



# ANTENNA EXPERTS

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Model # HF-LP-10-30

10 – 30 MHz.

4 to 7 dBi. Gain

## HF LOG PERIODIC DIPOLE ANTENNA

**DESIGN FEATURES:** The HF-LP-10-30 HF log periodic dipole antenna uses 6063T6 ultra corrosion resistant architectural anodized aluminum alloy and designed to provide wideband directional transmission/reception of radio signals from 10-30 MHz bands. The extra spacers are used between the support booms to improve mechanical durability of antenna. The specially designed mounting arrangement results in fast installation. The antenna can be assembled in less than 15 minutes by two technicians. This log periodic dipole antenna system is particular suitable for transmission, reception, monitoring, scanning, signal intelligence, electronic warfare (EW) and jamming applications due to its broad band design feature. The HF log periodic antenna provides typical 7 dBi gain over 90% of the frequency band 10-30 MHz as the HF LPDA does not use loading technique to reduce the overall size of array hence provides the strong performance as compare to the loaded or active technique.

**CONSTRUCTIONS:** The HF-LP-10-30 assembled log periodic antennas outer-most dimensions are 10 meters (32.85 feet) long and 15 meters (49.25 feet) wide. The antenna has foldable elements, the longest of which is 7.5 meters. All elements are supplied in two segments for easy of shipping and handling except the longest one which is supplied in three sections. The 10 Meters long support boom of HF log periodic antenna is supplied in three segments for easy of shipping and handling which can be assembled at with simple hand tools, makes the antenna highly suitable for tactical application. The elements are attached via a fast deployment self-locking device 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.

### ELECTRICAL SPECIFICATIONS:

Frequency Range	10-30 MHz.
Gain	4 to 7 dBi.
Bandwidth	Entire Band
Polarization	Vertical or Horizontal
Input Impedance	50 Ohms
Radiation Pattern	Directional
Horizontal Beam-width –Half power Points	145 +/- 20 Degrees
Vertical Beam-width –Half power Points	70 +/- 5 Degrees
Front to Back Ratio	12 +/- 3 dB.
VSWR – Better than	1:3.0
RF Power Handling Capacity	1000 Watts
Input Termination	N-Female
Lightning Protection	DC Ground

### MECHANICAL SPECIFICATIONS:

Support Booms & Radiating Elements Materials	6063T6 Aluminum
Mounting Hardware -Materials	Marine Grade Stainless Steel
Net Weight Approx.	110 Kgs.
Wind Rating	160 km/Hr.
Overall Length	10 Meters.
Overall Width	15 Meters
Shipping Length	3.3 Meters
Support Boom - Material – Cross Section.	Aluminum – Square Tube
Elements - Materials - Cross Section	Aluminum - Round Tube
Mounting Clamps Position	At Center of the Support Boom
Maximum Mount Pipe Diameter	76-115mm (3-4.5 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.