High-Power LPDA Antenna

20 – 520 MHz

Product Code: LPDA-A0077

VERSION: 2.4

SPECIFICATIONS:

Electrical:	
Frequency range	20 – 520 MHz
VSWR	< 2.5:1
Nominal input impedance	50 Ω
Connector	7/16 female
Feed power handling	1000 W continuous
Gain	> 5 dBi, 30 – 520 MHz > 2.5 dBi, 20 – 30 MHz
E-plane 3 dB beamwidth	≥ 60º
H-plane 3 dB beamwidth	≥ 75º
Polarisation	Adjustable with deployment (vertical and horizontal)
Front-to-back ratio	≥ 12 dB, 30 – 520 MHz ≥ 6 dB, 20 – 30 MHz
Earth connection	Earth connector allowing to connect a grounding cable
Mechanical:	
Dimensions (w x l)	7000 mm x 5200 mm
Weight	< 50 kg
Material	Aluminium, stainless steel, tufnol, fibreglass
Mounting method	Bracket onto a mast
Packaging	Transportable bag or crate
MTBF	100,000 h
Environmental: designed to meet the following specifications	
Temperature	According to Stanag 2895
Wind survival on mast	120 km/h (ice ≤ 3 mm)

FEATURES:

- Low frequency coverage up to 520 MHz in a single antenna
- Low VSWR
- High gain of 5 dBi over most of the band
- High feed power handling of 1000 W
- Easy construction of detachable elements with spring fasteners
- Compact storage as unit is easily broken into smaller parts

APPLICATIONS:

- Wideband monitoring
- High-power

PRODUCT DESCRIPTION:

This high-powered LPDA is a directional log-periodic dipole array primarily designed for EW applications. It covers the frequency band from 20 to 520 MHz. It can handle a continuous input power of 1000 W and has a gain greater than 5 dBi. The polarisation is adjustable between vertical and horizontal. The antenna can be broken down into pieces smaller than 2.7 m in length which allows compact storage. The antenna can be erected from packaging in less than 10 minutes.

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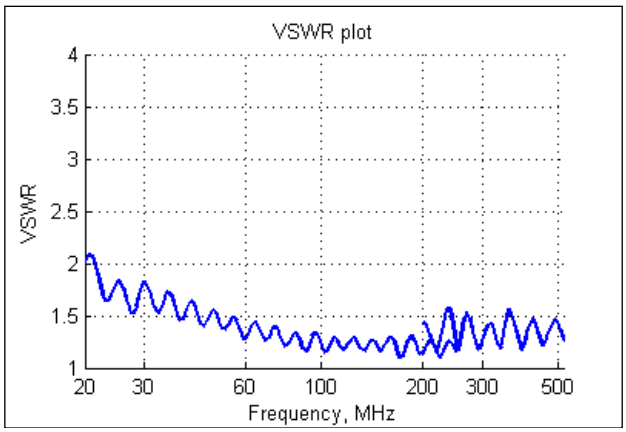
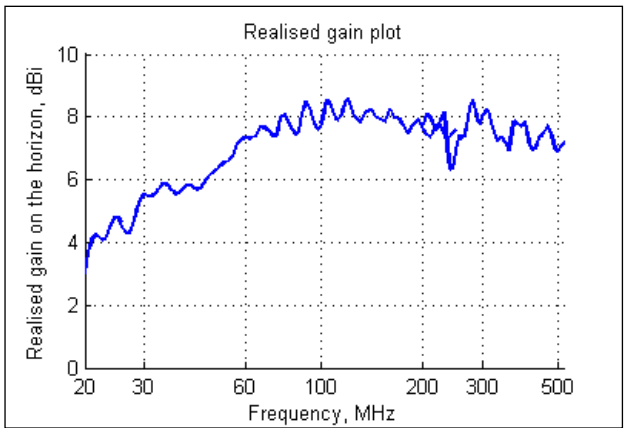
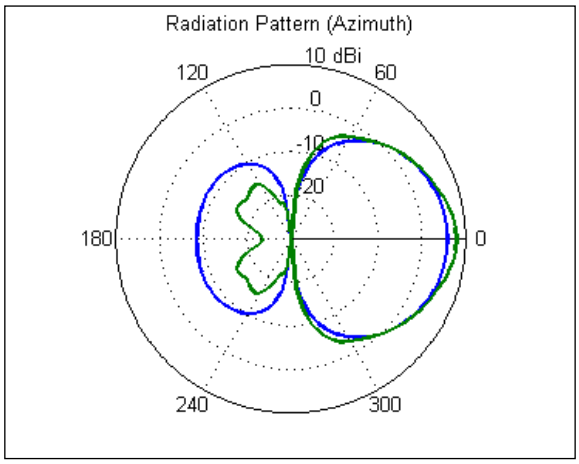
SIMULATED VSWR:



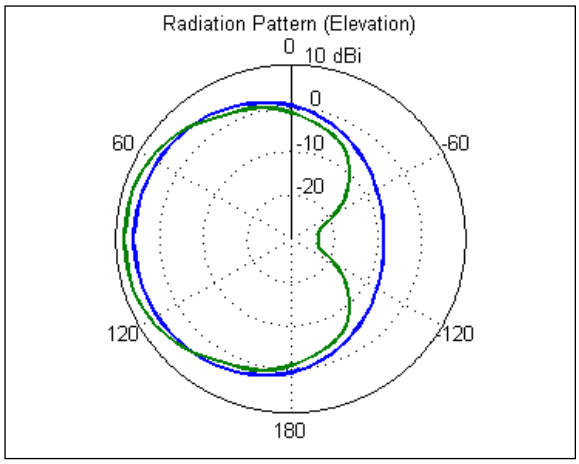
SIMULATED GAIN:



E-PLANE PATTERN:

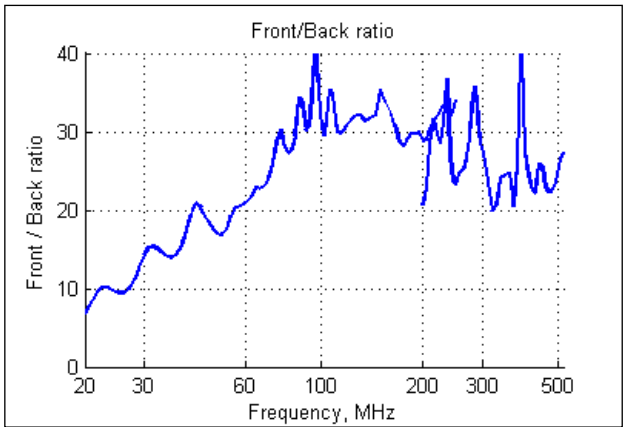


H-PLANE PATTERN:



Blue = 30 MHz. Green = 100 MHz, typical for high frequencies

FRONT / BACK RATIO:



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