



4.5 MT ANTENNA EARTH STATION

Model Type: ANP0107A

The RX/TX antenna provides high gain and exceptional pattern characteristics. **High electrical performance and exceptional versatility** constitute the ability to configure the antenna with your choice of linearly or circularly polarised multi-port combining network.

The **4.5 mt antenna** is a rugged, reliable antenna system that **operates at: C, X, Ku, K or Ka band frequencies with high efficiency** and at the same time successfully withstands environmental effects.

The antenna consists of main reflector, sub reflector, mount assembly, back struts and feed assembly. **The aluminium alloy reflector is precision formed for accuracy and strength**, which requires minimal maintenance.

The reflector assembly is 4.5 mt in diameter and segmented into a number of pieces configuration to reduce shipping volume and to facilitate transport to remote sites.

The reflector panels are **conversion coated and painted with a highly reflective white paint**. Hot-dipped galvanized steel mount maintains pointing accuracy and ensures durability and reliability. **The mount can be purchased with either manual or motorizable capabilities.**

The surface of the sub reflector and feed system is hot-dipped galvanized. **The feed is made up of a conic corrugated horn and a circular transition with flange to connect the feed system.**



ISO 9001:2015



ANTENNA SPECIFICATION

Type	4.5 mt Ext. Ku band Antenna	
	Rx	Tx
Antenna Diameter	4.5 mt	
Antenna Type	Ring Focus (dual reflector)	
Frequency (GHz)	10.70 – 12.75	13.00 – 14.50
Gain (dBi)	53.17 @ 12 GHz	54.51 @ 14 GHz
Feed	4 Ports (2 Rx and 2 Tx) Linear Feed	
Port-to-Port Isolation	>50 dB Tx to Rx	
VSWR	≤ 1.3:1	
Feed Interface	WR-75	WR-75
Feed Insertion Loss	≤ 0.6 dB	≤ 0.5 dB
Power Handling		1 KW per port
Cross Pol Isolation @ 1 dB contour	35 dB	35 dB
Noise Temperature	53° K @ 40° Elevation	
Polar. Discrimination	>35 dB	
Pattern Beam width	0.29° at 3 dB @ 14 GHz	
Side lobes	ITU 580-5, FCC 25.209	

MECHANICAL SPECIFICATION

Mount Type	Elevation over Azimuth and Pedestal
Surface Accuracy	≤0.5mm (R.M.S)
Drive Mode	Motorized
Azimuth Travel Range	0° to 360°
Elevation Travel Range	5° to 90°
Polarization Travel Range	±90°
Azimuth Travel Speed	0.02°/S - 0.05°/S
Elevation Travel Speed	0.02°/S - 0.05°/S
Polarization Travel Speed	0.5°/S

ENVIRONMENTAL SPECIFICATION

Operational Wind	72km/h and gusts up to 95 km/h
Survival Wind	200 km/h (in stow position)
Ambient Temperature	-15° C to +50° C (operative)
Ambient Temperature	-35° C to +60° C (survival)
Rain	>410 cm per hour
Relative Humidity	100%
Seismic (Survival)	0.3 G's Horizontal, 0.15 G's Vertical
Atmopheric Condition	Main Reflector: Hot air fans Sub-reflector: Resistive heaters Feed horn: Blower/heater

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