

## China Starwin 13M EARTH STATION ANTENNA DATASHEET



Standard 13m antenna (Kingpost pedestal 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 13m antenna delivers exceptional 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 13m 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 13m Standard antenna

Type	SW130C		SW130K	
Operating Frequency, GHz	C-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
	3.4~4.2	5.85~6.425	10.95~12.75	13.75~14.5
Gain, Mid-band, dBi	52.86	56.44	62.62	63.54
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			
VSWR	CP: 1.25:1,LP:1.3:1		LP:1.3:1	
Antenna Noise Temperature ( clear sky and light wind)	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	0.379°	0.249°	0.122°	0.100°
Tx. Power Capability, KW		5		2
Feed Interface	CPR—229F	CPR—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:20 dB, LP:30dB		LP:30dB	
Tx/Tx ,Rx /Rx, Circular , dB	CP:20 dB, LP:30dB		LP:30dB	
Radiation Pattern : First Side lobe	≤-14dB, Meet ITU-RS.580-5 specifications			

### Mechanical Specification

Antenna Diameter	13m
Antenna Type	Cass grain
Surface Accuracy(RMS)	≤0.4mm
Antenna Pointing Range	Azimuth Elevation Polarization
	±85°/0°-360° ( Continuous ) 15°~90°(Continuous) 180° ( Continous )
Drive Mode	Manual or Motorized

Motor Drive System	Azimuth or Elevation Travel Rate Polarization Travel Rate	0.001°/S-0.3°/S 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 <sup>2</sup>
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 30mm Survival