

China Starwin 16M EARTH STATION ANTENNA DATASHEET



Super 16m antenna (Rotation type)

Performance Strength

- *C,Ku, multi band, extended band Available, meeting FCC and ITU-RS-580 requirements
- *High quality aluminum reflector panels and galvanized steel backup structure
- *Self-aligning aluminum antenna reflector-no field alignment
- *Galvanized steel elevation over azimuth pedestal
- *Fixed foundation and Non penetrating foundation optional for wider choice
- *Survives 125 mph winds in any position and High wind configuration optional

Description

China Starwin 16m antenna delivers super high performance for transmit/receive application in C, Ku, ka, X band in Tx/Rx 2 ports ,4 ports or Rx 2 ports with high gain ,low noise and low microwave interference.

China Starwin 16m antenna offers a fine reflector design with a stretch formed double contoured panels, strong back struts and hub fore ease of field alignment. The standard designed azimuth over elevation pedestal provides a cost-effective solution for ground or roof installation with high stiffness and stability , full orbital arc coverage and fine drive performance, and ensures the pointing and tracking accuracy .

The electrical performance is compliant with FCC and ITU-RS-580 sidelobe specifications and Intelsat, Eutelsat, INMARSAT, ASIASAT, APT and CHINASAT, etc requirement.

Key features

- *Meets or exceeds CCIR 580 and INTELSAT Requirements
- *High G/T, excellent pattern characteristic
- * Precision compression molded offset antenna
- *CP/LP switchable feed
- * Hot dip zinc steel pedestal, hub & back struts
- *Galvanized stainless steel fasteners
- * Foundation hardware kit provided
- * Package suitable for air, ocean land transportation

Antenna Accessory

- *Limit Switches
- *Foundation hardware Kit
- *Grounding Kits Cable –Mounting kits
- *Cable mounting kits
- *ODU Support Kits
- *Factory Feed System Testing and Documentation
- *Ocean /Air/land Transport Packing

Options

- * L, S, C, X, Ku and DBS-band feed configurations
- *800MHz bandwidth is available
- *Two or four ports -Tx/Rx port in linear or circular polarized feeds
- *motorization kits
- *Feed blower or deicing with automatic controls
- *Lightning Rod Kits
- *Non-penetrating mount
- * Kingpost pedestal, Rotation platform optional
- * Antenna control & tracking system for step track, program track, inclined orbit track
- * Integrated LNB or LNA systems
- *HPAs, converters and M&C systems
- * Turnkey installation & testing

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Electrical, Mechanical, Environmental Specification

Electrical Specification For 16m Super antenna

Type	SWSP160C		SWSP160K	
Operating Frequency, GHz	C-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
	3.4~4.2	5.85~6.725	10.95~12.75	13.75~14.5
Antenna Gain	58.30+20lg[f/6(GHz)]dBi		65.5+20lg[f/14(GHz)]dBi	
	54.90+20lg[f/4(GHz)]dBi		64.2+20lg[f/12(GHz)]dBi	
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) 4-Port Feed	0.5dB per port 1.09 1.06			
VSWR	CP: 1.25:1,LP:1.3:1		LP:1.3:1	
Antenna Noise Temperature	2/4 Port Feed		2/4 Port Feed	
10° Elevation	35K/42K		60K/66K	
20° Elevation	26K/36K		50K/56K	
30° Elevation	24K/33K		46K/52K	
-3 dB Beam Width, Mid-band	0.30°	0.20°	0.11°	0.09°
Tx. Power Capability, KW		5		2
Feed Interface	CPR—229F	CPR—159G/137G	WR-75	WR-75
Feed Insertion Loss, dB	0.2/0.25	0.2/0.25	0.25/0.35	0.25/0.4
Isolation, Tx to Rx, dB	85dB		85dB	
Tx/Tx ,Rx /Rx, Linear , dB	CP:20dB, LP:30dB		LP:30dB	
Tx/Tx ,Rx /Rx, Circular , dB	CP:20dB, LP:30dB		LP:30dB	
Radiation Pattern : First Side lobe	≤-14dB, Meet ITU-RS.580-5 specifications			

Mechanical Specification

Antenna Diameter	16m
Antenna Type	Cass grain
Surface Accuracy(RMS)	≤0.4mm
Antenna pedestal type	Kingpost pedestal , Rotation platform optional

Antenna Pointing Range	Azimuth Elevation Polarization	±85°/0°-360° (Continuous) 0°~90°(Continuous) ±90°(Continuous)
Drive Mode		Manual or Motorized
Motor Drive System	Azimuth or Elevation Travel Rate	0.001°/S-0.3°/S
	Polarization Travel Rate	1°/S
Antenna reflector Material		High-diffusing white paint for Aluminum reflector
Finish of steel parts		Galvanized

Environmental Specification

Operational Wind	72km/h gusting to 126km/h
Survival Wind	200km/h
Temperature	-40°~+60°
Relative Humidity	100%
Solar Radiation	1135Kcal/h/m ²
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 30mm Survival