



ANTENNA EXPERTS

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Model # AP-85017

700 – 990 MHz

17 dBi. Gain

UHF Grid Parabolic Antenna

DESIGN FEATURES: The AP-85017 grid parabolic antenna consists of full Parabolic reflector having a diameter of 1.2 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-85017 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 epoxy based olive green color. The tactical grid parabolic antenna can be installed at vertical erected mast.

TRACKING MECHANISM: The AP-85017 grid parabolic antenna supplied with elevation tracking mechanism where fine adjustments is necessary to optimize the signal strength of radio link.

ELECTRICAL SPECIFICATIONS:

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|-----------------------------------|----------------|
| Frequency Range | 700 - 990 MHz. |
| Gain @ Mid Band | 17 dBi. |
| Bandwidth | 80 MHz. |
| Polarization | V or H |
| Input Impedance | 50 Ohms. |
| Radiation Pattern | Directional |
| -3dB. Beam-width @ Mid Band | 19 Degrees. |
| Front to Back Ratio | 28 dB. |
| Cross Polarization Discrimination | 24 dB. |
| VSWR – Better than | 1.5:1 |
| RF Power Handling Capacity | 150 Watts. |
| Input Termination | N-Female |
| Lightning Protection | Direct Ground |



Grid Parabolic Antenna
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MECHANICAL SPECIFICATIONS:

| | |
|---------------------------------|------------------------------|
| Materials | 6063T6 Aluminum Alloy |
| Mounting Hardware | Marine Grade Stainless Steel |
| Gross Weight | 18 Kgs. |
| Wind Rating | 200 Km/Hr. |
| Elevation Tracking | +/- 5 Degrees |
| Support Pipe Outer Diameter | 25.4 mm (1 Inch) |
| Support Pipe Materials | 6063T6 Aluminum Alloy |
| Diameter of Parabolic Reflector | 1.2 Meters (4 feet) |
| Radiating Materials | High Quality Brass |
| Grid Members Materials | Aluminum Pipe ½ Inch (12 mm) |
| Maximum Mount Pipe Diameter | 50 to 76 mm (2 to 3 Inches) |
| Final Materials Finish | Olive Green Color |

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.