



# ANTENNA EXPERTS

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Model # AP-85022      700 – 990MHz.      22 dBi. Gain

## GRID PARABOLIC ANTENNA

**DESIGN FEATURES:** The AP-85022 grid parabolic antenna consists of full Parabolic reflector having a diameter of 2 Meters for use in all tactical and fixed station applications for terrestrial point to point analogue and digital communication radio link. The antenna covers 80 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-85022 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-85022 grid parabolic antenna supplied with elevation tracking mechanism where fine adjustments is necessary to optimize the signal strength of radio link. Optional: Side struts can be supplied for extra rigidity on request.

### ELECTRICAL SPECIFICATIONS:

Frequency Range	700 - 990 MHz.
Gain @ Mid Band	22 dBi.
Bandwidth	80 MHz.
Polarization	V or H
Input Impedance	50 Ohms.
Radiation Pattern	Directional
Beam-width -3dB @ Mid Band	12 Degrees.
Front to Back Ratio	28 dB.
Cross Polarization Discrimination	24 dB.
VSWR – Better than	1:1.5
RF Power Handling Capacity	250 Watts.
Input Termination	N-Female
Lightning Protection	Direct Ground



### MECHANICAL SPECIFICATIONS:

Materials	6063 T6 Aluminum
Mounting Hardware	Stainless Steel
Gross Weight	50 Kgs.
Wind Rating	210 Km/Hr.
Elevation Tracking	+/- 5 Degrees
Support Pipe Outer Diameter	38 mm (1.5 Inches)
Support Pipe Material	Aluminum
Diameter of Parabolic Reflector	2.0 Meters
Radiating Materials	Brass
Grid Members Materials	Aluminum Pipe ½ Inch (12 mm)
Maximum Mount Pipe Diameter	75 mm ( 3 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.