

High-Power Omni Antenna

100 – 600 MHz

Product Code: MONO-A0077

VERSION: 1.1

SPECIFICATIONS:



Electrical:	
Frequency range	100 – 600 MHz
VSWR	< 2.5:1
Nominal input impedance	50 Ω
Connector	7/16 female
Feed power handling	2 kW
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), -1 dB monopole (minimum)
Polarisation	Vertical
Mechanical:	
Dimensions (d x h)	600 mm x 600 mm
Weight	< 10 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
- 2 kW feed power handling
- Passive construction
- Full-gain antenna, no lossy components used for matching

PRODUCT APPLICATIONS:

- Wideband monitoring
- High-power applications

PRODUCT DESCRIPTION:

The MONO-A0077 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.

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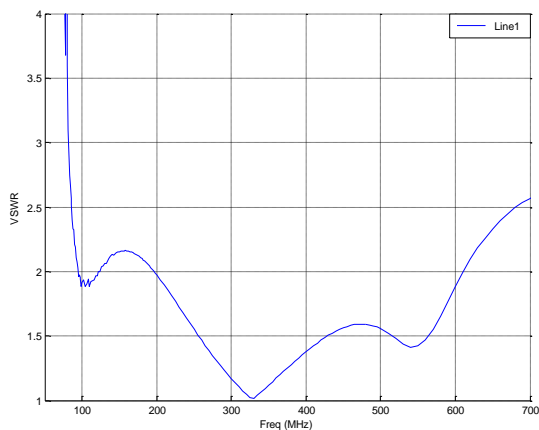
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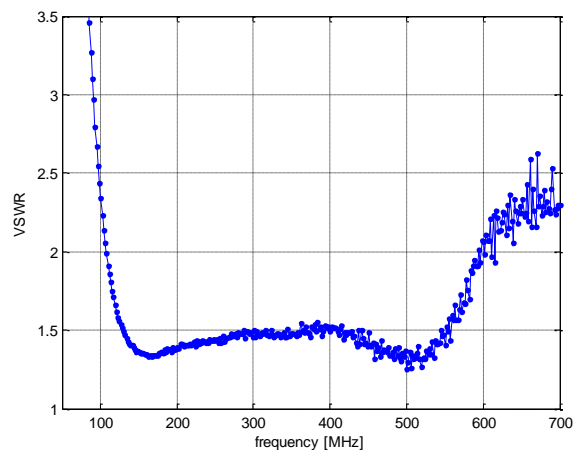
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VSWR AND GAIN GRAPHS:

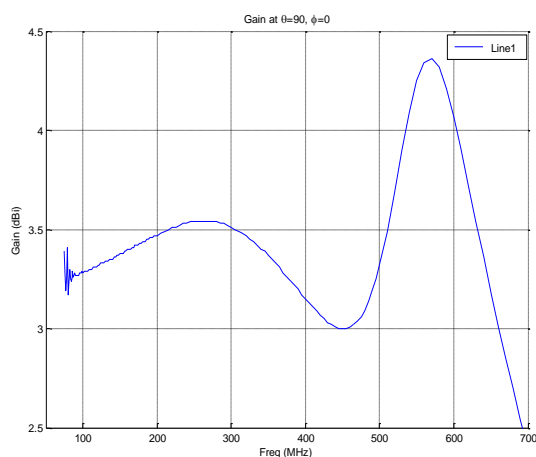
SIMULATED VSWR:



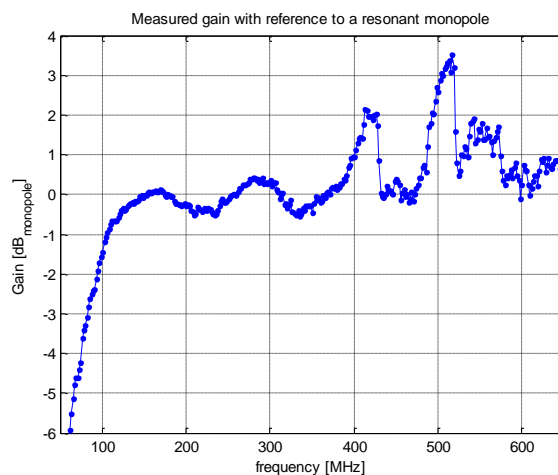
MEASURED VSWR:



SIMULATED GAIN ON INFINITE GROUNDPLANE:



MEASURED GAIN:



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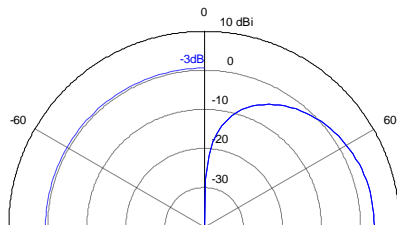
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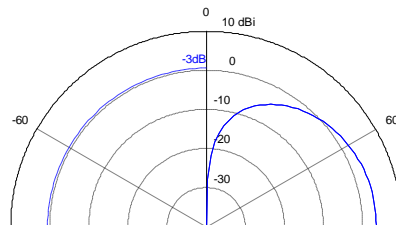
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SIMULATED ELEVATION PLOTS ON INFINITE GROUNDPLANE:

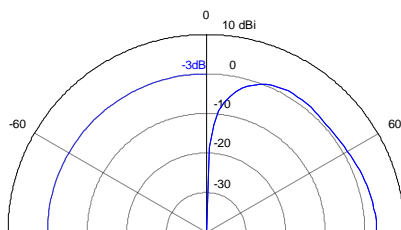
100 MHz



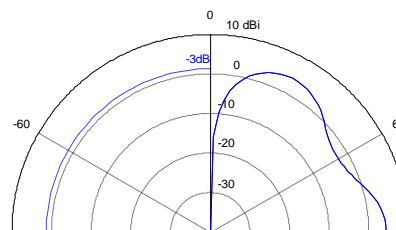
260 MHz



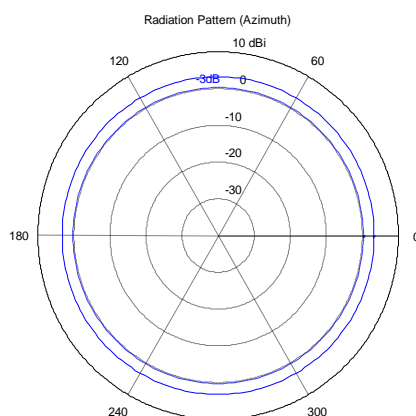
450 MHz



570 MHz



100 MHz



570 MHz

