

# Vertical and Horizontal Monitoring Antenna

20 – 6000 MHz

Product Code: OMNI-A0191



**PRODUCT DESCRIPTION:**

The OMNI-A0191 is a compact integrated vertical / horizontal polarisation monitoring antenna for the band 20 MHz to 6 GHz.

Based on the proven OMNI-A0098 product in the VP section, the active antenna provides excellent sensitivity across the band. An HP antenna below this provides horizontal coverage.

An optional lightning-protection kit provides protection against direct strikes to the radome, making this antenna suitable for mast-top mounting.

**RELATED PRODUCTS:**

- MISC-A0066

**SPECIFICATIONS:**

<b>Product codes:</b>		
OMNI-A0191-01	Active V+H monitoring antenna with passive bypass	
OMNI-A0191-02	All passive V+H monitoring antenna	
<b>Electrical: vertical</b>	<b>OMNI-A0191-01</b>	<b>OMNI-A0191-02</b>
Frequency range	20 – 6000 MHz	A: 20 – 1000 MHz B: 1 – 6 GHz
Gain	See graphs for typical values	
Connector	1 x N-f	2 x N-f
E-plane beamwidth	60 °	
H-plane beamwidth	360 ° nominal	
Azimuth pattern ripple		
Vertical	20-3000 MHz: < 6 dB (RMS) 3000-6000 MHz: < 10 dB (RMS)	
Horizontal	20-3000 MHz: < 6 dB (RMS) 3000-6000 MHz: < 10 dB (RMS)	
Power rating	Receive only	1 W
Input voltage on coax	14-24 VDC	-
Input current		
Horizontal Polarisation	< 200 mA	-
Vertical Polarisation	< 150 mA	-
OP1 dB (typ)	11 dBm	-
OIP2 (typ)	31 dBm	-
OIP3 (typ)	21 dBm	-
<b>Electrical: horizontal</b>	<b>OMNI-A0191-01</b>	<b>OMNI-A0191-02</b>
Frequency range	20 – 3000 MHz	A: 20 – 1000 MHz B: 1000 – 3000 MHz
Gain	See graphs for typical values	
Connectors	1 x N-f	2 x N-f
E-plane beamwidth	360 °	
H-plane beamwidth	60 ° nominal	
Azimuth ripple	< 10 dB	
Power rating	Receive only	1 W
Input voltage on coax	15 ± 1 V DC	-
Input current	< 150 mA	-
OP1 dB (typ)	11 dBm	-
OIP2 (typ)	31 dBm	-
OIP3 (typ)	21 dBm	-
<b>Mechanical:</b>		
Dimensions (mast included)	< Ø 0.35 m x 1.62 m	
Dimensions (mast excluded)	< Ø 0.305 m x 1.02 m	
Total mass	16 kg	
<b>Environmental: designed to meet the following specifications</b>		
Wind survival	160 km/h (without ice)	
Effective wind area	0.45 m <sup>2</sup>	
Temperature range	-30 °C to +70 °C	
Humidity	0% – 95%	
Lightning survival	Direct strike (with optional protection)	

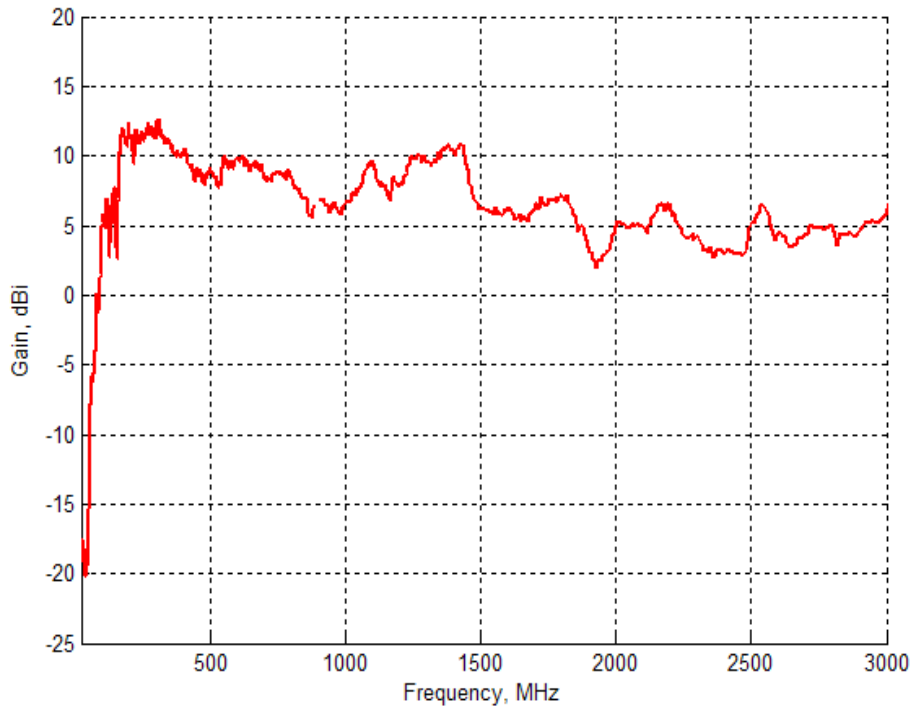
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20 – 6000 MHz

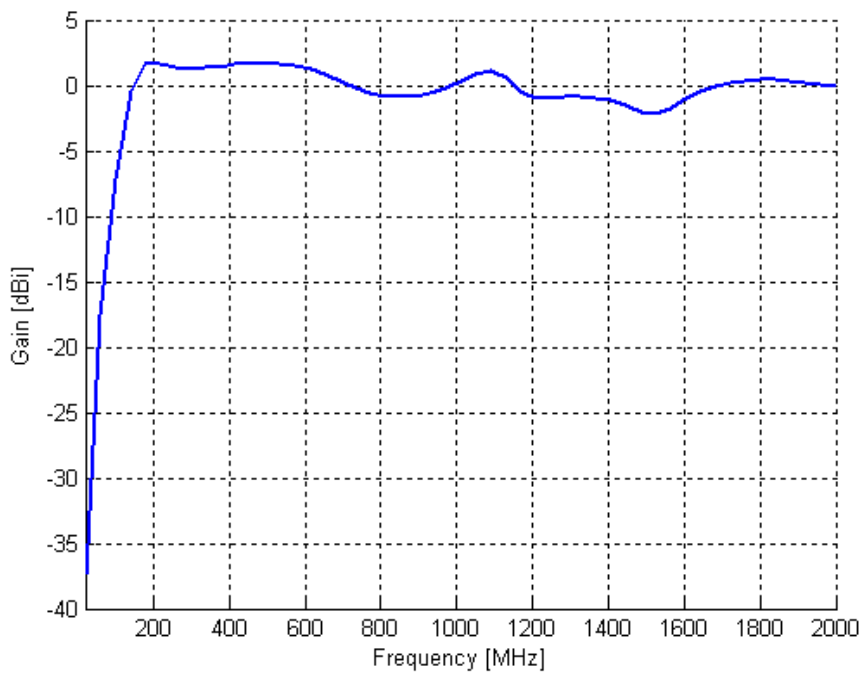
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VERSION: 1.6

## VERTICAL POL GAIN:



Vertical Polarised Gain (Active)



Vertical Polarised Gain (Passive)



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**GAIN THE ADVANTAGE**

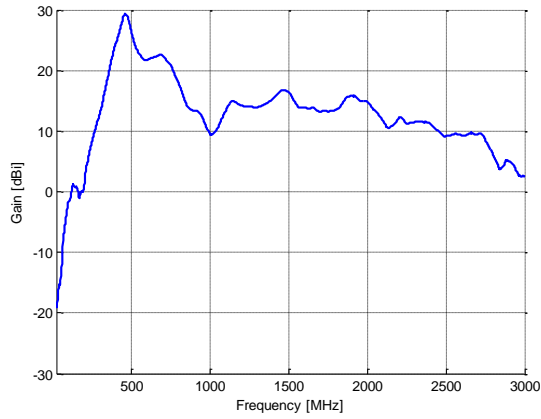
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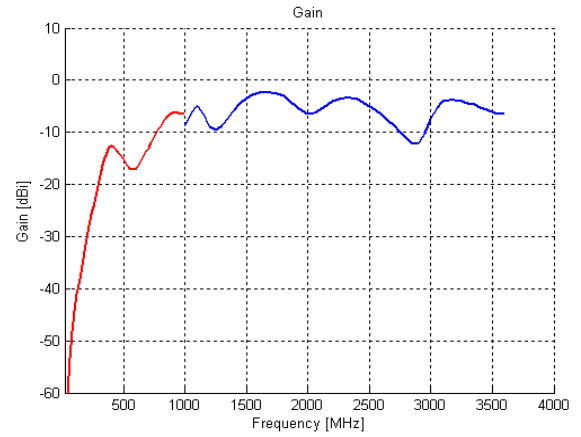
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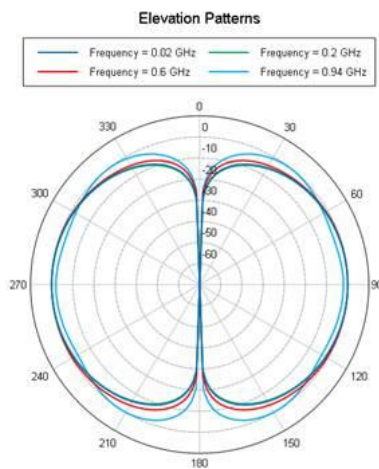
## HORIZONTAL POL GAIN (ACTIVE):



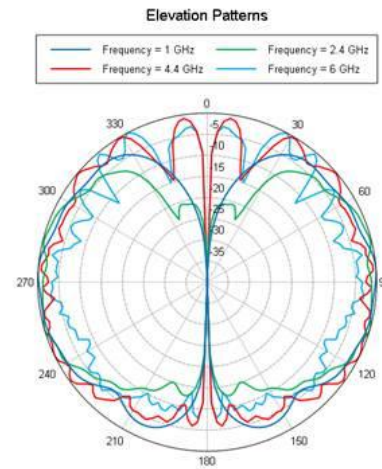
## HORIZONTAL POL GAIN (PASSIVE):



## VERTICAL POL PATTERNS:



## VERTICAL POL PATTERNS:



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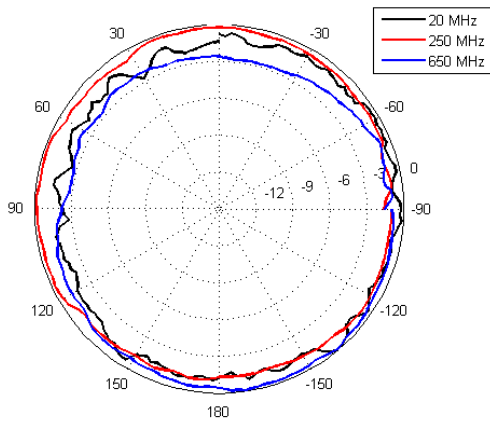
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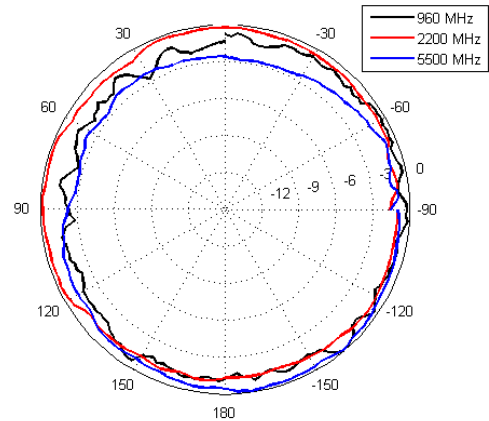
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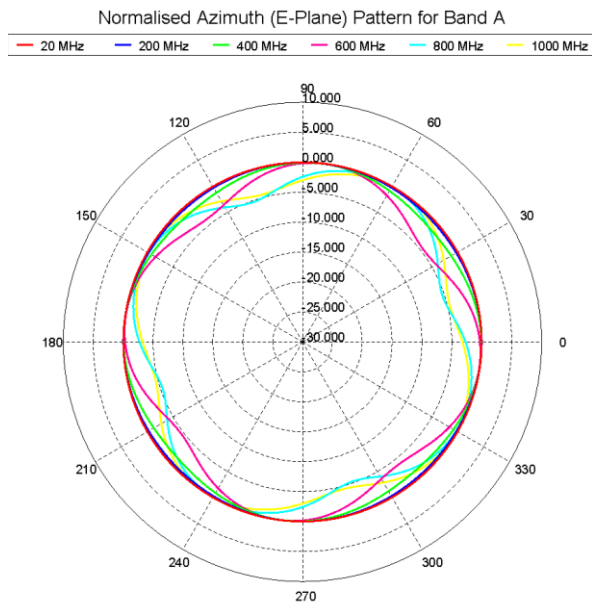
VERTICAL POL PATTERNS:



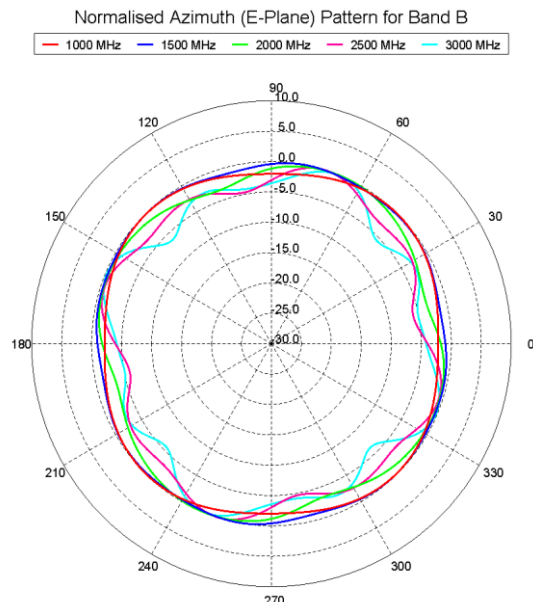
VERTICAL POL PATTERNS:



HORIZONTAL POL PATTERNS:



HORIZONTAL POL PATTERNS:



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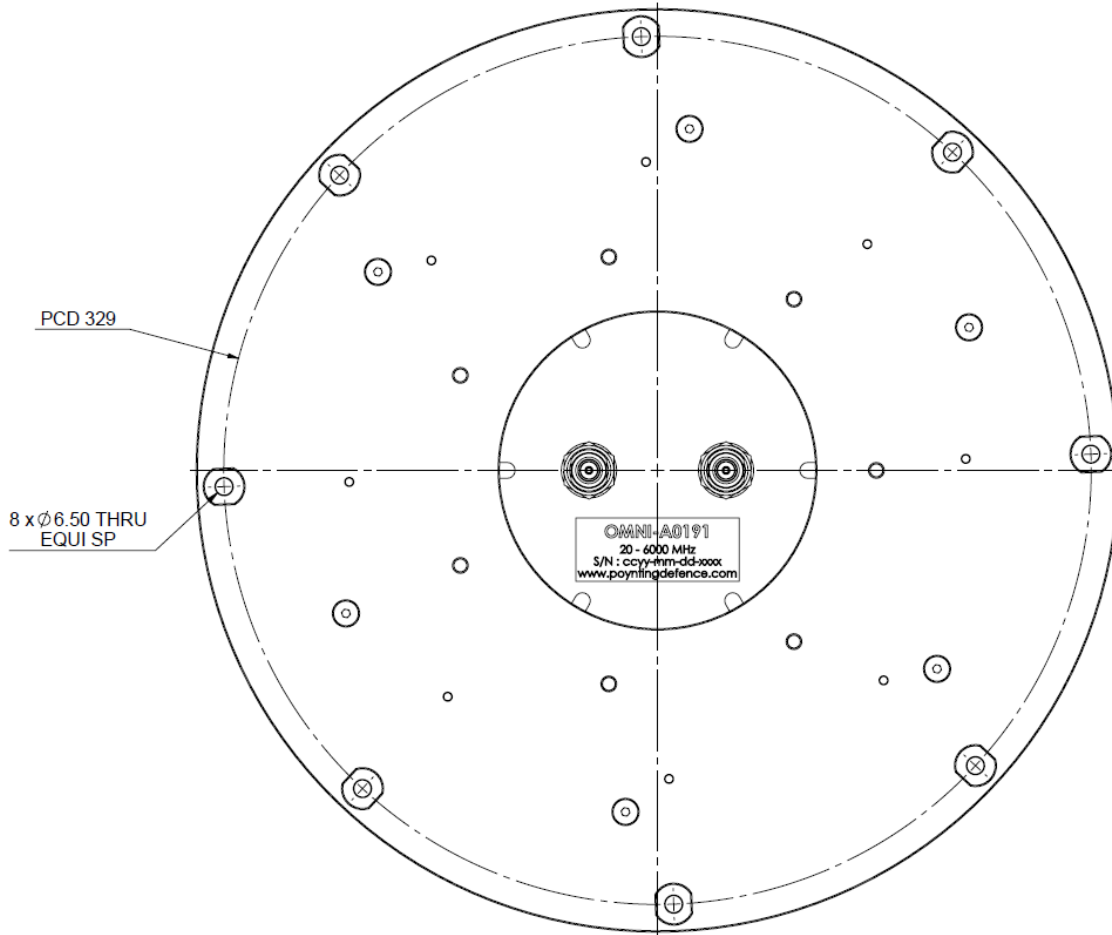
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## BASE PLATE MOUNTING DIMENSIONS:



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