

## China Starwin 3M EARTH STATION ANTENNA DATASHEET



### Performance Strength

- \*High quality aluminum reflector panels and galvanized steel backup structure
- \*C,Ku, Ka, X band Available , meeting FCC and ITU-RS-580 requirements
- \*Galvanized steel elevation over azimuth pedestal
- \*Fixed foundation and Non penetrating foundation optional for wider choice

1

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\*Survives 125 mph winds in any position

### **Description**

China Starwin 3m antenna delivers exceptional high performance for transmit/receive application in C ,Ku, ka, X band in Tx/Rx 2 port or Rx 1 port with high gain ,low noise and low microwave interference.

China Starwin 3m 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 -Tx/Rx port in linear or circular polarized feeds
- \*motorization kits
- \*Feed blower or deicing with automatic controls
- \*Lightning Rod Kits
- \*Non-penetrating mount
- \* Integrated LNB or LNA systems

- \*HPAs, converters and M&C systems
- \* Turnkey installation & testing

### Electrical, Mechanical, Environmental Specification

#### Electrical Specification

Type	SW30C		SW30K	
Operating Frequency, GHz	C band		Ku band	
	Receive	Transmit	Receive	Transmit
		3.4~4.2	5.85~6.725	10.95~12.75
Gain, Mid-band, dBi	40.1	43.7	49.6	50.8
Polarization	Linear /circular		Linear	
XPD(on Axis), dB	35	35	35	35
XPD across 1dB Beam Width, dB	33	33	33	33
Axial Ratio/2-PortFeed (Circular-Polarized)	1.3	1.09		
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temperature				
2-port feed				
10° Elevation	29°K		48°K	
30° Elevation	22°K		39°K	
50° Elevation	19°K		35°K	
G/T ( EI > 10°)	20.4dB/°K (30°LNA)		27dB/°K (70°LNA)	
-3 dB Beam Width, Mid-band	1.5°	1.1°	0.56°	0.49°
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	0.2
Isolation, Tx to Rx, dB	90		85	
First Side lobe 90% Peaks under Following Envelop	-14 29-25log $\theta$ (1° $\leq\theta$ < 20°)		-14 29-25log $\theta$ (1° $\leq\theta$ < 20°)	

### Mechanical Specification

Antenna Diameter		3.0m
Antenna Type		Ring Focus
Surface Accuracy ( RMS )		≤0.35mm
Antenna Pointing Range	Azimuth	0°~360°
	Elevation	0°~90°
	Polarization	±360°
Drive Mode		Manual or Motorized
Motor Drive System	Azimuth Travel Rate	0.11°/S(0.03°/S)
	Elevation Travel Rate	0.17°/S(0.04°/S)
Antenna reflector Material		Aluminum Alloy
Finish of steel parts		Hot dipped Zinc

### Environmental Specification

Operational Wind	72km/h gusting to 97km/h
Survival Wind	216km/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; 25mm Survival