RISING CONNECTION

PRODUCT DATASHEET
MOBILITY 42G

7-in-1 Cellular & Wi-Fi Antenna System with GPS Receiver

peplink | PEPWAVE

MOBILITY 42G

OVERVIEW

- **Built for 5G:** Omni-directional 4x4 MIMO mobile antenna for the best performance.
- **Ultra wide bandwidth:** Wide frequency range (600-6000MHz) supporting LTE and 5G connectivity.
- **Wi-Fi:** 2x2 MIMO dual band (2.4GHz & 5GHz) high gain omnidirectional antennas for local coverage.
- **Robust design:** IP68 rated, low profile and durable housing in Black or White color options.
- **Easy installation:** Simple panel, wall or pole installation for various applications.

6.7 dBi | LTE | WiFi | GPS | IP 68 | B71 Support | Built for 5G

APPLICATIONS

- Public Safety and mission critical connectivity
- Mobile Healthcare
- Transportation Connectivity

PO Box 4107 Carlton NSW 2218 E-mail: info@risingconnection.com.au www.risingconnection.com.au ABN 50 161 068 042

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SPECIFICATIONS

Cellular
- **Antenna elements:** 4 elements
- **Cellular frequencies:** 2.7dBi: 617-960MHz, 5.2dBi: 1710-2700MHz, 4.9dBi: 3400-4200MHz, 6.7dBi: 5000-6000MHz
- **Cellular bands:** LTE bands B1 to B86 (except B31, B72, B73, B87, B88), 5G bands n1 to n99
- **VSWR:** < 2.5 over 95% of the band
- **Feed power handling:** 10W
- **Input impedance:** 50 Ω
- **Polarisation:** Linear
- **Ground plane:** Not required#

Wi-Fi
- **Antenna elements:** 2 elements
- **Peak gain & Frequencies:** 5.0dBi: 2400-2500MHz, 7.5dBi: 5000-6000MHz
- **VSWR:** < 2.5
- **Feed power handling:** 10W
- **Input impedance:** 50 Ω
- **Polarisation:** Linear

GPS
- **Frequency range:** 1561-1602 MHz
- **Peak gain & Frequencies:** 0.5dBi@1575MHz, 1.6dBi@1602MHz
- **VSWR:** < 2 dB
- **Output return loss:** 10dB max
- **LNA Gain:** 28 ±3dB
- **Noise figure:** 1.5dB max at 3.3V
- **Operating Voltage:** 3.3V
- **Power consumption:** 8.5 ±2.5mA at 3.3V

Cable (GPS)
- **Type:** RG-174
- **Loss:** 3.4 dB/m @ 1000 MHz, 4.9 dB/m @ 1800 MHz
- **Diameter:** 0.1" / 2.7mm
- **Jacket:** Half matt PVC, UV resistant
- **Termination:** QMA male, SMA male

Cable (LTE / 5G, Wi-Fi)
- **Type:** CFD-200
- **Loss:** 0.33 dB/m @ 900 MHz, 0.49 dB/m @ 2000 MHz, 0.55 dB/m @ 2500 MHz, 0.87 dB/m @ 5800 MHz
- **Diameter:** 0.2" / 5.0mm
- **Jacket:** Half matt PVC, UV resistant
- **Cellular Termination:** QMA male, SMA male
- **Wi-Fi Termination:** RP-SMA male

Mounting
- **Supported types:** Panel, wall, pole
- **Mounting hole:** 1 11/16" / 43mm
- **Max panel thickness:** 19/32" / 15mm

Mechanical
- **Product dimensions:**
  Height: 2.28" / 58mm (spigot not included)
  Diameter: 8.19" / 208mm
- **Packaged dimensions:** TBD
- **Radome material:** UV stable PC

Package contents
- **Antenna:** Mobility 42G
- **Mounting:** Wall/pole mount, Double sided 3M adhesive pad (Diameter: 8.19" / 208 mm, Thickness: 0.08" / 2 mm)

Environmental, compliance
- **IP rating:** IP68
- **Operating temperature:** -40° - 80°C
- **Storage temperature:** -40° - 80°C
- **Compliance:** RoHS, REACH, WHEE
- **Wind Survivability:** 137mph, 220 km/h
- **Enclosure flammability:** UL 94 HB
- **Cable flammability:** UL 758 (VW-1)
- **UV resistance:** UL 746C (F1 long-term UV exposure)
- **Salt Spray:** MIL-STD 810F/ASTM B117

All measurements stated in this document were obtained without a ground plane.

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TECHNICAL DRAWING

ORDERING INFORMATION

MOBILITY 42G

Product Code	Description
ANT-MB-42G-S-W-6	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, SMA, White, 6.5 ft / 2m
ANT-MB-42G-S-B-6	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, SMA, Black, 6.5 ft / 2m
ANT-MB-42G-Q-W-1	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, QMA, White, 1 ft / 0.3m
ANT-MB-42G-Q-W-6	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, QMA, White, 6.5 ft / 2m
ANT-MB-42G-Q-B-1	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, QMA, Black, 1 ft / 0.3m
ANT-MB-42G-Q-B-6	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, QMA, Black, 6.5 ft / 2m

EXTENSION CABLE

Product Code	Element type	Description
EXC-SQ-15	LTE/GPS elements	Extension coax cable, SMA male to QMA female connector, 15ft / 4.5m
EXC-QQ-15	LTE/GPS elements	Extension coax cable, QMA male to QMA female connector, 15ft / 4.5m
EXC-NQ-15	LTE/GPS elements	Extension coax cable, N-type male to QMA female connector, 15ft / 4.5m
EXC-RQ-15	Wi-Fi elements	Extension coax cable, RP-SMA male to QMA female connector, 15 ft / 4.5m

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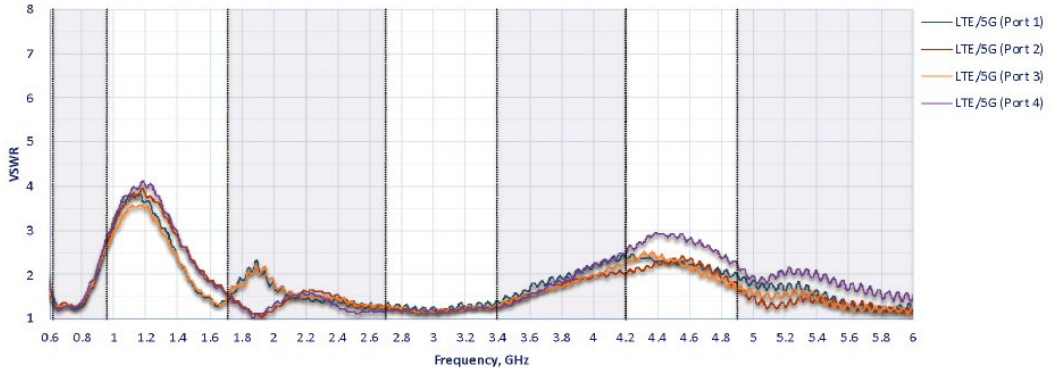
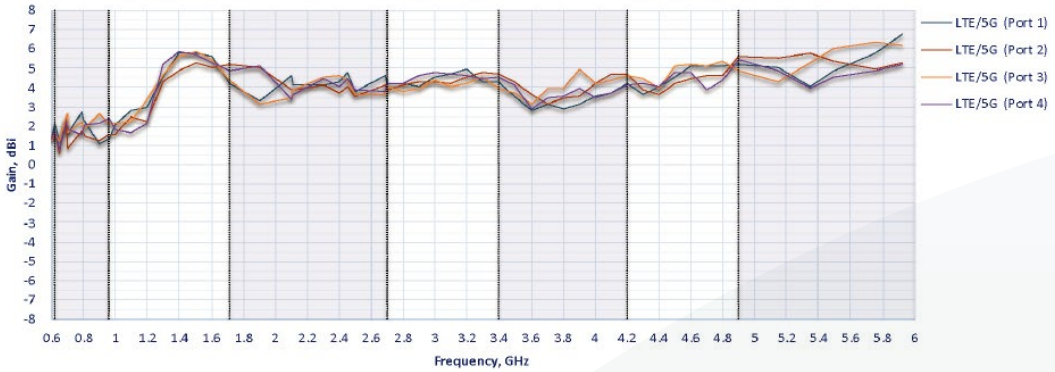
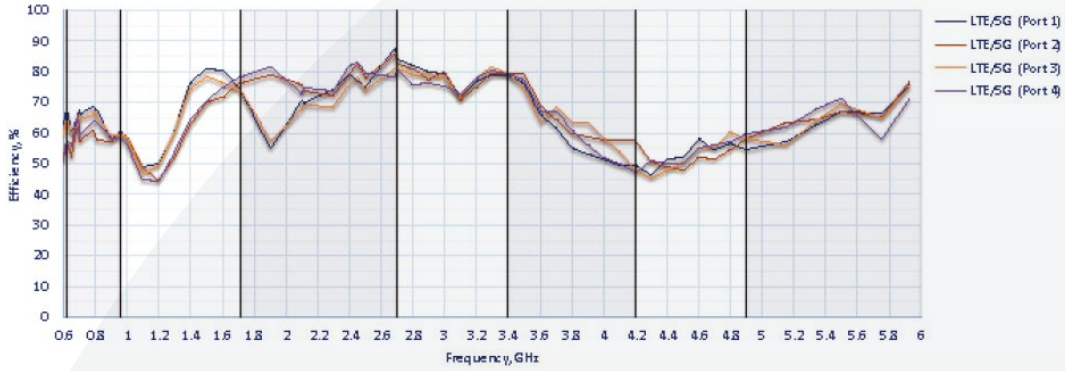
Cellular Antenna VSWR



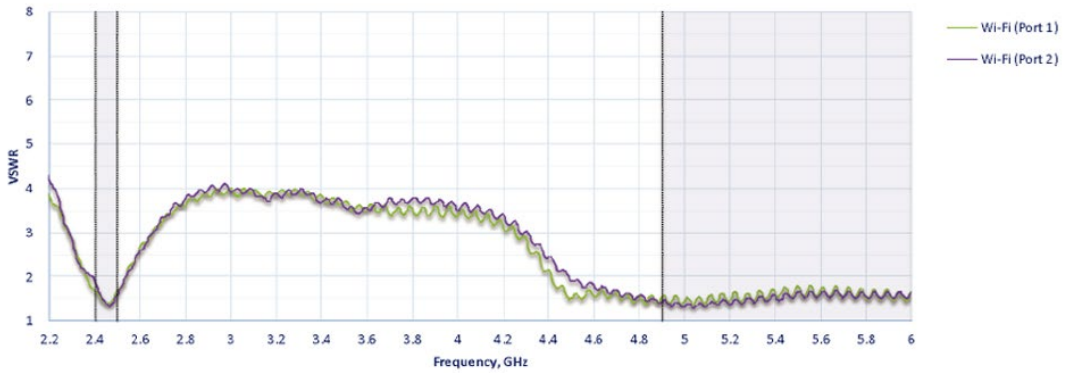
Cellular Antenna Gain



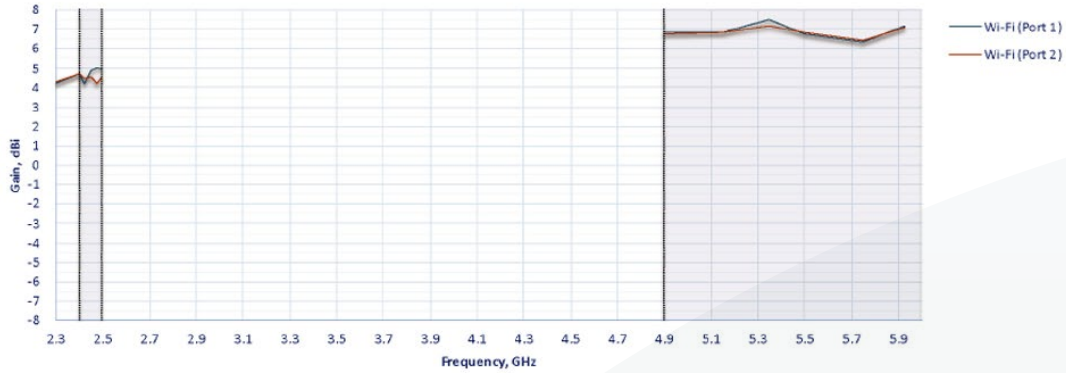
Cellular Antenna Efficiency



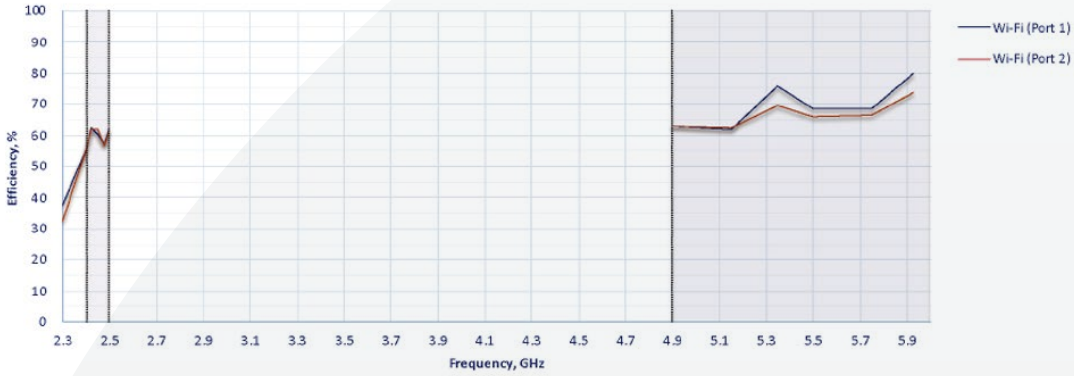
Wi-Fi Antenna VSWR



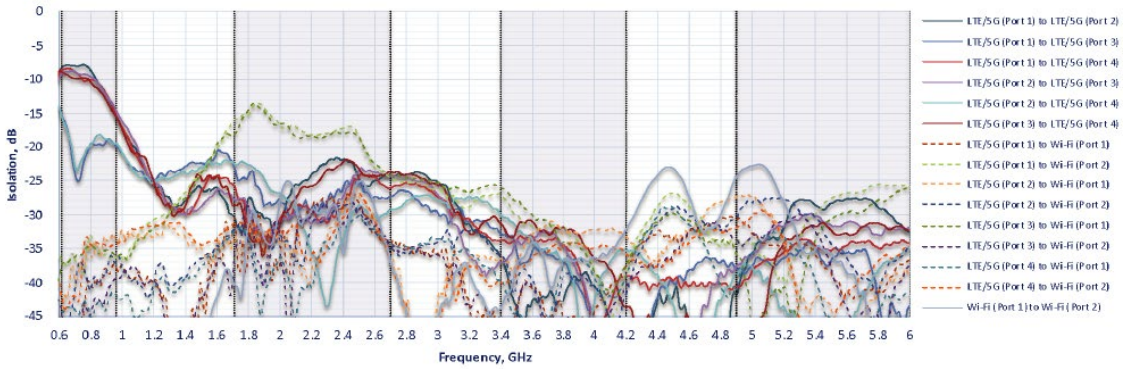
Wi-Fi Antenna Gain



Wi-Fi Antenna Efficiency



Antenna Isolation



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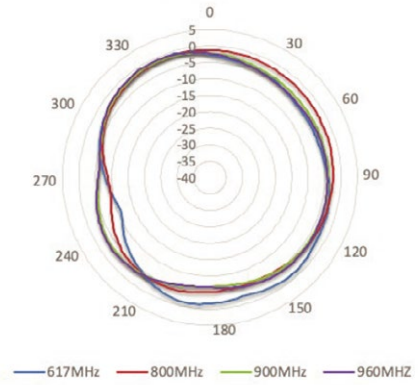
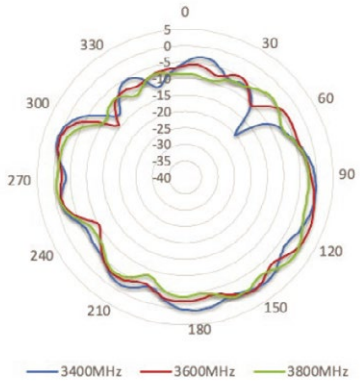
LTE Radiation Patterns (Azimuth)

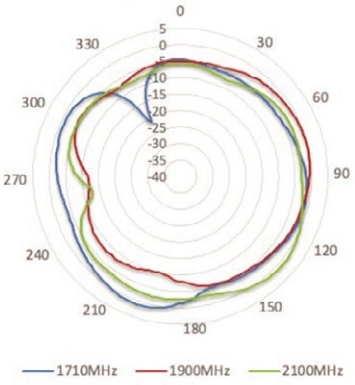
617-960 MHz



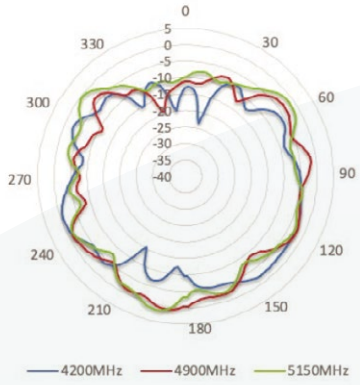
3400-3800 MHz



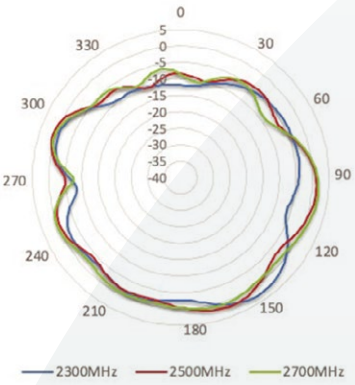
1710-2100MHz



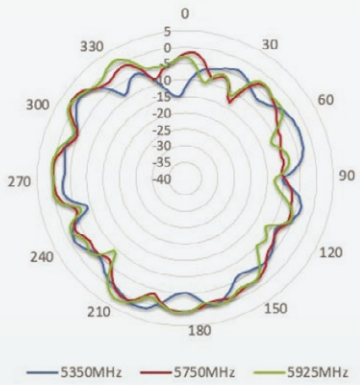
4200-5150 MHz



2300-2700 MHz



5350-5925 MHz



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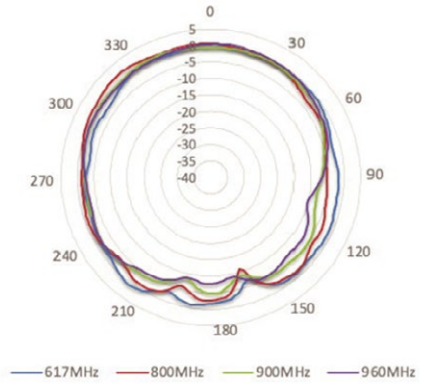
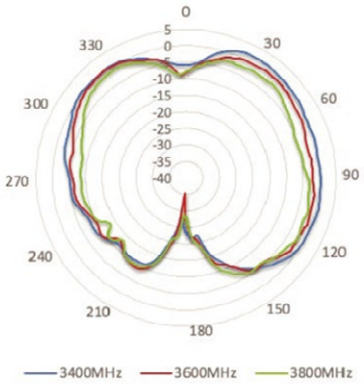
LTE Radiation Patterns (Elevation 1)

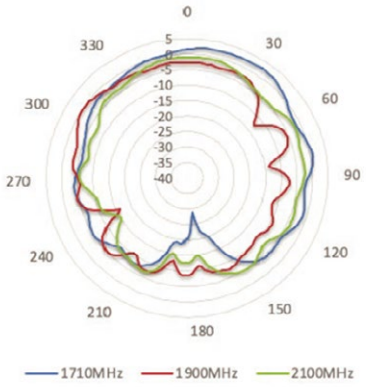
617-960 MHz



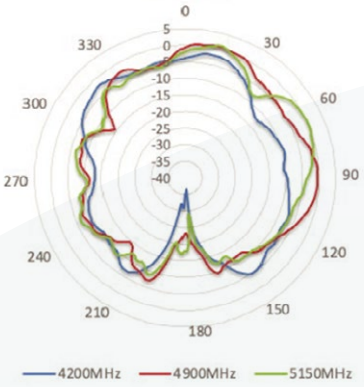
3400-3800 MHz



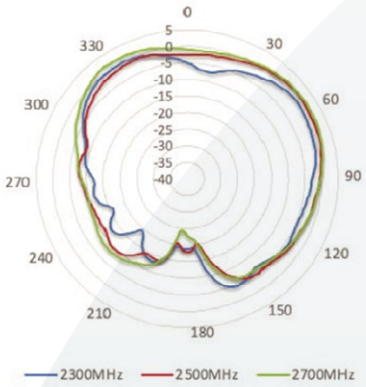
1710-2100MHz



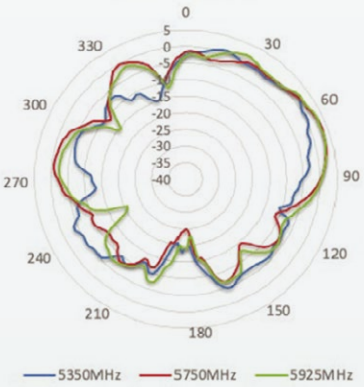
4200-5150 MHz



2300-2700 MHz



5350-5925 MHz



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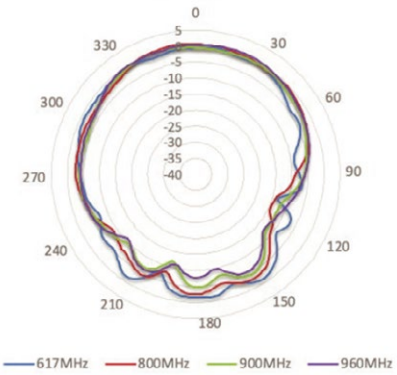
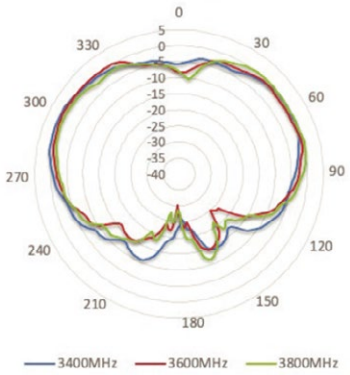
LTE Radiation Patterns (Elevation 2)

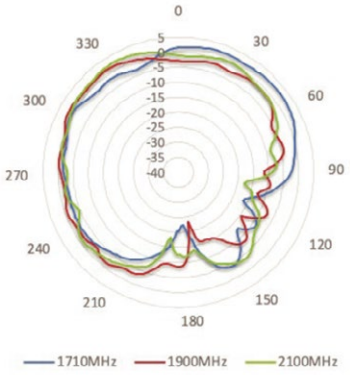
617-960 MHz



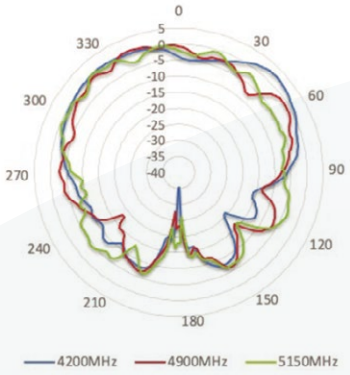
3400-3800 MHz



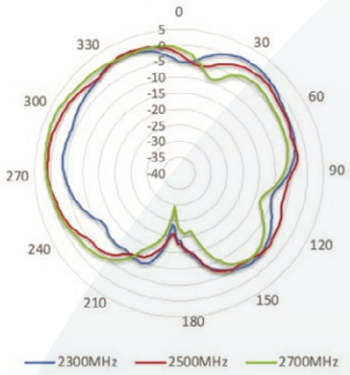
1710-2100MHz



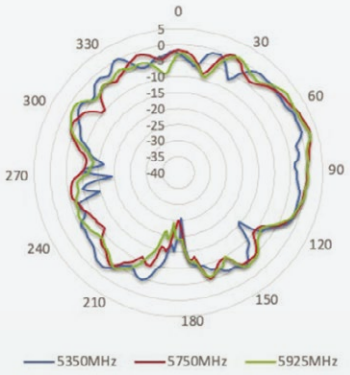
4200-5150 MHz



2300-2700 MHz



5350-5925 MHz



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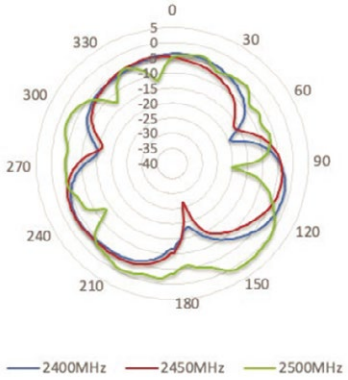
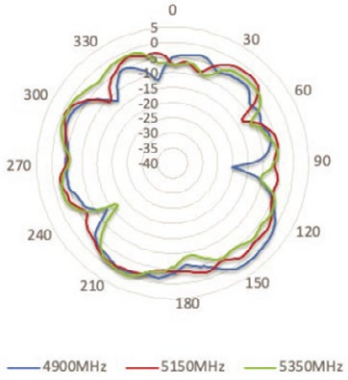
Wi-Fi Radiation Patterns (Azimuth)

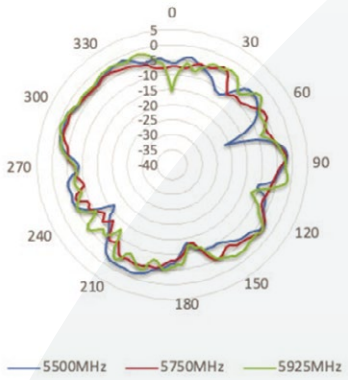
2400-2500MHz



4900-5350MHz

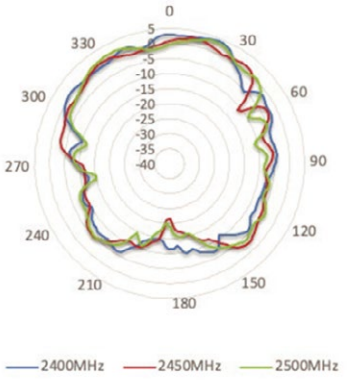


5550-5950 MHz

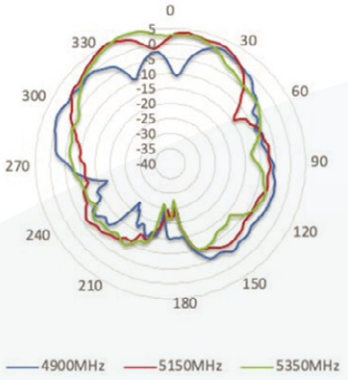


Wi-Fi Radiation Patterns (Elevation 1)

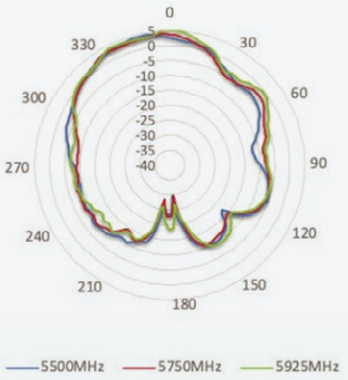
2400-2500MHz



4900-5350MHz

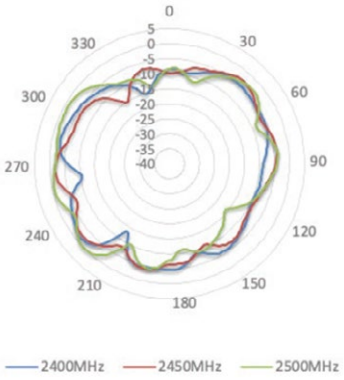


5550-5950 MHz

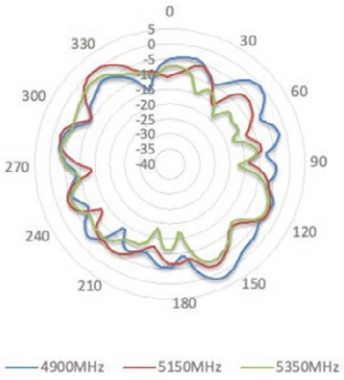


Wi-Fi Radiation Patterns (Elevation 2)

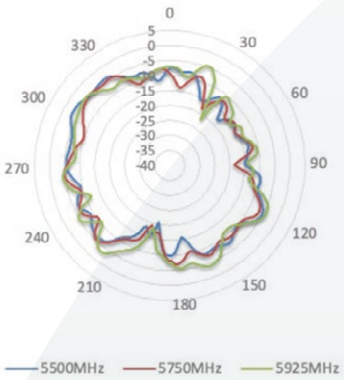
2400-2500MHz



4900-5350MHz



5550-5950 MHz



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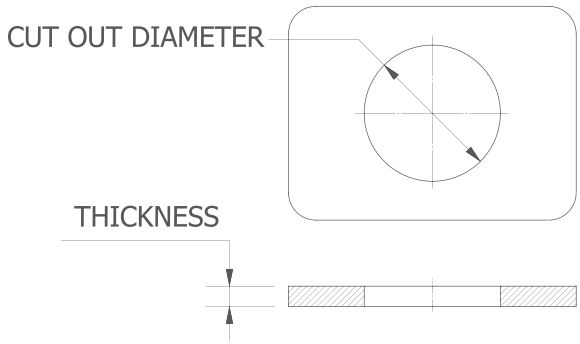
Panel Mount Installation Recommendation



Notes

- Cover panel surface to protect the paint work. When drilling a hole, start with a small one, then increase it.
- Cut out diameter should be 1 11/16" / 43mm. Maximum allowed panel thickness - 19/ 32" / 15mm.
- After drilling, clean up the surface and apply some paint around the hole to prevent corrosion. Attach the antenna.

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Pole Mount Installation Recommendation

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Horizontal Pole Mount Installation Recommendation

PO Box 4107 Carlton NSW 2218 E-mail: info@risingconnection.com.au www.risingconnection.com.au ABN 50 161 068 042

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Wall Mount Installation Recommendation

Why Rising Connection is using equipment designed and built by Peplink?

- Industry leader in both ISP & Data Bonding across multiple technology platforms
- Reliable hardware from entry level professional equipment through to advanced Enterprises solutions
- Worldwide supported and local support here in Australia by fully trained technicians
- Reliable and secure redundancy paths for mission critical sites
- Designed for maximum possible business uptime

This demonstrates to Rising Connection that you will have the Quality, Reliability and Product Support.

PO Box 4107 Carlton NSW 2218 E-mail: info@risingconnection.com.au www.risingconnection.com.au ABN 50 161 068 042