

ANTENNAS | EPNT-2 SERIES

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

698 – 3800 MHz; 4x4 LTE/5G (MIMO), 11 dBi; 2x2 Wi-Fi (MIMO), 7 dBi;



| | | | | | |
|--|---|---|---|--|---|
|  698 – 960 MHz 1710 – 2700 MHz 3400 – 3800 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 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 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

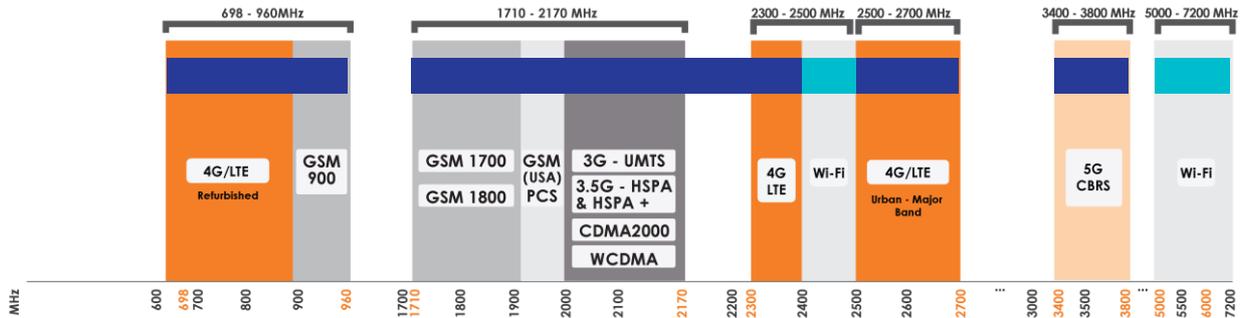
Application Areas

- Outdoor antenna for Fixed Wireless Access (FWA)
- Consumer 5G/LTE internet connectivity
- Industrial and commercial 5G/LTE deployment
- Urban and rural household reception enhancement
- Agricultural and farming 5G/LTE 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 | and | 5000 – 7200 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 - 3800 MHz | 2400 - 2500 MHz 5000 - 7200 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): | 8.5 dBi @ 698 – 960 MHz 9 dBi @ 1710 – 2700 MHz 11 dBi @ 3400 – 3800 MHz |
| VSWR: | <2:1 over 90% of the band |
| 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-V1-01 |
|-----------------|-------------------|

Ordering Information

| | |
|----------------------------|-------------------|
| Commercial Name: | EPNT-2 |
| Order Product Code: | A-EPNT-0002-V1-01 |
| EAN Number: | 6009710922019 |

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

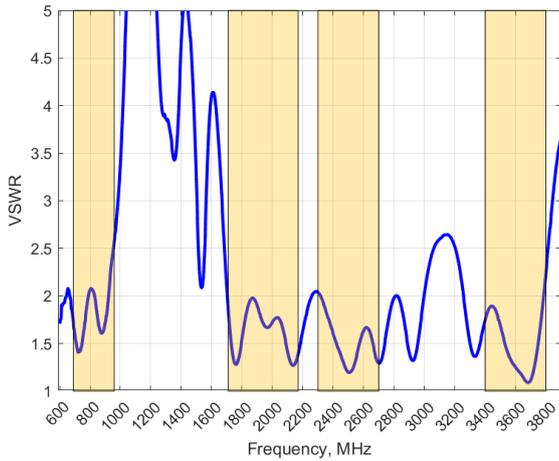
| | |
|---|-------------------------------------|
| Wind Survival: | ≤220 km/h |
| Temperature Range (Operating): | -40°C to +80°C |
| Environmental Conditions: | Outdoor/Indoor |
| Water Ingress Protection Ratio/Standard: | IP65 |
| Salt Spray: | MIL-STD 810G/ASTM B117 |
| Operating Relative Humidity: | 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.*



Antenna Performance Plots - Cellular

VSWR: Cellular Antenna



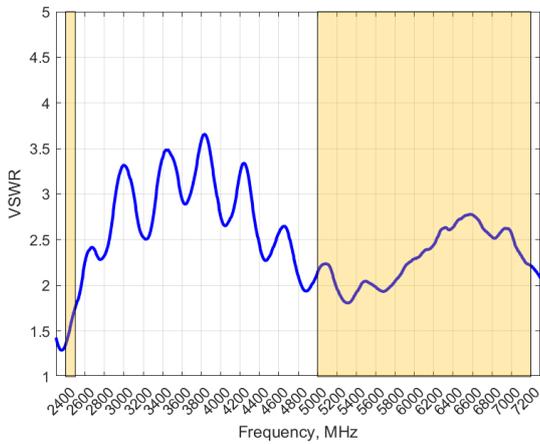
Voltage Standing Wave Ratio (VSWR)*

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

**VSWR measured without a cable.*

VSWR: Wi-Fi Antenna



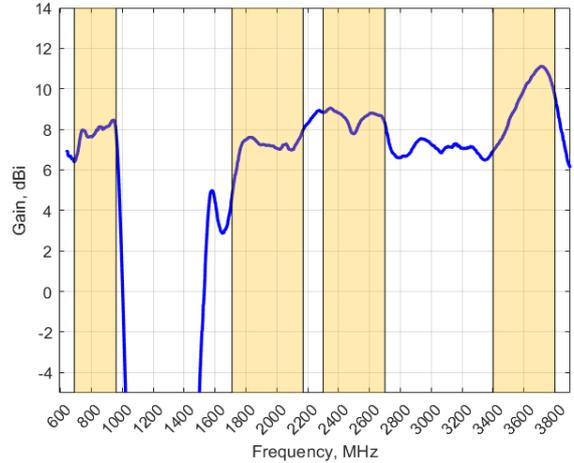
Voltage Standing Wave Ratio (VSWR)*

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



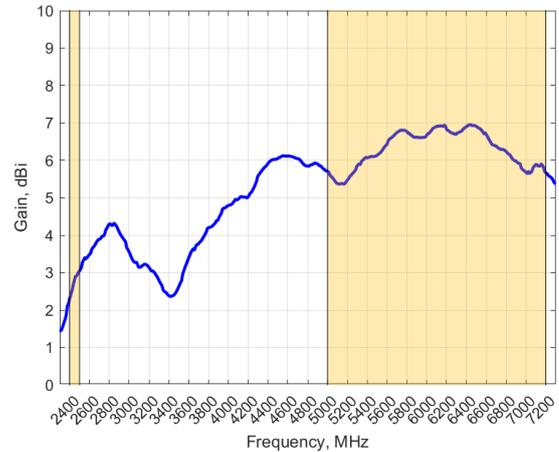
Gain* in dBi

11 dBi is the peak gain across all bands from 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*

GAIN (EXCLUDING CABLE LOSS): Wi-Fi Antenna



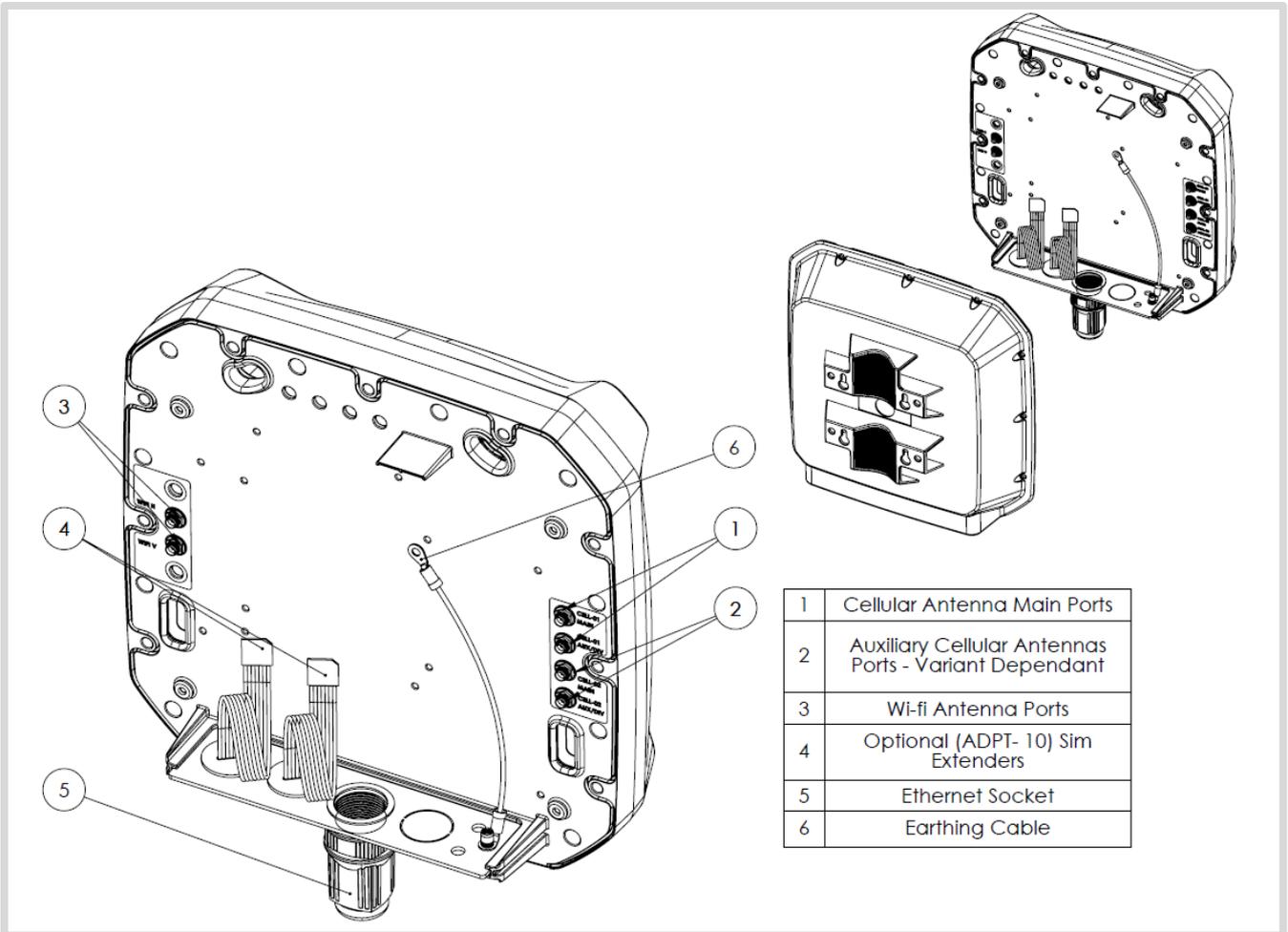
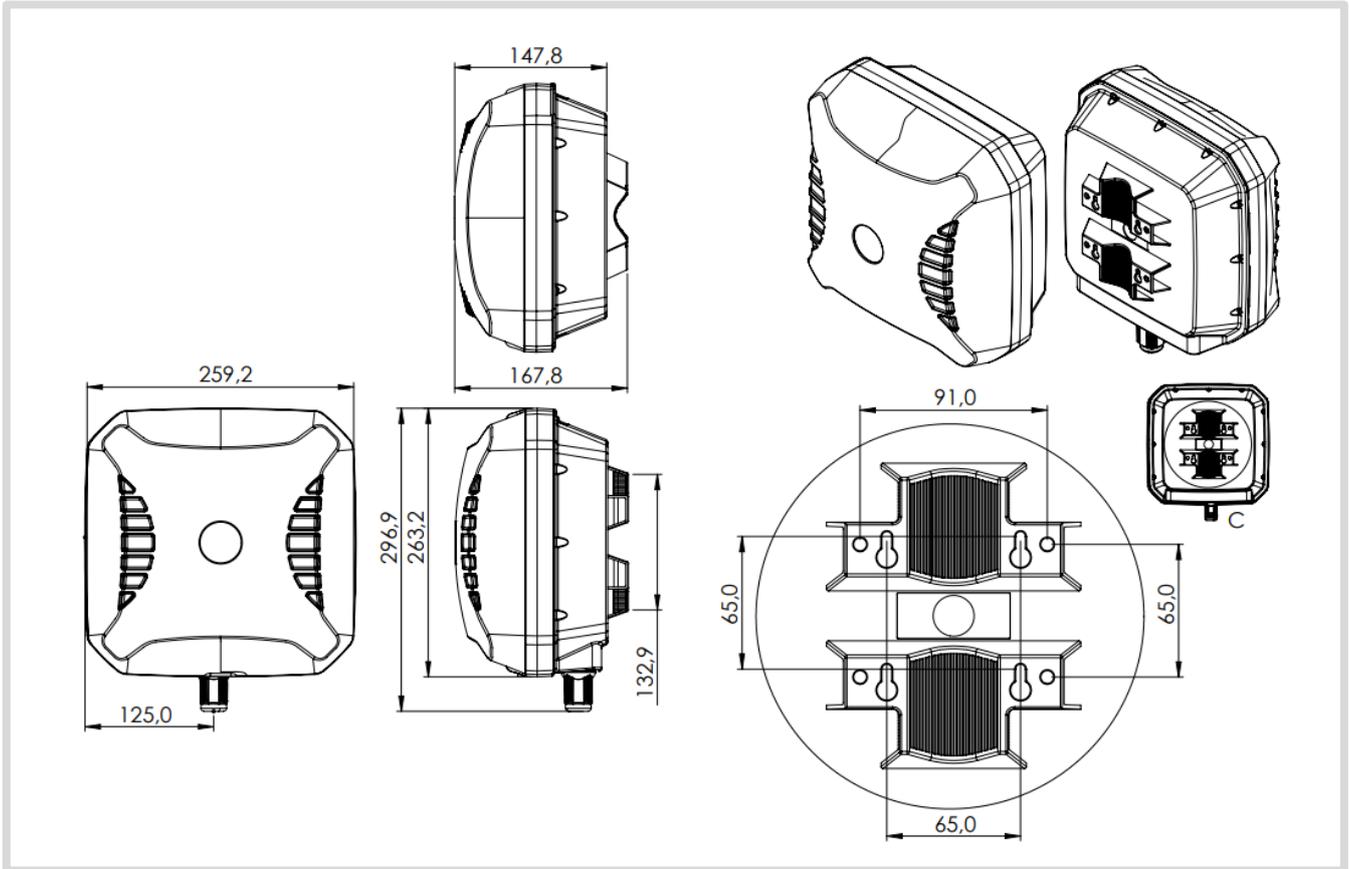
Gain* in dBi

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

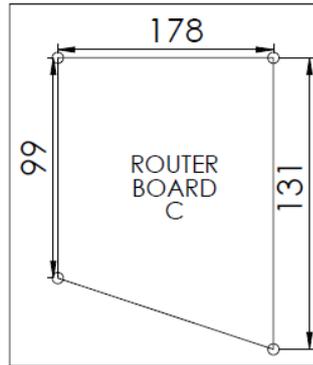
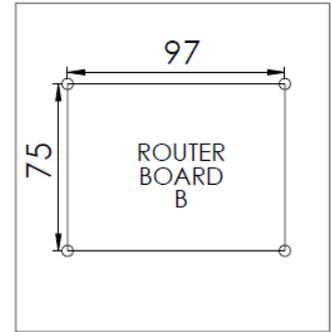
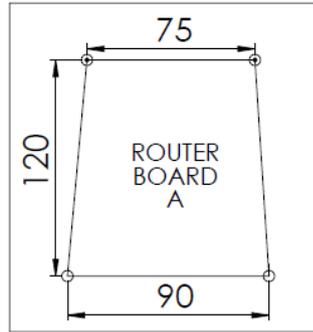
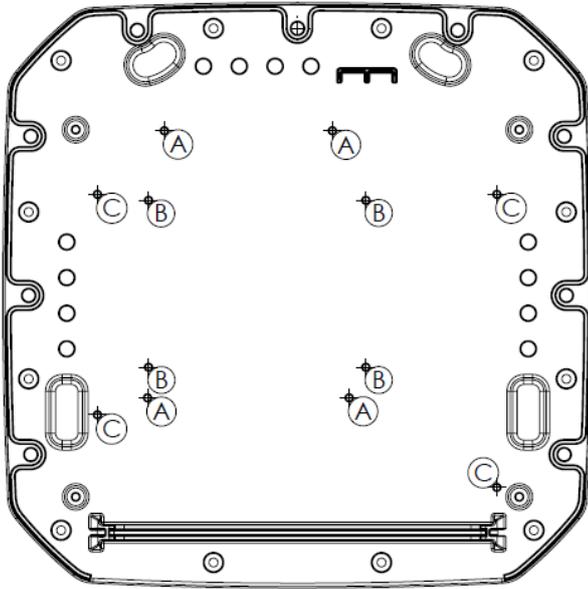
| | |
|-------------------------|-------|
| Gain @ 2400 - 2500 MHz: | 3 dBi |
| Gain @ 5000 – 7200 MHz: | 7 dBi |

**Antenna gain measured with polarisation aligned standard antenna*

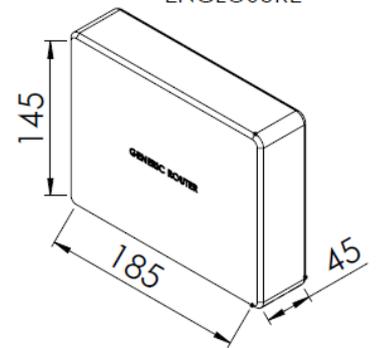
Technical Drawings



GENERIC ROUTER
MOUNTING HOLES SPACING

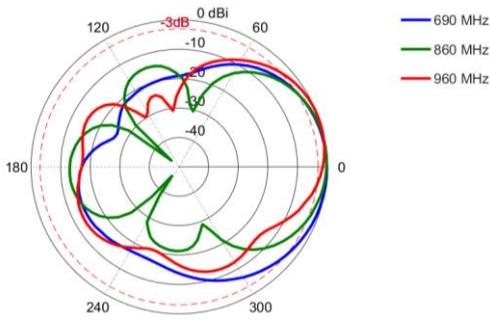


AVAILABLE SPACE
FOR COMPATIBLE
ROUTER
ENCLOSURE

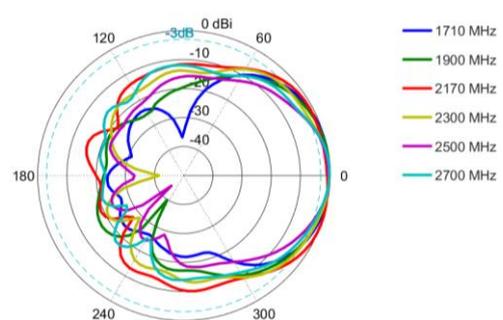


Radiation Patterns – Cellular

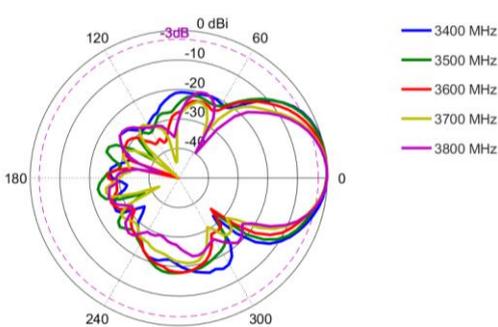
Azimuth: 690 - 960 MHz



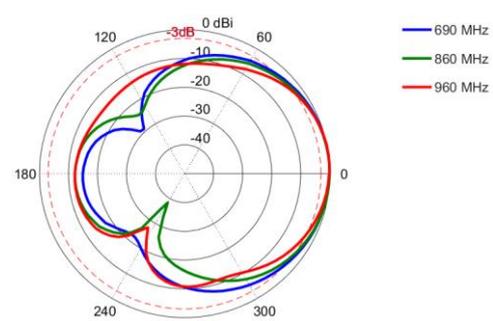
Azimuth: 1710 - 2700 MHz



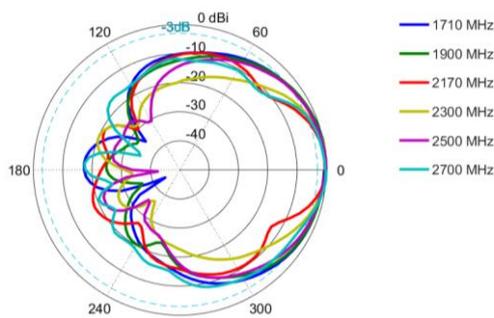
Azimuth: 3400 - 3800 MHz



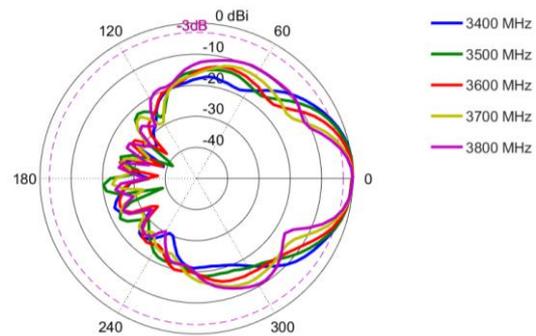
Elevation: 690 - 960 MHz



Elevation: 1710 - 2700 MHz

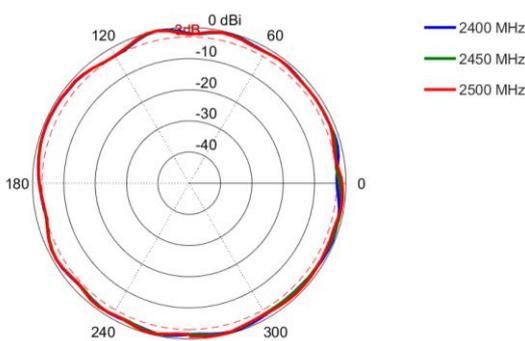


Elevation: 3400 - 3800 MHz

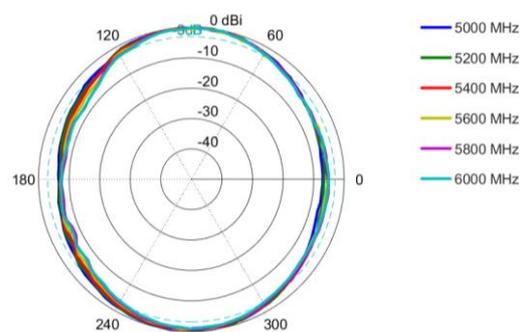


Radiation Patterns – Wi-Fi

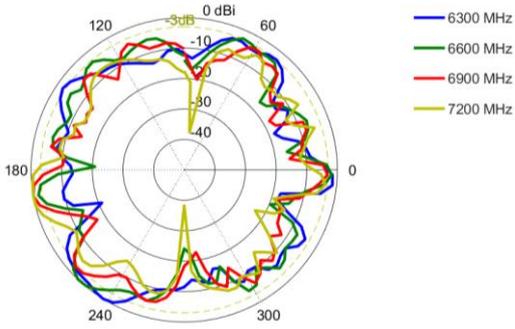
Azimuth: 2400 - 2500 MHz



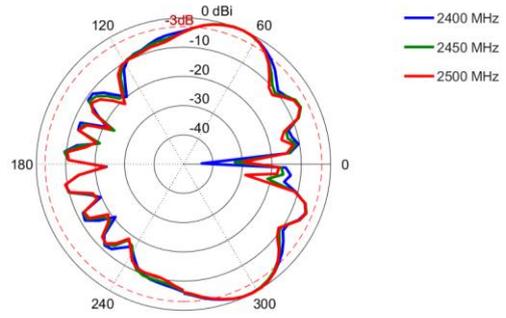
Azimuth: 5000 - 6000 MHz



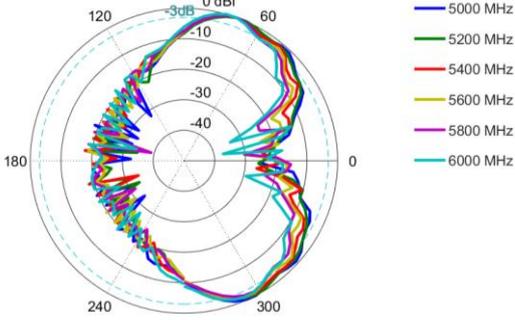
Azimuth: 6300 – 7200 MHz



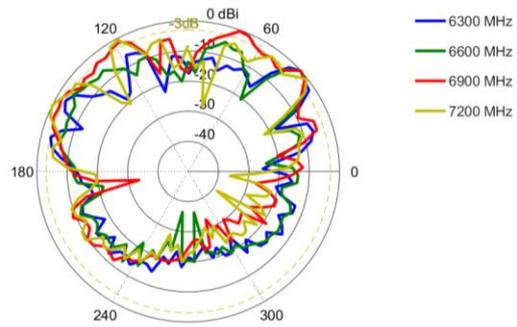
Elevation: 2400 - 2500 MHz

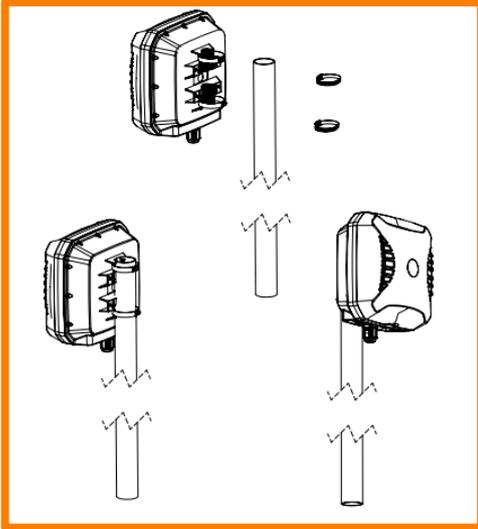


Elevation: 5000 – 6000 MHz

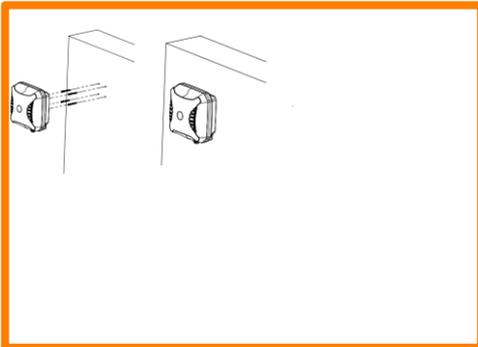


Elevation: 6300 – 7200 MHz

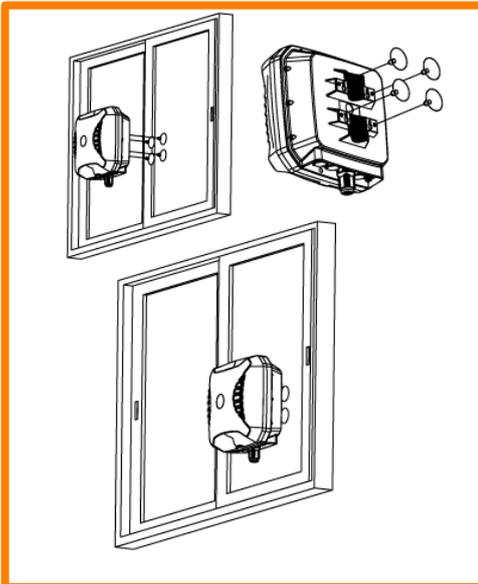


Mounting Options

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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