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
*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 for 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	13.75~14.5
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 30° Elevation 50° Elevation	 29°K 22°K 19°K		 48°K 39°K 35°K	
G/T (El>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 29-25logθ(1°≤θ<20°)		-14 29-25logθ(1°≤θ<20°)	

Mechanical Specification

Antenna Diameter	3.0m
Antenna Type	Ring Focus
Surface Accuracy（RMS）	≤0.35mm

Antenna Pointing Range	Azimuth Elevation Polarization	0°~360° 0°~90° ±360°
Drive Mode		Manual or Motorized
Motor Drive System	Azimuth Travel Rate Elevation Travel Rate	0.11°/S(0.03°/S) 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/m²
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 25mm Survival

sat C Band

Electrical, Mechanical, Environmental Specification

Electrical Specification

Type	SW30C		SW30K	
Operating Frequency, GHz	C band		Ku band	
	Receive	Transmit	Receive	Transmit
	4.5~4.8	6.725~7.025	10.95~12.75	13.75~14.5
Gain, Mid-band, dBi	41.7	44.4	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 30° Elevation	 29°K 22°K		 48°K 39°K	

50° Elevation	19°K		35°K	
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