



# ANTENNA EXPERTS

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Model LPDP-500-2000

500 – 2000 MHz.

9 dBi. Gain

## DUAL POLARIZED CROSS ELEMENTS LOG PERIODIC DIPOLE ANTENNA

**DESIGN FEATURES:** The LPDP-500-2000 high gain log periodic dipole antenna uses 6063T6 ultra corrosion resistant architectural anodized aluminium alloy with welded elements. The complete antenna is supplied with powder coating finish to protect it further from severe environment conditions. The LPDP-500-2000 log periodic dipole antenna is designed to provide wideband directional transmission/reception of radio signals from 500 to 2000MHz bands. The extra spacers are used between the support booms to improve mechanical durability of antenna. This dual polarized log periodic dipole antenna system is particular suitable for transmission, reception, monitoring, scanning and jamming applications due to its capability of receiving/transmitting both the E & H polarized signals simultaneously. This high gain dual polarized log periodic dipole antenna provides strong performance over the entire frequency of 500-2000MHz as the LPDA does not use loading technique to reduce the overall size of array. Epoxy based powder coating of the complete log periodic antenna provides extra protection against corrosion in saline weather present in coastal areas.

**CONSTRUCTIONS:** The LPDP-500-2000 assembled log periodic antennas outer-most dimensions are 0.6 meter (24) long and 0.3 meters (12 Inches) width & height. The antenna is supplied complete in assembled condition. The compact size of the log periodic antenna allows easy handling and specially designed mounting arrangement results in fast installation. The log periodic antenna operates at D.C. ground with low resistance discharge path for protection against lightning and for immunity to noise. The mounting hardware is permanently fixed at the back end of the support boom eliminating the requirements of non-metallic isolated pole/mast. All the elements are welded at points along the support boom. Both output of dual polarized log periodic antenna is provided via low loss coaxial cable whose 2 x N-Female termination are fixed at the back end of the antenna mounting plate. All the screws, nuts and bolts of log periodic dipole antenna are made of marine grade stainless steel.

**RADOME:** The antenna is supplied with radome/enclosure/housing in order to make it 100% weather proof. Conical enclosure is used for low wind loading and for minimal effect of ice formation on the dual polarized antenna operation as well as providing an aesthetically pleasing appearance.



LPDP-500-2000 Antenna  
Dual Polarized Log Periodic Antenna  
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### ELECTRICAL SPECIFICATIONS:

Frequency Range	500-2000 MHz.
Gain	9+ dBi.
Bandwidth	Entire Band
Polarization	Dual - Vertical and Horizontal
Input Impedance	50 Ohms
Radiation Pattern	Directional
Horizontal Beam-width –Half power Points	70 +/- 10 Degrees Typical
Vertical Beam-width – Half Power Points	60 +/-10 Degrees Typical
Front to Back Ratio	16 +/- 2 dB. Typical
Cross Polarization Discrimination – Greater than	25 dB. Typical
VSWR – Better than	2.5:1
RF Power Handling Capacity	250 Watts (700 Watts Optional)
Input Termination	2 x N-Female
Final Finish	Olive Green
Lightning Protection	DC Ground

### MECHANICAL SPECIFICATIONS:

Support Booms & Radiating Elements Materials	6063T6 Aluminum Alloy
Mounting Hardware -Materials	Marine Grade Stainless Steel
Gross Weight Approx.	4.5 Kgs.
Wind Rating	200 km/Hr.
Overall Length	600 mm (24 Inches)
Overall Width	300 mm (12 Inches)
Shipping Size	750 x 350 mm (28 x 14 Inches)
Support Boom - Material – Cross Section	Aluminum – Square Tube
Elements - Materials - Cross Section	Aluminum - Round Rod
Mounting Clamps Position	At rear end of the Support Boom
Maximum Mount Pipe Diameter	52mm (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 and frequency Vs VSWR graph and Frequency Vs Gain graph of antenna.

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