

Starwin 3.0m Ka Band Antenna Datasheet



General Description of 3.0m Ka Band Antenna

Starwin 3.0m Ka band ring focus antenna is designed for Ka band transmit and receive operation.

- The precision reflector is constructed from stretch formed aluminum panels eight pcs, supported by strong back structures and hub, no need for field alignment.
- The Az/EI king post pedestal is made of hot dip zinc steel for good corrosion resistance. The wide moving range and fine drive performance, ensure the pointing and tracking accuracy.
- Equipped with special designed wide Ka-band feed assemblies.
- Also supply limit switches, foundation hardware kit and required packing.

Key Features

- * Meets or exceeds CCIR 580 and INTELSAT Requirements
- * Wide azimuth range 0-360°
- * Wider Ka band working frequency
- * Hot dip zinc steel pedestal, hub & back struts
- * Galvanized stainless steel fasteners
- * Survival 125mph high wind resistance

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Options

- * Motorization kits
- * Controller and tracking receiver
- * 2 ports/ 4 ports linear/ circular polarized feeds
- * Feed blower or deicing with automatic controls
- * Lightning Rod Kits
- * Non-penetrating mount (NPM)
- * Integrated LNB or LNA systems
- * HPAs, converters and M&C systems
- * Turnkey installation & testing

Electrical Specification

Type	KA-300A	
Operating Frequency, GHz	Ka-Band	
	Receive	Transmit
	17.7~21.2	27.1~31
Gain, Mid-band, dBi	54	57
Polarization	LHCP/RHCP	
XPD (on Axis), dB	35	35
XPD across 1dB Beam Width, dB	30	30
VSWR	1.25:1	1.25:1
Antenna Noise Temperature 2-port feed	125K 85K 50K	
10° Elevation		
30° Elevation		
50° Elevation		
-3 dB Beam Width, Mid-band	0.33°	0.23°
Typical G/T	≥32dB/K at 20° elevation	
Tx. Power Capability, KW		0.5
Feed Interface	WR-42	WR-34
Feed Insertion Loss, dB	≤0.4	≤0.3
Isolation, Tx to Rx, dB	85	
First Sidelobe	-14	
90% Peaks under Following Envelop	29-25lgθ (1°≤θ≤20°)	

Mechanical Specification

Antenna Diameter		3.0m
Antenna Type		Ring Focus
Antenna Material		High Quality Aluminium
Surface Accuracy (RMS)		≤0.3 mm
Antenna Pointing	Azimuth	0° ~ 330°
Range	Elevation	0° ~ 90° (Continuous)

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	Polarization	$\pm 90^\circ$ (Continuous)
Drive Mode		Manual or Motorized
Motor Drive System	Azimuth Travel Rate	0.11° /s (0.06° /s)
	Elevation Travel Rate	0.17° /s (0.08° /s°)

Environmental Specification

Operational Wind	79km/h gusting to 97km/h
Survival Wind	200km/h
Temperature	- 20°C ~ + 48°C
Relative Humidity	100 %