



# ANTENNA EXPERTS

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**Model # LP-170-860**

**170 – 860 MHz.**

**9 dBi Gain**

## LOG PERIODIC DIPOLE ANTENNA

**DESIGN FEATURES:** The LP-170-860 log periodic dipole antenna uses 6063T6 ultra corrosion resistant architectural anodized aluminium alloy and designed to provide wideband directional radio signals from 170 to 860 MHz frequency band. The extra spacers are used between the support booms to improve mechanical durability of antenna. This log periodic dipole antenna system is particular suitable for analogue terrestrial television transmissions and receptions application. This high gain LPA provides strong performance over the entire frequency of 170-860 MHz as the LPDA does not use loading technique to reduce the overall size of array. Powder coating of the complete log periodic antenna provides extra protection against corrosion in saline weather present in coastal areas.

**CONSTRUCTIONS:** The LP-170-860 assembled log periodic antennas outer-most dimensions are 1.5 meters (5 feet) long and 0.9 meters (3 feet) wide. The antenna has removable elements, the longest of which is 0.45 meter. All elements are supplied in two segments for easy of shipping and handling. The elements are attached via a fast deployment studs system at points along the boom. The log periodic antenna operates at D.C. ground with low resistance discharge path for protection against lightning and immunity to noise. All the screws, nuts and bolts of log periodic dipole antenna are made of type 316 marine grade stainless steel. The mounting arrangement of log periodic antenna permits to change the polarization from horizontal to vertical and vice-versa.



### ELECTRICAL SPECIFICATIONS:

|  |                        |
|--|------------------------|
| Frequency Range                          | 170 - 860 MHz.         |
| Gain                                     | 9 dBi.                 |
| Bandwidth                                | Entire Band            |
| Polarization                             | Vertical or Horizontal |
| Input Impedance                          | 50 Ohms                |
| Radiation Pattern                        | Directional            |
| Horizontal Beam width –Half Power Points | 60 Degrees             |
| Front to Back Ratio                      | 18 dB.                 |
| VSWR – better than                       | 2.5:1                  |
| RF Power Handling Capacity               | 500 Watts              |
| Input Termination                        | N-Female               |
| Lightning Protection                     | Direct Ground          |

### MECHANICAL SPECIFICATIONS:

|  |                              |
|--|------------------------------|
| Support Booms & Radiating Elements Materials | 6063T6 Aluminum Alloy        |
| Mounting Hardware -Materials                 | Marine Grade Stainless Steel |
| Gross Weight                                 | 5 Kgs.                       |
| Wind Rating                                  | 200 Km/hr.                   |
| Overall Length                               | 1.5 Meters                   |
| Overall Width                                | 0.9 Meters                   |
| Shipping Length                              | 1.55 Meters                  |
| Support Boom – Materials - Cross Section     | Aluminum – Square Tube       |
| Elements – Materials - Cross Section         | Aluminum - Round Tube        |
| Insulator Materials                          | Teflon & Nylon               |
| Maximum Mount Pipe Diameter                  | 51 mm (2 Inches)             |

### ENVIRONMENTAL SPECIFICATIONS:

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

Please contact us for further information like azimuth & elevation radiation patterns, frequency Vs VSWR graph.

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