

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



- 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



APPLICATION AREAS

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 mm³. 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

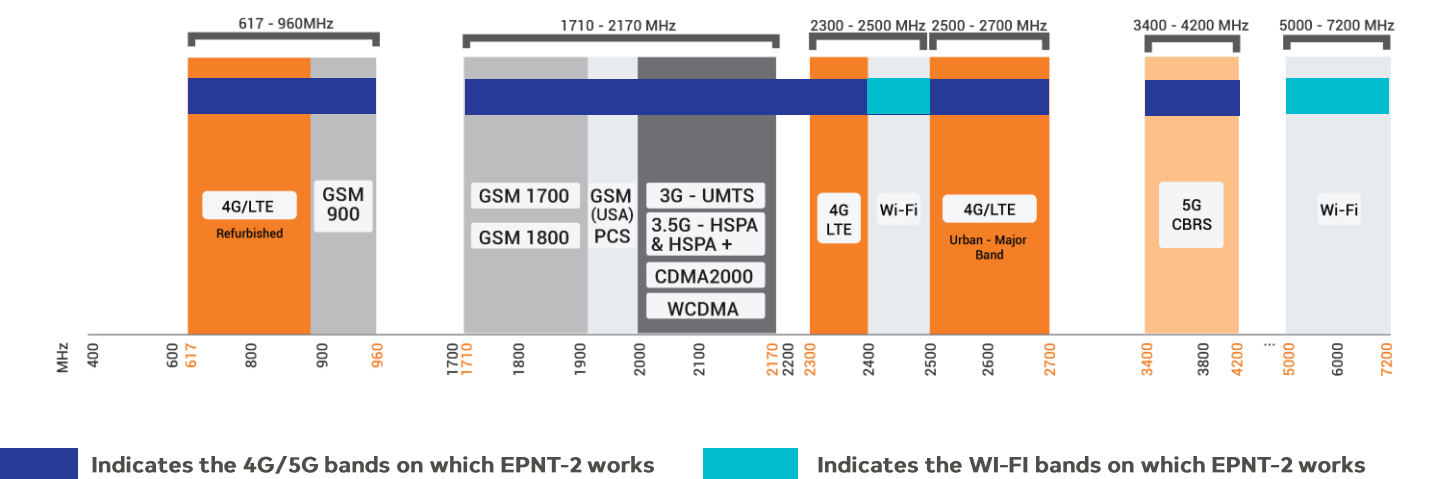


EPNT-2

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Product Specifications may change without prior notice
Revised: March 2024

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 |



Antenna Overview

	5G LTE	Wi-Fi DUALBAND
Ports	Cell 1 & Cell 2* Main Cell 1 & Cell 2* Aux/Div	1 & 2
SISO / MIMO	4x4 MIMO	2x2 MIMO
Frequency Bands	617 - 4200 MHz	2400 - 2500 MHz 5000 - 7200 MHz
Peak Gain	11 dBi	7 dBi
Coax Cable Type	RG 178	RG 178
Coax Cable Length	250 mm	250 mm
Connector Type	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

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

Electrical Specifications – Wi-Fi

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

Product Box Contents

Antenna:	A-EPNT-0002-V3-01
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Ordering Information

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

Mechanical Specifications

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

Environmental Specifications, Certification & Approvals

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

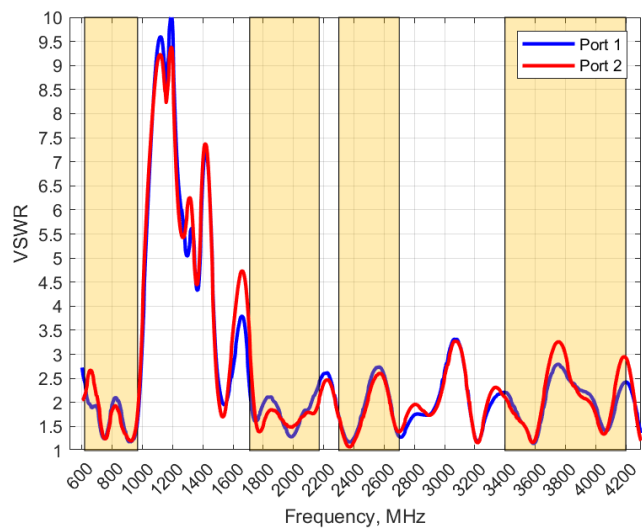
Product Safety & Environmental:	Complies with CE and RoHS standards
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*Routers/Router boards have their own operating temperatures as provided in their individual data sheets. Routers/router boards mounted within an EPNT-2 which is exposed to solar radiation 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



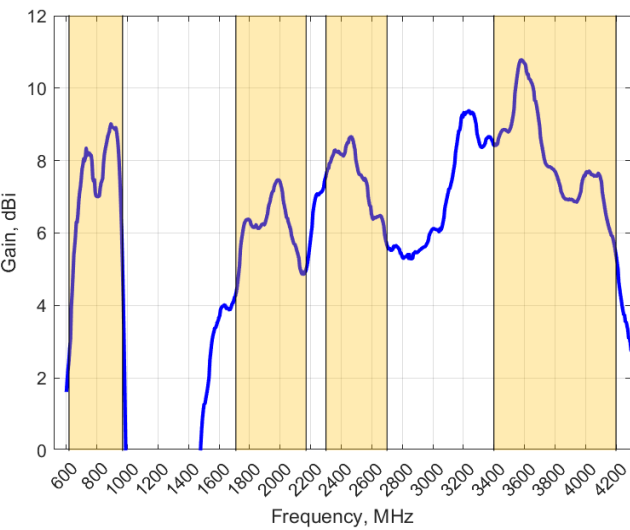
Voltage Standing Wave Ratio (VSWR)*

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.

GAIN (EXCLUDING CABLE LOSS): Cellular Antenna



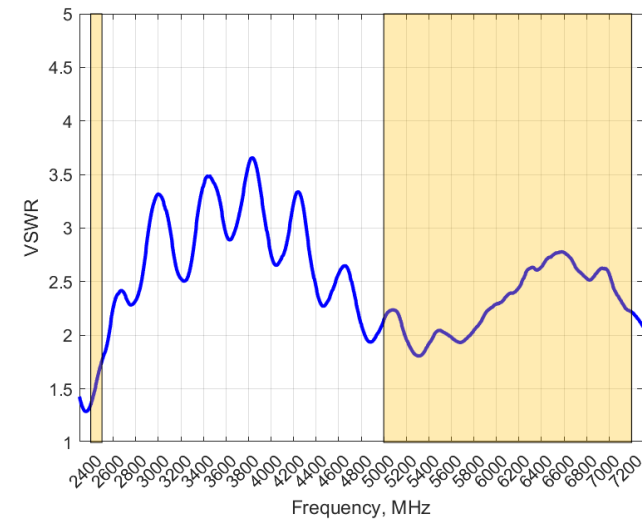
Gain* in dBi

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

VSWR: Wi-Fi Antenna



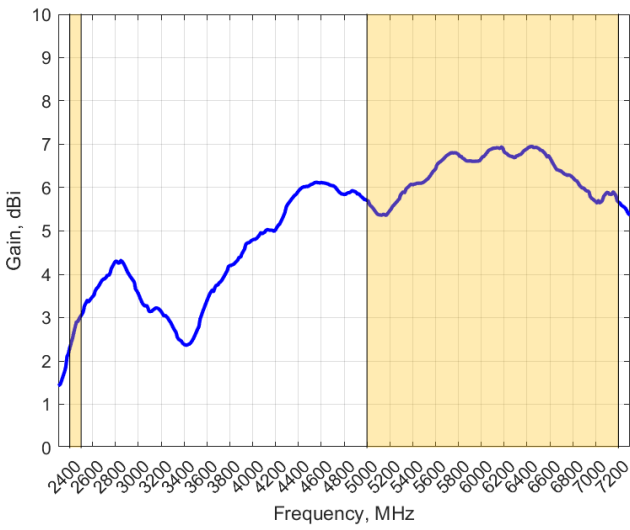
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The EPNT-2 delivers superior performance across all bands with a VSWR of $< 3:1$.

*VSWR measured without a cable.

GAIN (EXCLUDING CABLE LOSS): Wi-Fi Antenna



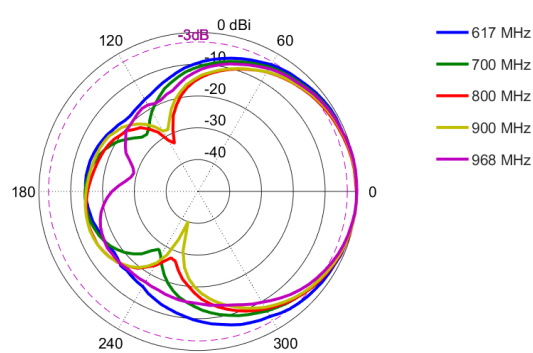
Gain* in dBi

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

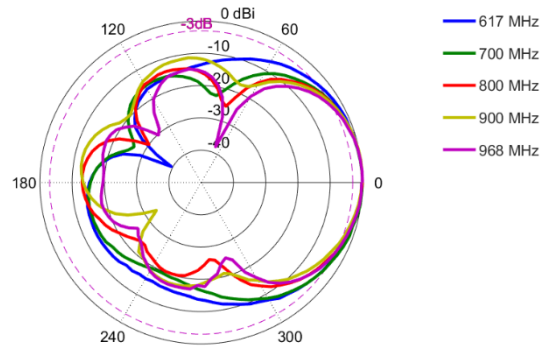
*Antenna gain measured with polarisation aligned standard antenna

Radiation Patterns – Cellular

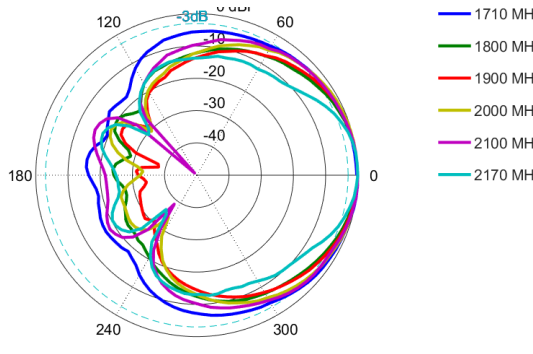
Azimuth: 617 – 968 MHz



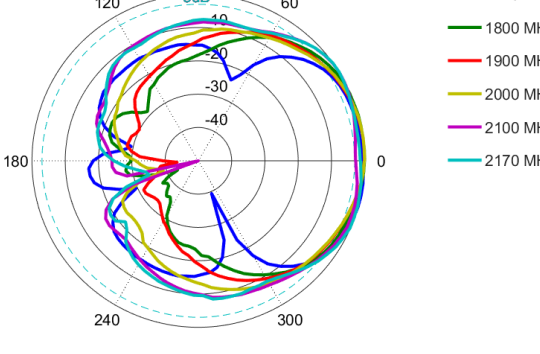
Elevation: 617 – 968 MHz



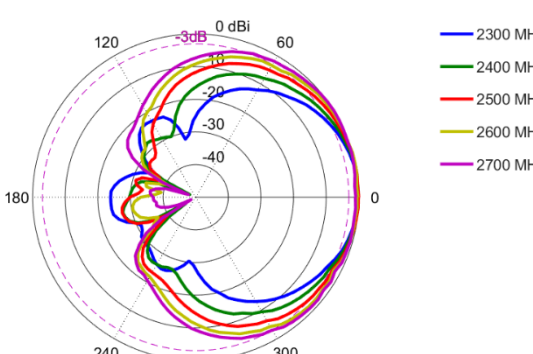
Azimuth: 2300 – 2700 MHz



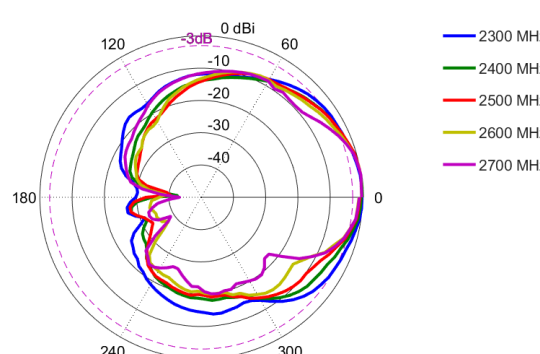
Elevation: 2300 – 2700 MHz



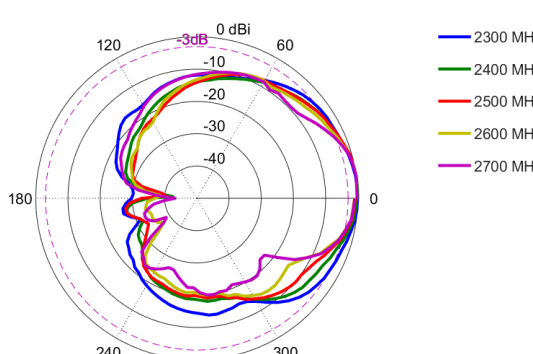
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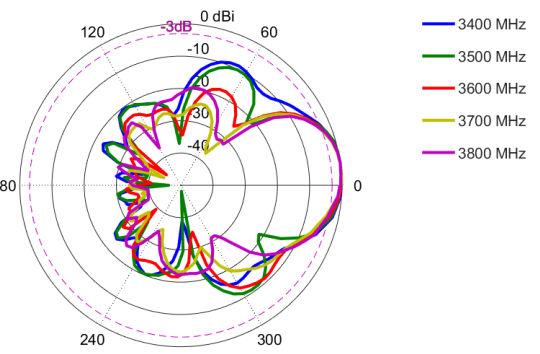
Elevation: 2300 – 2700 MHz



Azimuth: 3400 – 4200 MHz

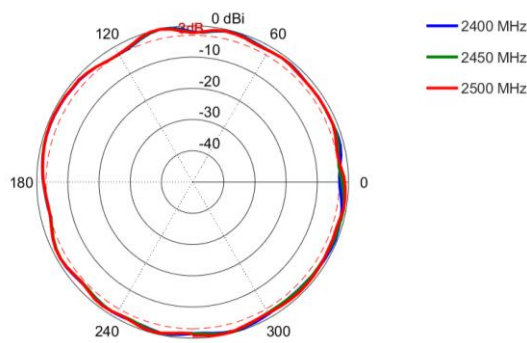


Elevation: 3400 – 4200 MHz

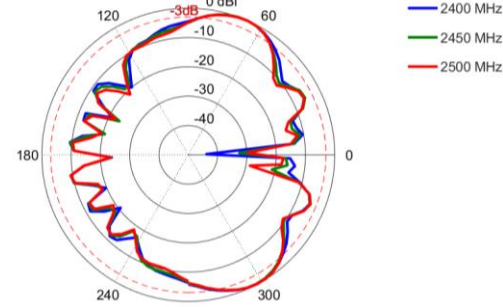


Radiation Patterns – Wi-Fi

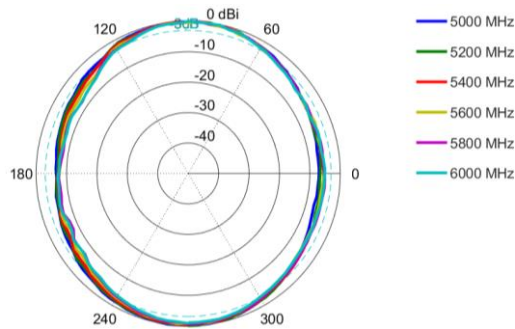
Azimuth: 2400 - 2500 MHz



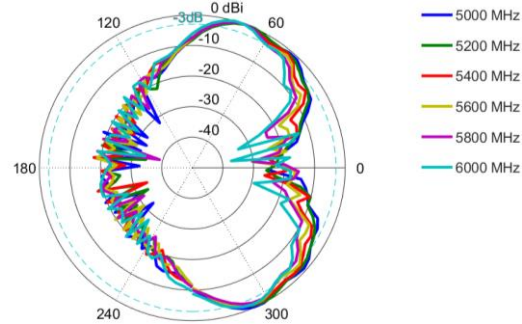
Elevation: 2400 - 2500 MHz



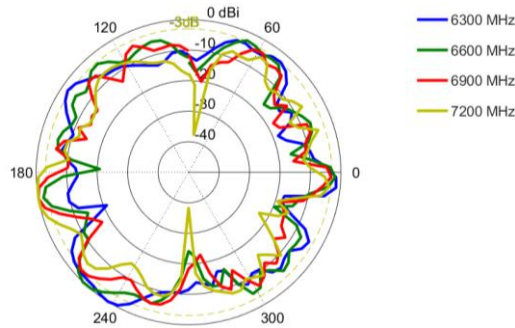
Azimuth: 5000 - 7200 MHz



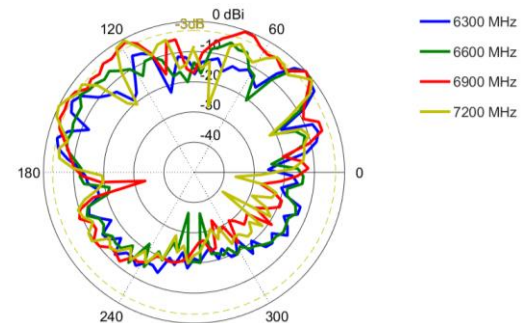
Elevation: 5000 - 7200 MHz



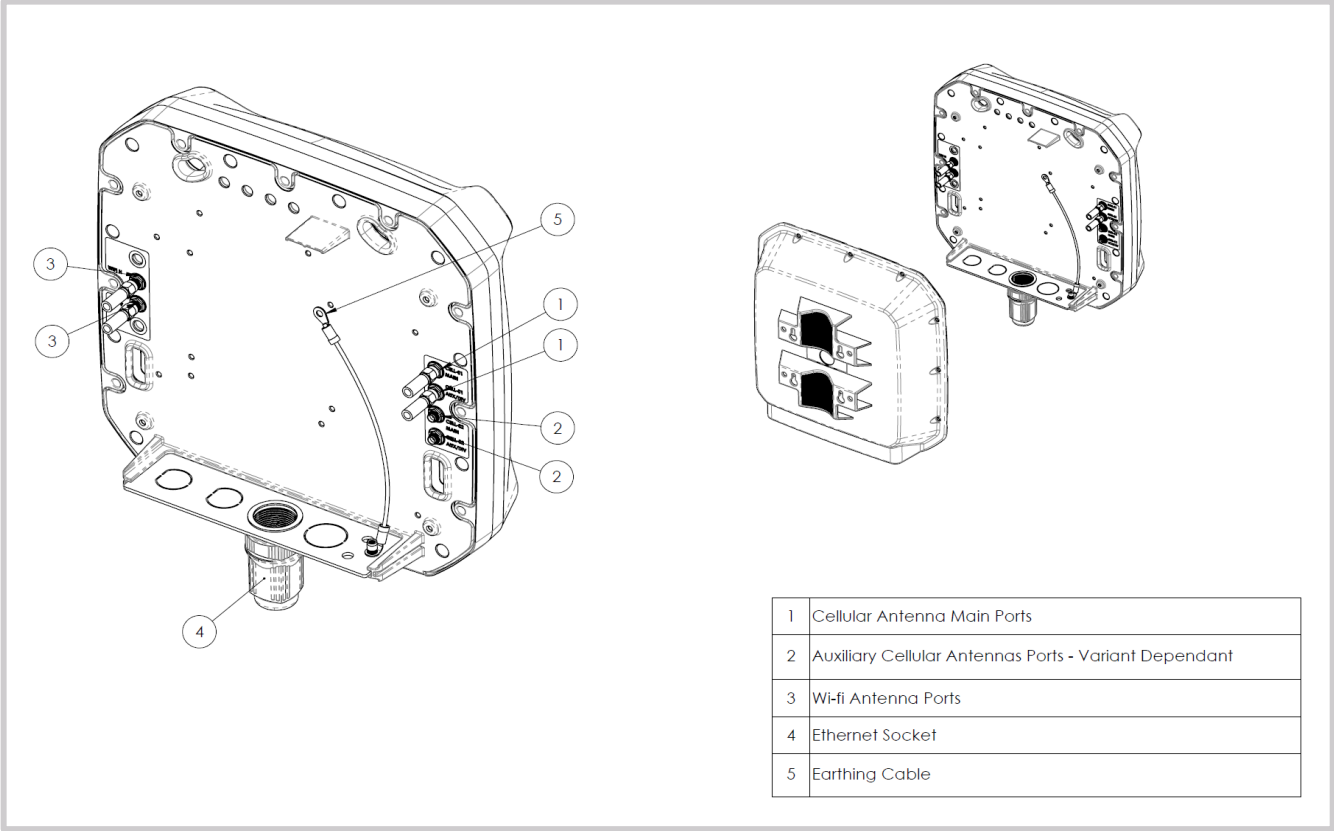
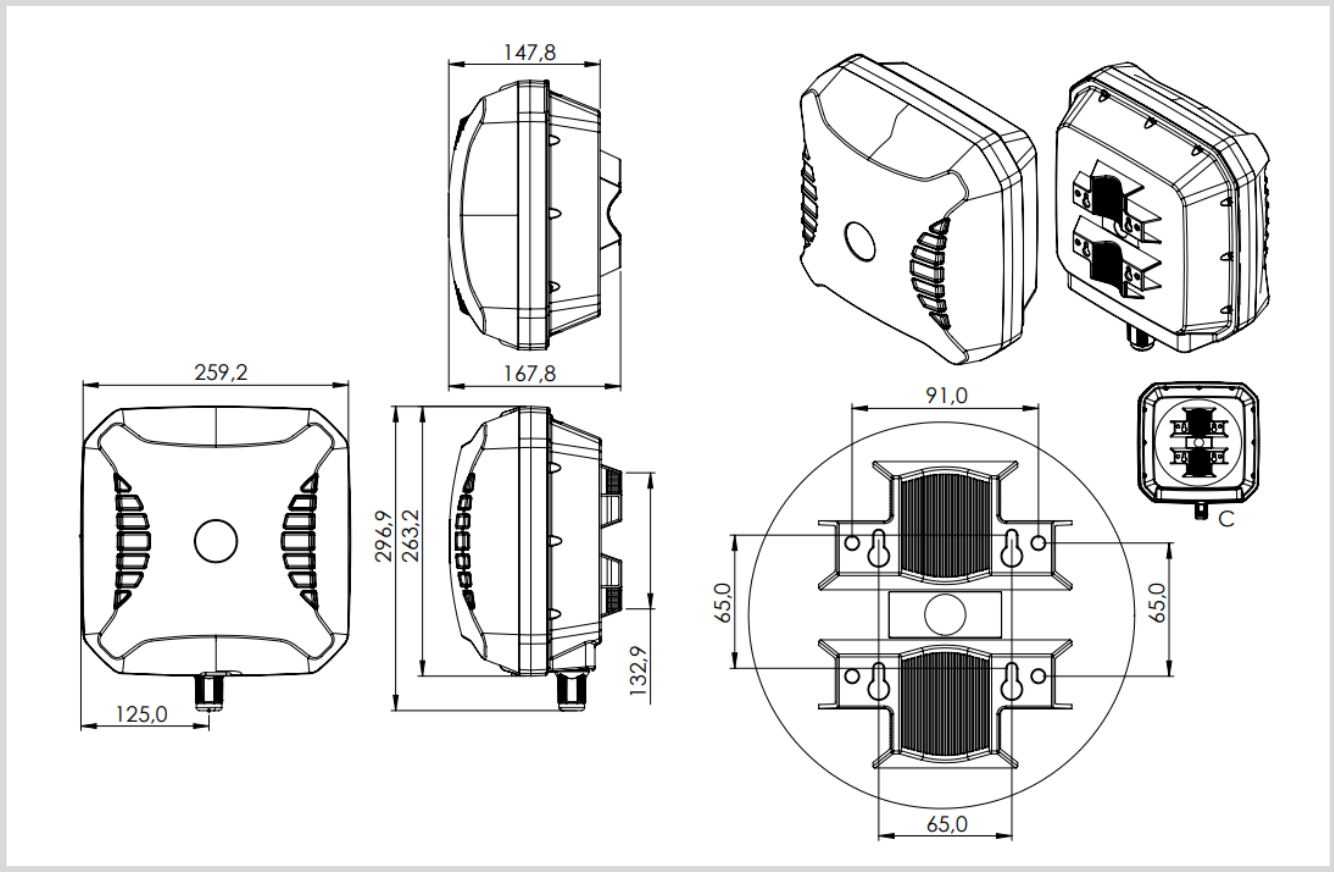
Azimuth: 6300 - 7200 MHz

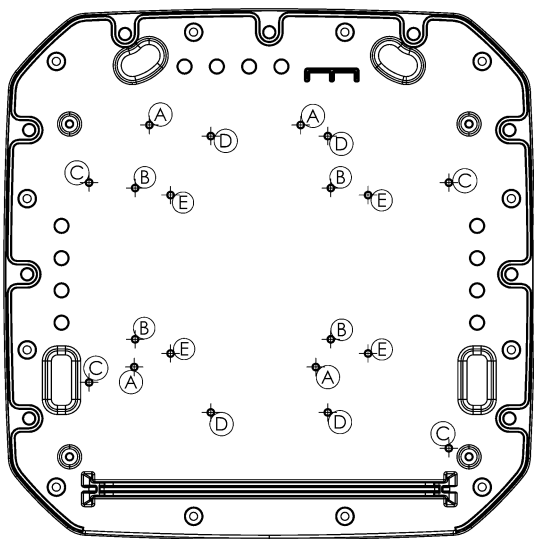


Elevation: 6300 - 7200 MHz

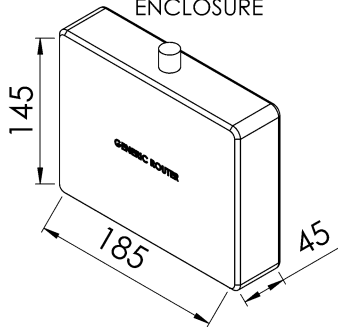


Technical Drawings

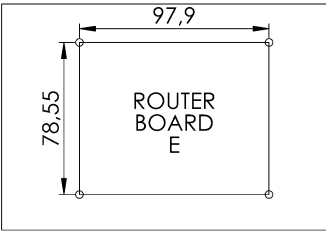
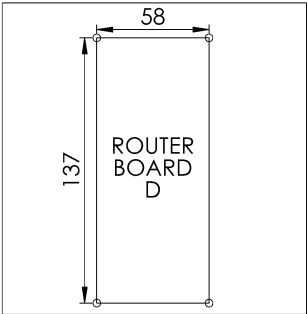
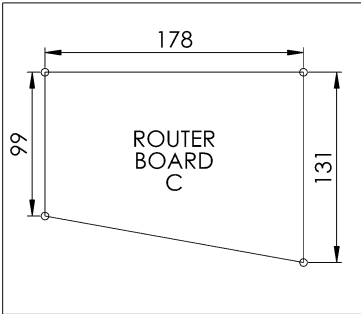
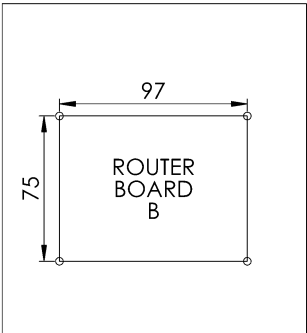
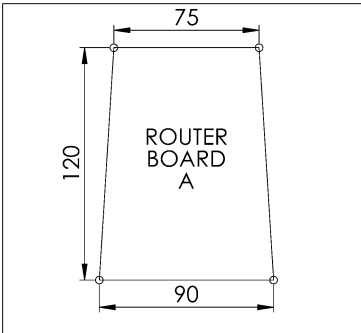




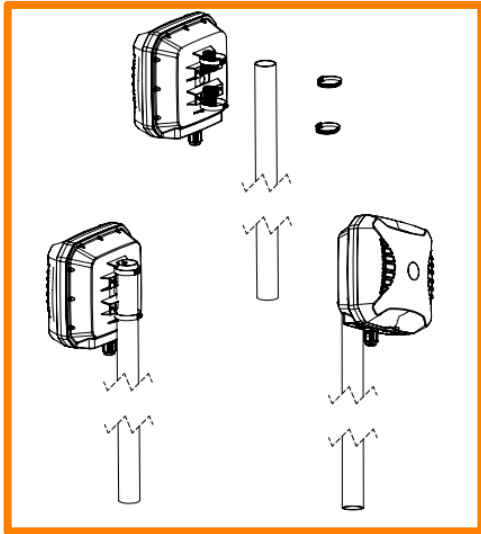
AVAILABLE SPACE
FOR COMPATIBLE
ROUTER
ENCLOSURE



GENERIC ROUTER
MOUNTING HOLES SPACING

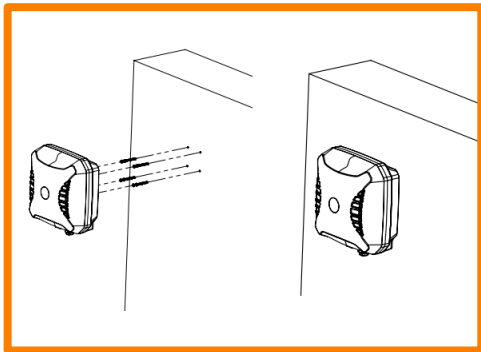


Mounting Options



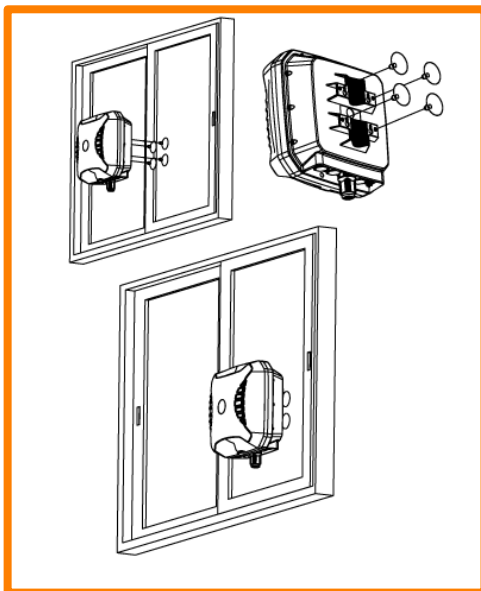
Pole Mount

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

CONTACT POYNTING

Poynting Antennas (Pty) Ltd - Head Office

Unit 4, N1 Industrial Park,
Landmarks Avenue,
Samrand, 0157, South Africa

Phone: +27 (0) 12 657 0050

E-mail: info@poynting.tech

International Email: sales-global@poynting.tech

Poynting Europe

Regus Business Center Neue Messe Riem
Kronstadter Straße 4
81677 München
Germany

Phone: +49 89 7453 9002

E-mail: sales-europe@poynting.tech

Poynting USA

1804 Owen Court, Suite 104,
Mansfield,
TX 76063
USA

Phone: +1 817 533-8130

E-mail: sales-us@poynting.tech