

HF Directional Antenna

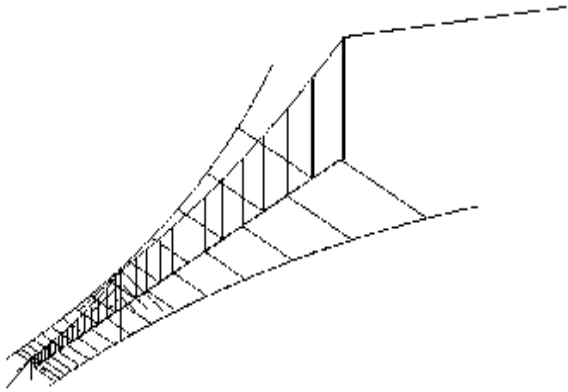
2 – 30 MHz

Product Code: LPMA-A0010

VERSION: 1.2

SPECIFICATIONS:

Electrical:	
Frequency range	2 – 30 MHz
VSWR	< 2.5:1
Nominal input impedance	50 Ω
Connector	7/16 female
Feed power handling	2.5 kW
Gain (max)	12.5 dBi (± 0.5)
Gain (min over band)	9.5 dBi (± 0.5)
E-plane 3 dB beamwidth	25° – 30° (± 5°)
H-plane 3 dB beamwidth	110° (± 5°)
Front to back (F/B ratio)	15 – 25 dB (± 3 dB)
Polarisation	Vertical
Mechanical:	
Dimensions (l x w x h)	90 m x 80 m x 20 m
Weight	100 kg
Mounting method	Mounted on tower, not included
Environmental: designed to meet the following specifications	
Wind survival	160 km/h
Temperature (operational)	- 30 °C to + 70 °C
Water ingress rating	IP 65 (NEMA 4X)



PRODUCT FEATURES:

- High directivity and consistent pattern throughout the frequency range
- Radiation pattern optimised for ground-wave and low takeoff angles
- LPMA design minimizes required height of support towers

APPLICATIONS:

- Monitoring and high-power HF communications
- Fixed site communications links

PRODUCT DESCRIPTION:

The LPMA-A0010 is an HF monitoring, high-power and communications antenna covering the frequency range 2 to 30 MHz, with powers of up to 2.5 kW continuous. This LPMA design offers superb performance over the entire HF frequency range.

Because the LPMA-A0010 is vertically polarised, it offers effective ground-wave coverage, and is ideal for signal interception or communicating with HF vehicle and man-portable radios, which typically use vertically polarised antennas. It also offers an excellent low-angle radiation pattern, making it equally suited to medium- and long-range communications links.

The LPMA-A0010 is intended for installation on fixed towers at a permanent site. The antenna is rated for wind speeds of up to 160 km/h, depending on the specification of the towers used.

RELATED PRODUCT(S):

LPMA-A0001	4 – 30 MHz
LPMA-A0002	2.5 – 30 MHz
LPMA-A0003	1.5 – 30 MHz
LPMA-A0004	3 – 30 MHz

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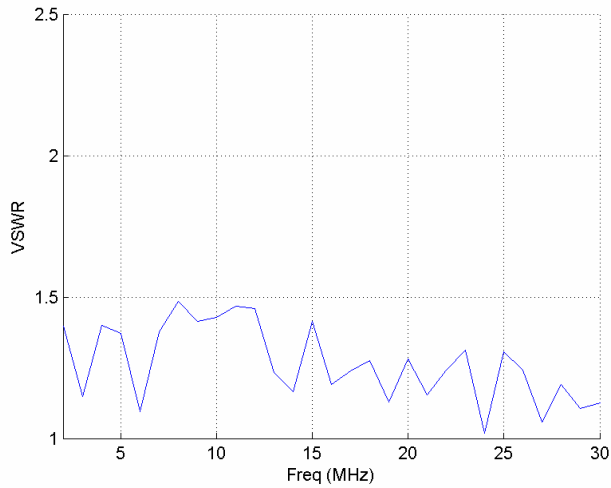
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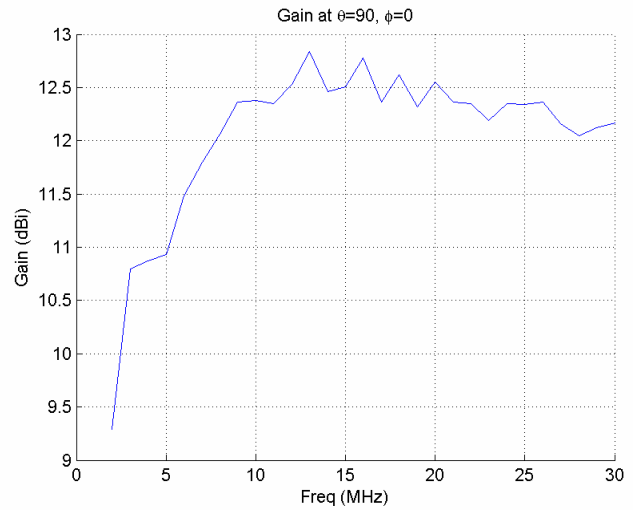
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VSWR AND GAIN GRAPHS:

Typical VSWR:

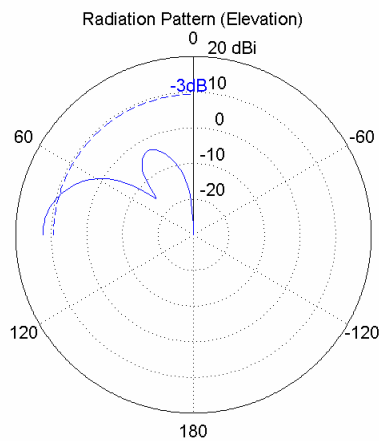


Gain (over infinite perfectly conducting ground):



RADIATION PATTERNS:

E-plane:



H-plane:

