

High-Power Omni Antenna

100 – 600 MHz

Product Code: MONO-A0022

VERSION: 2.6

SPECIFICATIONS:



Electrical:	
Frequency range	100 – 600 MHz
VSWR	< 2.5:1
Nominal input impedance	50 Ω
Connector	7/16 female
Feed power handling	1000 W CW
Radiation pattern	Monopole, omni-directional in azimuth
Gain on horizon (simulated with infinite groundplane)	3.4 dBi (typical), 3 dBi (minimum)
Gain on horizon (measured with reference to a resonant monopole)	0 dBi monopole (typical), -2 dB monopole (minimum)
Polarisation	Vertical
Mechanical:	
Dimensions (d x h)	630 mm x 500 mm
Weight	15 kg
Mounting method	Eight M8 bolts
Groundplane requirements	Flat on vehicle top. 1.5 m x 1.5 m clear area
Environmental: designed to meet the following specifications	
Temperature (operational)	-40 °C to +70 °C
Wind survival on vehicle	160 km/h
Water and dust resistance	IP 67

PRODUCT FEATURES:

- Wide bandwidth covered in a single antenna
- Low VSWR, high gain over the band
- 1000 W feed power handling
- Passive construction
- Full-gain antenna, no lossy components used for matching

PRODUCT APPLICATIONS:

- Wideband monitoring
- High-power applications

PRODUCT DESCRIPTION:

This wideband high-power transmit antenna is designed for full-coverage high-power applications from 100 to 600 MHz. Housed in a rugged radome, the antenna is mounted either on a vehicle roof or an elevated groundplane.

The antenna element inside the radome has excellent gain and VSWR characteristics over the full-band. No lossy matching network is used, the antenna structure is designed to work over the full frequency range, giving maximum radiation and allowing high transmitted powers to be used.

The antenna can be used for reception at lower frequencies with reasonable gain.

This antenna can be customised if required, for different frequency ranges or greater power handling.

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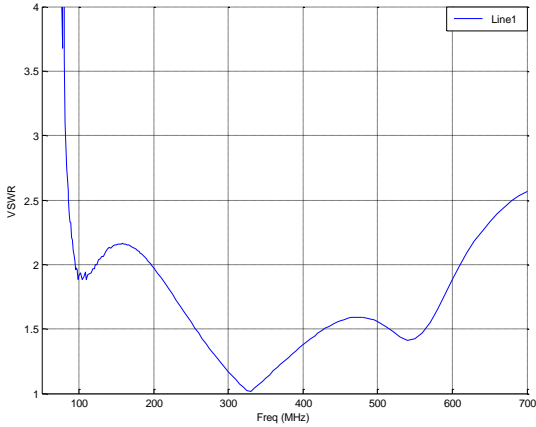
100 – 600 MHz

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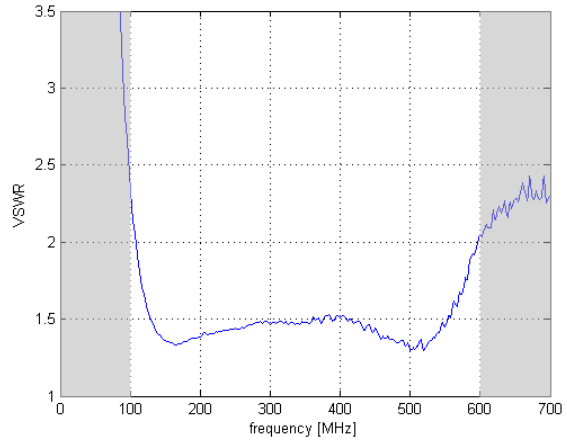
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VSWR AND GAIN GRAPHS:

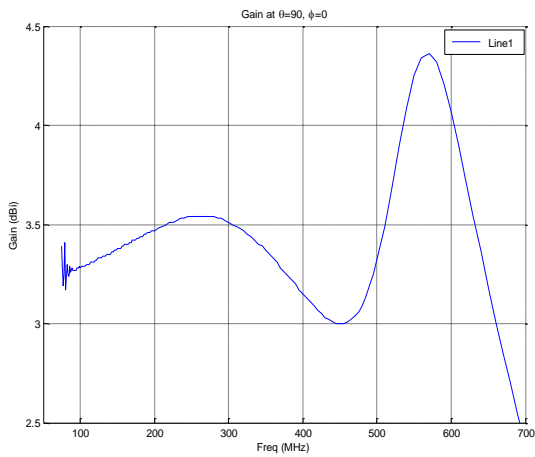
SIMULATED VSWR:



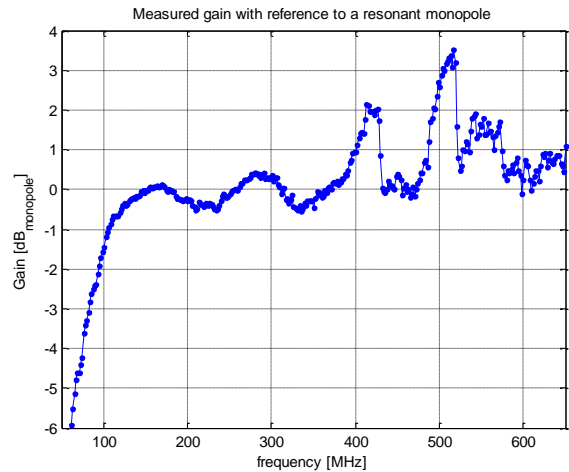
MEASURED VSWR:



SIMULATED GAIN ON INFINITE GROUNDPLANE:



MEASURED GAIN:



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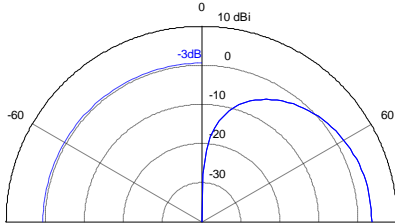
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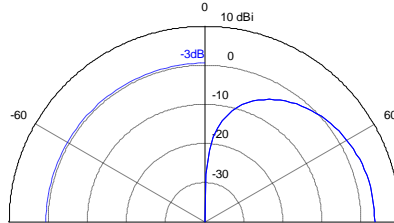
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SIMULATED ELEVATION PLOTS ON INFINITE GROUNDPLANE:

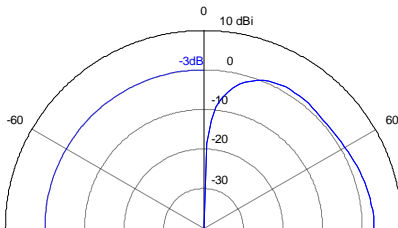
100 MHz



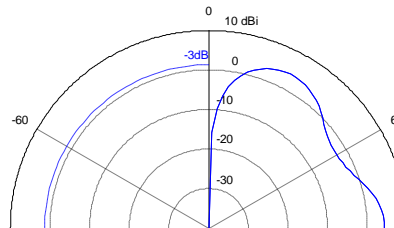
260 MHz



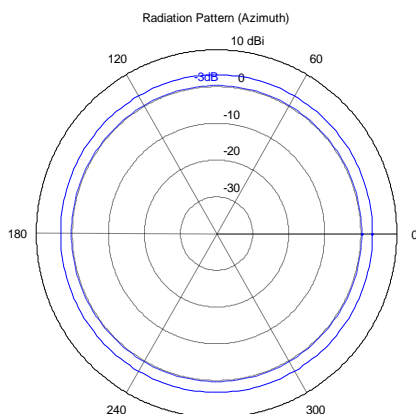
450 MHz



570 MHz



100 MHz



570 MHz

