



ANTENNA EXPERTS

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Model # AP-45020

406 – 512 MHz.

20 dBi. Gain

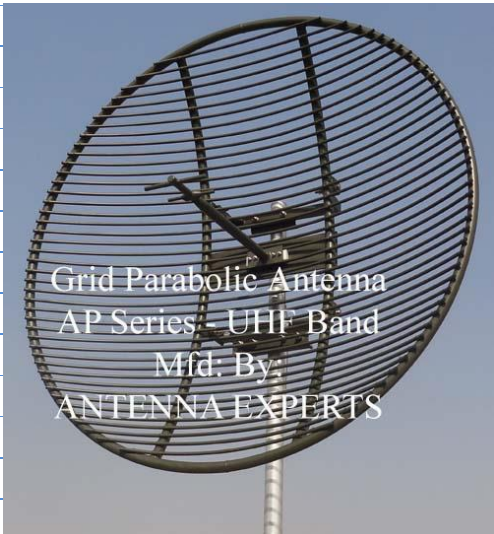
UHF Grid Parabolic Antenna

DESIGN FEATURES: The AP-45020 grid parabolic antenna consists of full Parabolic reflector having a diameter of 3 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-45020 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-45020 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		20 dBi.
Bandwidth		40 MHz.
Polarization		V or H
Input Impedance		50 Ohms.
Radiation Pattern		Directional
-3dB Beam-width @ Mid Band		15 Degrees.
Front to Back Ratio		38 dB.
Cross Polarization Discrimination		34 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	115 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	3.0 Meters (10 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

Note: All information contained in the datasheet is subject to change without any prior notice.