

## ANTENNAS | EPNT-2 SERIES

# X-POLARISED, HIGH GAIN, UNI-DIRECTIONAL, 5G/4G & WI-FI CPE

617 – 4200 MHz; 4x4 4G/5G (MIMO), 11 dBi; 2x2 Wi-Fi (MIMO), 7 dBi;



 617 – 960 MHz 1710 – 2700 MHz 3400 – 4200 MHz	 11 dBi	 Increase X Mb/s	 Uni-Directional	 5G	 4G LTE
 CBRS Band	 4x4 MIMO	 2.4 – 2.5 GHz 5.0 – 7.2 GHz	 Fire Resistant	 IP 65	 -40°C to +80°C

APPLICATION AREAS

- Urban
- Rural/Farm
- Commercial & Industrial

- Antenna enclosure with high performance antennas
- New advanced metamaterial technology
- Exceptional high gain performance over the main 4G/5G bands
- 2x2 MIMO dual-band 2.4 GHz and 5 – 7.2 GHz Wi-Fi antennas
- Cross polarised antennas for improved performance
- IP65 weather/dust and vandal resistant enclosure

## Product Overview

Poynting Antennas introduces its all-new antenna enclosure range, the ePoynt series. The ePoynt enclosures are designed to fit a variety of router modules, transforming the antenna enclosure into a Customer Premises Equipment (CPE) – just add your own 4G/5G router. The ePoynt enclosure can accommodate routers up to the size of 185 x 145 x 45 mm<sup>3</sup>. The ePoynt-2 (EPNT-2) antenna enclosure uses our world renowned Artificial Magnetic Conductor (AMC) technology from our XPOL-2-5G antenna. Providing a cross-polarised, high gain, uni-directional antenna that offers wideband coverage from 617 to 960 MHz and 1710 to 4200 MHz, making it ideal for 4G & 5G implementations.

The EPNT-2 contains four cross-polarised cellular antennas, with two uni-directional antennas offering a peak gain of 11 dBi and two omni-directional antennas with a peak gain of 5 dBi. Making it ideal for 4x4 MIMO or dual 2x2 MIMO routers. The EPNT-2 also includes two omni-directional dual-band Wi-Fi antennas that cover the 2.4 GHz and 5 to 6 GHz Wi-Fi bands for 2x2 MIMO. The combination of our uni-directional XPOL-2-5G antenna with a world class router delivers exceptional performance along with increased data throughput. The EPNT-2 enclosure was also designed to withstand adverse weather condition, making the antenna weatherproof and waterproof with an IP65 rating.

## Features

- Ultra-wideband coverage for 2G, 3G, 4G and 5G
- High gain directional antennas with a peak gain of 11 dBi
- 4x4 MIMO for improved performance
- Wall, pole and window mountable
- Weatherproof and waterproof enclosure (IP65)
- 1x Ethernet port

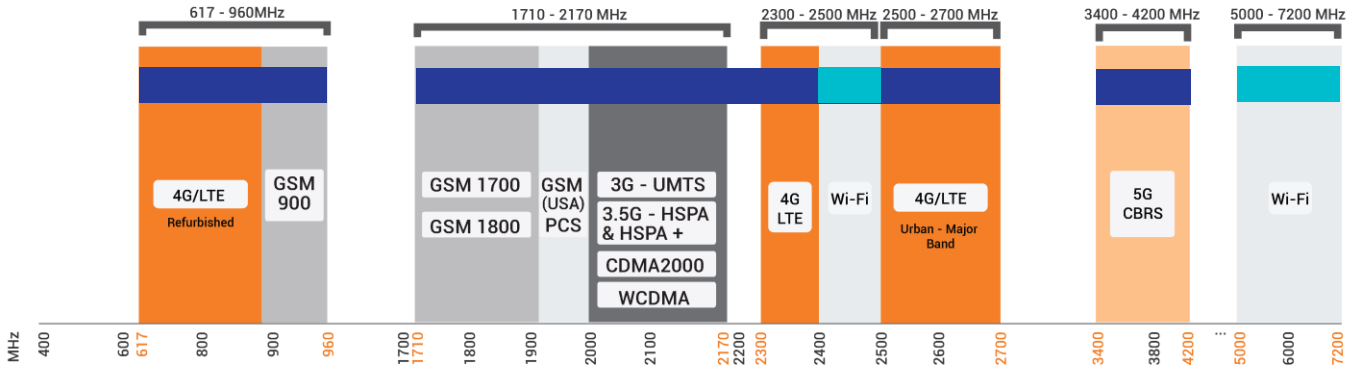
## Application Areas

- Outdoor antenna for Fixed Wireless Access (FWA)
- Consumer 5G/4G internet connectivity
- Industrial and commercial 5G/4G deployment
- Urban and rural household reception enhancement
- Agricultural and farming 5G/4G data distribution





**Frequency Bands**

The EPNT-2 is a CPE antenna that works from | 617 – 960 MHz | 1710 – 2700 MHz | 3400 – 4200 MHz | and the following Wi-Fi frequency bands | 2400 – 2500 MHz | and | 5000 – 7200 MHz |



Indicates the 4G/5G bands on which EPNT-2 works      Indicates the WI-FI bands on which EPNT-2 works

**Antenna Overview**

		
<b>Ports</b>	Cell 1 & Cell 2* Main Cell 1 & Cell 2* Aux/Div	1 & 2
<b>SISO / MIMO</b>	4x4 MIMO	2x2 MIMO
<b>Frequency Bands</b>	617 - 4200 MHz	2400 - 2500 MHz 5000 - 7200 MHz
<b>Peak Gain</b>	11 dBi	7 dBi
<b>Connector Type*</b>	SMA (F)	SMA (F)

*\*The connectors are factory mounted to the antenna  
Additional pigtaills (not supplied) are required to connect the antenna to the router  
See accessories section at the end of this document for pigtail options offered*

*\* Cell 2 offers two Omni directional antennas for diversity and 4 x 4 MIMO functionality.*

**Electrical Specifications - Cellular**

<b>Frequency Bands:</b>	617 – 960 MHz 1710 – 2700 MHz 3400 – 4200 MHz
<b>Gain (max):</b>	9 dBi @ 617 – 960 MHz 8.5 dBi @ 1710 – 2700 MHz 11 dBi @ 3400 - 4200 MHz
<b>VSWR:</b>	≤3:1
<b>Feed Power Handling:</b>	10 W
<b>Input Impedance:</b>	50 Ohm (nominal)
<b>Polarisation:</b>	Cell 1: ±45° Cell 2: Vertical & Horizontal linear
<b>Path to Ground:</b>	Yes

**Electrical Specifications - Wi-Fi**

<b>Frequency:</b>	2400 - 2500 MHz 5000 – 7200 MHz
<b>Gain (Max):</b>	3 dBi @ 2400 - 2500 MHz 7 dBi @ 5000 - 7200 MHz
<b>VSWR:</b>	<3:1
<b>Feed Power Handling:</b>	10 W
<b>Nominal Input Impedance:</b>	50 Ohm (nominal)
<b>Polarisation:</b>	±45° Linear
<b>Path to Ground:</b>	Yes

**Product Box Contents**

<b>Antenna:</b>	A-EPNT-0002-V2-01
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**Ordering Information**

<b>Commercial Name:</b>	EPNT-2
<b>Order Product Code:</b>	A-EPNT-0002-V2-01
<b>EAN Number:</b>	6009710923382

**Mechanical Specifications**

<b>Product Dimensions:</b>	260 mm x 264 mm x 168 mm
<b>Maximum Router Dimensions:</b>	185 mm x 145 mm x 45 mm
<b>Packaged Dimensions:</b>	410 mm x 280 mm x 177 mm
<b>Weight:</b>	1.43 kg
<b>Packaged Weight:</b>	2.17 kg
<b>Radome Material:</b>	UV Stable ASA
<b>Radome Colour:</b>	Brilliant White Pantone P 179-1C
<b>Mounting Type:</b>	Wall/ Pole and Window Mounted

**Environmental Specifications, Certification & Approvals**

<b>Wind Survival:</b>	≤220 km/h
<b>Temperature Range (Operating):</b>	-40°C to +80°C
<b>Environmental Conditions:</b>	Outdoor/Indoor
<b>Water Ingress Protection Ratio/Standard:</b>	IP65
<b>Salt Spray:</b>	MIL-STD 810G/ASTM B117
<b>Operating Relative Humidity:</b>	Up to 98%
<b>Storage Humidity:</b>	5% to 95% - non-condensing
<b>Storage Temperature:</b>	-40°C to +80°C
<b>Enclosure Flammability Rating:</b>	UL 94-HB
<b>Impact Resistance:</b>	IK 08

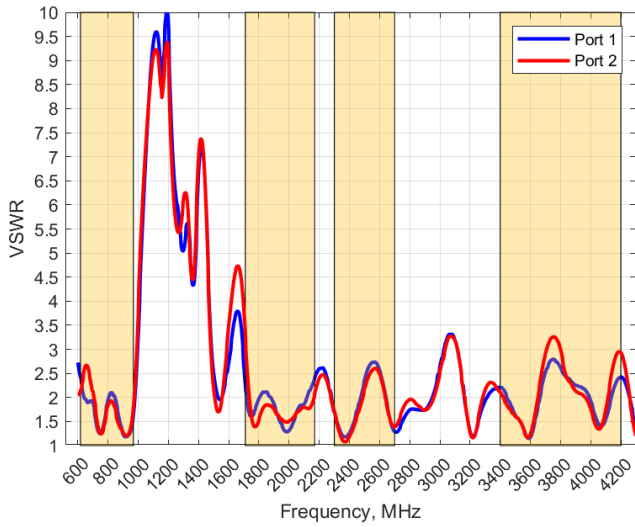
<b>Product Safety &amp; Environmental:</b>	Complies with CE and RoHS standards
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\*Routers/Router boards have their own operating temperatures as provided in their individual data sheets. Routers/router boards mounted within an EPNT-2 which is exposed to solar radiation will operate at 10-12°C above ambient temperature. Please take this into consideration and select your device to be used with the EPNT-2 accordingly.



Antenna Performance Plots - Cellular

**VSWR: Cellular Antenna**



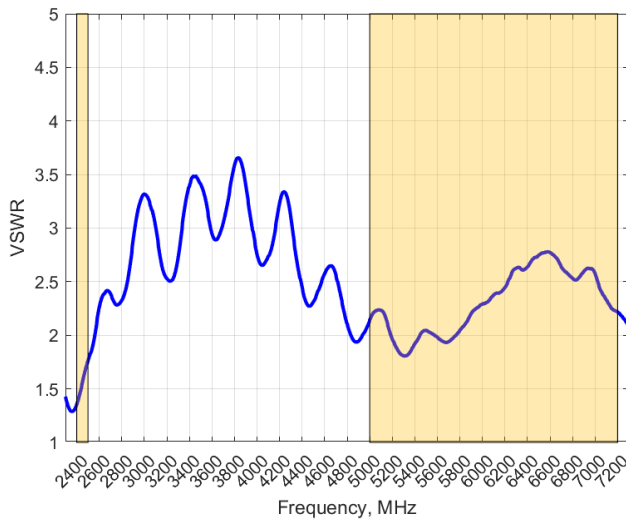
**Voltage Standing Wave Ratio (VSWR)\***

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The EPNT-2 delivers superior performance across all bands with a VSWR of  $\leq 3:1$ .

*\*VSWR measured without a cable.*

**VSWR: Wi-Fi Antenna**



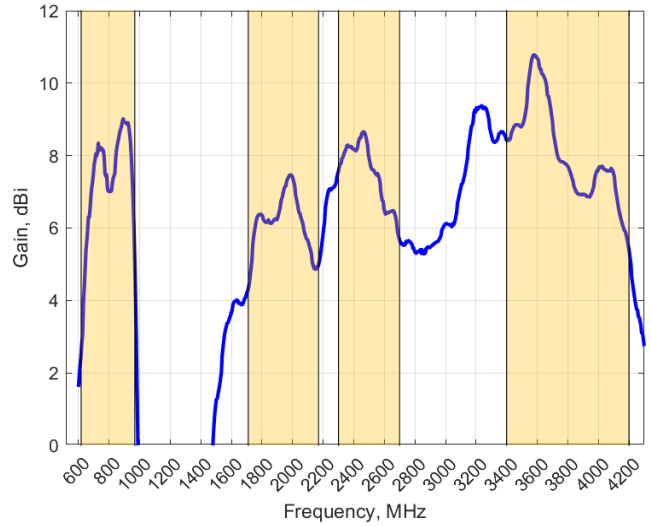
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*\*VSWR measured without a cable.*

**GAIN (EXCLUDING CABLE LOSS): Cellular Antenna**



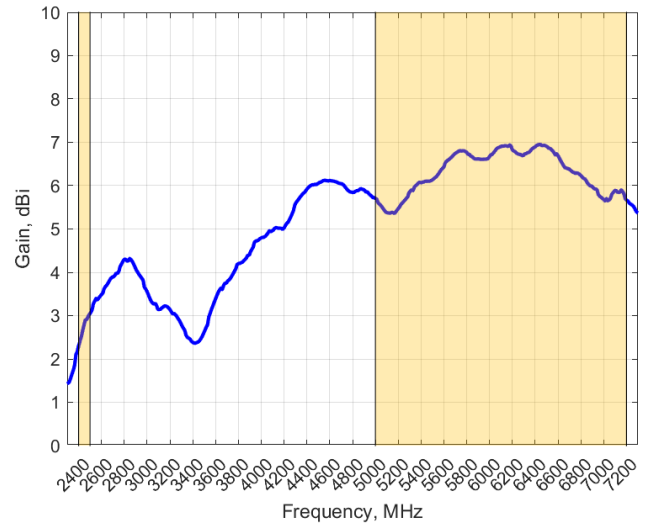
**Gain\* in dBi**

11 dBi is the peak gain across all bands from 617 – 4200 MHz

Gain @ 617 – 960 MHz:	9 dBi
Gain @ 1710 – 2700 MHz:	8.5 dBi
Gain @ 3400 – 4200 MHz:	11 dBi

*\*Antenna gain measured with polarisation aligned standard antenna*

**GAIN (EXCLUDING CABLE LOSS): Wi-Fi Antenna**



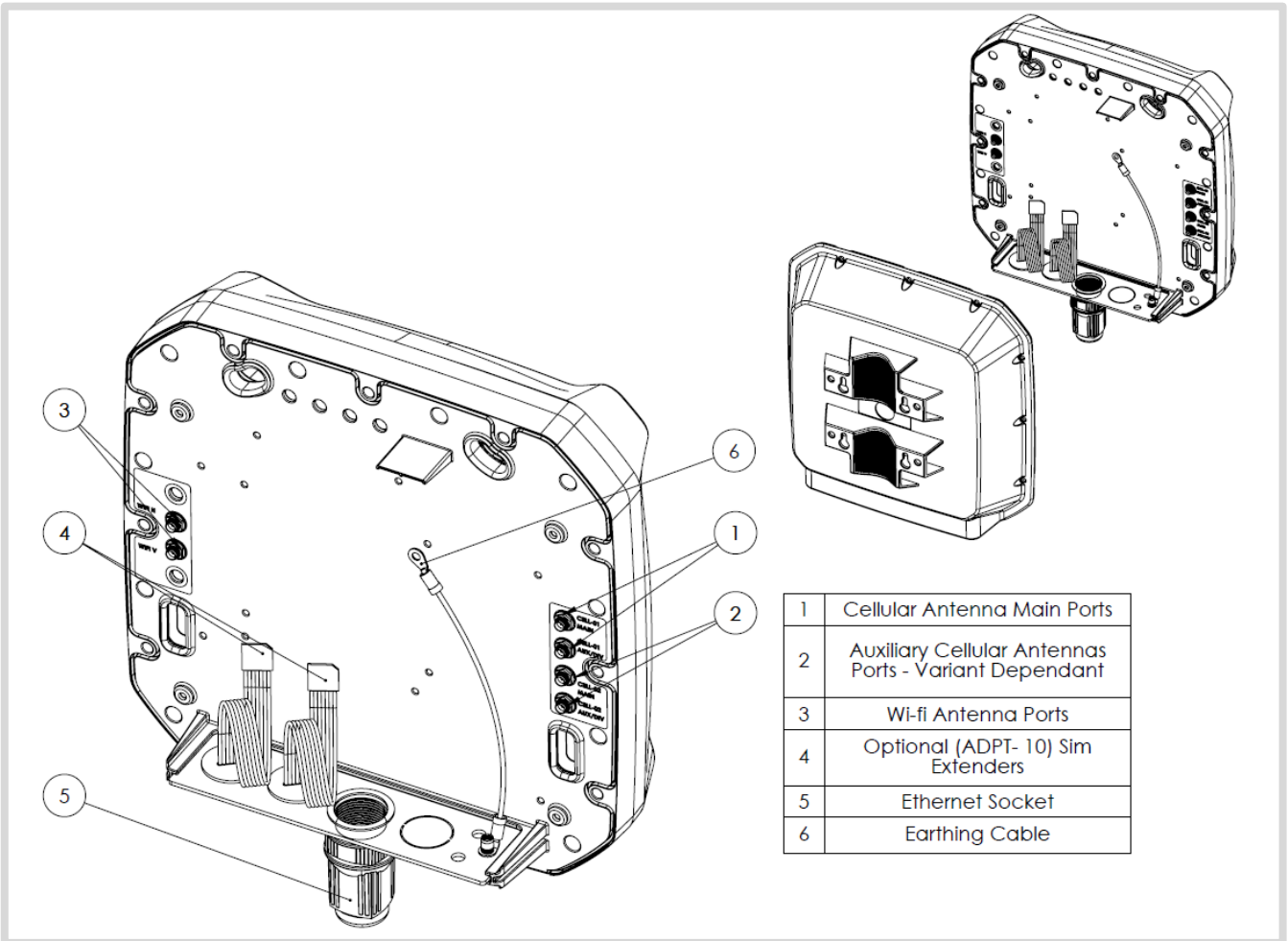
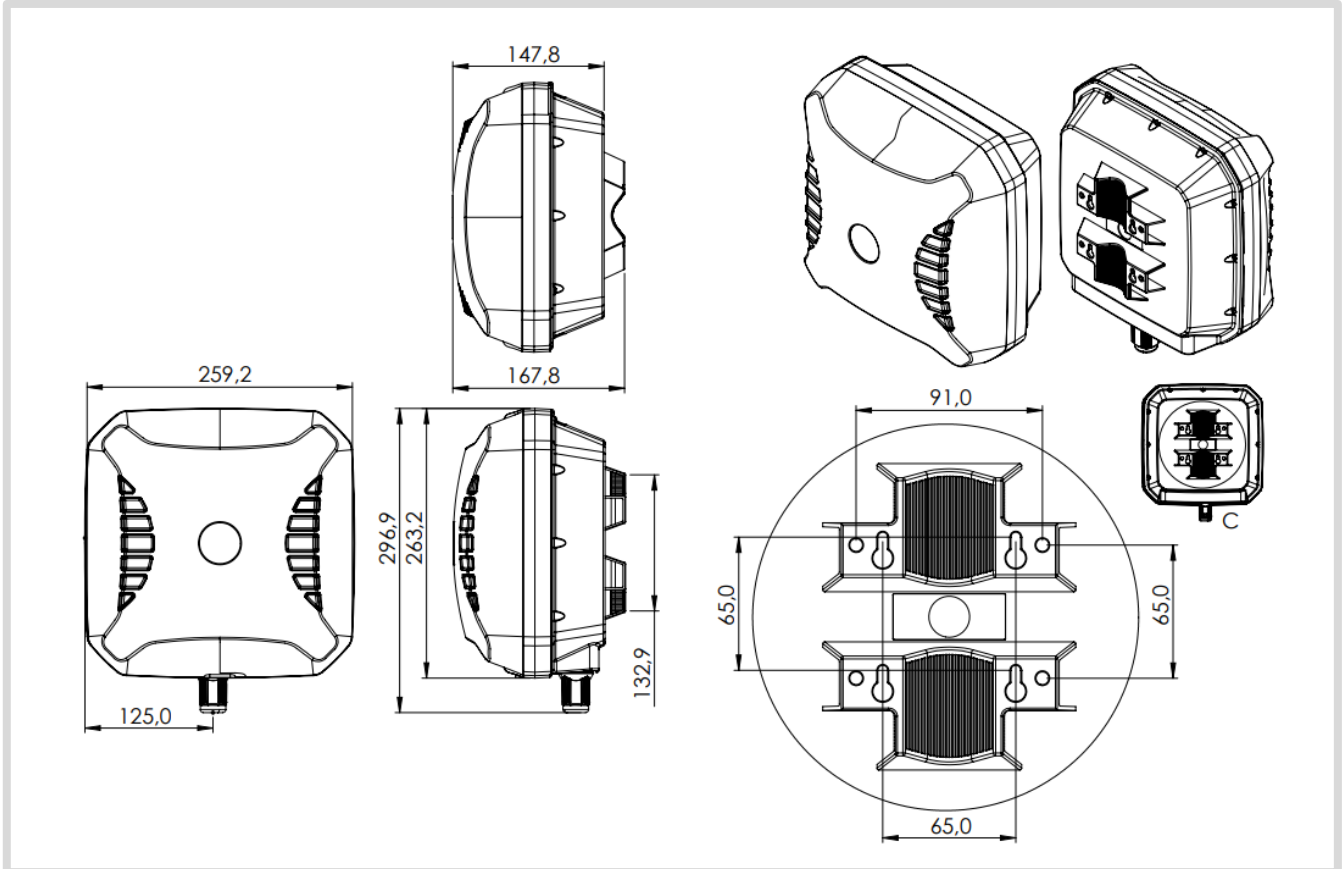
**Gain\* in dBi**

7 dBi is the peak gain across all bands from 2400 – 2500 MHz and 5000 – 7200 MHz

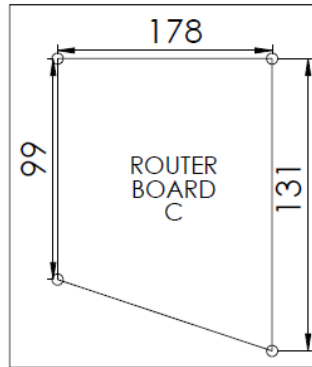
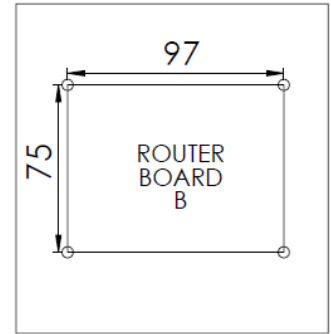
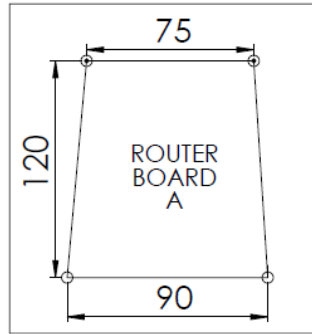
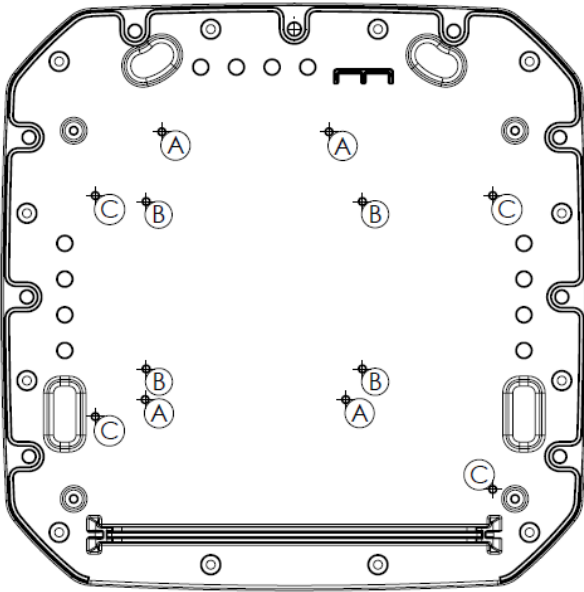
Gain @ 2400 - 2500 MHz:	3 dBi
Gain @ 5000 – 7200 MHz:	7 dBi

*\*Antenna gain measured with polarisation aligned standard antenna*

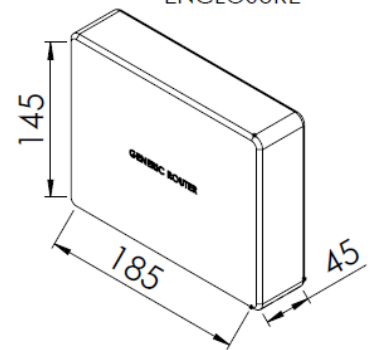
Technical Drawings



GENERIC ROUTER  
MOUNTING HOLES SPACING

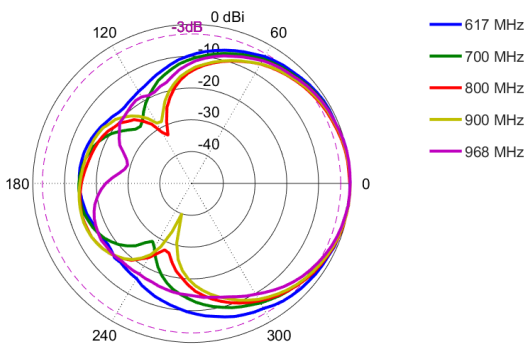


AVAILABLE SPACE  
FOR COMPATIBLE  
ROUTER  
ENCLOSURE

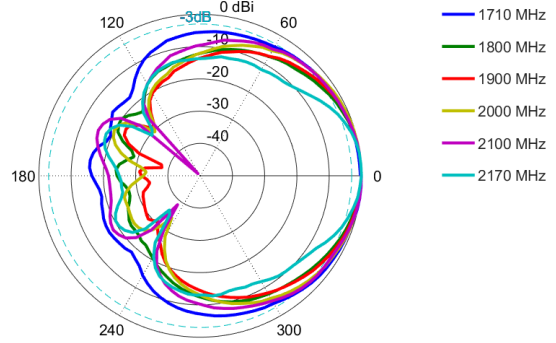


**Radiation Patterns – Cellular**

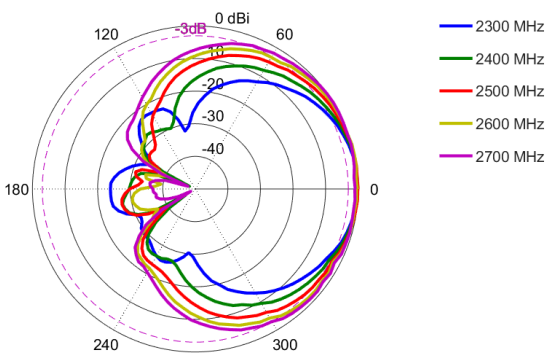
**Azimuth: 617 – 968 MHz**



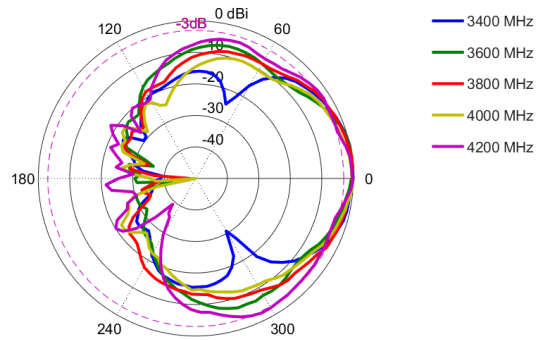
**Azimuth: 1710 – 2170 MHz**



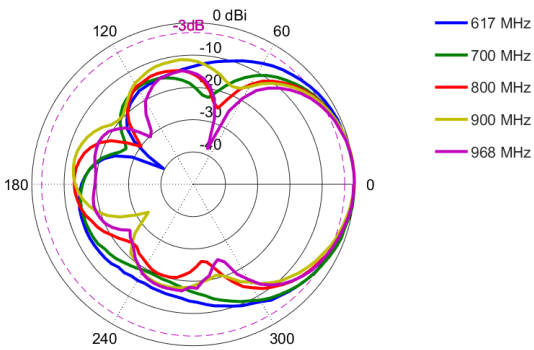
**Azimuth: 2300 – 2700 MHz**



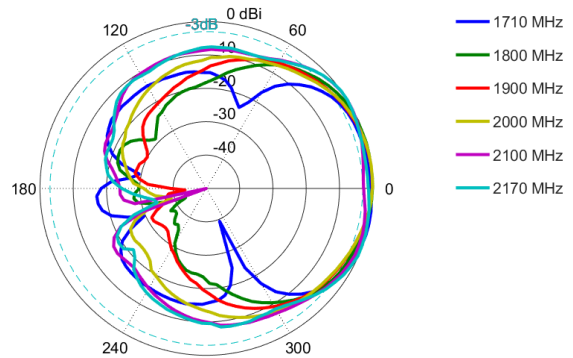
**Azimuth: 3400 – 4200 MHz**



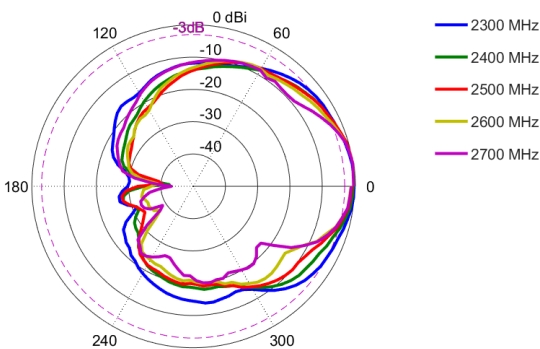
**Elevation: 617 – 968 MHz**



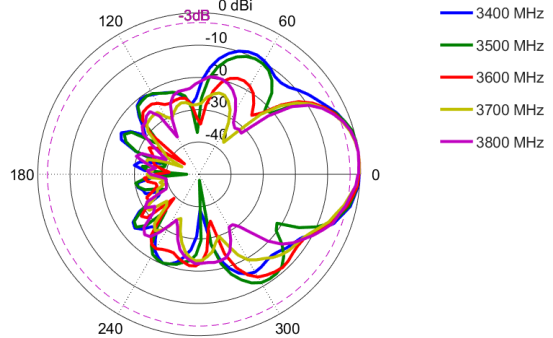
**Elevation: 1710 – 2170 MHz**



**Elevation: 2300 – 2700 MHz**

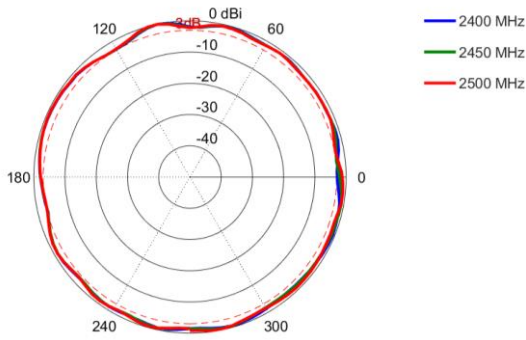


**Elevation: 3400 – 4200 MHz**

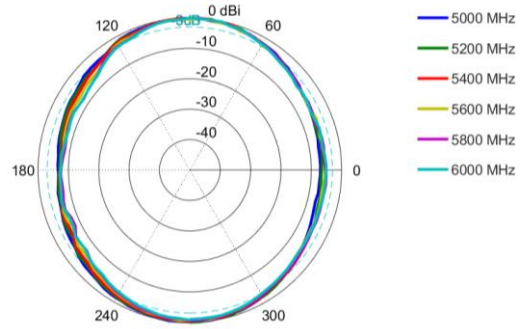


**Radiation Patterns – Wi-Fi**

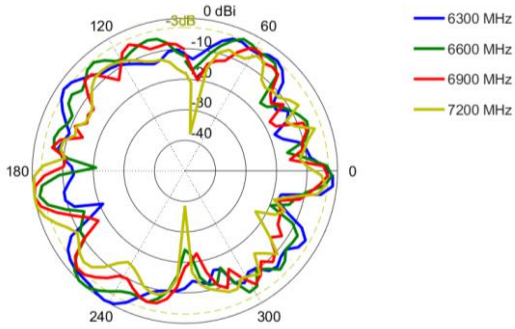
**Azimuth: 2400 - 2500 MHz**



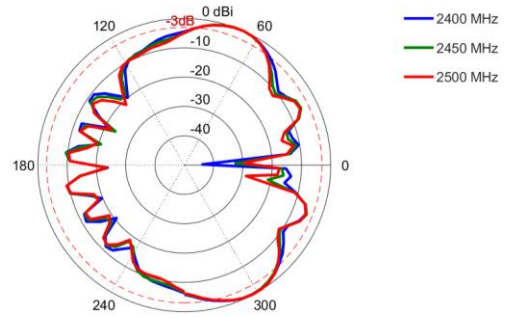
**Azimuth: 5000 - 6000 MHz**



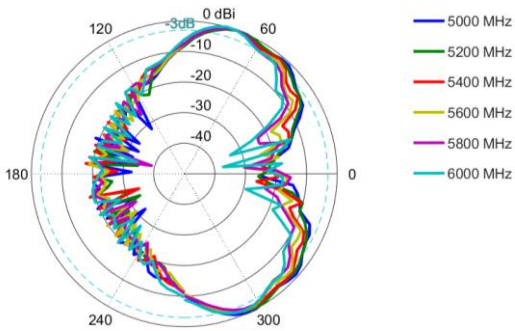
**Azimuth: 6300 - 7200 MHz**



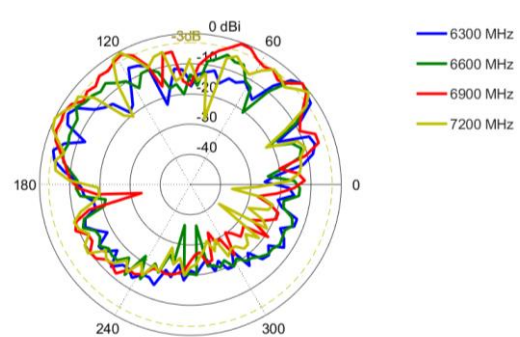
**Elevation: 2400 - 2500 MHz**



**Elevation: 5000 - 6000 MHz**

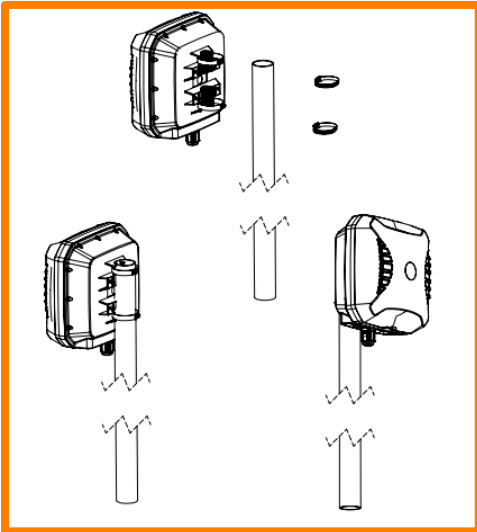


**Elevation: 6300 - 7200 MHz**



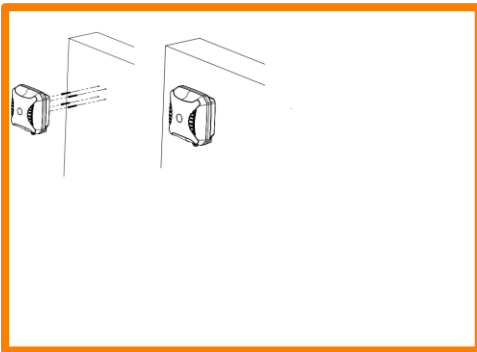


**Mounting Options**



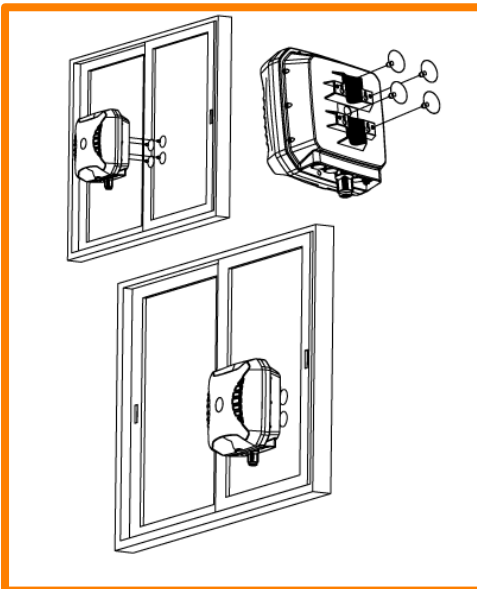
**Pole Mount**

Pole mounting bracket using pipe clamps (included)



**Wall Mount**

Wall mounting bracket using knock-in screws (included)



**Window Mount\***

Pole/Wall mounting bracket using window suckers (included)

*\* Window mounting using suckers is a temporary solution provided for convenience. Ensure that the grounding cable used is strong enough to double as a safety fallback. For sturdier long-term mounting, consider the wall/pole mount options.*

## Additional Accessories



**A-ADPT-010**

SIM Extender



### Various fly leads/pigtails available

- A-CAB-156: 250mm RG178 MCX (M) to RA SMA (M) Cable Assembly
- A-CAB-157: 250mm RG178 MMCX (M) to RA SMA (M) Cable Assembly
- A-CAB-158: 250mm RG178 U.FL (M) to RA SMA (M) Cable Assembly
- A-CAB-159: 250mm RG178 RA SMA (M) to RA SMA (M) Cable Assembly
- A-CAB-160: 250mm RG178 RA RPSMA (M) to RA SMA (M) Cable Assembly
- A-CAB-161: 250mm 1.13mm Coaxial Cable MHF4 (F) to RA SMA (M) Cable Assembly

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