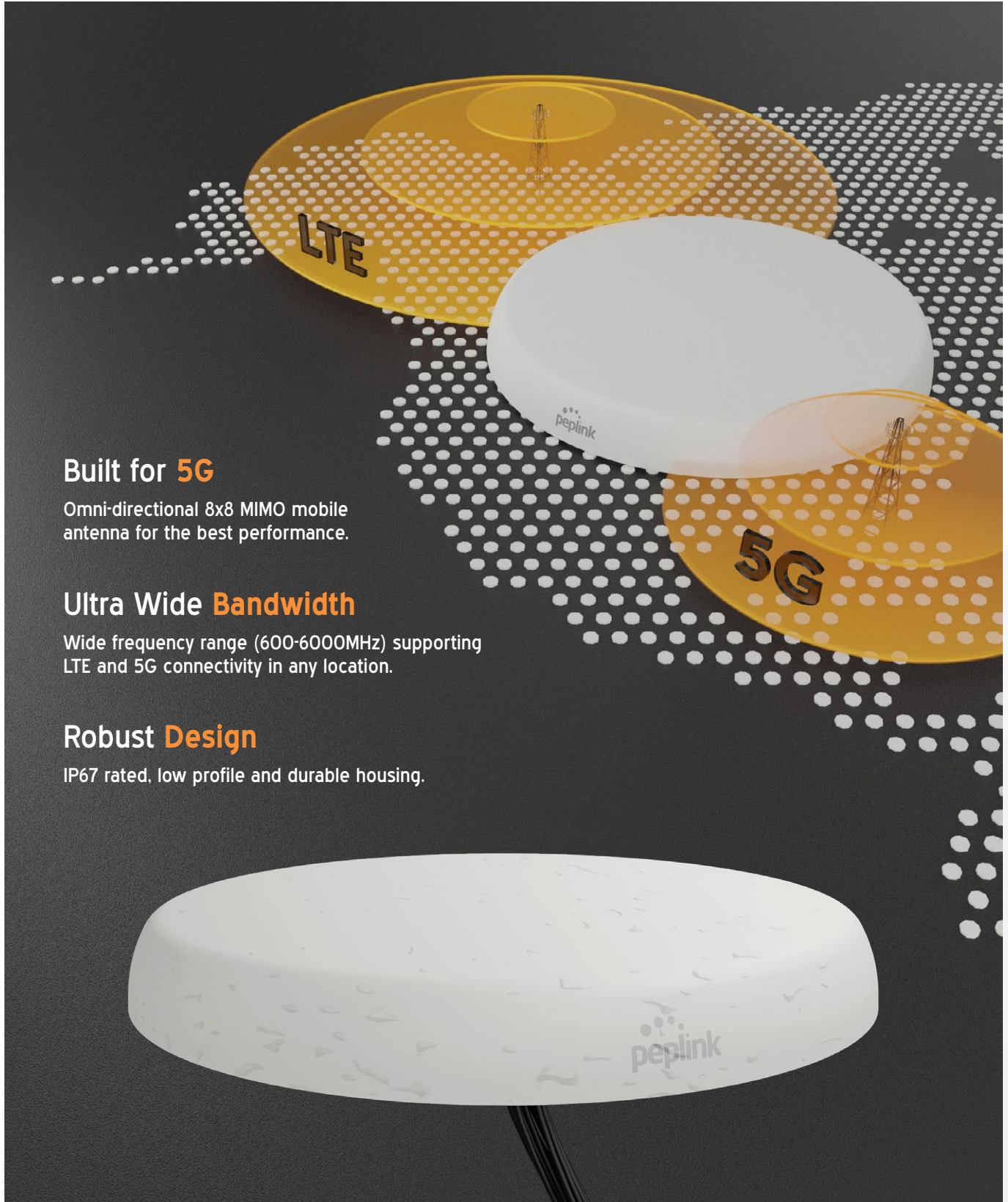




Mobility 82G





Built for **5G**

Omni-directional 8x8 MIMO mobile antenna for the best performance.

Ultra Wide **Bandwidth**

Wide frequency range (600-6000MHz) supporting LTE and 5G connectivity in any location.

Robust **Design**

IP67 rated, low profile and durable housing.



Easy Installation

Surface, panel installation for various applications.

Flexible Applications

- Public Safety & Mission Critical Connectivity
- Mobile Healthcare
- Transportation Connectivity



SPECIFICATIONS

Cellular

- **Antenna elements:** 8 elements
- **Peak Gain & Frequencies:** 5.4dBi: 617-960MHz, 7.5dBi: 1400-2700MHz, 8.1dBi: 3400-4200MHz, 8.7dBi: 5000-6000MHz
- **VSWR:** < 2.0 over 95% of the band
- **Feed power handling:** 10W
- **Input impedance:** 50 Ω
- **Polarisation:** Linear

Wi-Fi

- **Antenna elements:** 2 elements, 6.0dBi: 2400-2500MHz, 7.4dBi: 5000-6000MHz
- **VSWR:** < 2.0
- **Feed power handling:** 10W
- **Input impedance:** 50 Ω
- **Polarisation:** Linear

GPS

- **Frequency Range:** 1575-1602 MHz
- **Peak Gain:** 1.2 dBiC: 1575MHz, 2.0 dBiC: 1602MHz
- **VSWR:** < 1.6
- **Output Return Loss:** -10dB max
- **Gain: LNA:** 29 \pm 3 dB
- **Operating Voltage:** 3.3 V
- **Power Consumption:** 6 \pm 2 mA at 3.3 V

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 in. / 5.0mm
- **Jacket:** Half matt PVC, UV resistant
- **Termination:** QMA male, SMA male, RP-SMA male (Wi-Fi)

Cable (GPS)

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

Mounting

- **Supported types:** Panel, surface (with additional mount), Magentic (with additional mount)
- **Mounting hole:** 1.7" / 43mm
- **Max panel thickness:** up to 6.7" / 170mm

Mechanical

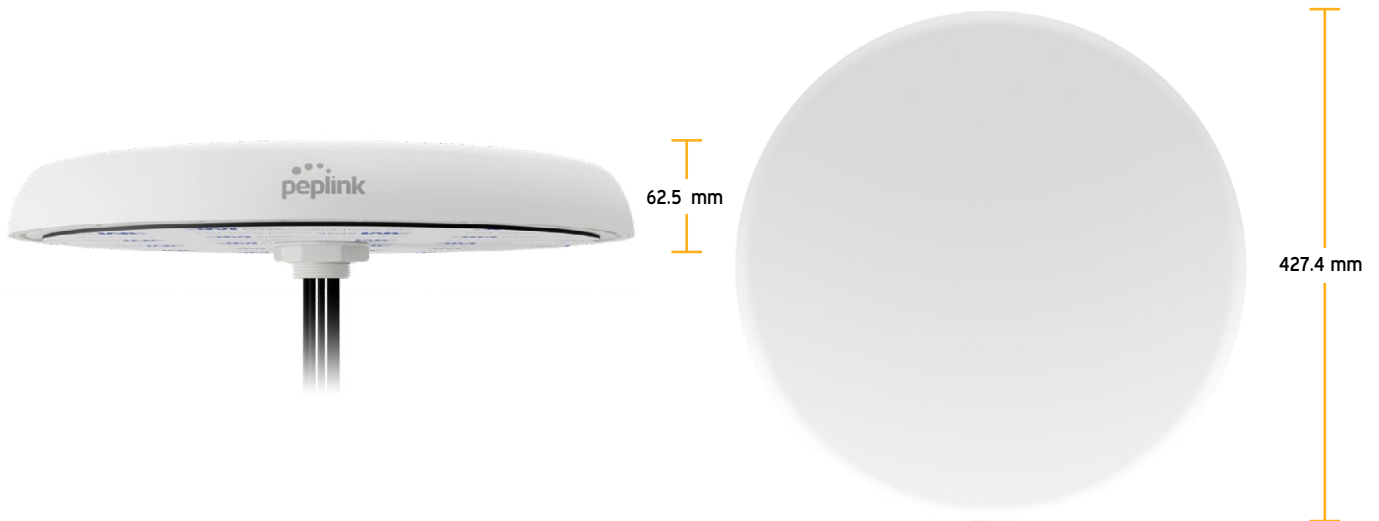
- **Product dimensions:** 2.46" / 62.5 mm - Height (spigot not included), 16.83" / 427.4 mm - Diameter
- **Packaged dimensions:** 512 x 510 x 230 mm
- **Radome material:** UV stable PC

Package contents

- **Antenna:** MB-82G
- **Accessories:** Long and short thread
Double sided 3M adhesive pad
- Diameter: 15.2" / 386 mm
- Thickness: 0.08" / 2 mm

Environmental, compliance

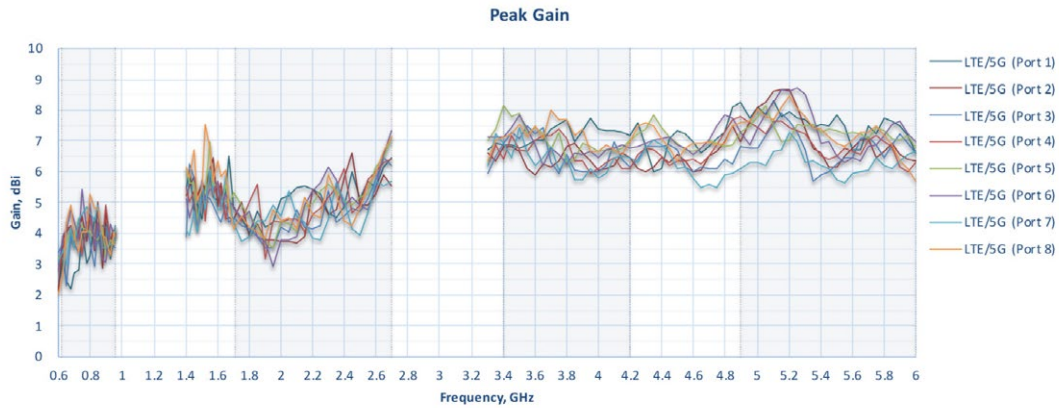
- **IP rating:** IP67
- **Operating temperature:** -40° - 80°C
- **Storage temperature:** -40° - 80°C
- **Compliance:** RoHS, REACH & WHEE
- **Wind Survivability:** 137mph (220km/h)
- **Enclosure flammability:** UL 94 HB
- **Cable flammability:** UL 758 (VW-1)
- **UV resistance:** UL 746C (F1 long-term UV exposure)
- **Salt Spray:** MIL-STD 810F/ASTM 8117



ORDERING INFORMATION

Product Code	Description
ANT-MB-82G-S-W-6	8xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, SMA (Cellular, GPS), RP-SMA (Wi-Fi), White, 6.5 ft / 2m
ANT-MB-82G-Q-W-6	8xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, QMA (Cellular, GPS), RP-SMA (Wi-Fi), White, 6.5 ft / 2m
ACW-667	Surface mount
ACW-668	Surface mount with magnets

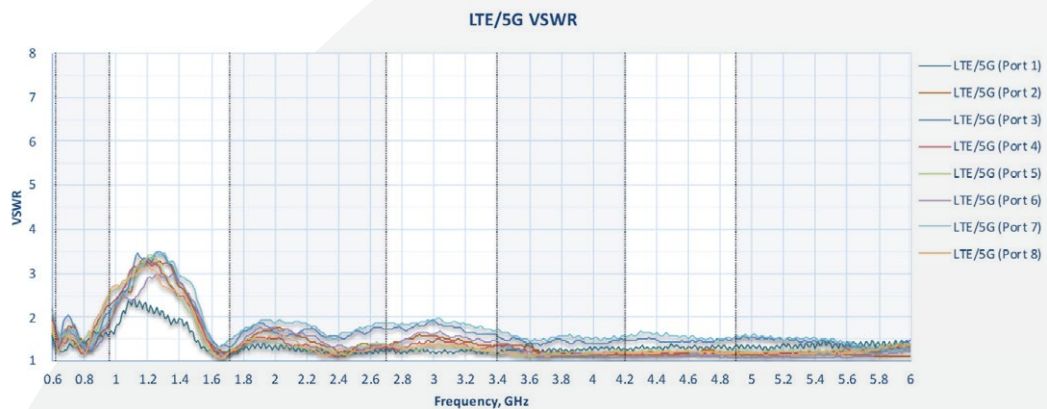
LTE/5G Antenna Gain



LTE/5G Antenna Efficiency

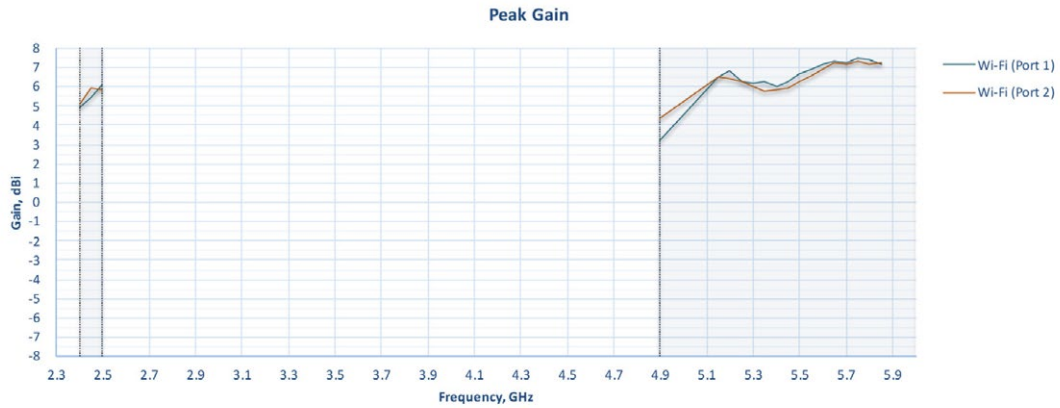


LTE/5G Antenna VSWR





Wi-Fi Antenna Gain



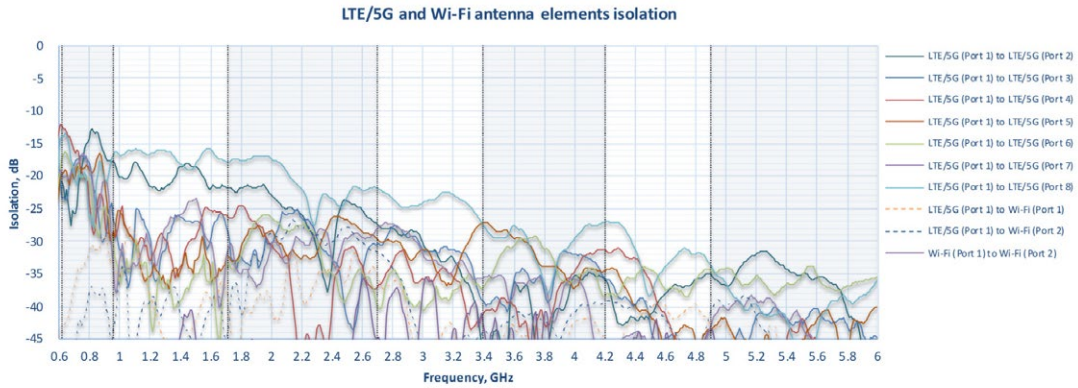
Wi-Fi Antenna Efficiency



Wi-Fi Antenna VSWR

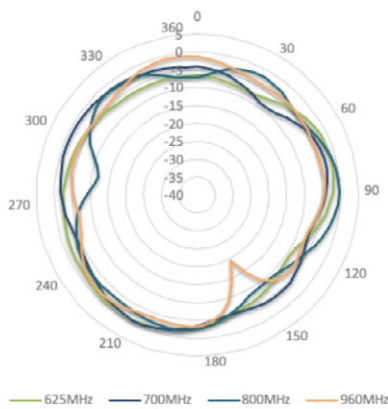


LTE/5G & Wi-Fi Antenna Isolation

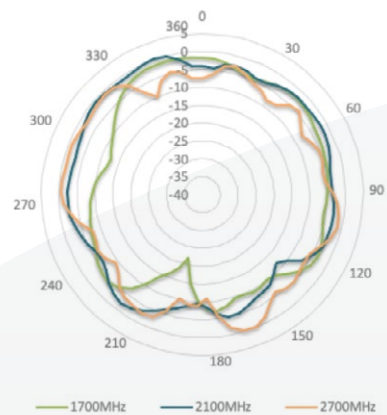


Radiation Pattern - LTE Radiation Patterns (Azimuth)

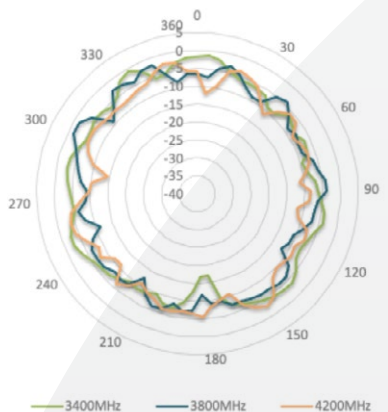
625 - 960MHz



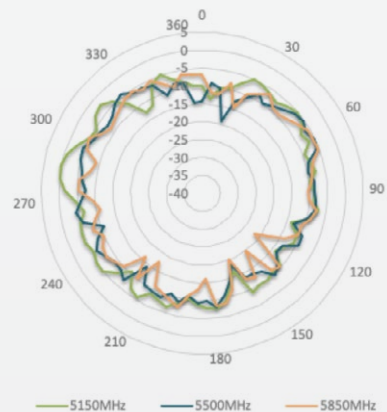
1700 - 2700MHz



3400 - 4200MHz

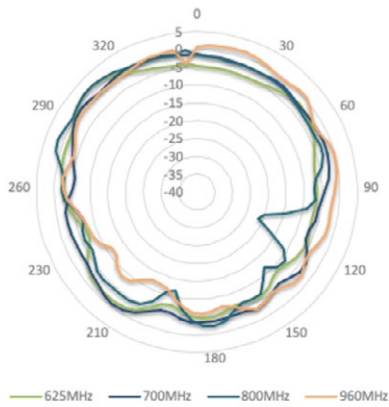


5150 - 5850MHz

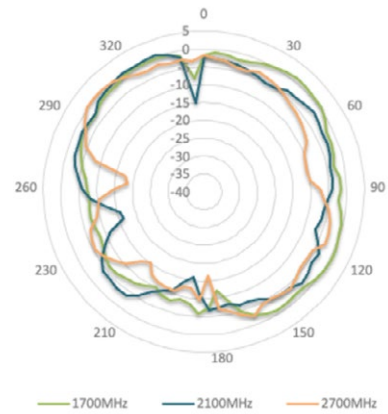


Radiation Pattern - LTE Radiation Patterns (Elevation 1)

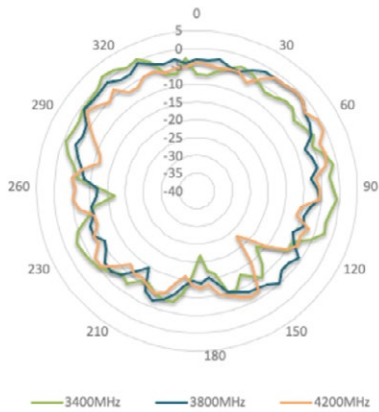
625 - 960MHz



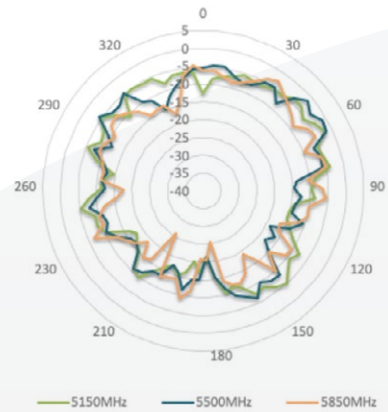
1700 - 2700MHz



3400 - 4200MHz

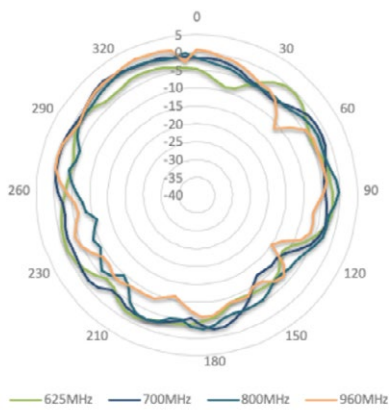


5150 - 5850MHz

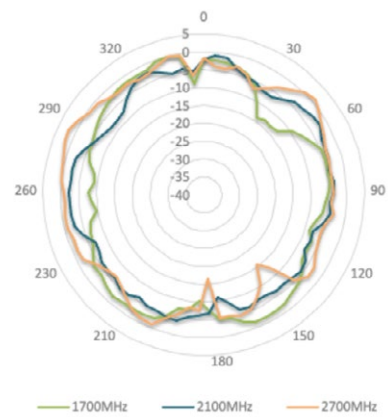


Radiation Pattern - LTE Radiation Patterns (Elevation 2)

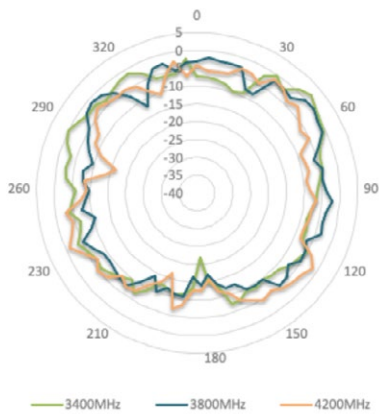
625 - 960MHz



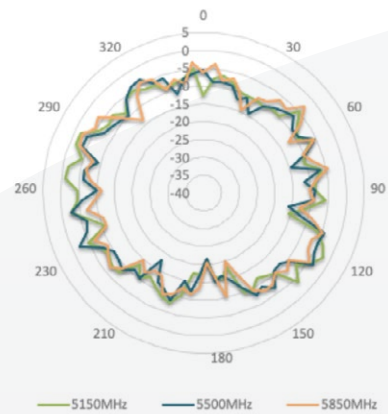
1700 - 2700MHz



3400 - 4200MHz

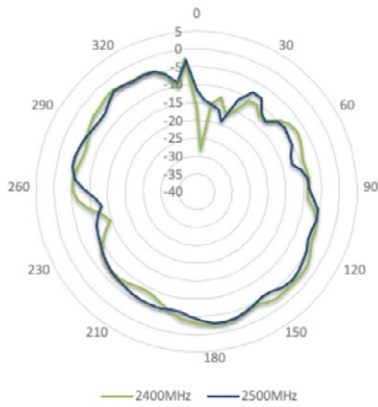


5150 - 5850MHz

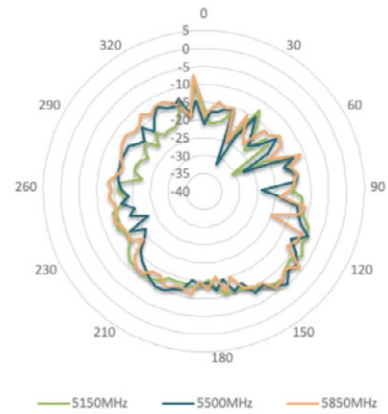


Radiation Pattern - Wi-Fi Radiation Patterns (Azimuth)

2400 - 2500MHz

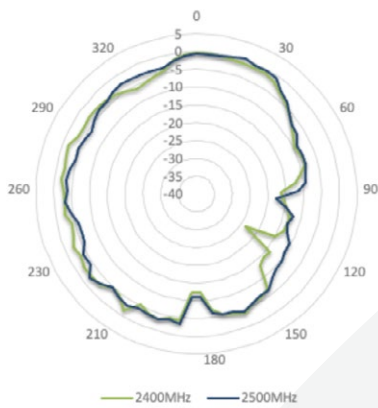


5150 - 5850MHz

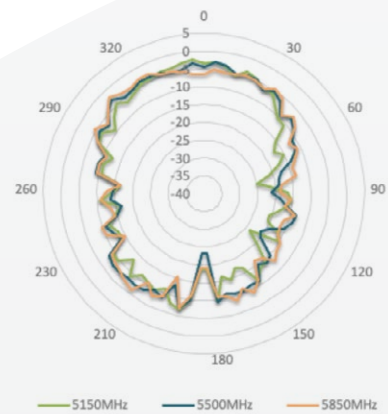


Radiation Pattern - Wi-Fi Radiation Patterns (Elevation 1)

2400 - 2500MHz



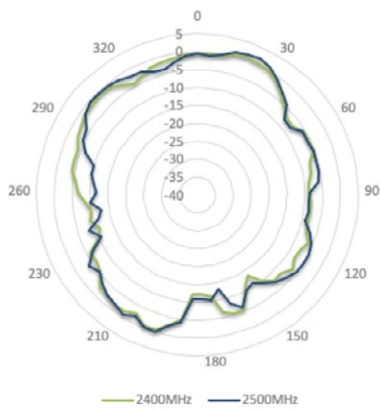
5150 - 5850MHz



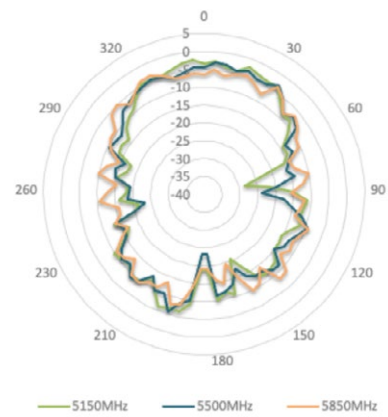


Radiation Pattern - Wi-Fi Radiation Patterns (Elevation 2)

2400 - 2500MHz



5150 - 5850MHz



Installation Recommendation

Panel (Though Hole)



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 - up to 6.7" / 170mm.
- After drilling, clean up the surface and apply some paint around the hole to prevent corrosion. Attach the antenna.

Magnetic Mount



Surface Mount

