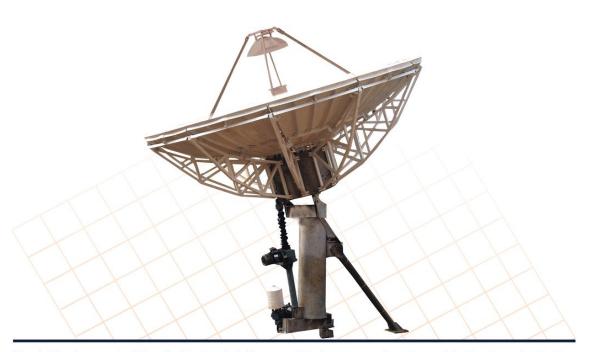


An ISO 9001 Company

4.6 M Earth Station Antenna

C Band / Ext C Band / Ku Band



The 4.6Mtr. Antenna in C/Ext C / Ku Band delivers good Performance and can be used in Receive only /Tx-Rx applications and meets all the international specifications.

The Antenna features Gregorian Configuration reflector with 12 doubly curved panels mounted on 12 Radial Trusses which emanate from a Center Hub, provides enough space for accommodating Receive Electronics.

The Antenna comes in 2 Mount Configurations to suit installation requirements. The standard version is an Elevation over Azimuth King Post mount, which can be installed on the ground with $4 \times 4 \times 0.5$ Mtr raft RCC Foundation. The second configuration is an Elevation over Azimuth Mount on a NonPenetrating Mount, which can be installed on roof tops/ground. Cement concrete ballast of about 3 Tonnes to be placed over the mount to restrict uplift.

The Antenna Reflector and the Kingpost Mount Pedestal provide the stiffness and pointing accuracies required for C/Ku Band operation. The Antenna is designed for 110 Continuous Azimuth travel in one position. Non Penetrating mount gives ±30 in each selected position, and covers full ±360 rotation.

Options:

- Prime focus / Gregorian optics
- Feed 2 Port/4 Port Linear/Circular Feed
- De-icing for Reflector/Feed
- Step Track Mechanism using Antenna Control System, Beacon Receiver and Motor Controller.
- Polarization Controller incorporated in A.C.U
- Turnkey Installations, Commissioning including Civil Foundation

SPECIFICATIONS



Electrical

Antenna Size : 4.6 Mtr.

Antenna Type : Prime focus / Gregorian system

Frequency of operation : Rx(GHz) Tx(GHz) 3.625-4.2 5.85-6.425 4.500-4.8 6.725-7.025

4.500-4.8 6.725-7.0 10.950-12.750 14-14.5

Antenna Gain (Mid Band) ±0.5dBi :

l) ±0.5dBi : Rx Tx C Band 43.0 47.0 Ext C Band 44.5 48.0

Ext C Band 44.5 48.0 Ku Band 52.5 54.0

G/T(Typical) : C Band 24.4 dB/° K with 35° K LNA

: Ext C Band 25.5 dB/∘K with 35° K LNA : Ku Band 32 dB/∘K with 70° K LNA

Cross Pol. Descrimination : 30dB Min VSWR : 1.30 : 1

Output wave guide flange : CPR 229G & CPR 137G for C Band / Ext C Band

C Band : WR 75 flat for Ku Band

Power Handling Cap : C Band : 2KW

Ku Band :2KW

Radiation Pattern : As per ITU - R.S.580-5

Mechanical

Coverage

Azimuth Travel : 110 Continous, and 180 in 2 positions

Elevation Travel : 5 - 90

Travel Rate : 4°/Min for Az & EI

Polarisation Travel : Manual ±95°

Weight of Reflector : 500 Kgs

Weight of Mount : 1000 Kgs

Reflector Structure : Aluminium Alloy

Mount Structure : Steel (Galvanised)

Foundation Size : 4 X 4 X 0.5 Mtr

Environmental

Operational Winds : 70 Kmph gusting to 100 Kmph

 Survival Winds
 : 200 Kmph

 Ambient Temperature
 : -15 to + 50 C

 Rain
 : upto 100 mm/hr

 Humidity
 : 100%

Solar Radiation : 360° BTU/hr/ft or 1000 K Cal/hr/m²
Atmosphere Conditions : As encountered in Marine / Industrial

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