

China Starwin 5.3M EARTH STATION ANTENNA DATASHEET



Performance Strength

- *C,Ku, multi 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 5.3m antenna delivers exceptional high performance for transmit/receive application in C ,Ku, ka, X band in Tx/Rx 2 ports, 4 ports or Rx 1 port with high gain ,low noise and low microwave interference.

China Starwin 5.3m 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 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
- * Antenna control & tracking system for step track, program track, inclined orbit track
- * Integrated LNB or LNA systems
- *HPAs, converters and M&C systems
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- *HPAs, converters and M&C systems
- * Turnkey installation & testing

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Electrical, Mechanical, Environmental Specification

Electrical Specification

Type		SW53C		SW53K	
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		45.1	48.7	54.5	56
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)	2-Port Feed 4-Port Feed	1.30/1.06	1.09/1.06		
VSWR		1.25	1.25	1.25	1.25
Antenna Noise Temperature 2-port feed					
10° Elevation		32°K		51°K	
30° Elevation		24°K		41°K	
50° Elevation		21°K		38°K	
Typical G/T (EL>10° , 2-port)		27.6 dB / K (30°LNA)		34.3 dB / K (70°LNA)	
-3 dB Beam Width, Mid-band		0.98°	0.64°	0.31°	0.27°
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	
Side lobe		CCIR580-4			

Mechanical Specification

Antenna Diameter		5.3m
Antenna Type		Ring Focus
Surface Accuracy (RMS)		≤0.5mm
Antenna Pointing Range	Azimuth	±85°
	Elevation	0°~90°(Continuous)
	Polarization	±90°(Continuous)

Drive Mode		Manual or Motorized
Motor Drive System	Azimuth Travel Rate	0.2°/S(0.04°/S)
	Elevation Travel Rate	0.2°/S(0.04°/S)
	Polarization Travel Rate	1 ° / 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 ²
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 25mm Survival