

## 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 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 conditions, 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

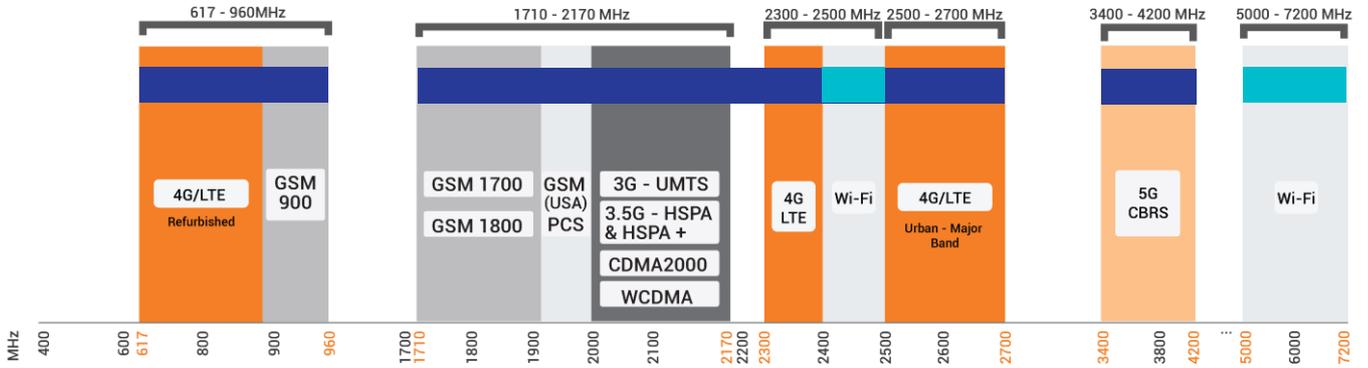
## Application Areas

- 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>5G LTE</b>	<b>WiFi DUALBAND</b>
<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>Coax Cable Type</b>	RG 178	RG 178
<b>Coax Cable Length</b>	250 mm	250 mm
<b>Connector Type</b>	4 x RA SMA (M) to RA SMA (M)	2 x RA RPSMA (M) to RA SMA (M)

\*RA SMA: Right Angle/90° SMA

\*RA RPSMA: Right Angle/90° Reverse Polarity SMA

\* 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-V3-01
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**Ordering Information**

<b>Commercial Name:</b>	EPNT-2
<b>Order Product Code:</b>	A-EPNT-0002-V3-01
<b>EAN Number:</b>	6009710927915

**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**

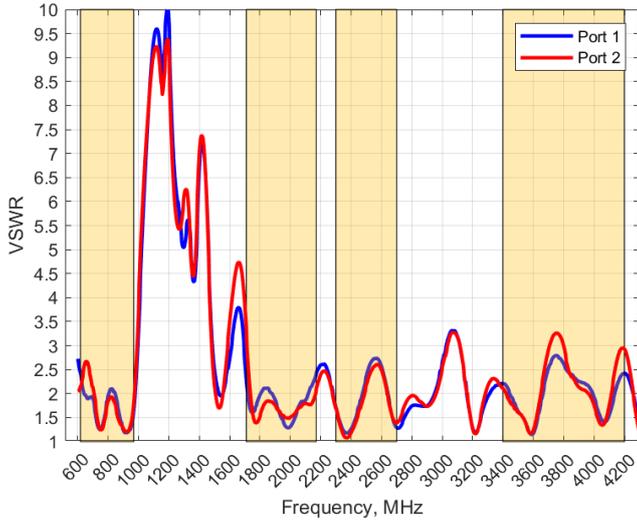
<b>Wind Survival:</b>	≤220 km/h
<b>Temperature Range (Operating):</b>	-40°C to +80°C
<b>Environmental Conditions:</b>	Outdoor/Indoor
<b>Water Ingress Protection Ratio/Standard:</b>	IP65
<b>Salt Spray:</b>	MIL-STD 810G/ASTM B117
<b>Operating Relative Humidity:</b>	Up to 98%
<b>Storage Humidity:</b>	5% 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

\*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**



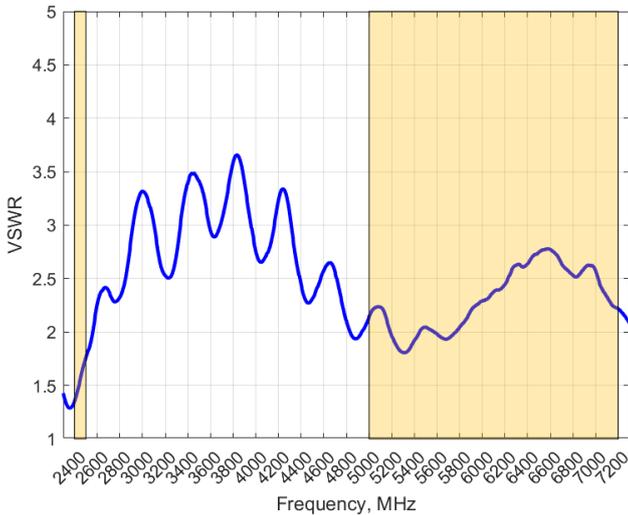
**Voltage Standing Wave Ratio (VSWR)\***

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**



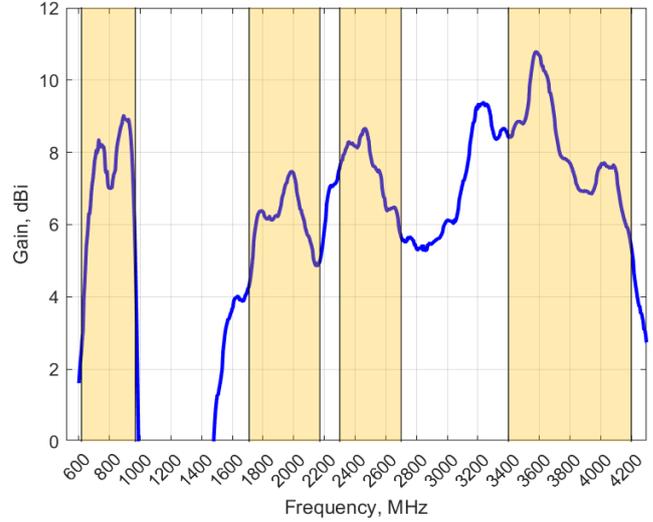
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\*VSWR measured without a cable.

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



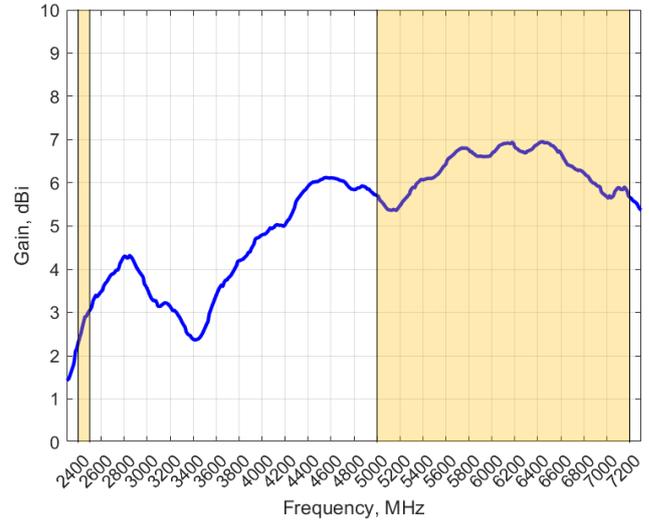
**Gain\* in dBi**

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**

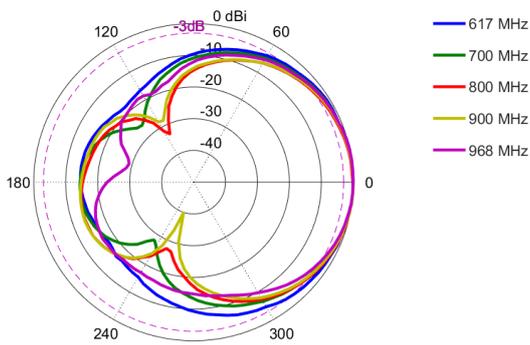
7 dBi is the peak gain across all bands from 2400 – 2500 MHz and 5000 – 7200 MHz

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

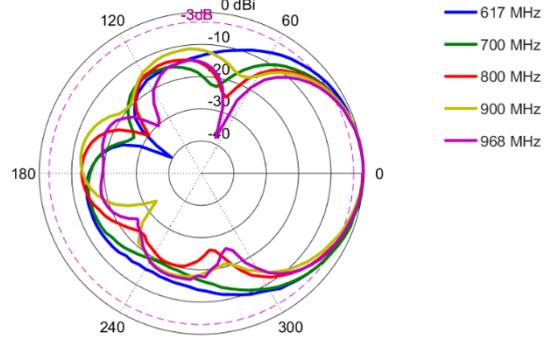
\*Antenna gain measured with polarisation aligned standard antenna

**Radiation Patterns – Cellular**

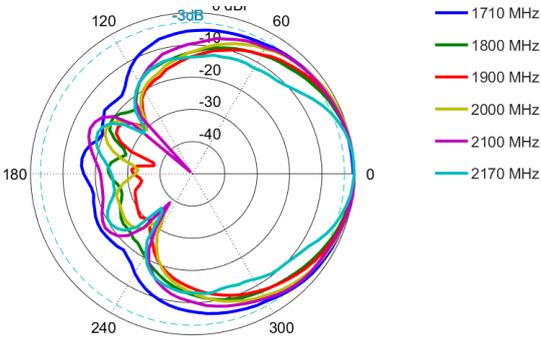
**Azimuth: 617 – 968 MHz**



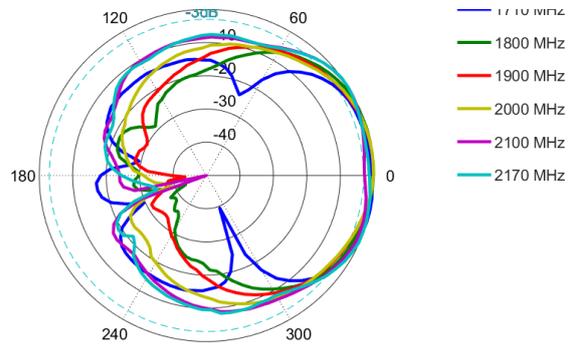
**Elevation: 617 – 968 MHz**



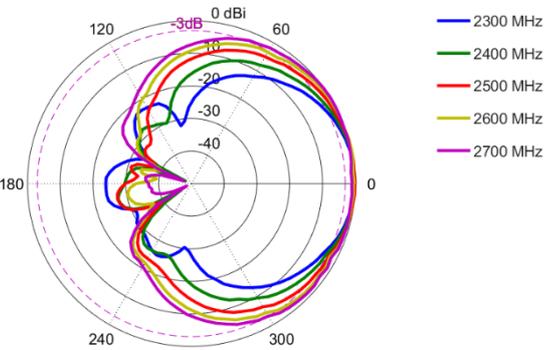
**Azimuth: 2300 – 2700 MHz**



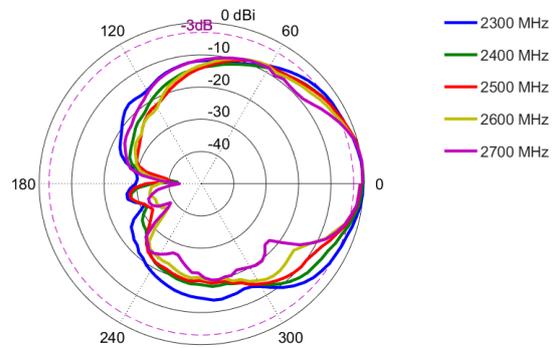
**Elevation: 2300 – 2700 MHz**



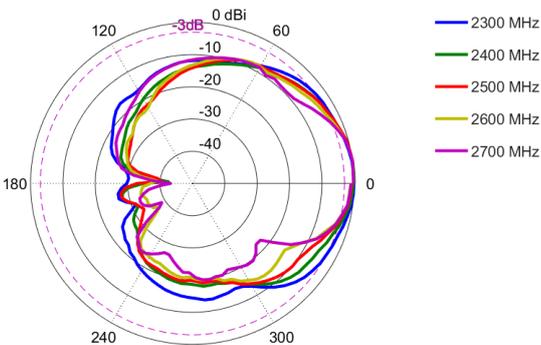
**Azimuth: 2300 – 2700 MHz**



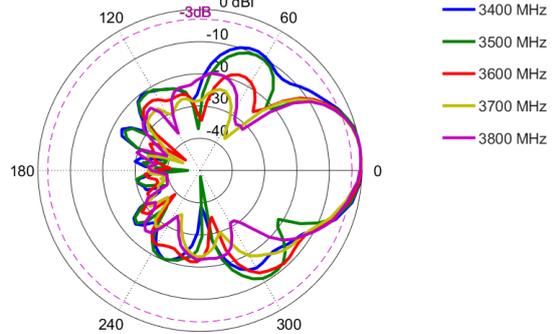
**Elevation: 2300 – 2700 MHz**



**Azimuth: 3400 – 4200 MHz**

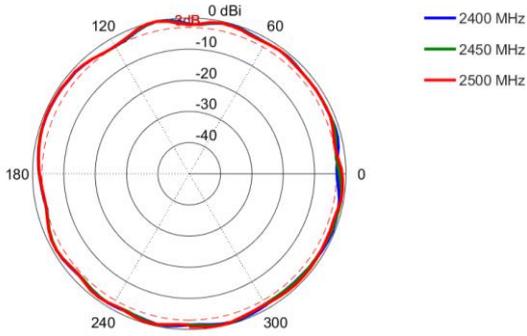


**Elevation: 3400 – 4200 MHz**

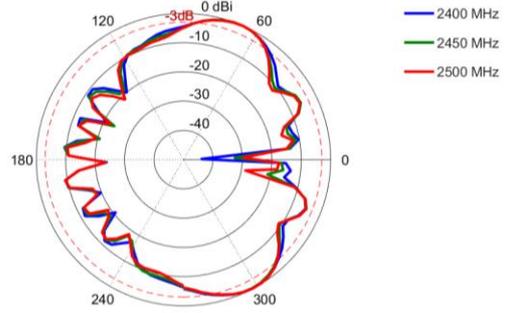


**Radiation Patterns – Wi-Fi**

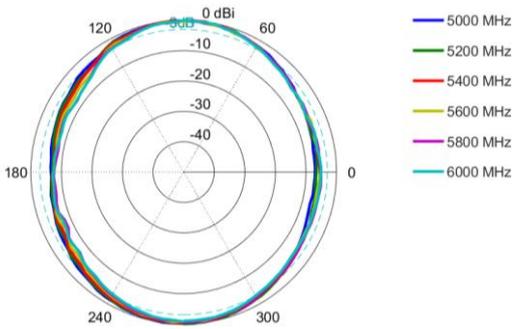
**Azimuth: 2400 - 2500 MHz**



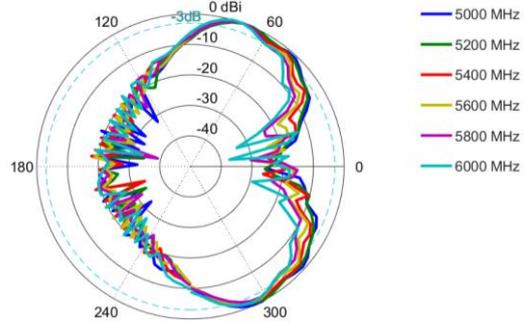
**Elevation: 2400 - 2500 MHz**



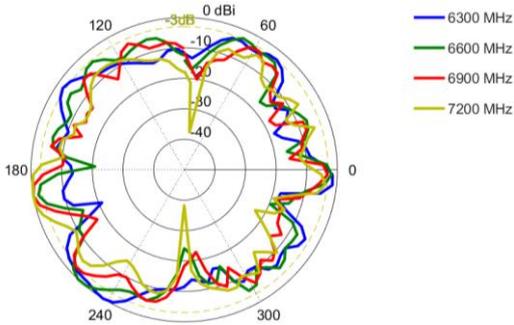
**Azimuth: 5000 - 7200 MHz**



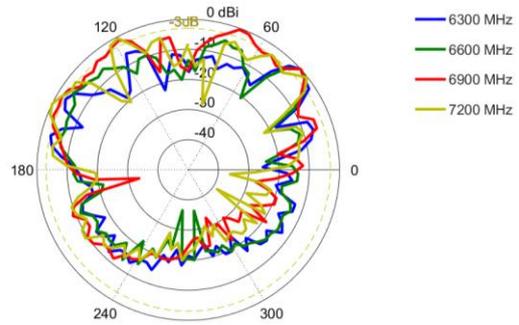
**Elevation: 5000 - 7200 MHz**



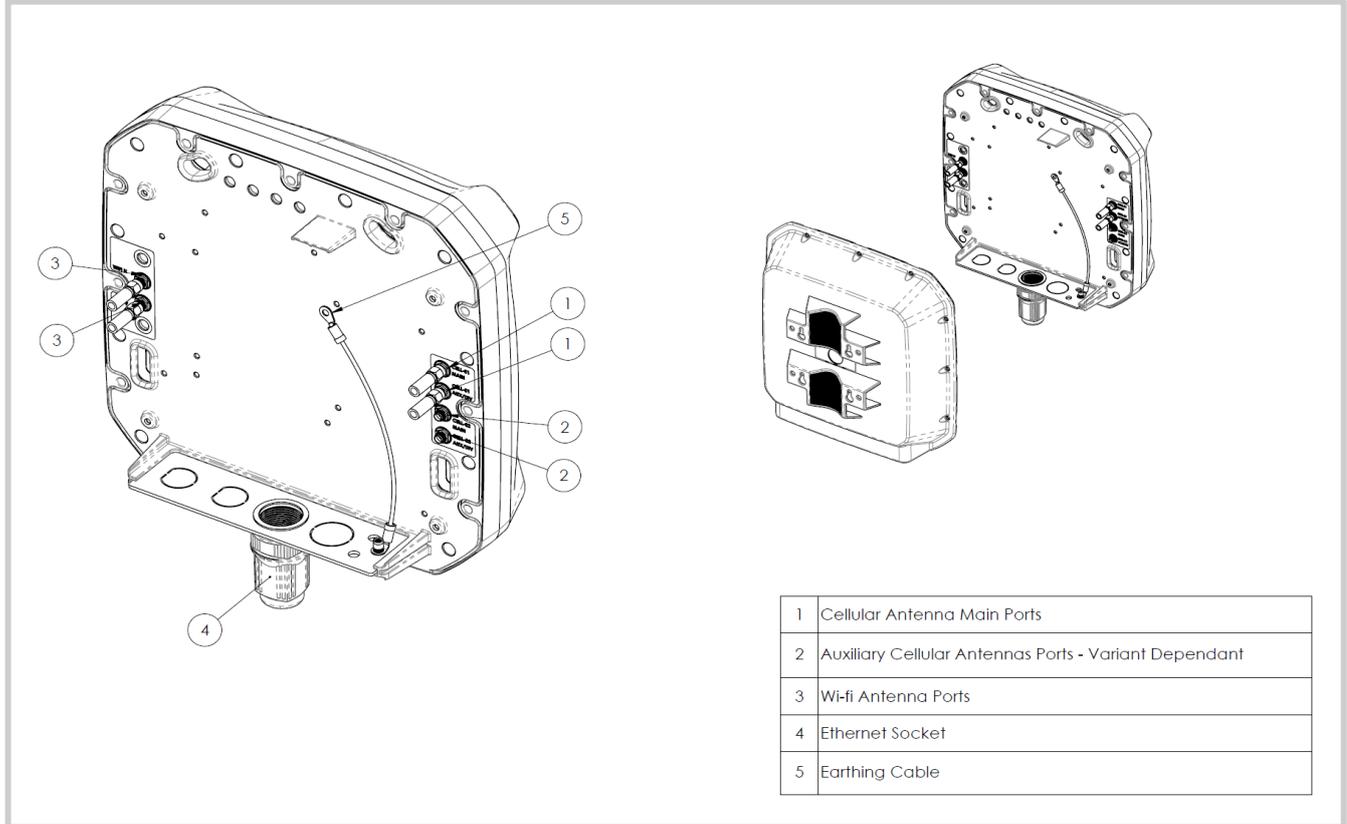
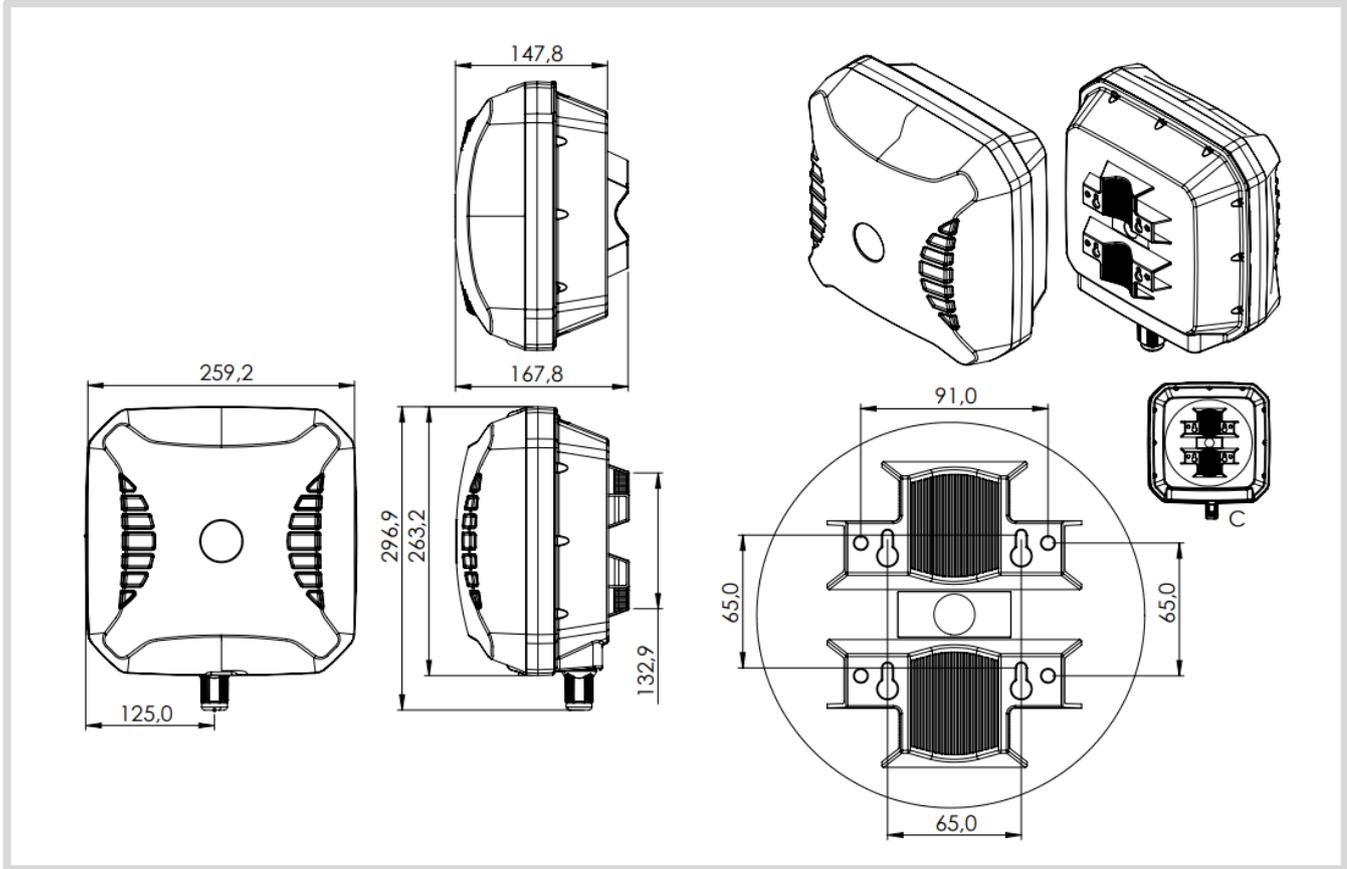
**Azimuth: 6300 - 7200 MHz**

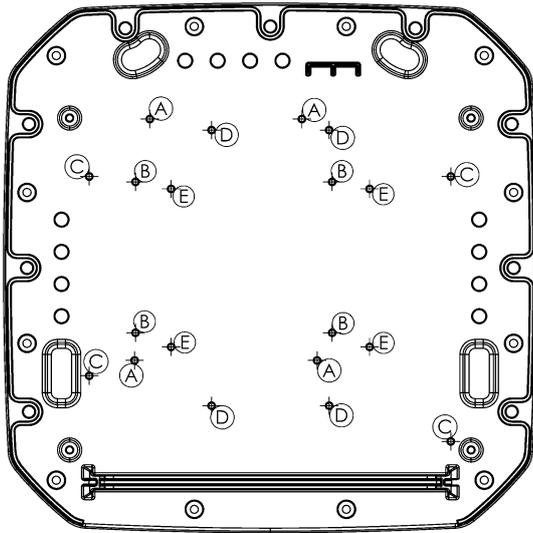


**Elevation: 6300 - 7200 MHz**

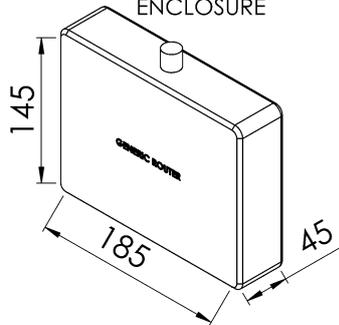


Technical Drawings

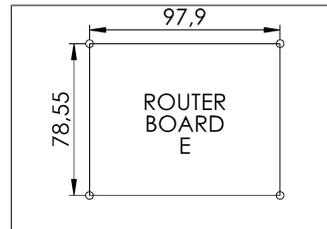
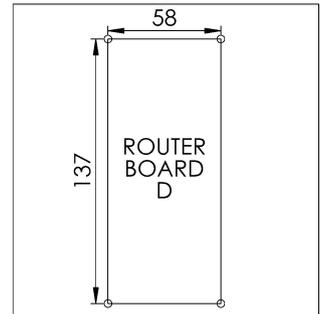
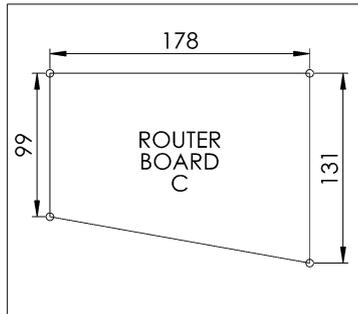
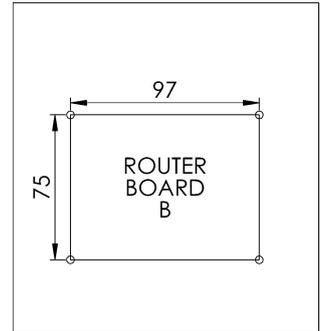
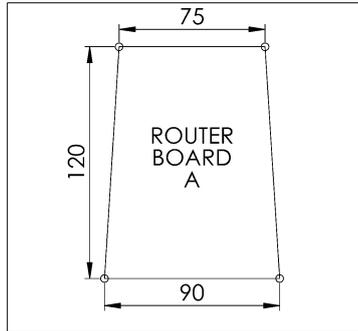




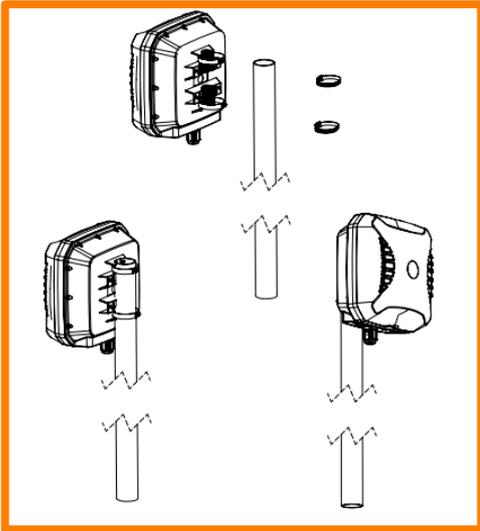
AVAILABLE SPACE FOR COMPATIBLE ROUTER ENCLOSURE



GENERIC ROUTER MOUNTING HOLES SPACING

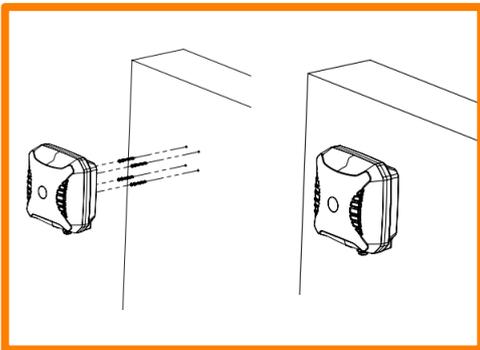


**Mounting Options**



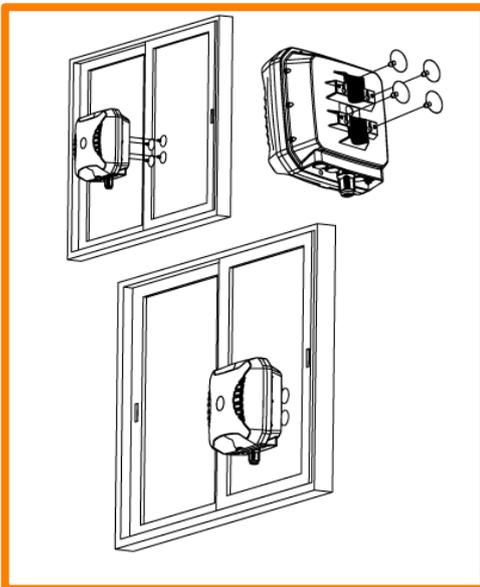
**Pole Mount**

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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