

SMART ELECTRONICS COMMUNICATION

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LOG PERIODIC DIPOLE ANTENNA

DESIGN FEATURES: The log periodic antenna is designed to provide wideband directional transmission/reception of horizontal or vertical radio signals in full frequency band. Extra spacers are used between the support booms to improve mechanical strength of antenna. We use two different mounting plates for dedicated horizontal or vertical polarization and it results in fast installation. This 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 signals. This LPDA provide strong performance over the entire frequency as it does not use loading technique to reduce the overall size of array.

CONSTRUCTIONS: All elements are supplied in pairs for compact shipping and easy handling while antenna installation. The installer can attach all the elements very easily at given 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 stainless steel.



ELECTRICAL SPECIFICATIONS:

Model No.	SLP20-88	SLP20-136	SLP20-512	SLP20-1000	SLP20-2000	SLP20-3000
Frequency Range (MHz)	20-88 MHz	20-136 MHz	20-512 MHz	20-1000 MHz	20-2000 MHz	20-3000 MHz
Gain (dBi)	7 dBi (typ.)					
Bandwidth	Full band					
Polarization	Vertical or Horizontal					
Input Impedance	50 Ohms					
Radiation Pattern	Directional					
Horizontal Beam-width (H-plane)	120°					
Vertical Beam-width (E-plane)	70°					
VSWR	≤ 3 : 1 (typ.)					
RF Power Handling Capacity	1KW @ VHF band & 500W @UHF					
Input Termination	N-Female / DIN-Female (optional)					
Lightning Protection	Direct Ground					

MECHANICAL SPECIFICATIONS:

Support Booms and Radiating Elements Materials	Aluminium Alloy 6063T6					
Mounting Hardware	Stainless Steel / Nylon / Delrin					
Antenna Weight (approx)	24 Kg	27	32	34	35	36
Antenna Length (approx)	5.6 Meters	5.8	6.3	6.4	6.5	6.55
Antenna Width (approx)	7.5 Meters					
Shipping Length (approx)	3.5 meters					
Wind Rating	150 Km/Hr.					
Elements Materials-Cross Section	Aluminium-Round Tube					
Support Boom Materials-Cross Section	Aluminium-Square Tube					
Mounting Clamps Position	At the centre of the Support Boom					
Maximum Mounting Pipe Diameter	50-100 mm (2-4 inches)					

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-)30° to +70° Celsius					
Storage Temperature	(-)40° to +80° Celsius					
Humidity	0 to 90% RH					

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