RIPPLE

POYNTING
BEYOND A CONNECTED LIFE

ANTENNAS | RIPPLE SERIES

X-POLARISED, OMNI-DIRECTIONAL 5G/LTE MULTI MIMO ANTENNA ARRAY

617 – 7200 MHz, 9.5 dBi; Cellular 2x OR 4x (4x4 MIMO); Wi-Fi 4x4 MIMO; 2 x GPS/GLONASS



617 – 960 MHz
1427 – 1517 MHz
1710 – 2700 MHz
3400 – 4200 MHz
5000 - 7200 MHz

9.5 dBi

Increase X Mb/s

Omni-Directional

5G

617 – 698 MHz

CBRS Band

4x4 MIMO

2.4 – 2.5 GHz
5.0 – 7.2 GHz

GNSS Included

-40°C to +80°C

IP 65

APPLICATION AREAS

Marine

- **An all-in-one solution integrating high-performance antennas with your router(s) into a single rugged outdoor enclosure**
- **Minimal RF cable losses, as there is no need for lengthy RF cables to connect to your router(s), enhancing overall antenna performance**
- **High performance, omni-directional marine & coastal antenna**
- **Up to 16 x 16 MIMO capability for improved performance**
- **Covers contemporary 5G/LTE band from 617 to 7200 MHz**
- **Innovative heat sink design for improved temperature regulation**
- **UV and saltwater protected for marine and coastal conditions**
- **IP 65 weather/dust resistant enclosure**

Product Overview

Poynting Antennas introduces its all-new marine antenna enclosure range, the Ripple antenna enclosure, which adds to our current WaveHunter series. The Ripple antenna enclosure is designed to fit a variety of router and networking modules, transforming the antenna enclosure into a CPE (Customer Premises Equipment) device – just add your own LTE/5G routers. The Ripple enclosure can accommodate routers up to the size of 300 x 250 x 110 mm³, which can be mounted directly onto the base.

The flagship unit will be the RIPL-16 antenna array that consists of 16 cross-polarised, omni-directional antennas arranged in a cross-polarised orientation with 8 x vertically and 8 x horizontally polarised, for improved performance. There is also a RIPL-8 antenna solution, which contains 8 cross-polarised, omni-directional antennas with 4 x vertically and 4 x horizontally polarised. The antennas offer wideband coverage from 617 to 7200 MHz, with a peak gain of 9.5 dBi. Making it ideal for multi-router LTE & 5G bonded and aggregated deployments. The enclosure was designed to withstand adverse weather conditions, making the antenna weatherproof with an IP 65 rating. The antenna enclosure was designed specifically for marine & coastal applications.

Features

- Ultra-wideband coverage from 617 to 7200 MHz
- High-performance antennas with a peak gain of 9.5 dBi
- Up to 16 x 16 MIMO for improved performance
- Purpose-built antenna for marine and coastal applications
- Weatherproof and water-resistant enclosure (IP 65)



Application Areas

- Marine applications: Super yachts, commercial vessels, cruise ships, ferries, private yachts, and towing vessels
- Harsh environments such as harbour buildings, and buoys
- Enhanced LTE/4G and 5G reception
- Increase system transmission reliability

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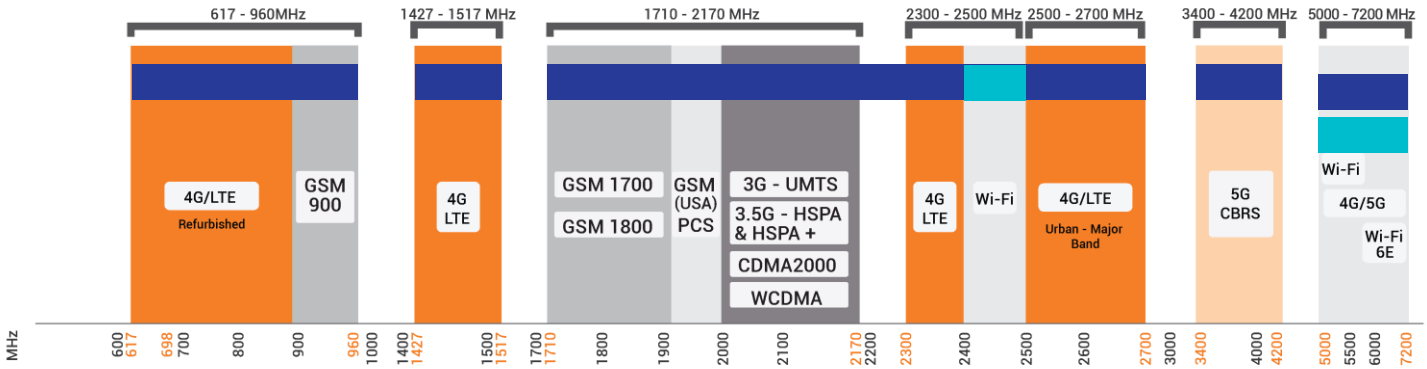
Frequency Bands

The RIPPLE is a circular array of omni-directional antennas that operate in the following frequency bands: | 617 – 960 MHz | 1427 – 1517 MHz | 1710 – 2700 MHz | 3400 – 4200 MHz | 5000 – 7200 MHz | and the following Wi-Fi frequency bands | 2400 – 2500 MHz | and | 5000 – 7200 MHz |



Indicates the 5G/LTE bands on which RIPPLE works

Indicates the WI-FI bands on which RIPPLE works

Antenna Derivatives

Product Order Code (SKU)	A-RIPL-0008-V1-01	A-RIPL-0016-V1-01
Ports	LTE- Vertical Polarised (x 4), LTE- Horizontal Polarised (x 4) Wi-Fi- Vertical Polarised (x 2), Wi-Fi- Horizontal Polarised (x 2) GPS (x 2)	LTE- Vertical Polarised (x 8), LTE- Horizontal Polarised (x 8) Wi-Fi- Vertical Polarised (x 2), Wi-Fi- Horizontal Polarised (x 2) GPS (x 2)
SISO / MIMO	2x (4x4 MIMO) - Cellular 4x4 MIMO – Wi-Fi	4x (4x4 MIMO) – Cellular 4x4 MIMO – Wi-Fi
Polarisation	Vertical & Horizontal	Vertical & Horizontal
Peak Gain	9.5 dBi	9.5 dBi
Connector Type	14 x SMA (F)	22 x SMA (F)
Coax Cable Type	10 x RG 316 (RA-SMA-M to RA- SMA-M): LTE & GPS 4 x RG 316 (RA-RPSMA-M to RA- SMA-M): Wi-Fi	18 x RG 316 (RA-SMA-M to RA- SMA-M): LTE & GPS 4 x RG 316 (RA-RPSMA-M to RA- SMA-M): Wi-Fi
Coax Cable Length	650 mm - LTE, Wi-Fi & GPS	650 mm - LTE, Wi-Fi & GPS
Weight	19.40 kg	20.02 kg
Packaged Weight	25.46 kg	25.80 kg
EAN	6009710927175	6009710927199

**RA SMA: Right Angle/90° SMA*

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

**The coax cables & connectors are factory mounted to the antenna*

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Electrical Specifications - Cellular

Frequency bands:	617 – 960 MHz 1427 – 1517 MHz 1710 – 2700 MHz 3400 – 4200 MHz 5000 – 7200 MHz
Gain (Vertical):	5.5 dBi @ 617 – 960 MHz 5 dBi @ 1427 – 1517 MHz 6 dBi @ 1710 – 2700 MHz 9.5 dBi @ 3400 – 4200 MHz 9 dBi @ 5000 – 7200 MHz
Gain (Horizontal):	1 dBi @ 617 – 960 MHz 0 dBi @ 1427 – 1517 MHz 3 dBi @ 1710 – 2700 MHz 1 dBi @ 3400 – 4200 MHz 1 dBi @ 5000 – 7200 MHz
VSWR (Vertical):	<2.5:1
VSWR (Horizontal):	≤2:1
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
DC Short:	Yes

Electrical Specifications - GNSS

Frequency Range (GPS):	L1: 1575.42 MHz L2: 1227.6 MHz L5: 1176.45 MHz
LNA Gain:	L1 & L5 :28+/-2dBi L2: 20+/-2dBi
Gain (Max):	≥2.0dBi
VSWR:	≤2:1
DC Voltage:	3-12 V
DC Current:	<15mA
Noise Figure:	≤3.0 dB
Nominal Impedance:	50 Ω
Polarisation:	RHCP
Out of Band Rejection:	40dBc min
Coax Cable Loss:	0.586 dB/m @ 1500 MHz

Electrical Specifications - Wi-Fi

Frequency:	2400 - 2500 MHz 5000 – 7200 MHz
Gain (Max):	5 dBi @ 2400 - 2500 MHz 8.5 dBi @ 5000 - 7200 MHz
VSWR:	≤2:1 across 90% of the band
Feed Power Handling:	10 W
Nominal Input Impedance:	50 Ohm (nominal)
Coax Cable Loss:	0.91 dB/m @ 2400 MHz 1.65 dB/m @ 5800 MHz
Path to Ground:	Yes

Product Box Contents

Antenna:	A-RIPL
Mounting Bracket:	See Mounting Options

Mechanical Specifications

Product Dimensions	Ø449 mm x 535 mm with base
Packaged Dimensions:	545 mm x 550 mm x 645 mm
Radome Material:	UV Stable E-Glass
Radome Colour:	Brilliant White Pantone P 179-1 C
Mounting Type:	Surface mount

Environmental Specifications, Certification & Approvals

Wind Survival:	≤186 km/h
Temperature Range (Operating):	-40°C to +80°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 +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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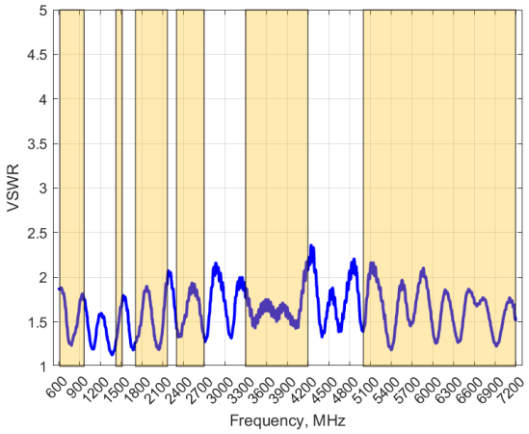
Antenna Performance Plots

VSWR: Cellular Vertical



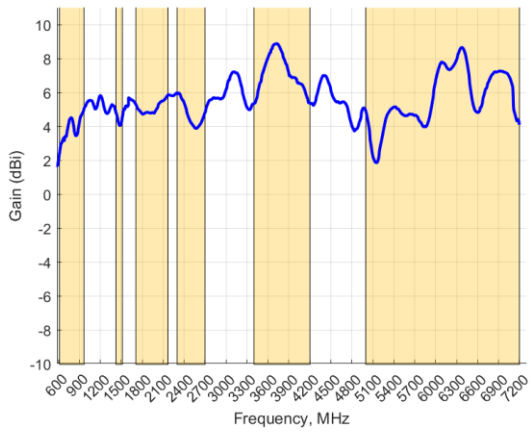
Voltage Standing Wave Ratio (VSWR)*

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 RIPL delivers superior performance across all bands with a VSWR of <2.5:1.

**VSWR measured with a 2m low loss cable.*

GAIN (EXCLUDING CABLE LOSS): Cellular Vertical



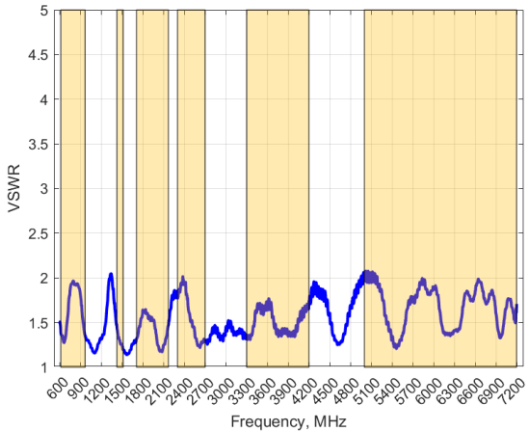
Gain+ in dBi

9.5 dBi is the peak gain across all bands from 617 – 7200 MHz

Gain @ 617 – 960 MHz:	5.5 dBi
Gain @ 1427 – 1517 MHz:	5 dBi
Gain @ 1710 – 2700 MHz:	6 dBi
Gain @ 3400 – 4200 MHz:	9.5 dBi
Gain @ 5000 – 7200 MHz:	9 dBi

+Antenna gain measured with polarisation aligned standard antenna

VSWR: Cellular Horizontal



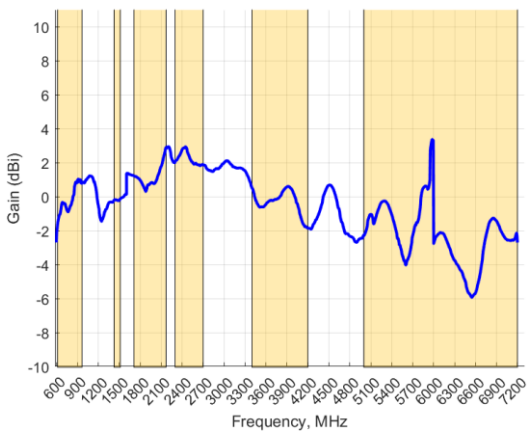
Voltage Standing Wave Ratio (VSWR)*

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 RIPL delivers superior performance across all bands with a VSWR of ≤2:1 or better.

**VSWR measured with a 2m low loss cable.*

GAIN (EXCLUDING CABLE LOSS): Cellular Horizontal



Gain+ in dBi

3 dBi is the peak gain across all bands from 617 – 7200 MHz

Gain @ 617 – 960 MHz:	1 dBi
Gain @ 1427 – 1517 MHz:	0 dBi
Gain @ 1710 – 2700 MHz:	3 dBi
Gain @ 3400 – 4200 MHz:	1 dBi
Gain @ 5000 – 7200 MHz:	1 dBi

+Antenna gain measured with polarisation aligned standard antenna

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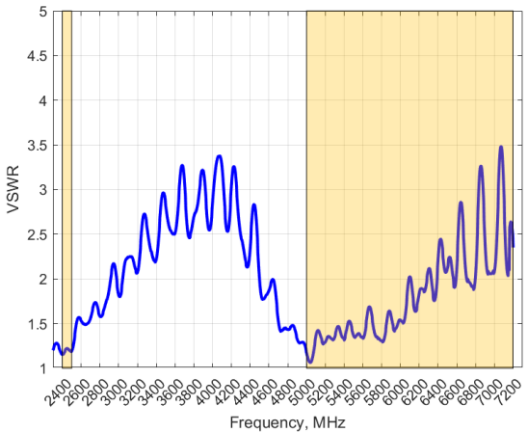
VSWR: WI-FI



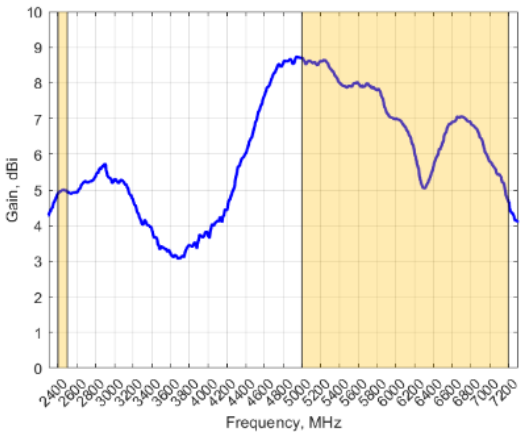
Voltage Standing Wave Ratio (VSWR)*

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 RIPL delivers superior performance across all bands with a VSWR of ≤2:1 or better across 90% of the bands.

**VSWR measured with a 2m low loss cable.*

GAIN (EXCLUDING CABLE LOSS): WI-FI



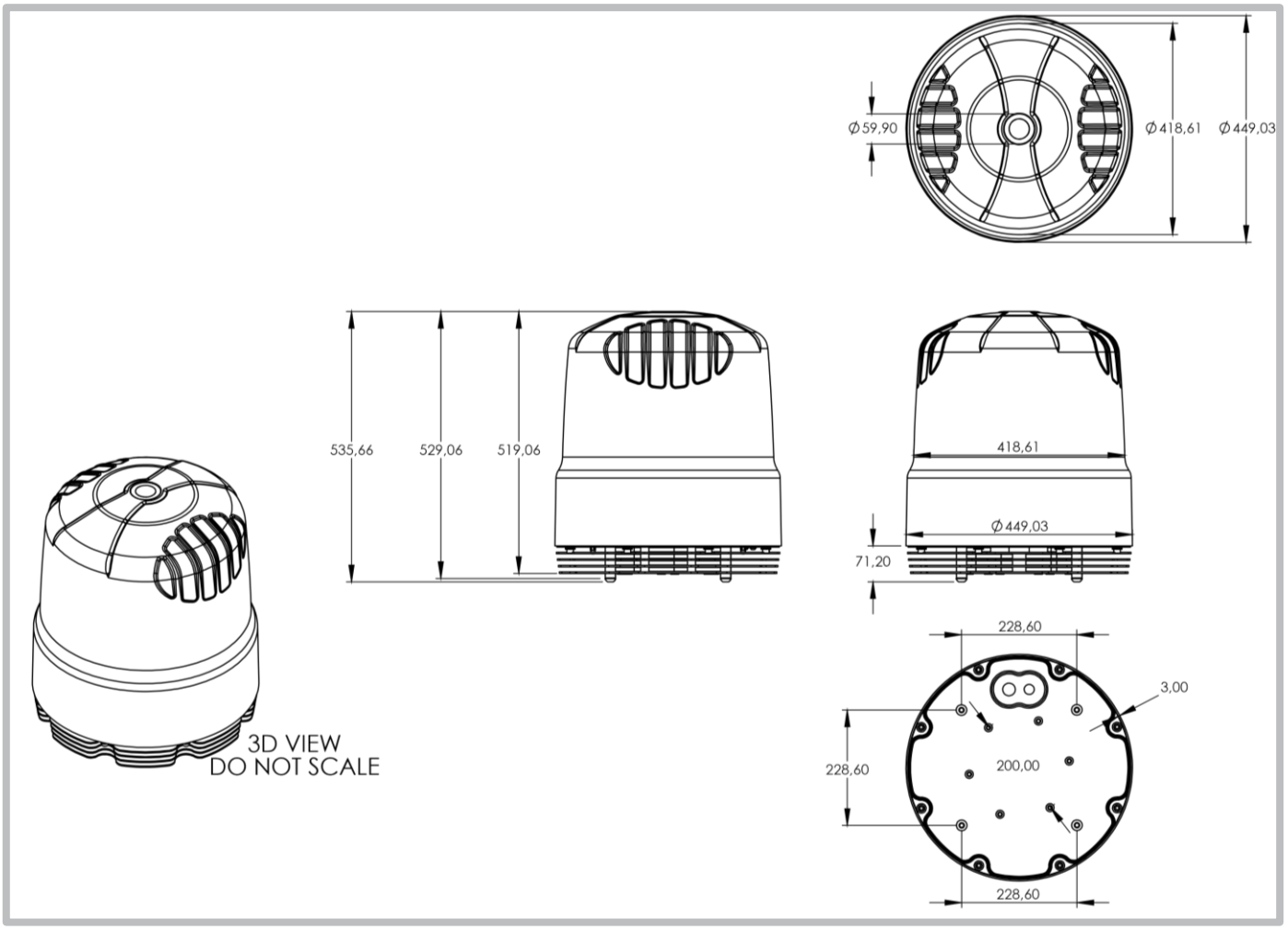
Gain+ in dBi

8.5 dBi is the peak gain across all bands from 2400 – 7200 MHz

Gain @ 2400 – 2500 MHz:	5 dBi
Gain @ 5000 – 7200 MHz:	8.5 dBi

+Antenna gain measured with polarisation aligned standard antenna

Technical Drawings



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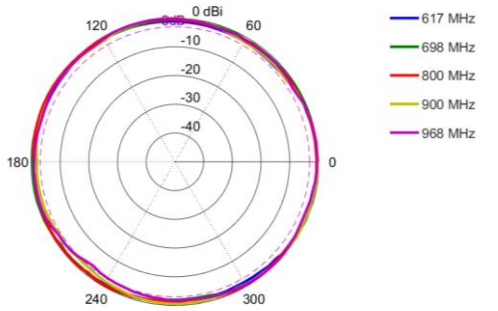
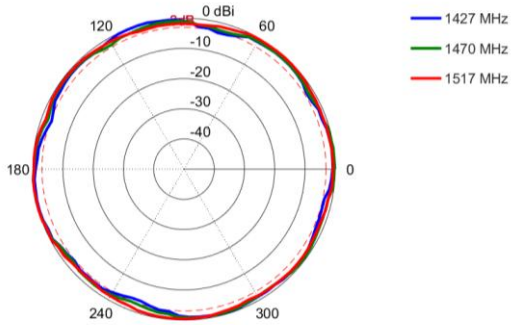
Radiation Patterns - Cellular Vertical

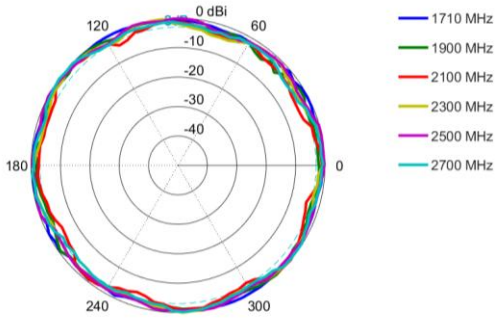
Azimuth: 617 – 968 MHz



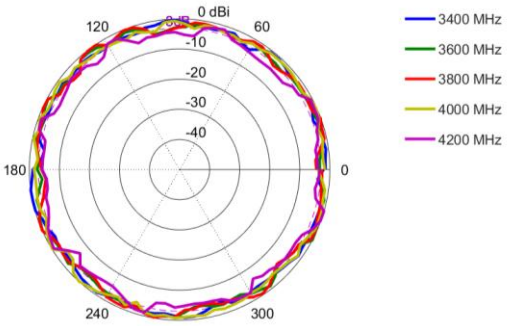
Azimuth: 1427 – 1517 MHz



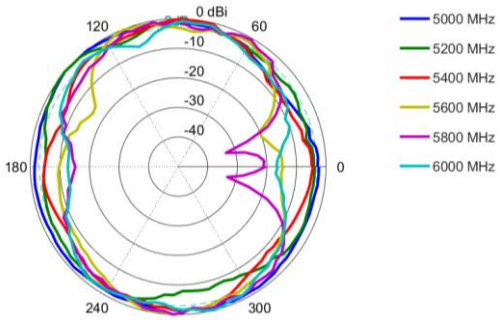
Azimuth: 1710 – 2700 MHz



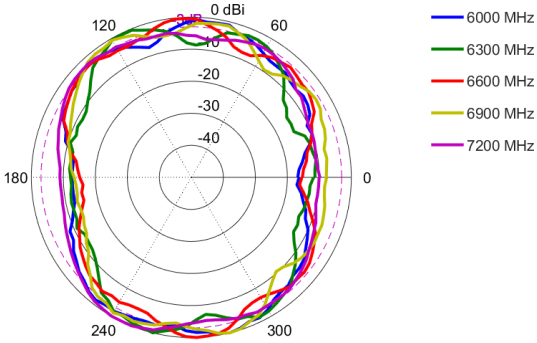
Azimuth: 3400 – 4200 MHz



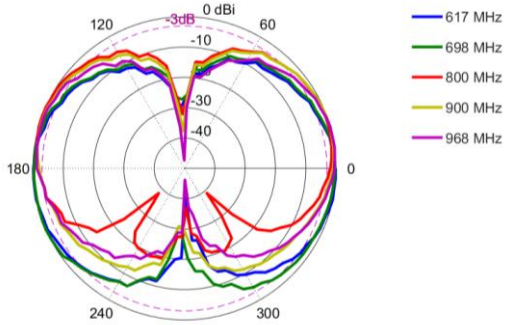
Azimuth: 5000 – 6000 MHz



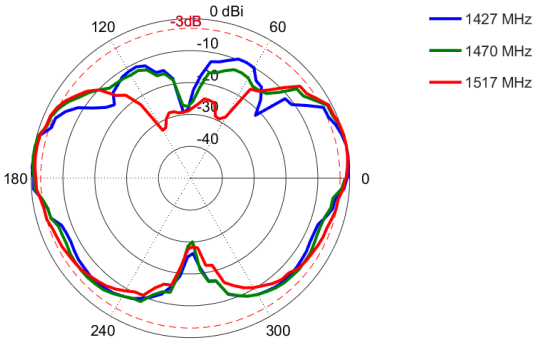
Azimuth: 6000 – 7200 MHz



Elevation: 617 – 968 MHz



Elevation: 1427 – 1517 MHz



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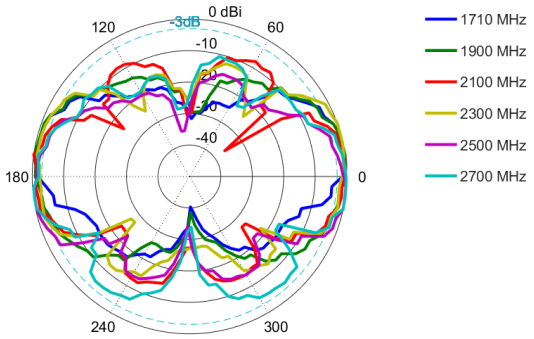
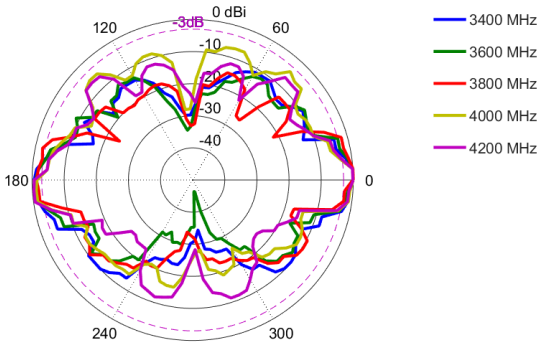
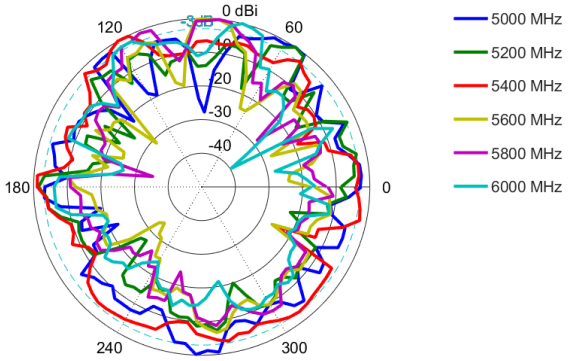
Elevation: 1710 – 2700 MHz



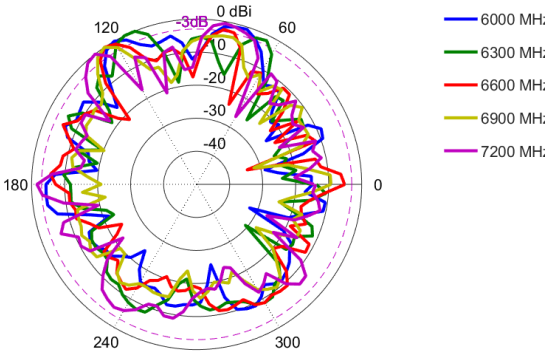
Elevation: 3400 – 4200 MHz



Elevation: 5000 – 6000 MHz

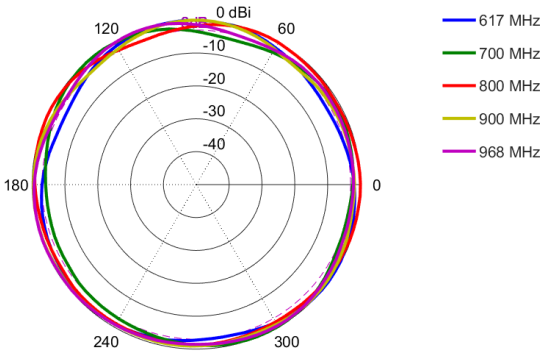


Elevation: 6000 – 7200 MHz

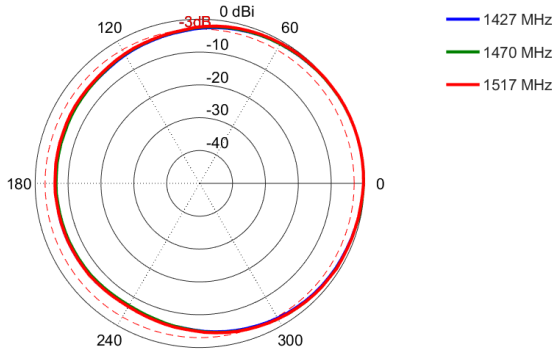


Radiation Patterns - Cellular Horizontal

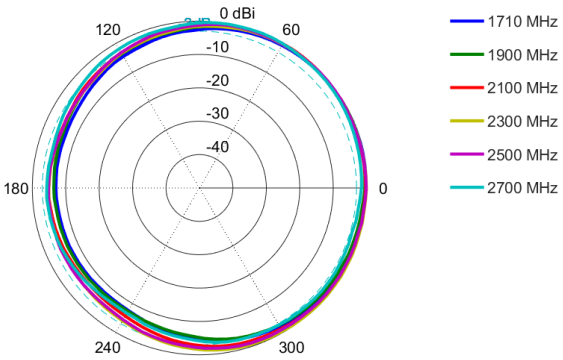
Azimuth: 617 – 968 MHz



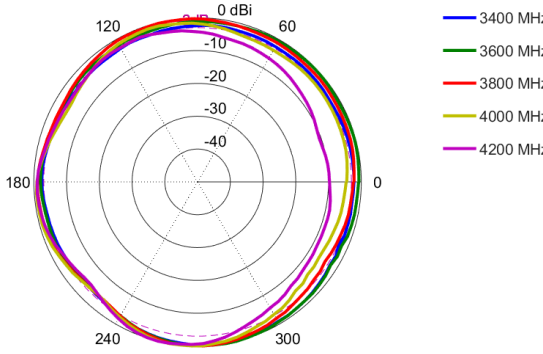
Azimuth: 1427 – 1517 MHz



Azimuth: 1710 – 2700 MHz



Azimuth: 3400 – 4200 MHz



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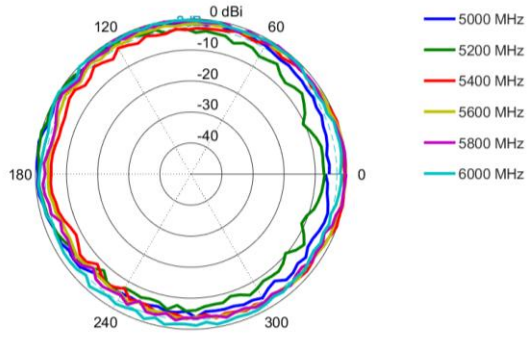
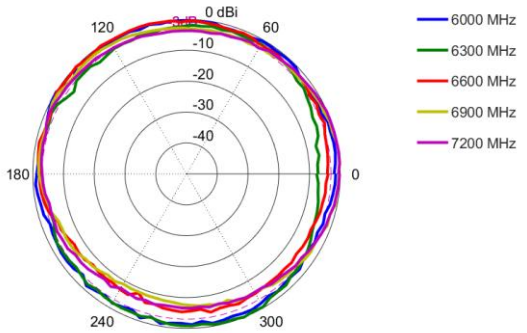
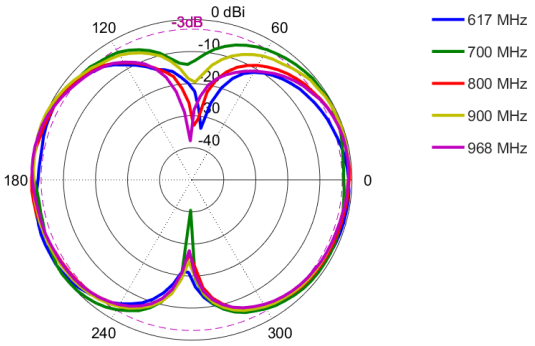
Azimuth: 5000 – 6000 MHz



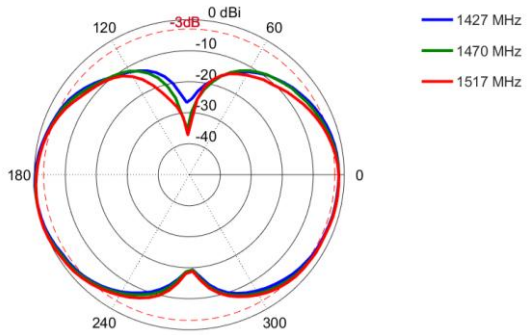
Azimuth: 6000 – 7200 MHz



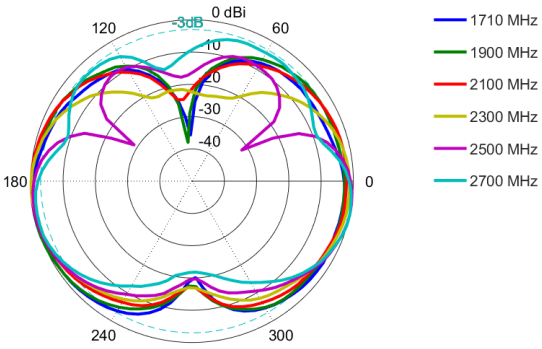
Elevation: 617 – 968 MHz



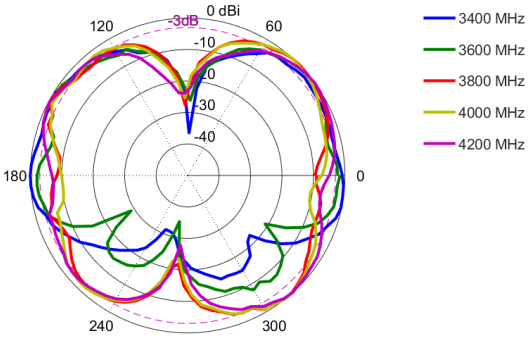
Elevation: 1427 – 1517 MHz



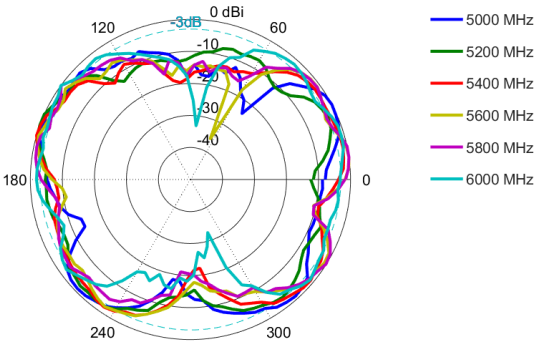
Elevation: 1710 – 2700 MHz



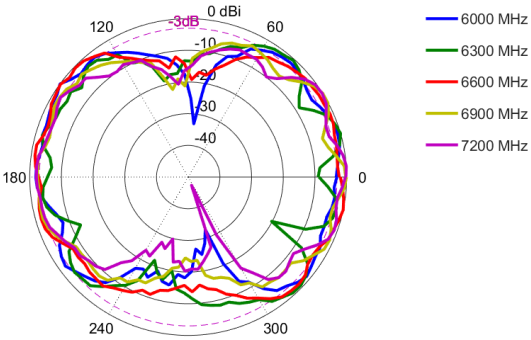
Elevation: 3400 – 4200 MHz



Elevation: 5000 – 6000 MHz



Elevation: 6000 – 7200 MHz



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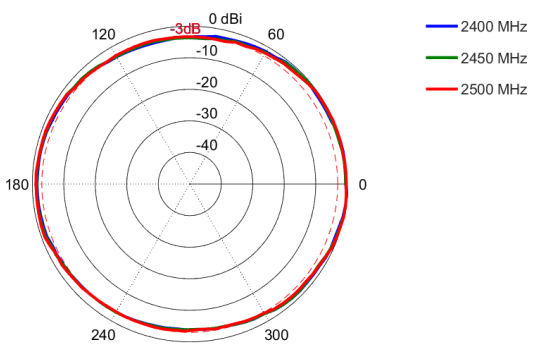
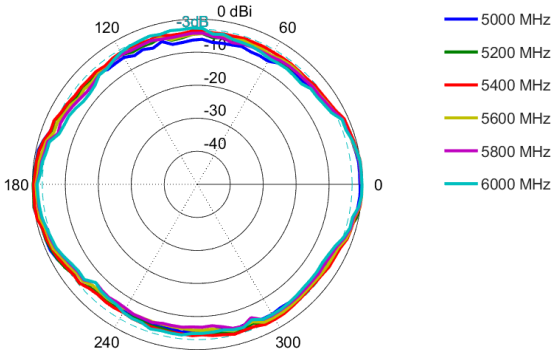
Radiation Patterns - WI-FI

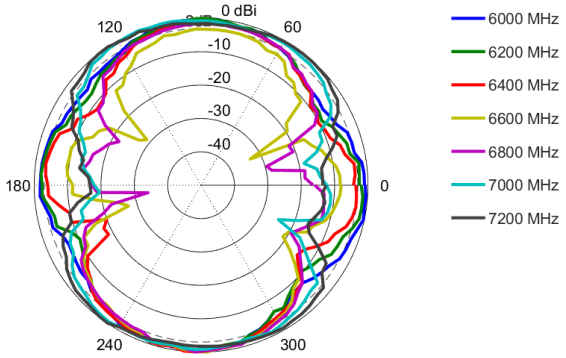
Azimuth: 2400 – 2500 MHz



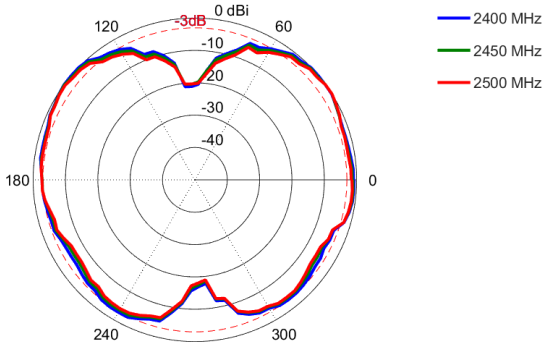
Azimuth: 5000 – 6000 MHz



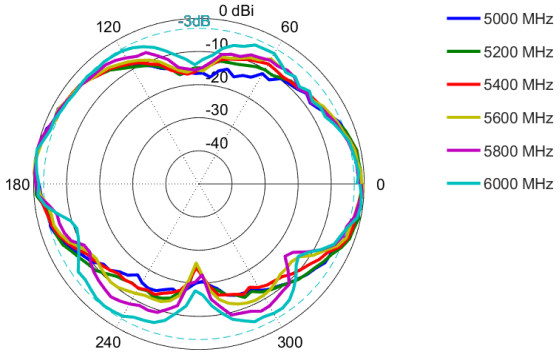
Azimuth: 6000 – 7200 MHz



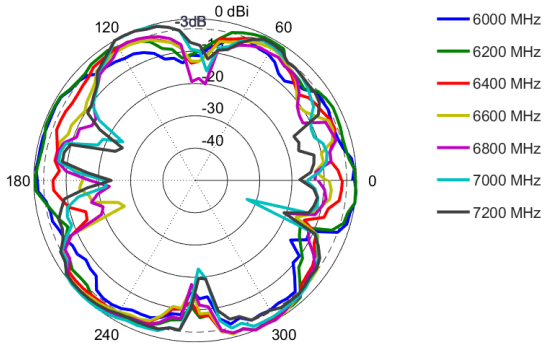
Elevation: 2400 – 2500 MHz



Elevation: 5000 – 6000 MHz



Elevation: 6000 – 7200 MHz



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Revised: March 2026

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Document version: TS-A-RIPL-V1-01 REV 6.0
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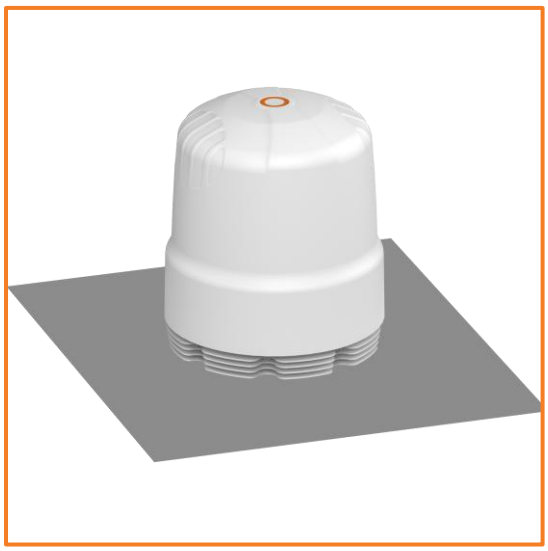
Mounting Options



Surface Mount

Including the router bracket.

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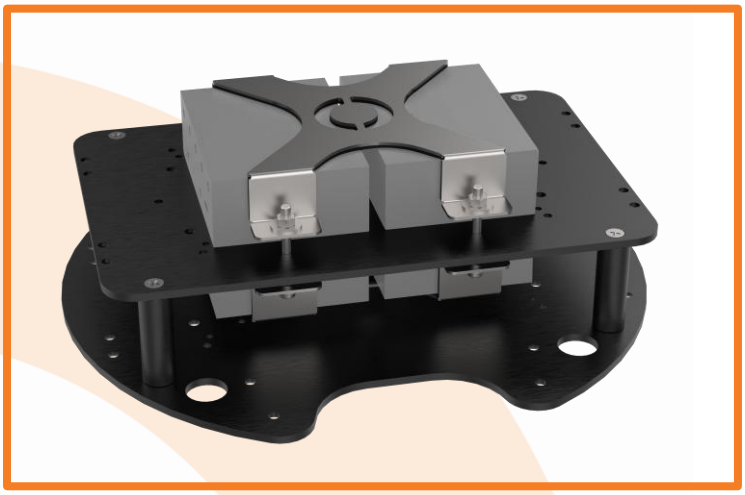
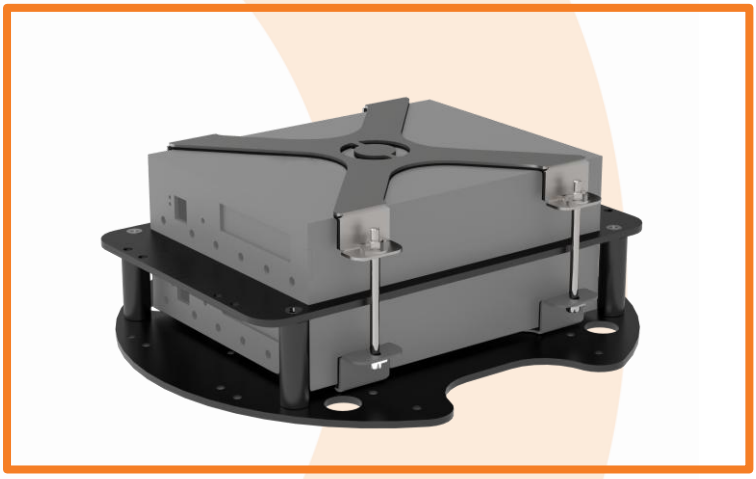
Additional Accessories



A-BRKT-071-V1-01 (Optional)

Fits 4 x routers with dimensions of: 95 mm x 44 mm x 132 mm

Fits 2 x routers with dimensions of: 190 mm x 44 mm x 132 mm



A-BRKT-072-V1-01 (Optional)

Fits 2 x routers with dimensions of: 200 mm x 55 mm x 280 mm



A-BRKT-073-V1-01 (Optional)

Fits 1 x router with dimensions of: 177 mm x 43 mm x 292 mm

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