



# Alignsat 4.5m Rx Only Antenna

Alignsat 4.5m feed forward antenna can deliver superior performance for sat communication applications such as Broadcasters, Service Providers, GSM operator, Satellite operator, Military and Government Agencies, FreeLands or Rescue Organizations.

Alignsat 4.5m feed forward antenna adopts all aluminum re-enforced reflectors, consisting of precisely formed panels with matched radials and hub assemblies ensure the ease of installation.

The standard designed azimuth over elevation pedestal provides a cost-effective solution for high stiffness and stability, full orbital arc coverage and fine drive performance, and ensures the pointing accuracy for C-Band Rx and Ku-Band Rx operations.



## PERFORMANCE STRENGTH

- Feed forward antenna, single pole stand, drive mode: manual.
- High gain, low side lobe, high cross-polarization isolation.
- C/Ku band optional, linear/circular polarization optional.
- Meets CCIR 580 and INTELSAT Requirements

## ELECTRICAL SPECIFICATION (1/2)

4.5m Rx only antenna		
	C-Band Receive 3.4-4.2	Ku-Band Receive 10.95-12.75
Operating Frequency, GHz		
Typical Gain, dBi	43.51 at F=3.8GHz	53.53 at F=12.5GHz
VSWR	1.3:1	1.3:1
Noise Temperature (°K) 1/2-port feed		
10° Elevation	35°K	41°K
20° Elevation	30°K	36°K
40° Elevation	26°K	32°K
Axial Ratio	0.75dB	1dB
Beam Width	1.097°	0.346°
Typical G/T at 20°EL	25.73 dB/K 3.8GHz, 30K LNA	33.28 dB/K 12.5GHz, 70K LNA





# Alignsat 4.5m Rx Only Antenna

## ELECTRICAL SPECIFICATION (2/2)

4.5m Rx only antenna		
Feed Insertion Loss, dB	0.2	0.25
Feed Interface	CPR-229G	WR-75
First Side lobe	CCIR. 580-5	

## MECHANICAL SPECIFICATION

Antenna Diameter	4.5m
Antenna Type	Feed forward antenna
Reflector thickness	1.3mm
Reflector material	Precision formed Aluminium and powder painting
Reflectors Segments	16
Back Support Beam	Steel plate with powder painting
Other parts	Hot-Dip Galvanized
Package	Wooden case
Foundation type	Concrete foundation @ Non penetrating foundation optional
Drive mode	Manual or motorized optional
Antenna Surface accuracy (RMS)	≤0.5mm
Antenna Pointing Range	
Azimuth	0°-360° (Continuous)
Elevation	5°-90° (Continuous)
Polarization	±90° (Continuous)

## ENVIRONMENTAL SPECIFICATION

Wind loading, Operational (Maintain)	45mph(72km/h)
Wind loading, Operational (Decrease)	60mph(97km/h)
Wind loading, Survival (Fixed heavenward)	125mph(200km/h)
Ambient Temperature	-40°-+60°
Relative Humidity	0%-100%
Rain	100mm/h
Solar Radiation	1000Kcal/h/m <sup>2</sup>
Seismic (Survival)	0.3g(H), 0.15g(V)
Ice Loading	25mm or 13mm on all surface with 130km/h wind

