

## Starwin 4.5m Ka Band 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

Starwin 4.5m Ka Band antenna delivers exceptional high performance for transmit/receive application in C, Ku, ka, X band in Rx 2 port or Rx 1 port with high gain, low noise and low microwave interference.

Starwin 4.5m Ka Band 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

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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, ASIASEAT, APT and CHINASEAT, 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 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

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### Electrical Specification

Type	KA-450A	
Operating Frequency, GHz	Ka-Band	
	Receive	Transmit
	17.7~21.2	27.5~31
Gain, Mid-band, dBi	56.6	59.5
Polarization	LHCP/RHCP	
XPD (on Axis), dB	35	35
Axial Ratio	1.2	1.2
VSWR	1.25:1	1.25:1
Antenna Noise Temperature 2-port feed		
10° Elevation	125K	
30° Elevation	85K	
50° Elevation	50K	
Typical G/T	≥33dB/K at 20° elevation	
-3dB Beam Width, Mid-band	0.23°	0.15°
Tx. Power Capability, KW		5
Feed Interface	WR-42	WR-28
Isolation, Tx to Rx, dB	90	
First Sidelobe	-14	
90% Peaks under Following Envelop	29-25lgθ (1°≤θ<20°)	

### Mechanical Specification

Antenna Diameter		4.5m
Antenna Type		Cass Grain
Surface Accuracy (RMS)		≤0.3 mm
Antenna Pointing Range	Azimuth	340° (Continuous)
	Elevation	0°~ 90° (Continuous)
	Polarization	±90°(Continuous)
Drive Mode		Manual or Motorized
Motor Drive System	Azimuth Travel Rate	0.5°/s
	Elevation Travel Rate	0.25°/s

### Environmental Specification

Operational Wind	72km/h gusting to 97km/h
Survival Wind	200km/h
Temperature	- 20°C ~ + 48°C
Relative Humidity	100%
Solar Radiation	1135 Kcal/h/ m2
Seismic (Survival)	0.3g (H),0.15g (V)
Ice Loading	13mm Operational 25mm Survival

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