

## Horizontally Polarised Omni-Directional Antenna

20 – 500 MHz

Product Code: OMNI-A0099

VERSION: 4.1



### SPECIFICATIONS:

<b>Electrical:</b>	
Frequency range	Band A: 20 – 100 MHz Band B: 100 – 500 MHz
VSWR	Band A: < 2:1 Band B: < 15:1
Feed power handling	0.25 W
Nominal input impedance	50 Ω
Connector	2 x N-type female Supplied with N-M cables
Gain	See graph
Gain variation over azimuth	< 3 dB RMS
Polarisation	Linear: horizontal
<b>Mechanical:</b>	
Dimensions (φ x h)	2.0 m x 1.0 m
Weight	22.5 kg
Mounting method	8 x M12 bolts in flanges
<b>Environmental:</b>	
Wind survival	160 km/h as part of SYST-A0004
Relative humidity (operational)	< 95%
Salt / fog	Yes
Vibration	MIL-STD-810F vehicle
Shock	20 G
Operational rain proof	Yes
Water ingress rating	IP 65 (NEMA 4X)

### PRODUCT FEATURES:

- Wideband horizontal omni
- Smooth radiation patterns
- Hollow centre core allows cables to pass through the antenna
- Heavy aluminium tube to support further antennas above this omni

### APPLICATIONS:

- Spectrum monitoring
- General purpose receiving antenna
- Part of an antenna stack

### PRODUCT DESCRIPTION:

This omni-directional antenna is designed for monitoring of horizontally polarised RF signals in the frequency range 20 to 500 MHz.

The band is covered by 2 antennas: a crossed-dipole fed in quadrature for the low frequencies, and a four-feed loop antenna for the upper band. The loop radiation pattern has a null at top and bottom, eliminating structure interactions that plague crossed-dipoles mounted with other antennas.

A generous central cavity allows several large cables to be passed through the antenna, for feeding other bands or DF antennas higher up the stack. The substantial mast and flanges allow heavy antennas to be mounted above the omni.

This antenna is part of the SYST-A0004 stack providing interferometric DF, vertical and horizontal polarisation monitoring in the range 20 to 3000 MHz.

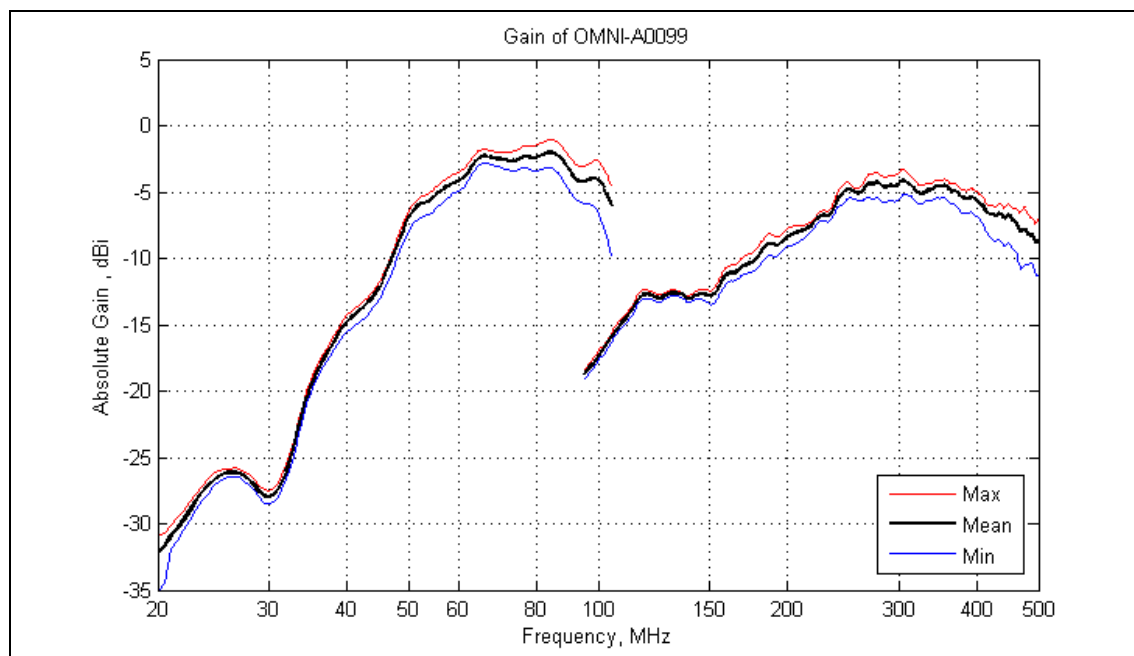
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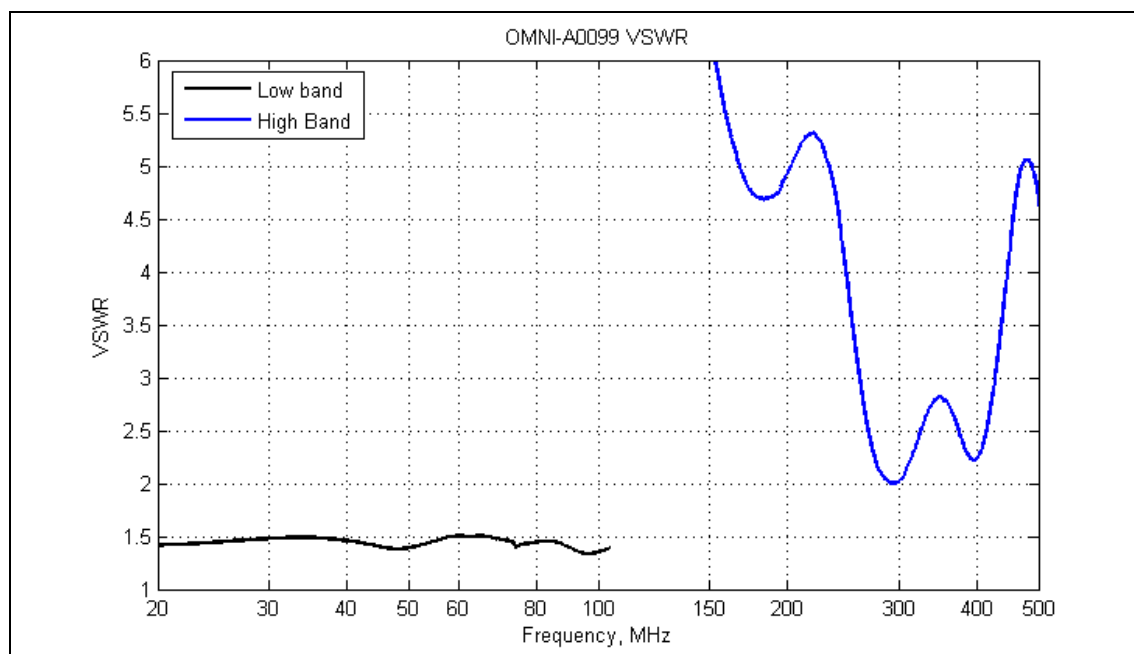
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## MEASURED GAIN:



## VSWR:



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## TYPICAL RADIATION PATTERNS:

