



Alignsat 3.7m Ka band antenna

Alignsat 3.7m Ka band antenna is a high performance antenna designed for Ka-band satellite communications, the antenna includes Feed Horn, Polarizer, OMT and Filter.

The antenna is a rugged, commercial quality product suitable for the most demanding applications.



PERFORMANCE STRENGTH

- 12- pieces precision reflector
- Precision Az/EI Mount, Hot-Dip Galvanized.
- Cass grain antenna
- Linear or Circular Polarization

ELECTRICAL SPECIFICATION

		AST-3.7Ka		
Type		Ka-Band Circular	Ka-Band Circular	Ka-Band Linear
Operating Frequency (GHz)	Receive	20.20 - 21.20 GHz	19.40 - 21.20 GHz	18.70 - 21.20 GHz
	Transmit	30.00 - 31.00 GHz	29.20 - 31.00 GHz	27.00 - 31.00 GHz
Midband Gain (+/- .5 dB)	Receive	55.4dBi	55.3 dBi	55.1 dBi
	Transmit	58.8 dBi	58.7 dBi	58.4 dBi
VSWR		1.3:1 max	1.3:1 max	1.5:1 max
Beam width(-3 dB)		Rx: 0.27° Tx: 0.18°	Rx: 0.28° Tx: 0.18°	Rx: 0.28° Tx: 0.19°
Antenna Noise Temperature 2-port feed	10° Elevation	139 K	139 K	140 K
	20° Elevation	118 K	118 K	121 K
	30° Elevation	107 K	107 K	106 K
Power Handling		100 W	100 W	100 W
Cross Polarization Isolation	On Axis	26dB	26dB	35dB
	Within 1.0 dB Beam width	25dB	25dB	33dB
Output Waveguide Interface		Rx: WR42	Rx: WR42	Rx: WR42
Flange		Tx: WR28	Tx: WR28	Tx: WR28
First Side lobe90%			-14	
Peaks under Following Envelop			29-25logθ(1°≤θ<20°)	





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MECHANICAL SPECIFICATION

Antenna Diameter	3.7m
Antenna Type	Casse grain
Surface Accuracy (RMS)	≤0.3mm
Antenna Pointing Range	
Azimuth	0°-360° (Continuous)
Elevation	0°-90° (Continuous)
Polarization	±360° (Continuous)
Drive Mode	Manual or Motorized
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

