU-RS.580-5 and other requirements			

# MECHANICAL SPECIFICATION

Antenna Diameter	16M		
Antenna Type	Shaped Cassegrain		
Antenna Pedestal Option	Kingpost Pedestal/Rotation Pedestal		
Antenna Pointing Range			
Azimuth	0°~170°/0°~360°(Continuous)		
Elevation	0°∼90°(Continuous)		
Polarization	180°(Continuous)		
Motorizing			
Azimuth Travelling speed	0.10°/s		
Elevation Travelling speed	0.120°/s		
Polarization Travelling speed	1°/s		
Finishes	Aluminum panela with high diffusing white paint		
Reflector Surface	Aluminum panels with high-diffusing white paint		
Pedestal & Back Structure	Galvanized steel		
Surface Accuracy (RMS)	0.5mm		

## **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)