LOG PERIODIC DIPOLE ANTENNA

Model HYC-LPDA 80-2000 cover 0.08-2 GHz, Gain 8 dBi

Design features

The HYC-LPDA-80-2000 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 80-2000 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 antenna. This log periodic dipole antenna system is particular suitable for transmission, reception, monitoring, surveillance, scanning and jamming applications due to its broad band design feature. This high gain LPA provides strong performance over the entire frequency of 80-2000 MHz as the LPDA does not use loading technique to reduce the overall size of array. The high gain log periodic antenna can be assembled in less than 5 minutes by 2 technicians.

Constructions

The HYC-LPDA-80-2000 assembled log periodic antennas outer-most dimensions are 2.2 meters (7.2 feet) long and 1.9 meters (6.2 feet) wide. The antenna has foldable elements, the longest of which is 0.95 meter. All the elements are supplied in two segments for easy of shipping and handling. The elements are attached via a stainless steel stud system which is fixed at each element end for attaching the same on the corresponding marked position on support 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 epoxy based powder coating finish to protect it further from severe environmental conditions All the screws, nuts and bolts of high gain log periodic dipole antenna are made of type 316 marine grade stainless steel. The LP Antenna is supplied with olive green military colour finish. The mounting arrangement of log periodic antenna permits to change the polarization from horizontal to vertical and vice-versa.

ELECTRICAL SPECIFICATIONS:

Frequency Range	80-2000 MHz.
Gain - Typical	8 dBi.
Bandwidth	Entire Band
Polarization	Vertical or Horizontal
Input Impedance	50 Ohms
Radiation Pattern	Directional
Horizontal Beam-width –Half power Points.	90 +/-10 Degrees Typical
Vertical Beam-width –Half power Points.	65 +/-10 Degrees Typical
Front to Back Ratio	16 +/-2 dB. Typical
VSWR – Better Than	2.5:1
RF Power Handling Capacity	250 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	< 7 Kgs.
Wind Rating	190 km/Hr.
Overall Length	2.2 Meters (87 Inches)
Overall Width	1.9 Meters (75 Inches)
Shipping Length	2.3 Meters (90 Inches)
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	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

RECOMMANDATIONS :

Selon la puissance injectée ne pas stationner dans l'axe de l'antenne à moins de 10 mètres pour une puissance de 100 watts émetteur (850 watts de PAR). {Calculateur des distances de sécurité } Rester en deçà du seuil maximal des niveaux règlementaires.

Consulter le Portail Radiofréquences de l'Etat Français

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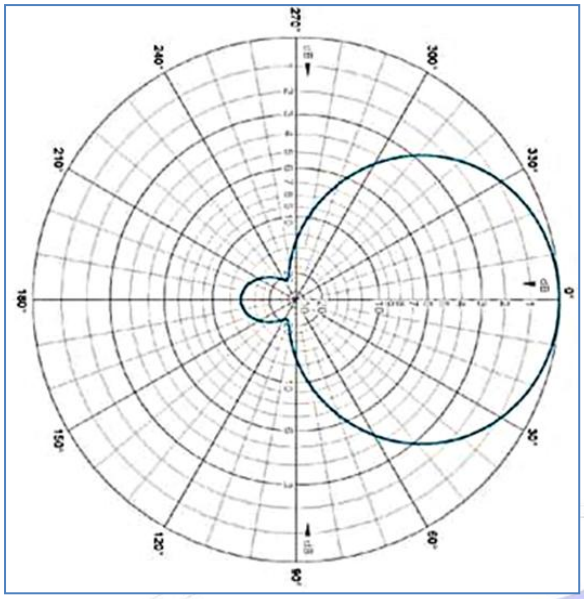

DIAGRAM H Plane Azimuth

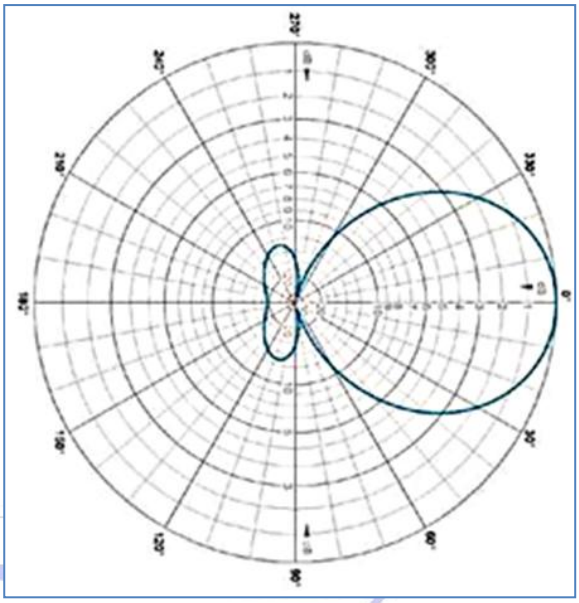

DIAGRAM V Plane Elevation