

## 3.7M Compact antenna C, Ku Band



### Feature

Alignsat 3.7m antenna delivers exceptional high performance for transmit/receive application in C ,Ku, ka, X band in Tx/Rx 2 port or Rx 1 port with high gain ,low noise and low microwave interference. Alignsat 3.7m antenna offers a fine reflector design with a stretch formed double contoured panels, strong back struts and hub for 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.

### 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

Technical specifications				
Type	AT37C AT37K		AT37C AT37K	
Frequency	C Band		Ku Band	
	Receive	Transmit	Receive	Transmit
	3.625-4.2	5.85-6.725	10.95-12.75	13.75-14.5
Gain, Mid-band, dBi	42.2	45.4	51.4	52.7
Polarization	Linear /Circular		Linear	
XPD(on Axis), dB	35	35	35	35
XPD across 1dB Beam Width, dB	33	33	33	33
Axial Ratio/2-PortFeed (Circular-Polarized)	1.30	1.09		
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temperature 2-port feed				
10° Elevation	35°K		49°K	
30° Elevation	29°K		39°K	
50° Elevation	25°K		35°K	
G/T ( EI > 10°)	24dB/°K (30°LNA)		30.6dB/°K (70°LNA)	
-3 dB Beam Width, Mid-band	1.25°	0.82°	0.44°	0.38°
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	
First Side lobe	-14 29-25log $\theta$ (1° $\leq\theta$ <20°)		29-25log $\theta$ (1° $\leq\theta$ <20°)	
Mechanical Specification				
Antenna Diameter	3.7m			
Antenna Type	Ring Focus			
Surface Accuracy (RMS)	$\leq$ 0.5mm			

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Antenna Pointing Range	Azimuth	0°~180°
	Elevation	0°~90°
	Polarization	±360°
Drive Mode	Manual or Motorized	
Motor Drive System	Azimuth Travel Rate	0.11°/S(0.03°/S)
	Elevation Travel Rate	0.17°/S(0.04°/S)
Antenna reflector Material	Aluminum Alloy	
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 <sup>2</sup>	
Seismic(Survival)	0.3g(H), 0.15g(V)	
Ice Loading	13mm Operational; 25mm Survival	