

Compact Active Monitoring Antenna

20 - 6000 MHz

Product Code: OMNI-A0299

VERSION: 1.5



SPECIFICATIONS:

Product code:		
OMNI-A0299-01	Active antenna with passive bypass and single N-type female connector	
OMNI-A0299-02	Passive antenna with two N-type female connectors	
OMNI-A0299-03	Active antenna with passive bypass and including active GPS antenna	
OMNI-A0299-05	Active antenna with passive bypass and, including active GPS antenna and manually selectable FM attenuation.	
Electrical:		
Frequency range*	Band A: 20 – 1000 MHz Band B: 1000 – 6000 MHz	
Nominal H-plane 3 dB beamwidth	360°	
Nominal E-plane 3 dB beamwidth	60°	
Azimuth ripple (RMS)	Band A: ±1.5 dB Band B: ±2.5 dB	
VSWR	< 2.5:1 typical	
Polarisation	Linear, vertical	
RF power rating	Receive only	
Connector type		
RF Output	N-type female	
GPS Output (OMNI-A0299-03/05 only)	N-type female	
Input voltage (via coaxial cable.)	OMNI-A0299-01/03/05 13 – 24 VDC	GPS (-03/-05 only) 2.5 – 16 VDC
Input current	< 150 mA	
OP1dB (typ.) (in active mode)	16 - 20 dBm (active mode)	
OIP2 (typ.) (in active mode)	40 dBm (active mode)	
OIP3 (typ.) (in active mode)	32 - 35 dBm (active mode)	
GPS	Active GPS antenna (OMNI-A0299-03/05 only)	
Mechanical:		
Dimensions (h x d)	564 mm x 140 mm	
Weight	< 2.4 kg	
Environmental: designed to meet the following specifications		
Operating temperature	-40 °C to +65 °C	
Storage temperature	-55 °C to +85 °C	
UV stability	Yes	
Operational rainproof	Yes	
Operational humidity	95% at +25 °C and +55 °C	
Wind velocity (no ice)	180 km/h	
Sand and dust resistant	Yes	
Vibration	10 Hz – 300 Hz: 0.01 g2/Hz 300 Hz – 500 Hz: 0.03 g2/Hz	
Mechanical shock	40 g @15 ms all axis	
Indirect lightning survival	Yes	
Salt fog	Yes. 47 °C with 5% NaCl solution	

* OMNI-A0299-01/03/05 bands A and B are internally combined

PRODUCT FEATURES:

- Ultra wideband 20 to 6000 MHz
- Protected against excessive field strengths
- Very good sensitivity
- Low profile compared to passive alternatives
- Robust
- IP63

APPLICATION AREAS:

- General spectrum monitoring
- Suitable for vehicle-mount and mast-mount applications
- Internal limiter allow operation in adverse EMC environments

RELATED PRODUCTS:

- MISC-A0022 power supply
- OMNI-A0107 compact VP active monitoring antenna
- OMNI-A0156 HP active monitoring antenna

PRODUCT DESCRIPTION:

This vertically polarised omni-directional antenna consists of an active antenna array, covering 20 to 6000 MHz. The antennas are combined under 1 compact radome. The active part of the antenna protects the system from excessive field strengths and boosts low level signals.

The active version of this antenna relies on DC power injection on the output port of the antenna. The antenna is best utilised with the MISC-A0022 power supply for this purpose. The OMNI-A0299-01 features a passive-bypass mode which is engaged when the antenna is not powered. In this mode, the antenna is completely passive, allowing for low distortion measurements in the presence of high incident fields. The OMNI-A0299-05 has several FM band attenuation options between 0dB and 35dB which can be manually selected.

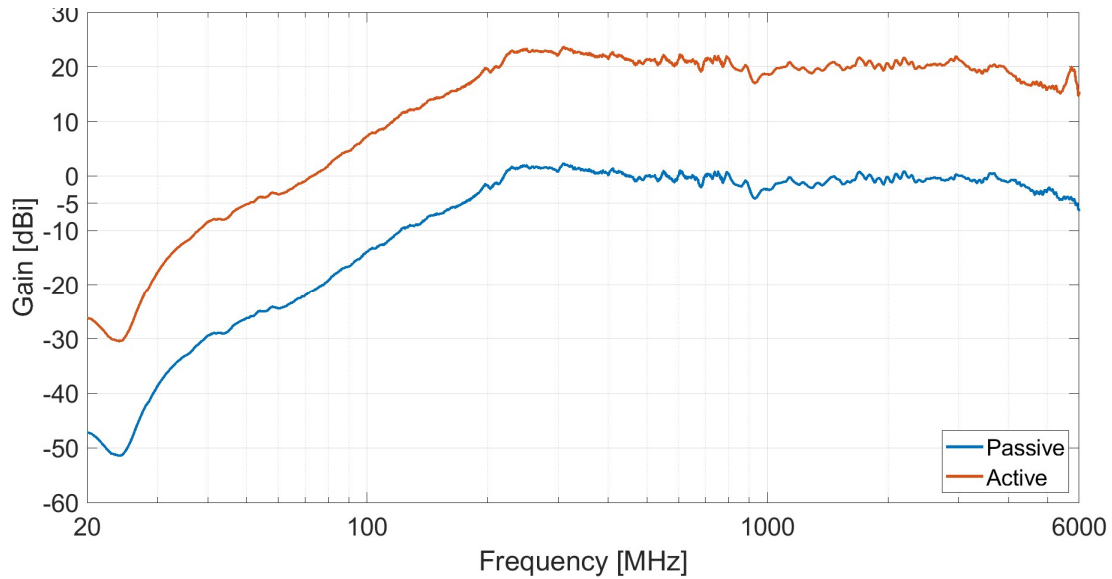
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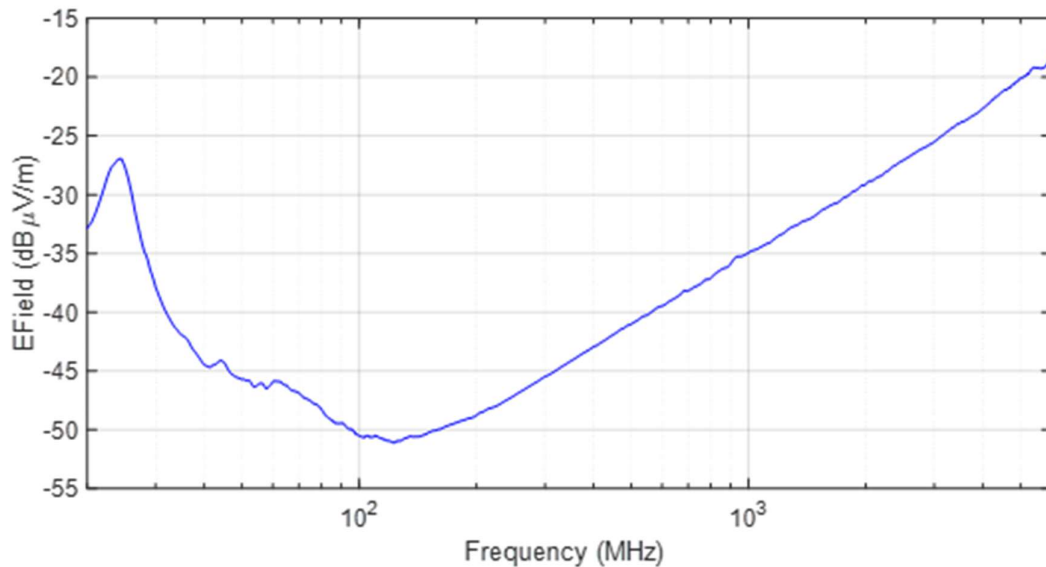
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GAIN:



SENSITIVITY:



E-field strength required for 12 dB NF receiver, 1 Hz bandwidth and 0 dB SNR (includes external noise in urban environment)

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MANUALLY SELECTABLE FM BAND ATTENUATION (OMNI-A0299-05 only):

