



ANTENNA EXPERTS

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Model # AP-45022

406 – 512 MHz.

22 dBi. Gain

UHF Grid Parabolic Antenna

DESIGN FEATURES: The AP-45022 grid parabolic antenna consists of full Parabolic reflector having a diameter of 4 Meters for use in all tactical and fixed station applications for terrestrial point to point analogue and digital communication radio link. The antenna covers 40 MHz bandwidth, operates in linear polarization and requires two operators for installation. The antenna dipole feed uses an Air-Cored transmission line. The mounting arrangement of Grid Parabolic Antenna permits to change the polarization from horizontal to vertical and vice-versa by mounting hardware fitted at rear end of the antenna. The antenna is supplied with +/-5 degrees elevation tracking mechanism. The grid parabolic antenna operates at D.C. ground with low resistance discharge path for protection against lightning and immunity to noise.

CONSTRUCTIONS: The AP-45022 uses 6063T6 ultra corrosion resistant architectural anodized aluminium alloy and supplied with epoxy based anti-corrosive powder coating finish in order to prevent it further from severe environmental condition. The parabolic reflector is illuminated by a primary feed which is fitted to the center of assembly with quick fastener system. Radiating elements and the dipole feed are made of high quality brass. All the screws, nuts and bolts of tactical microwave antenna are of marine grade stainless steel. The antenna supplied with army olive green color. The tactical grid parabolic antenna can be installed at vertical erected mast.

TRACKING MECHANISM: The AP-45022 grid parabolic antenna supplied with elevation tracking mechanism where fine adjustments is necessary to optimize the signal strength of radio link along with two side struts to provides extra support to the antenna.

ELECTRICAL SPECIFICATIONS:

Frequency Range	406 - 512 MHz.
Gain @ Mid Band	22 dBi.
Bandwidth	40 MHz.
Polarization	V or H
Input Impedance	50 Ohms.
Radiation Pattern	Directional
-3 dB. Beam-width @ Mid Band	11 Degrees.
Front to Back Ratio	40 dB.
Cross Polarization Discrimination	36 dB.
VSWR – Better than	1:1.5
RF Power Handling Capacity	250 Watts.
Input Termination	N-Female
Lightning Protection	Direct Ground



MECHANICAL SPECIFICATIONS:

Materials	6063T6 Aluminum Alloy
Mounting Hardware	Marine Grade Stainless Steel
Gross Weight	200 Kgs.
Wind Rating	190 Km/Hr.
Elevation Tracking	+/- 5 Degrees
Support Pipe -Outer Diameter	76 mm (3 Inches)
Support Pipe Materials – Outer Dia	6063T6 Aluminum – 51 mm
Diameter of Parabolic Reflector	4.0 Meters (13.2 feet)
Radiating Materials	High Quality Brass
Grid Members Materials	Aluminum Pipe 5/8 Inch(16mm)
Maximum Mount Pipe Diameter	115 mm (4.5 Inches)

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-)30 to +70 Degrees Celsius
Storage Temperature	(-)40 to +80 Degrees Celsius
Humidity	0 to 95% RH