

ANTENNAS | EPNT-2 SERIES

X-POLARISED, HIGH GAIN, UNI-DIRECTIONAL 5G/LTE ANTENNA 698 – 960 MHz & 1710 – 3800 MHz, 11 dBi; 4x4 LTE (MIMO), 2x2 Wi-Fi (MIMO)



- **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 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 LTE/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 698 to 960 MHz and 1710 to 3800 MHz, making it ideal for LTE & 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 omnidirectional 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 omnidirectional 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 antenna, with a peak gain of 11 dBi
- 2x2 MIMO High gain directional antennas
- Wall, pole, and window mountable
- Weatherproof and waterproof enclosure (IP65)
- 1 x Ethernet port

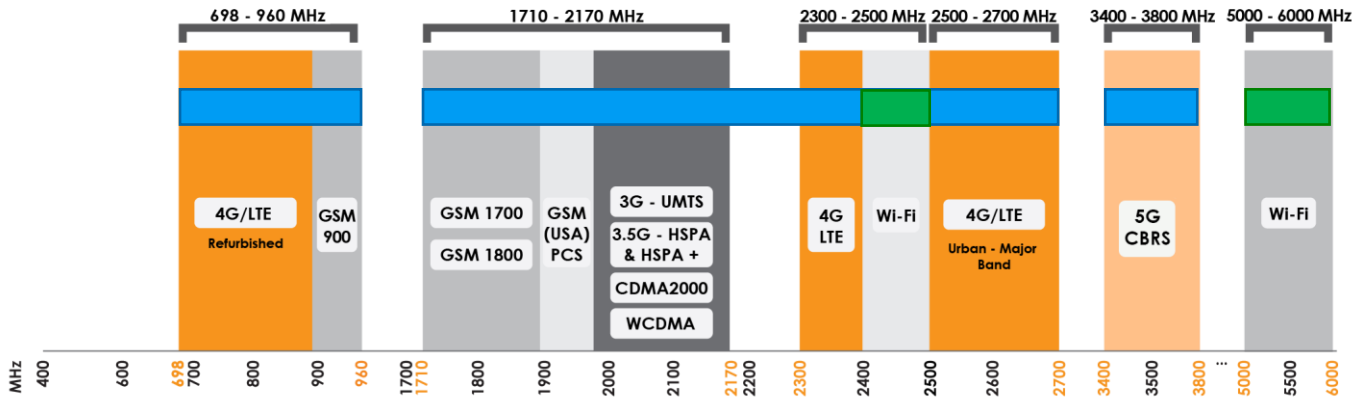
Application Areas

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



Frequency Bands

The EPNT-2 is a CPE antenna that works from 698 – 960 MHz | 1710 – 2700 MHz | 3400 – 3800 MHz and the following Wi-Fi frequency bands | 2400 - 2500 MHz | 5000 - 6000 MHz



■ Indicates the LTE bands on which EPNT-2 works ■ Indicates the WI-FI bands on which EPNT-2 works

Antenna Overview

Ports	Cell 1 & Cell 2* Main Cell 1 & Cell 2* Aux/Div	1 & 2
SISO / MIMO	4x4 MIMO	2x2 MIMO
Frequency Bands	698 - 3800MHz	2400 – 2500 MHz 5000 - 6000 MHz
Peak Gain	11 dBi	7 dBi
Connector Type*	SMA (F)	SMA (F)

**The connectors are factory mounted to the antenna
Additional pigtailed (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

Frequency bands:	698 - 960 MHz 1710 - 2700 MHz 3400 - 3800 MHz
Gain (max) Port 1 & 2:	8.5 dBi @ 698 - 960 MHz 9 dBi @ 1710 - 2700 MHz 11 dBi @ 3400 - 3800 MHz
VSWR Port 1 & 2:	< 2:1 over 90% of the band
Feed power handling:	20 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Cell 1: $\pm 45^\circ$ Cell 2: Vertical & Horizontal Linear

Electrical Specifications - Wi-Fi

Frequency:	2400 - 2500 MHz 5000 - 6000 MHz
Gain (Max):	3 dBi @ 2400 - 2500 MHz 7 dBi @ 5000 - 6000 MHz
VSWR:	< 2.5:1 over 90% of the band
Feed power handling:	10 W
Nominal input impedance:	50 Ohm (nominal)
Polarisation:	$\pm 45^\circ$ Linear
Path to Ground:	Yes

Product Box Contents

Antenna:	A-EPNT-0002-V1-01
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Ordering Information

Commercial name:	EPNT-2
Order product code:	A-EPNT-0002-V1-01
EAN number:	6009710922019

Mechanical Specifications

Product dimensions:	260mm x 264mm x 168mm
Maximum router dimensions:	185mm x 145mm x 45mm
Packaged dimensions:	410mm x 280mm x 177mm
Weight:	TBC
Packaged weight:	TBC
Radome material:	UV stable ASA
Radome colour:	Brilliant White Pantone P 179-1C
Mounting Type:	Wall/Pole and Window Mounted

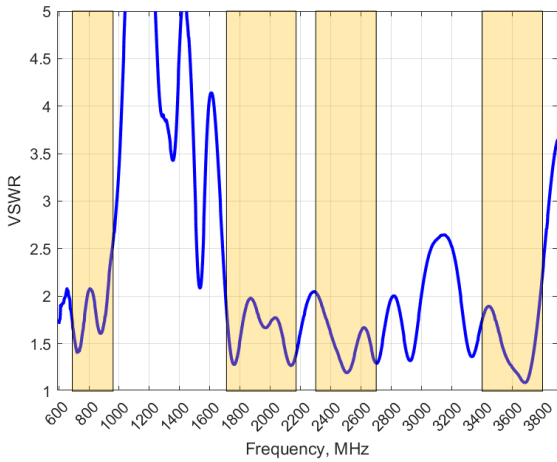
Environmental Specifications, Certification & Approvals

Wind Survival:	≤ 220 km/h
Temperature Range (Operating)*:	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 65
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 +70°C
Enclosure Flammability Rating:	UL 94-HB
Impact resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards

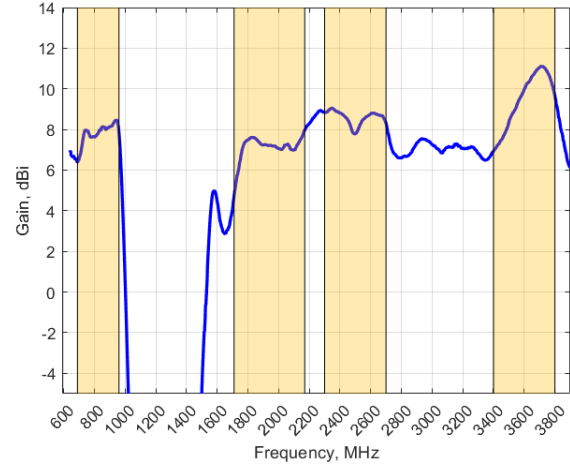
*Routers/Router boards have their own operating temperatures as provided in their individual data sheets. Routers/router boards mounted within an EPNT-2 which is exposed to solar radiation will operate at 10-12°C above ambient temperature. Please take this into consideration and select your device to be used with the EPNT-2 accordingly.

Antenna Performance Plots -Cellular

VSWR



Gain (EXCLUDING CABLE LOSS)



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 2:1 or better across 90% of the bands.

*Antenna VSWR measured without a cable

Gain* in dBi

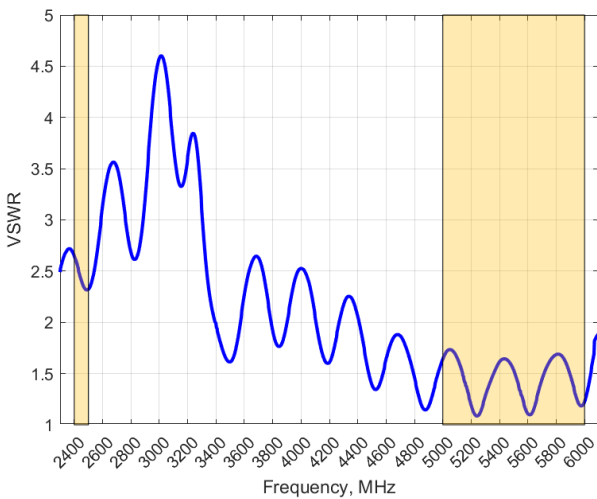
11 dBi is the peak gain across all bands from 698 - 3800 MHz

Gain @ 698 – 960 MHz:	8.5 dBi
Gain @ 1710 – 2700 MHz:	9 dBi
Gain @ 3400 – 3800 MHz:	11 dBi

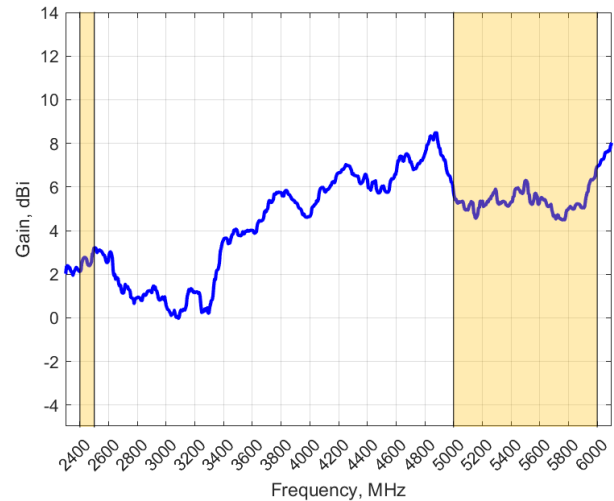
*Antenna gain measured with polarisation aligned standard antenna

Antenna Performance Plots -Wi-Fi

VSWR



Gain (EXCLUDING CABLE LOSS)



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 Wi-Fi antenna delivers superior performance across all bands with a VSWR of ≤ 2.5:1 over 90% of the bands.

*Antenna VSWR measured without a cable

Gain* in dBi

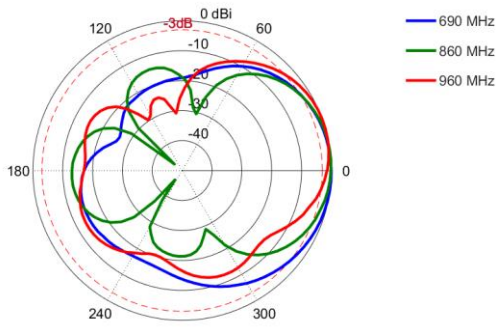
7 dBi is the peak gain across all bands from 2400 – 2500 MHz & 5000 – 6000 MHz

Gain @ 2400-2500 MHz:	3 dBi
Gain @ 5000-6000 MHz:	7 dBi

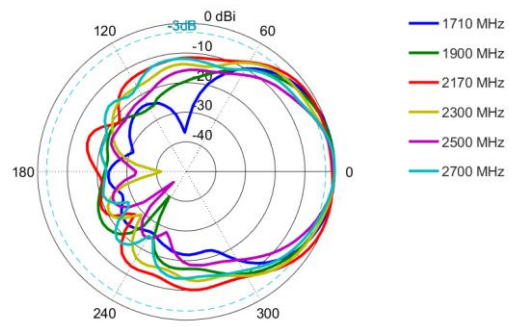
*Antenna gain measured with polarisation aligned standard antenna

Radiation Patterns- Cellular

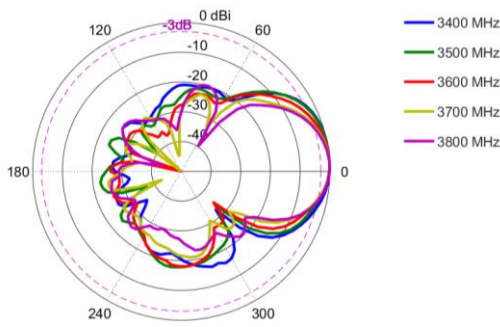
Azimuth: 690 – 960 MHz



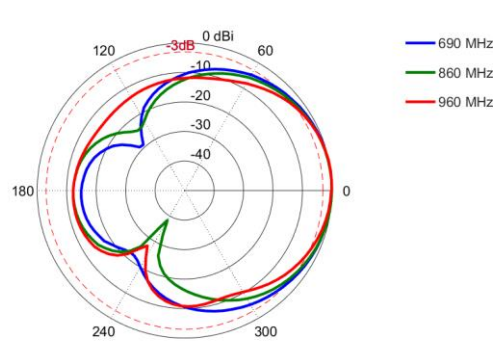
Azimuth: 1710 – 2700 MHz



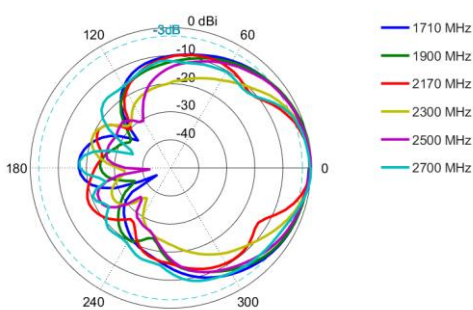
Azimuth: 3400 – 3800 MHz



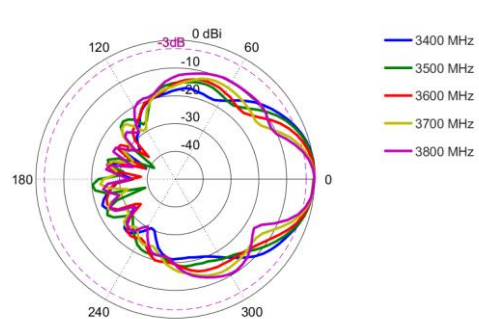
Elevation: 690 – 960 MHz



Elevation: 1710 – 2700 MHz

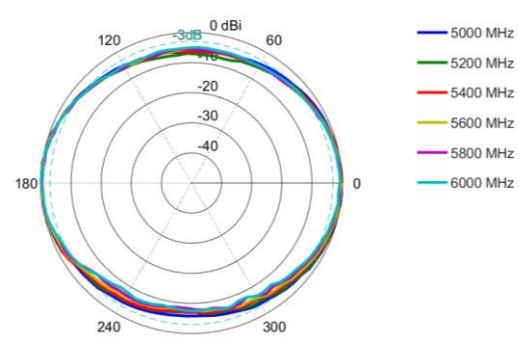
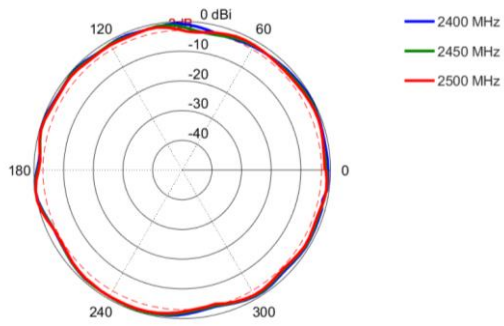


Elevation: 3400 – 3800 MHz

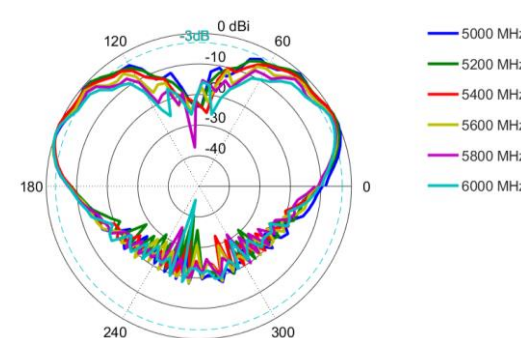
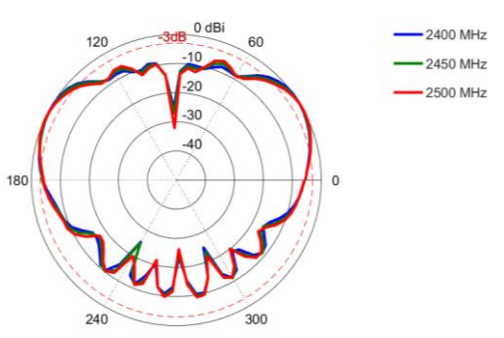


Radiation Patterns- Wi-Fi

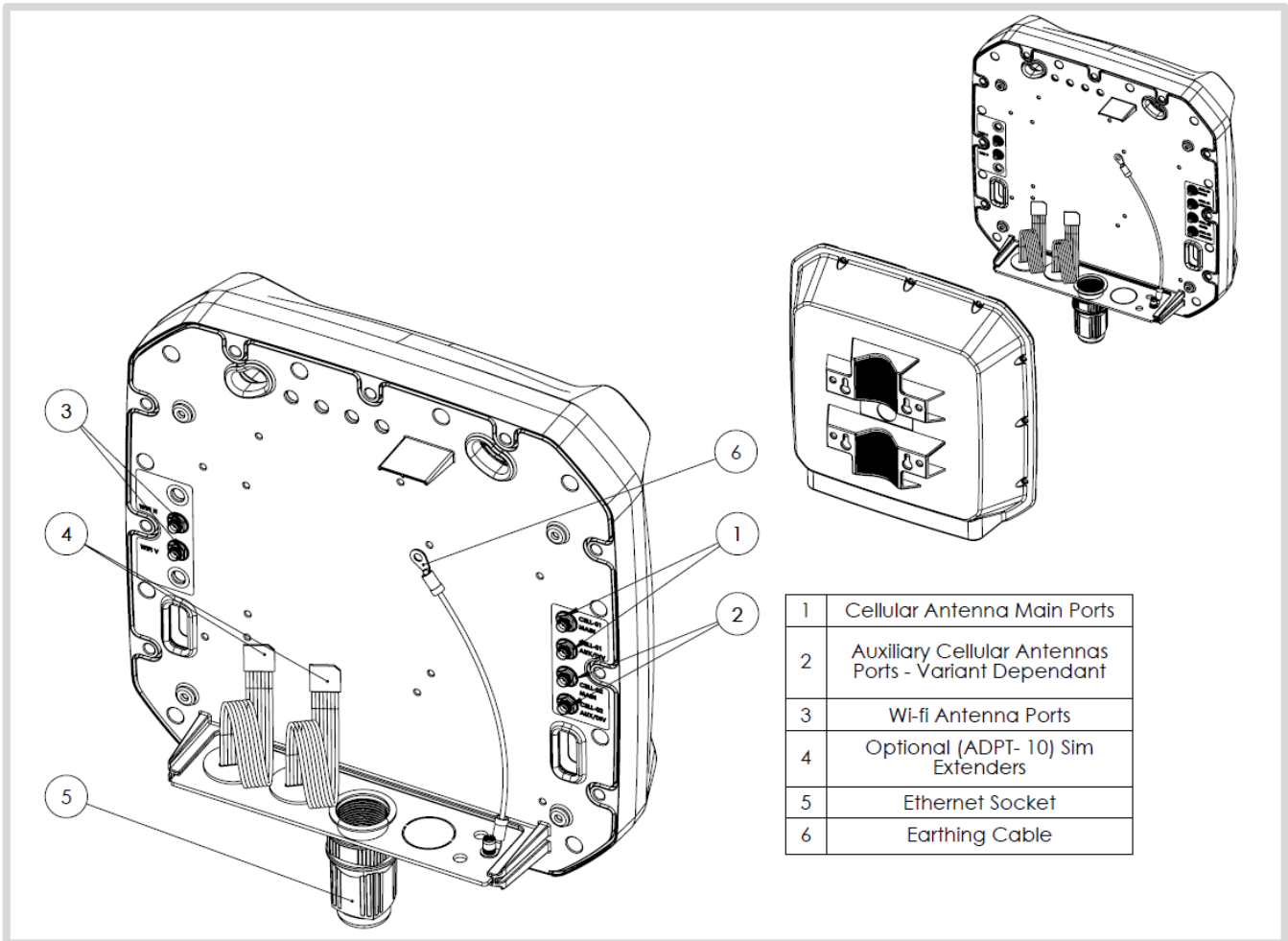
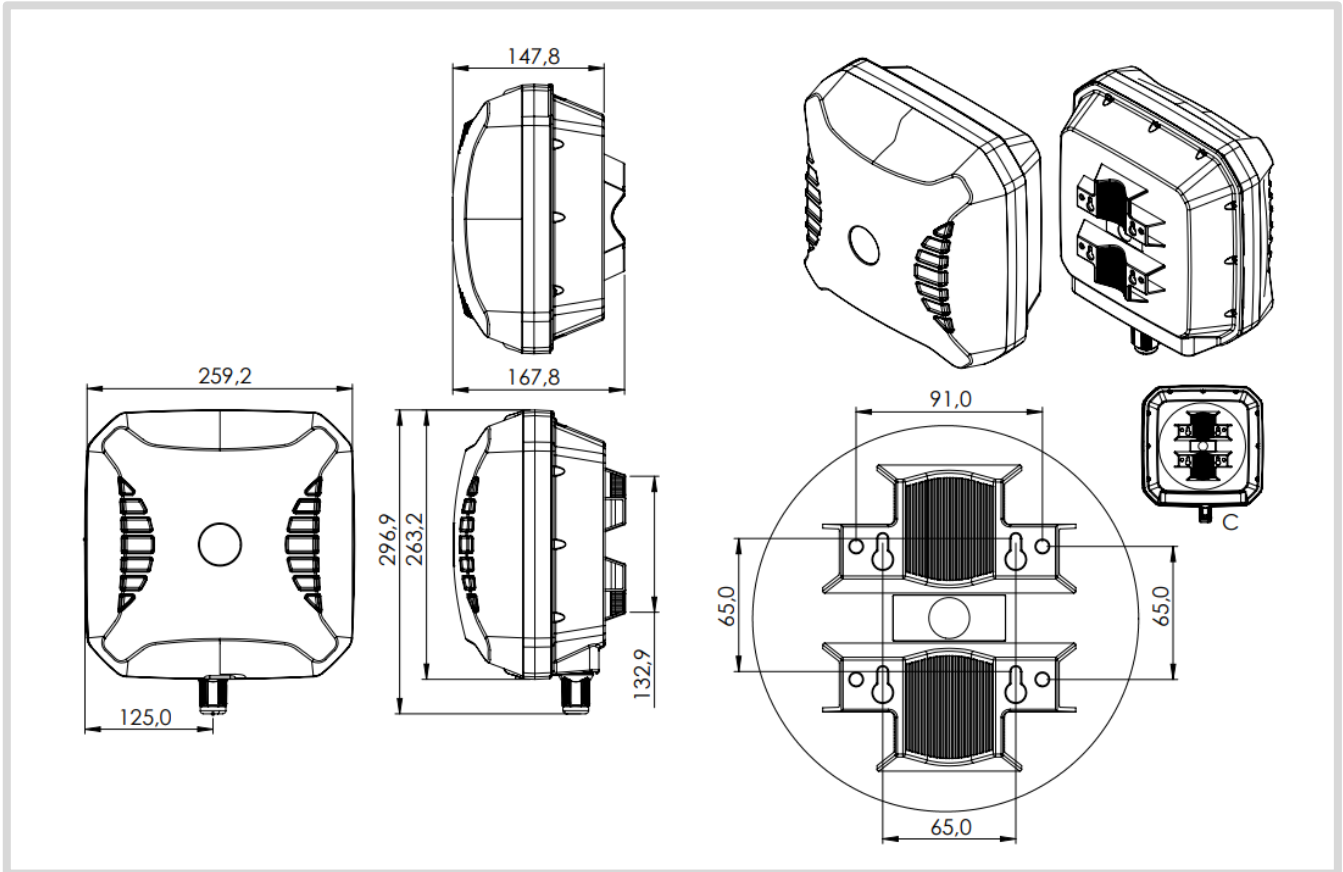
Azimuth: 2400 – 2500 MHz **Azimuth: 5000 – 6000 MHz**



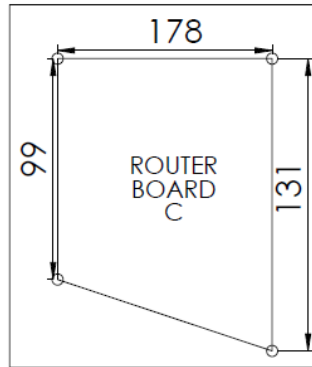
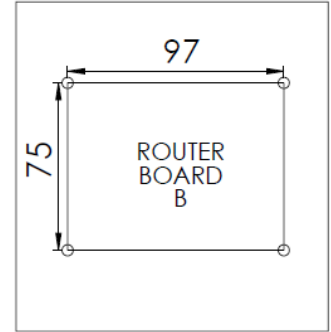
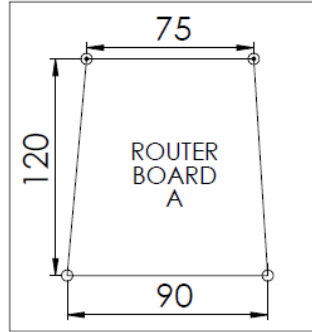
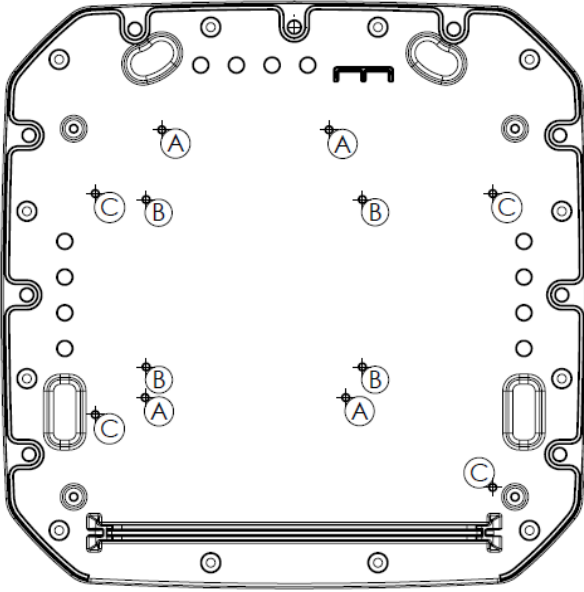
Elevation: 2400 – 2500 MHz **Elevation: 5000 – 6000 MHz**



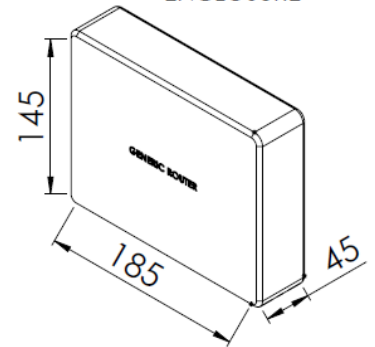
Technical Drawings



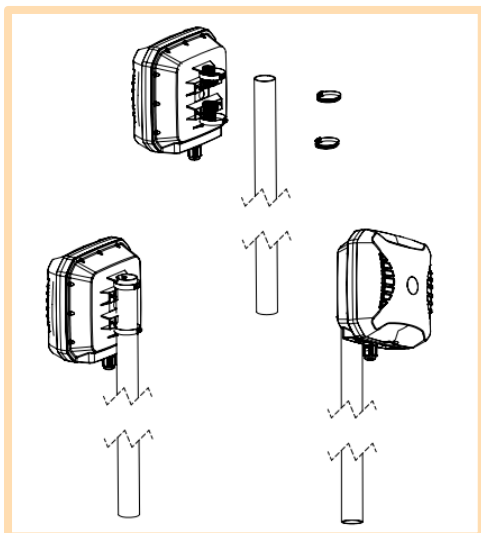
GENERIC ROUTER
MOUNTING HOLES SPACING



AVAILABLE SPACE
FOR COMPATIBLE
ROUTER
ENCLOSURE

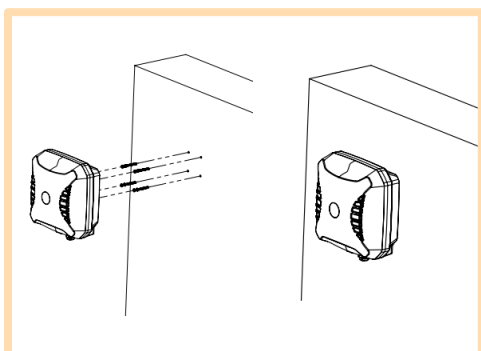


Mounting Options



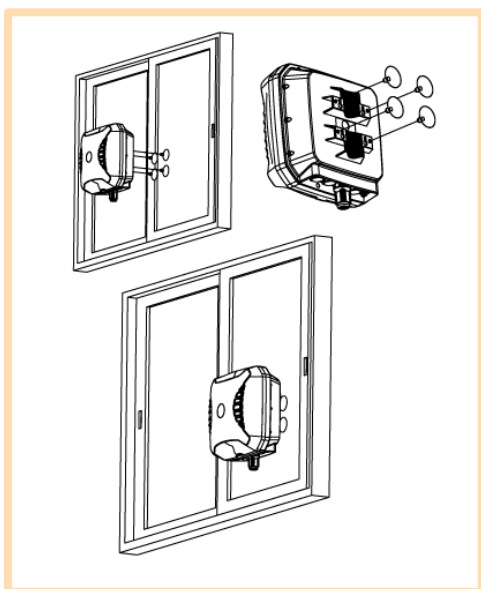
Pole Mount

Pole mounting bracket used pipe clamps (included)



Wall Mount

Wall mounting bracket used with knock-in screws (included)

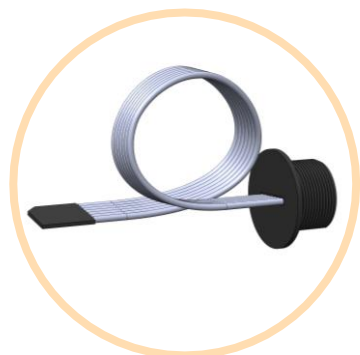


Window Mount*

Pole/Wall mounting bracket used with 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

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