

High-Power LPDA

20 – 100 MHz

Product Code: LPDA-A0029

VERSION: 3.9



SPECIFICATIONS

Electrical:	
Frequency range	20 – 100 MHz
VSWR	< 2.5:1
Nominal input impedance	50 Ω
Connector	7/16 female
Feed power handling	2 kW
MTBF	50,000 hrs
Gain	6 dBi typical, -2 dBi minimum from 20 – 30 MHz
E-plane 3 dB beamwidth	55° typical
H-plane 3 dB beamwidth	100° typical
Polarisation	Adjustable (vertical and horizontal)
Mechanical:	
Dimensions (l x w)	6320 mm x 5700 mm
Weight	38 kg
Material	Aluminium, stainless steel, fibreglass
Mounting method	Bracket onto a mast
Environmental: designed to meet the following specifications	
Temperature (operational)	- 40 °C to +55 °C (no icing)
Wind survival on mast	160 km/h (calculated)

FEATURES:

- Low frequency coverage up to 100 MHz in a single antenna
- Low VSWR
- High gain of 6 dBi over the band
- High feed power handling of 2 kW
- Easy construction of detachable elements with spring fasteners
- Compact storage as unit is easily broken into smaller parts

APPLICATIONS:

- Wideband monitoring and jamming

PRODUCT DESCRIPTION:

The high-powered LPDA-A0029 is a directional log-periodic dipole array primarily designed for EW applications. It covers the 20 to 100 MHz frequency range, at 2 kW of power, with 6 dBi of gain, or a 80° to 100° H-plane beamwidth. The polarisation is adjustable between vertical and horizontal without lowering the mast. The antenna breaks into three for compact storage, and can be fully erected from packaged by two people in less than 10 minutes.

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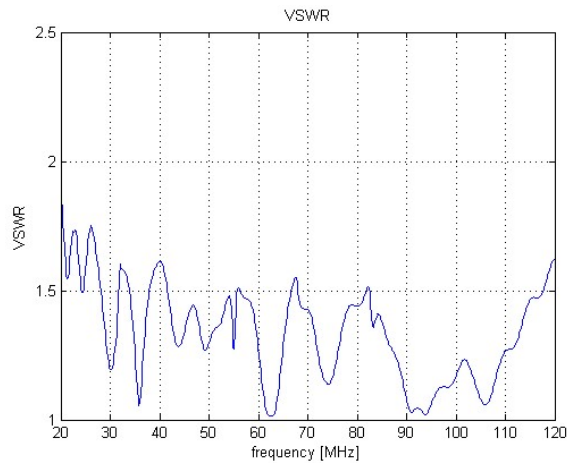
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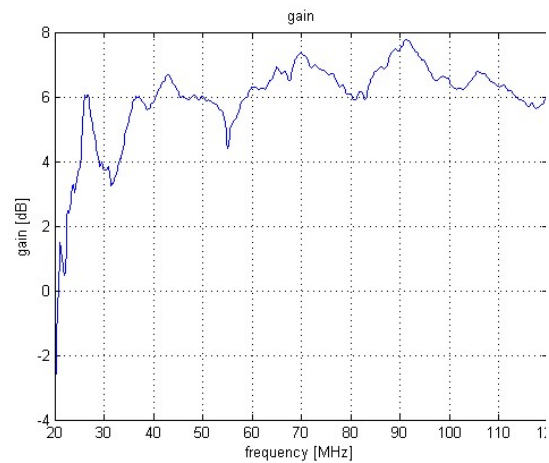
VERSION: 3.9

VSWR AND GAIN GRAPHS:

MEASURED VSWR:

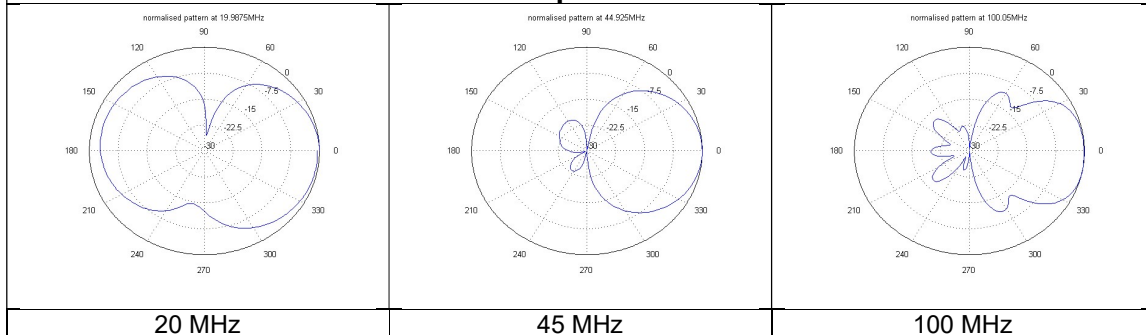


MEASURED GAIN:

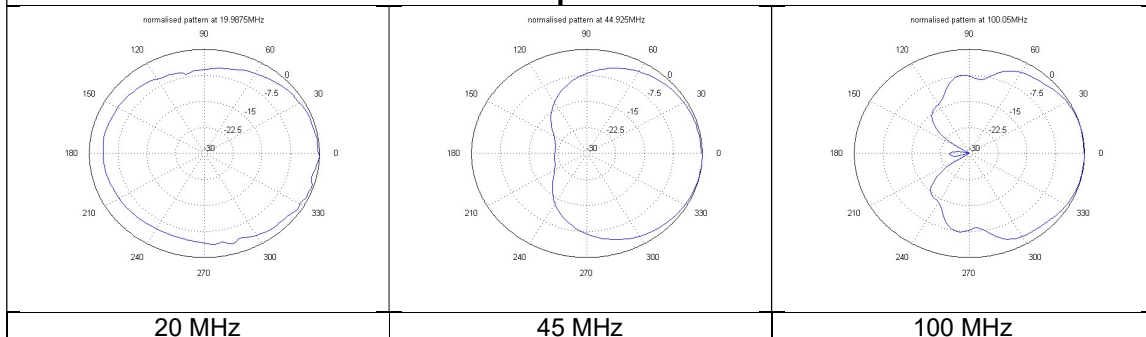


Normalised radiation patterns:

E-plane



H-plane



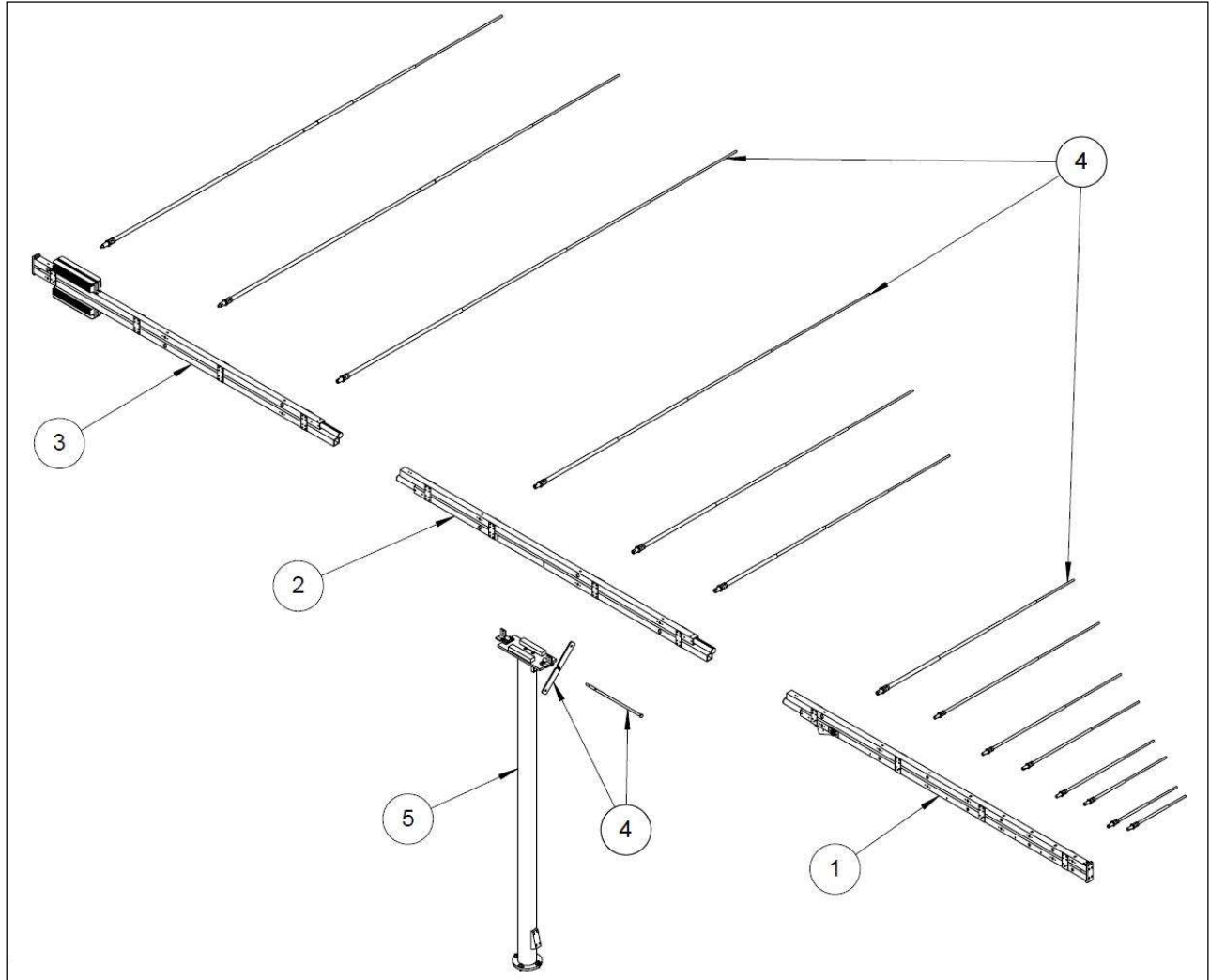
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EXPLODED VIEW OF LPDA-A0029 (only one side elements shown):



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RE-ORDER PARTS LIST (refer to figure 1):

No	Product order code	Description	Contents
1	MISC-A0061-01	Spare front boom section for LPDA-A0029	1 off LPDA-A0029 front boom section
2	MISC-A0061-02	Spare middle boom section for LPDA-A0029	1 off LPDA-A0029 middle boom section
3	MISC-A0061-03	Spare back boom section for LPDA-A0029	1 off LPDA-A0029 back boom section
4	MISC-A0037	Spare element kit for LPDA-A0029	Set of elements, 2 of each, 28 total 1 off rotator arm 1 off hinge rod 1 off rotator rope (not shown) 1 off element bag (not shown)
5	MISC-A0061-04	Spare isolator pole for LPDA-A0029	1 off isolator pole 1 off 7/16 (m) jumper cable (not shown)
6	MISC-A0061-05	Hinge pin for LPDA-A0029	Hinge pin only
7	MISC-A0061-06	Hinge rotator arm for LPDA-A0029	Rotator arm only