

Horizontally Polarised Omni-Directional Antenna

20 – 500 MHz

Product Code: OMNI-A0099

VERSION: 4.3



SPECIFICATIONS:

| Electrical: | |
|---|---|
| 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 |
| Mechanical: | |
| Dimensions (φ x h) | 2.0 m x 1.0 m |
| Weight | 22.5 kg |
| Mounting method | 8 x M12 bolts in flanges |
| Environmental: designed to meet the following specifications | |
| 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.

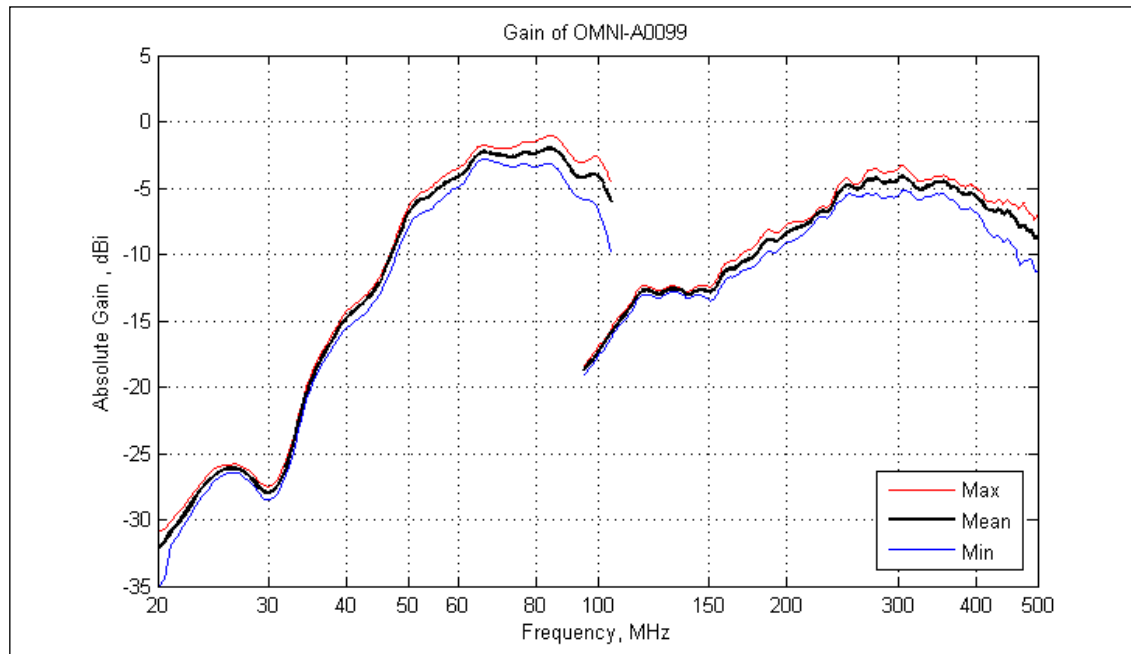
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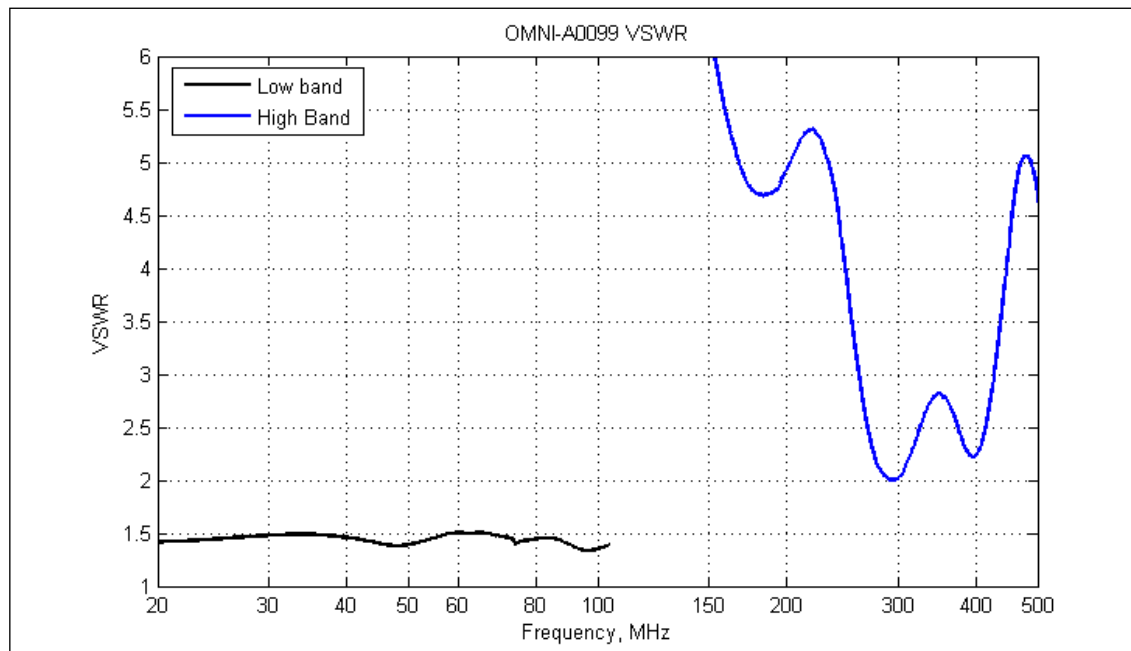
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MEASURED GAIN:



VSWR:



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TYPICAL RADIATION PATTERNS:

