



# ANTENNA EXPERTS

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**Model # LPDS-200-500**                      **200 – 500 MHz.**                      **14 dBi. Gain**

## DUAL STACKED HIGH GAIN LOG PERIODIC DIPOLE ANTENNA

**DESIGN FEATURES:** The LPDS-200-500 is a set of two log periodic antennas stacked in horizontal (side-by-side) configuration with vertical polarization. The LPDS-200-500 dual stacked log periodic dipole antenna use 6063T6 ultra corrosion resistant architectural anodized aluminum alloy and designed to provide wideband directional transmission/reception of radio signals from 200-500 MHz bands. The specially designed mounting arrangement results in fast installation. The extra spacers are used between the support booms to improve mechanical durability of log periodic antenna. The antenna can be assembled in less than 10 minutes. This dual stacked log periodic dipole antenna system is particular suitable for transmission, reception, monitoring, scanning and jamming applications due to its broad band design feature. The dual stacked log periodic antenna provides typical 14 dBi gain over the 200-500MHz frequency band as the LPDA does not use loading technique to reduce the overall size of array hence provides the strong performance as compare to the loaded antenna or active antenna.

**CONSTRUCTIONS:** Each LP-200-500 assembled tactical log periodic antennas outer-most dimensions are 1.4 meters (4.5 feet) long and 0.75 meters (2.5 feet) wide. The antenna has removable elements, the longest of which is 0.36 meter. All elements and support booms are supplied in two segments for easy of shipping and handling. The elements are attached via a fast deployment stainless steel studs & nuts 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. The complete antenna is supplied with powder coating finish to protect it further from severe environmental conditions All the screws, nuts and bolts of log periodic dipole antenna are made of type 316 marine grade stainless steel. The dual stacked LP antenna is supplied with horizontal stacking poles to install the antenna on both edges, central mast mounting brackets, suitable power splitter/combiner with phasing harness cables.

### ELECTRICAL SPECIFICATIONS:

|   |   |
|---|---|
| Frequency Range                           | 200-500 MHz.                              |
| Gain - dBi                                | 14 dBi. Typical                           |
| Bandwidth                                 | 200-500 MHz                               |
| Polarization                              | Vertical or Horizontal                    |
| Input Impedance                           | 50 Ohms                                   |
| Radiation Pattern                         | Directional                               |
| Horizontal Beam-width –Half power Points. | 25 +/- 5Degrees (if stacked Horizontally) |
| Vertical Beam-width –Half power Points.   | 45 +/- 5 Degrees                          |
| Front to Back Ratio                       | 18 +/-2 dB.                               |
| VSWR - Equal To or Better Than            | 2.5:1                                     |
| RF Power Handling Capacity                | 500 Watts                                 |
| Input Termination                         | N-Female                                  |
| Lightning Protection                      | DC Ground                                 |

### MECHANICAL SPECIFICATIONS:

|  |                                 |
|--|---------------------------------|
| Support Booms & Radiating Elements Materials | 6063T6 Aluminum Alloy           |
| Mounting Hardware -Materials                 | Marine Grade Stainless Steel    |
| Gross Weight (Complete Dual Antenna System)  | 20 Kgs. with all accessories    |
| Wind Rating                                  | 200 km/Hr. (250KMPH Optional)   |
| Overall Length (Each Antenna)                | 1.4 Meters                      |
| Overall Width (Each Antenna)                 | 1.5 Meters                      |
| Shipping Length                              | 1.8 Meters                      |
| Support Boom - Material – Cross Section.     | 6063T6 Aluminum – Square Tube   |
| Elements - Materials - Cross Section         | 6063T6 Aluminum - Round Tube    |
| Mounting Clamps Position                     | At Rear End of the Support Boom |
| Maximum Mount Pipe Diameter                  | 50-75mm (2-3 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 Detailed Images, VSWR Chart, Gain Chart and Radiation Pattern

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