

BROADBAND PROPAGATION

Antenna Design & Supply

1-3 Adelaide Rd. Echunga
PO Box 529 Echunga
South Australia. 5153

Phone: (08) 8388 8132
Fax: (08) 8388 8536
Intl.Phone: (618) 8388 8132
Intl.Fax: (618) 8388 8536

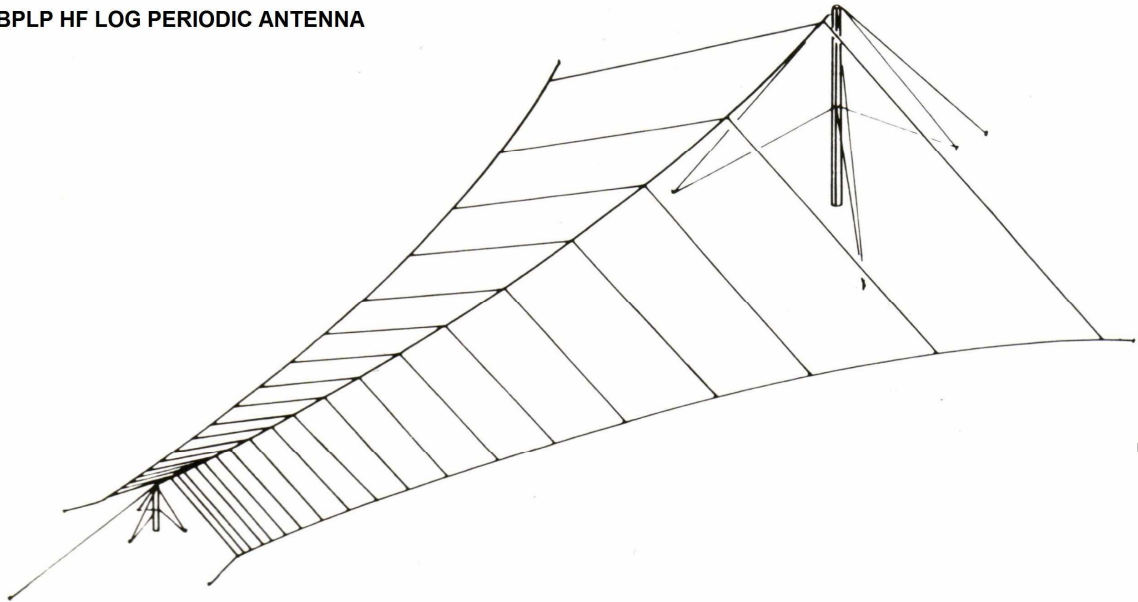
ABN: 84 232 273 647

E-mail: sales@broadbandpropagation.com
Web: www.broadbandpropagation.com

HF BROADBAND HORIZONTALLY POLARISED LOG PERIODIC ANTENNA

Models: BPLP-2-30, BPLP-3-30 and BPLP-5-30

BPLP HF LOG PERIODIC ANTENNA



Our HF Broadband Log Periodics are almost 100% efficient and are short to medium range antennas. They can be supplied in a number of models to suit differing frequency spans. They are high gain and directional and can be configured as bi-directional if two are mounted back to back.

The antennas are end fed and can be supplied with power ratings ranging from 200 watts, to 10 Kilowatts CW (Continuous). The antennas are almost 100% efficient across the full operating range of frequencies. Radiation is horizontally polarised

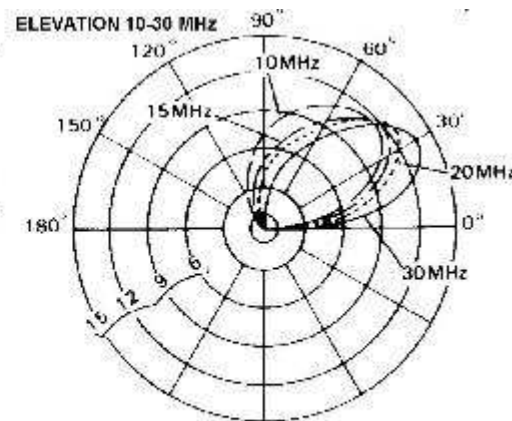
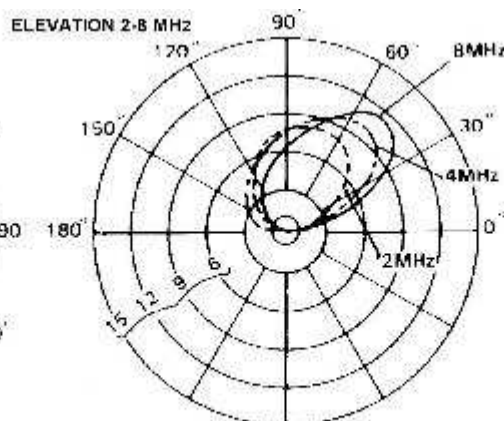
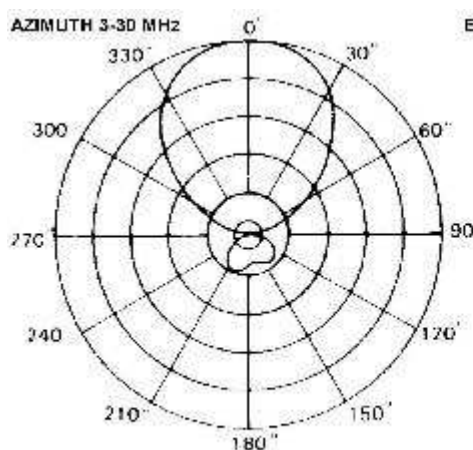
Full lightning protection is provided

Specifications

	BPLP-2-30	BPLP-3-30	BPLP-5-30
Electrical			
Frequency:	2-30 MHz	3-30 MHz	5-30 MHz
Gain:	Dependant on frequency 8-13 dBi		
VSWR:	2.0-1 most of band, 2.5:1 maximum		
Polarisation:	Horizontal		
Power Rating:	250 watt average (1 kW PEP) 1Kilowatt average (4 kW PEP) and 10 Kilowatt (40 kW PEP)		
models available			
Input Impedance:	50 ohms		
Input connection:	Dependant on power rating		
Mechanical			
Mast Height:	23m	18m	12m
Overall length:	130m	100m	65m
Overall Width:	80m	62m	40m
Wind Rating	150 km/hr		

All metal materials are of high grade stainless steel or hot-dip galvanised steel. Ceramic insulators used throughout.

RADIATION PATTERNS



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Specifications

	BPLP-2-30	BPLP-3-30	BPLP-5-30
Electrical			
Frequency:	2-30 MHz	3-30 MHz	5-30 MHz
Gain:	Dependant on frequency 8-13 dBi		
VSWR:	2.0-1 most of band, 2.5:1 maximum		
Polarisation:	Horizontal		
Power Rating:	250 watt average (1 kW PEP) 1Kilowatt average (4 kW PEP) and 10 Kilowatt (40 kW PEP)		

models available

Input Impedance:	50 ohms
Input connection:	Dependant on power rating

Mechanical

Mast Height Minimum	23m	18m	12m
Overall length:	130m	100m	65m
Overall Width:	80m	62m	40m
Wind Rating	150 km/hr		

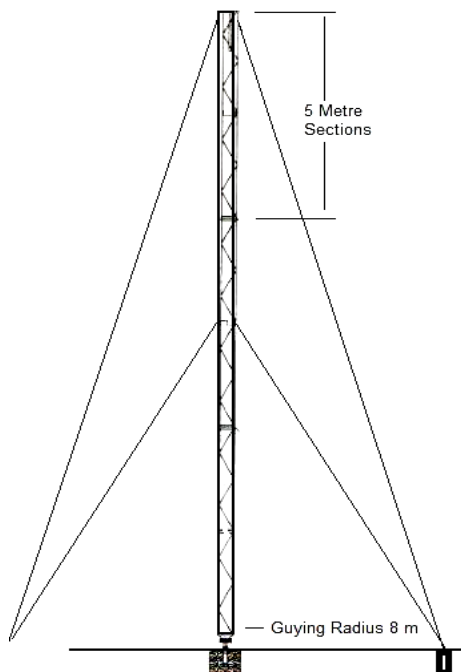
NOTES ON MAST SIZES REQUIRED

The centre mast heights given are preferred heights for the antenna attachment points. Towers can be higher to suit standard sizes of locally available masts.

Required centre mast types:

Medium-duty, Triangular Section Guyed Butt Mast for the BPLP-2-30 and BPLP-3-30

Light Duty, Triangular section Guyed Butt Mast for the BPLP-5-30



Typical 15m Light-Duty, Triangular Lattice, Guyed Butt Mast Specifications

Design Wind Speed:	50.0 m/s
Lateral Ancillary Load:	7kN applied as point load at top of mast
Mast Width:	305mm
Number of guys:	3 sets of top and middle guys at 120 deg.
Guying Radius:	8m

Typical 20m Medium-Duty, Triangular Lattice, Guyed Butt Mast Specifications

Design Wind Speed:	54.0 m/s
Lateral Ancillary Load:	10kN applied as point load 2m below top guying point
Mast Width:	305mm
Number of guys:	3 sets of top and middle guys at 120 deg.
Guying Radius:	15m

STUB MAST

The stub mast for all models is 50mm diameter, 3mm wall thickness, galvanised steel tubing. Overall length 3m (0.5m in ground footing, 2.5m above ground)

Guying is required using 4-5mm stainless or galvanised wire rope into concrete guy anchors at a guying radius of 2.5m. Welded lugs are required on the stub mast. details will be provided on receipt of purchase order.