EPNT-2

POYNTING
BEYOND A CONNECTED LIFE

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

3.5 GHz CBRS

CBRS Band

4x4 MIMO

Wi Fi DUALBAND

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 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 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

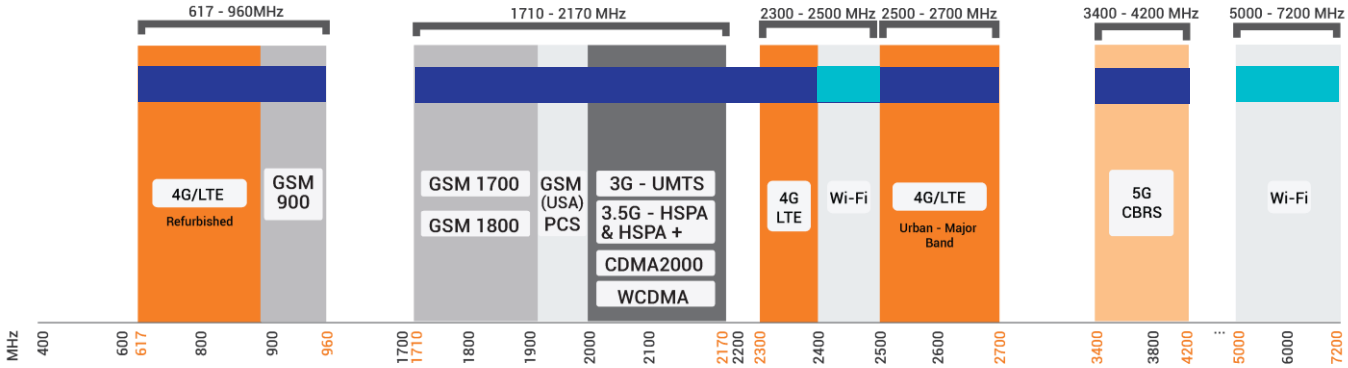
- Outdoor antenna for Fixed Wireless Access (FWA)
- Consumer 5G/4G internet connectivity
- Industrial and commercial 5G/4G deployment
- Urban and rural household reception enhancement
- Agricultural and farming 5G/4G data distribution

Revised: January 2024

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
Document version: TS-EPNT-0002-V2-01 REV 8.0
www.poynting.tech

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

	4G 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.*

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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-V2-01

Ordering Information

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

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

*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.

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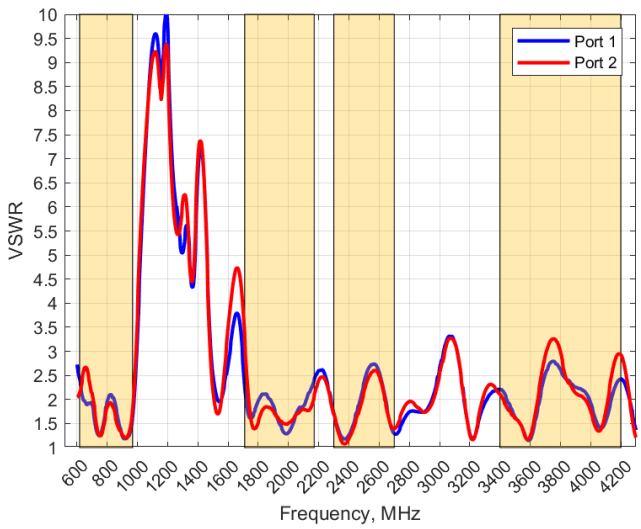
Antenna Performance Plots - Cellular

VSWR: Cellular Antenna



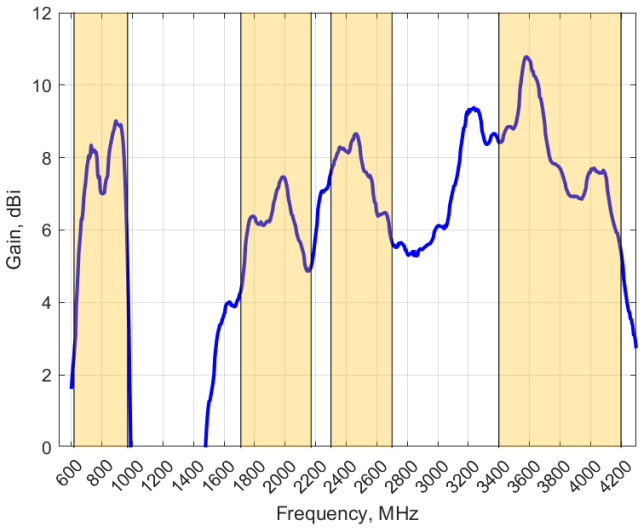
Voltage Standing Wave Ratio (VSWR)*

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 ≤3:1.

**VSWR measured without a cable.*

GAIN (EXCLUDING CABLE LOSS): Cellular Antenna



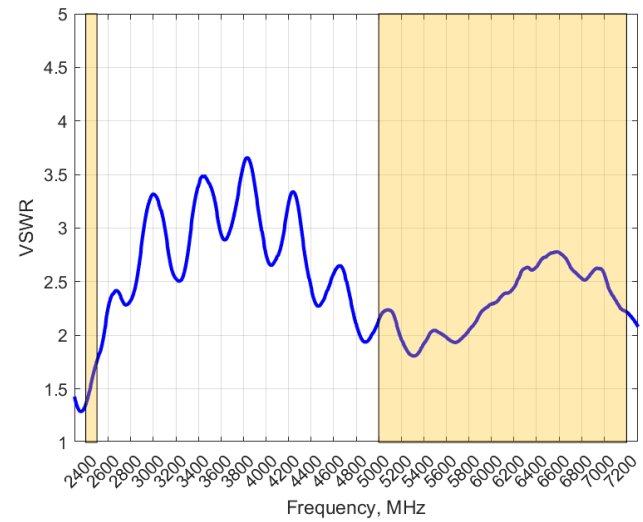
Gain+ in dBi

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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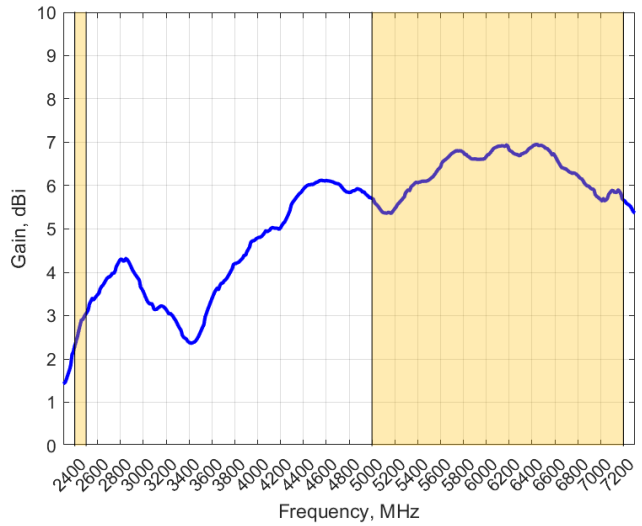
**VSWR measured without a cable.*

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

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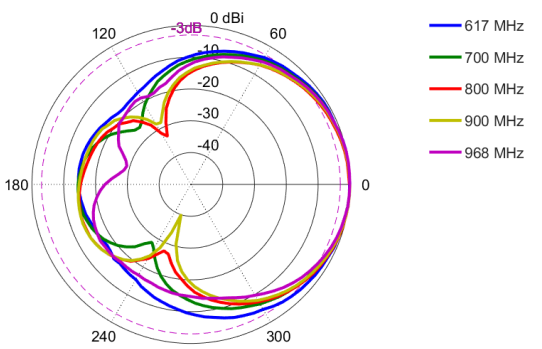
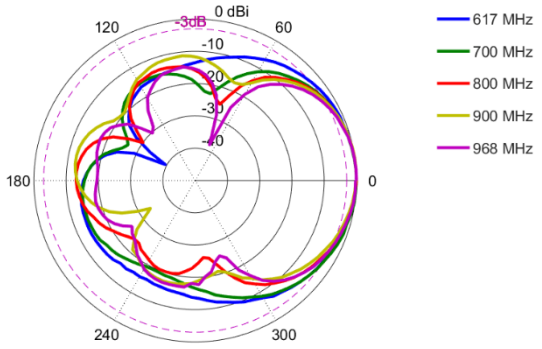
Radiation Patterns – Cellular

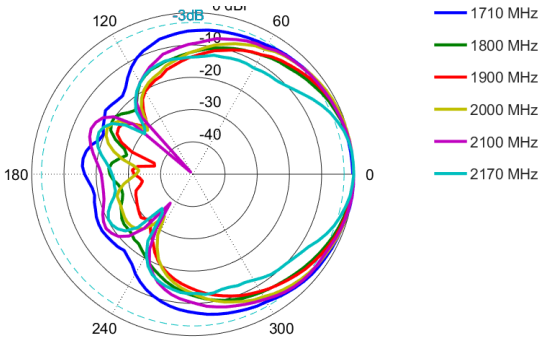
Azimuth: 617 - 968 MHz



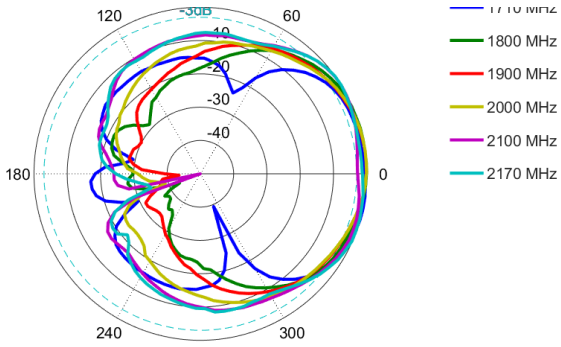
Elevation: 617 – 968 MHz



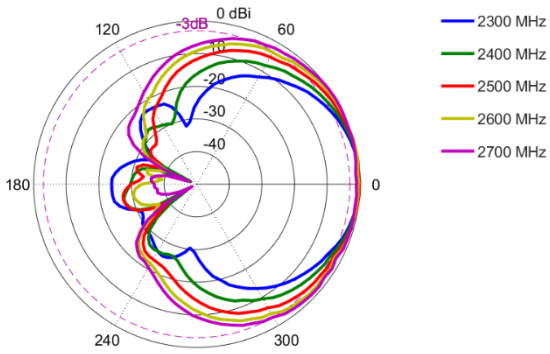
Azimuth: 2300 – 2700 MHz



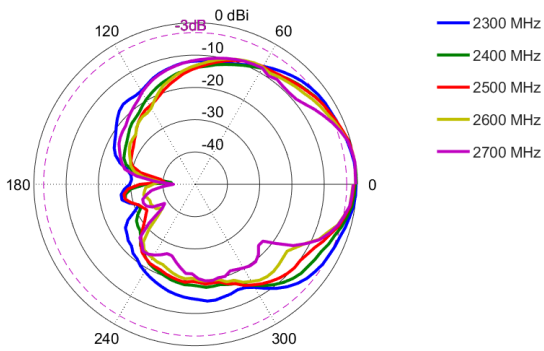
Elevation: 2300 - 2700 MHz



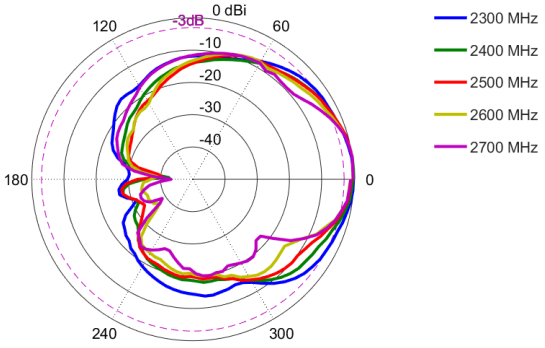
Azimuth: 2300 – 2700 MHz



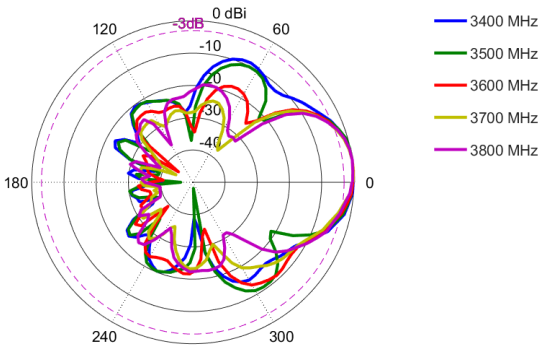
Elevation: 2300 – 2700 MHz



Azimuth: 3400 – 4200 MHz



Elevation: 3400 – 4200 MHz



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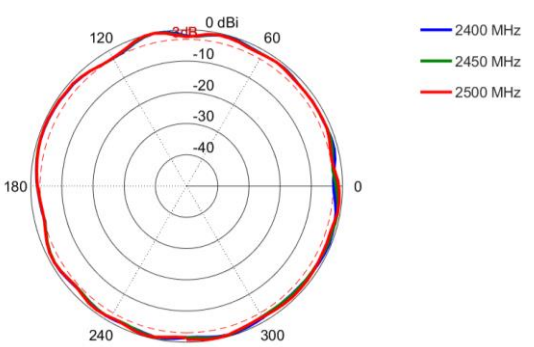
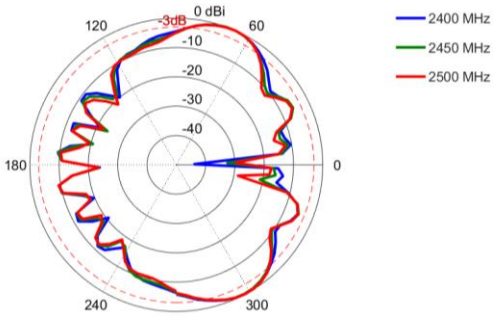
Radiation Patterns – Wi-Fi

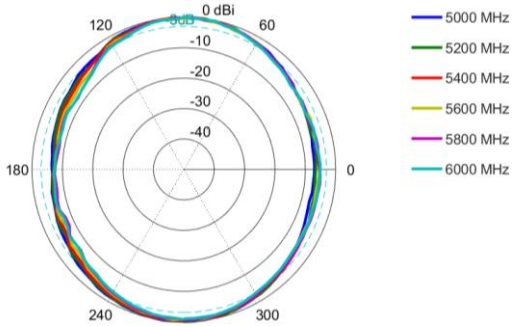
Azimuth: 2400 - 2500 MHz



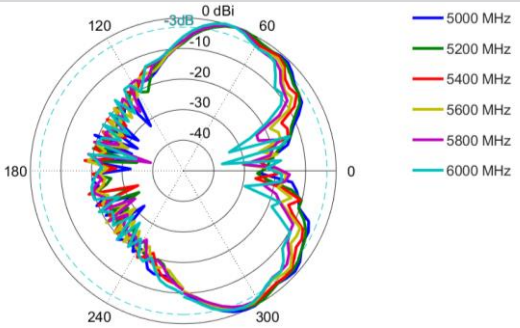
Elevation: 2400 – 2500 MHz



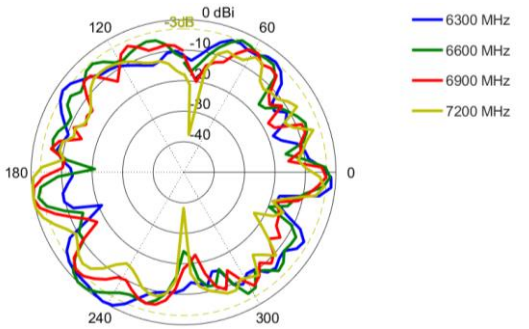
Azimuth: 5000 – 7200 MHz



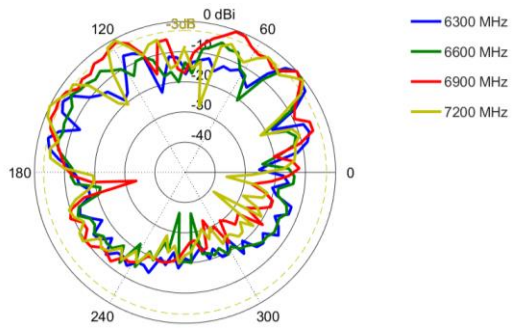
Elevation: 5000 - 7200 MHz



Azimuth: 6300 – 7200 MHz



Elevation: 6300 – 7200 MHz



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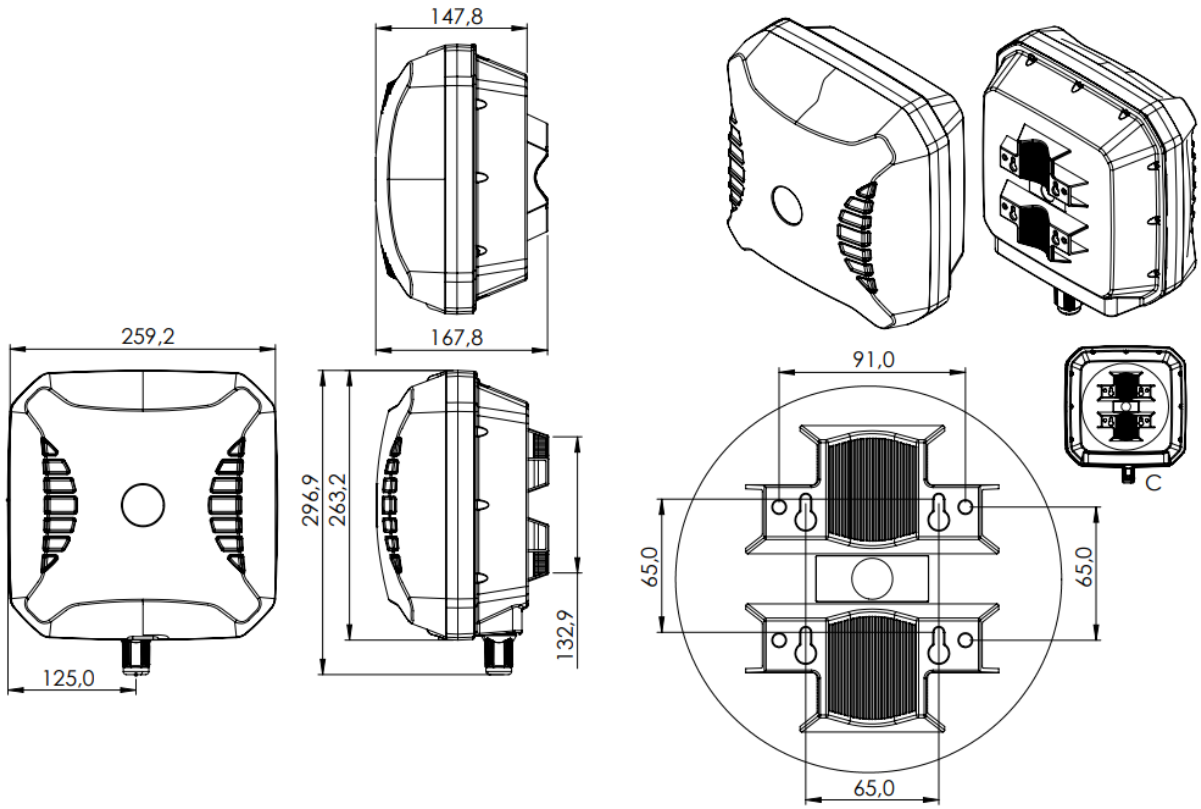
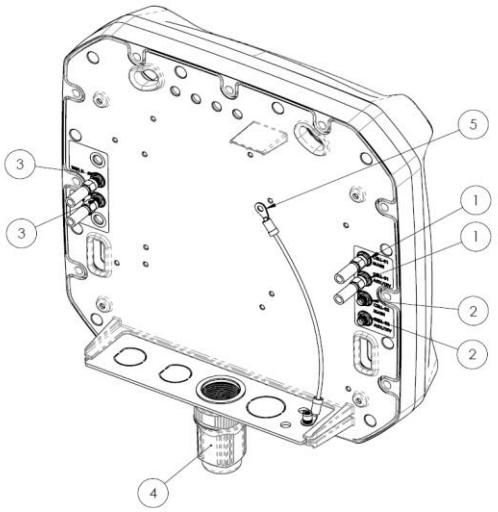
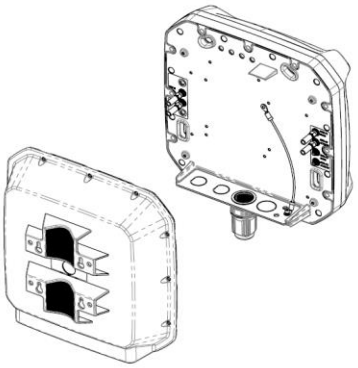
Technical Drawings







1	Cellular Antenna Main Ports
2	Auxiliary Cellular Antennas Ports - Variant Dependant
3	Wi-fi Antenna Ports
4	Ethernet Socket
5	Earthing Cable

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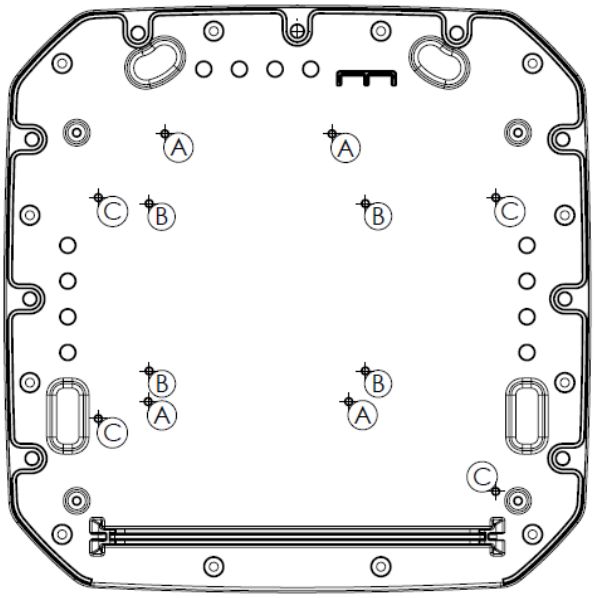
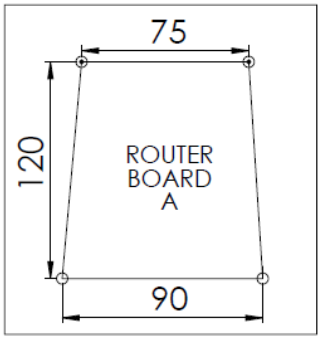
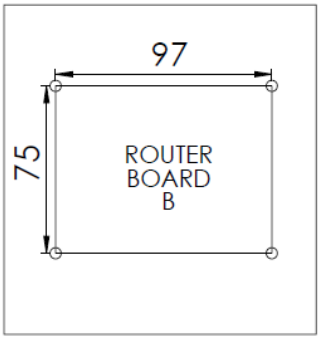
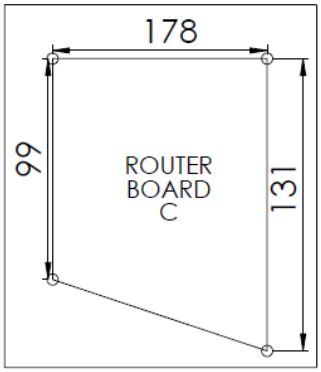


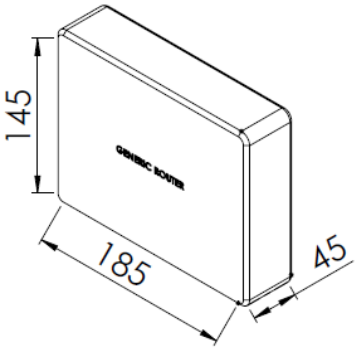
GENERIC ROUTER
MOUNTING HOLES SPACING







AVAILABLE SPACE
FOR COMPATIBLE
ROUTER
ENCLOSURE



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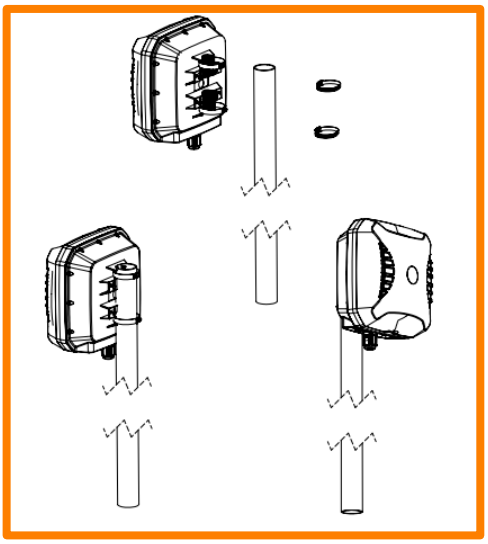
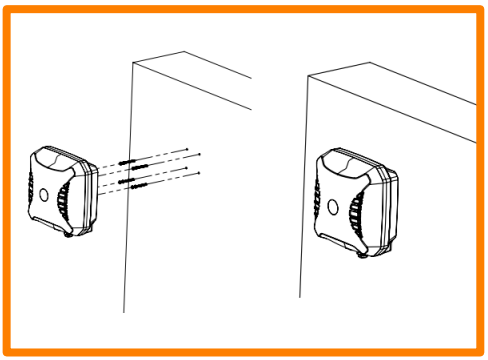
Mounting Options



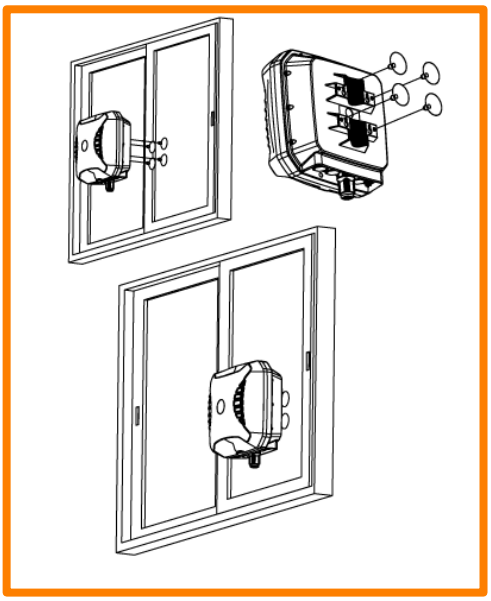
Pole Mount

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.*

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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