



**5-in-1 Cellular and W-Fi Antenna
System with GPS Receiver**



MOBILITY 22G



The Peplink Mobility 22G is a 5 in 1 antenna built for mobile applications. It supports 2x2 cellular MIMO for high bandwidth and solid reliability, dual-band (2.4GHz & 5GHz) Wi-Fi and GPS. It is also 5G ready and supports a wide range of global cellular frequencies. The GPS receiver is equipped with high gain LNA, making it ideal for location tracking.

The Mobility 22G has a solid housing made of UV stable plastic materials. Two color options are available (black and white) to fit different deployments. For easier installation, the antenna comes with different cable length options.





FEATURES

- 5-in-1 cellular and Wi-Fi antenna system with GPS receiver
- 2x2 Cellular frequencies:
- 600-6000 MHz
- 2x2 Wi-Fi frequencies: 2400-2500 MHz & 5000-6000 MHz
- Durable and UV-stable housing
- Black or white color options
- IP68 rated

APPLICATIONS

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



SPECIFICATIONS

Cellular

- **Antenna elements:** 2 elements
- **Cellular frequencies:** 1.2dBi: 617-960MHz, 5.7dBi: 1710-2700MHz, 5.6dBi: 3400-4200MHz, 6.0dBi: 5000-6000MHz
- **Cellular bands:** LTE bands B1 to B86 (except B31, B72, B73, B87, B88), 5G bands n1 to n99
- **VSWR:** < 2.5 over 85% 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:** 4.8dBi: 2400-2500MHz, 7.4dBi: 5000-6000MHz
- **VSWR:** < 2.5
- **Feed power handling:** 10W
- **Input impedance:** 50 Ω
- **Polarisation:** Linear

GPS

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

Cable

- **Type:** CFD200
- **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
- **Termination:** SMA male and RP-SMA male

- **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:** SMA male

Mounting

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

Mechanical

- **Product dimensions:**
Height: 1.42" / 36mm (spigot not included)
Diameter: 5.12" / 130mm
- **Packaged dimensions:** 8.90" x 8.46" x 4.29" / 226 x 215 x 109mm
- **Radome material:** UV stable PC+ABS

Package contents

- **Antenna:** Mobility 22G
- **Mounting:** Mounting bracket, Wall/pole mount, Double sided 3M adhesive pad, Diameter: 5.08" / 129mm, Thickness: 0.08" / 2mm

Environmental, compliance

- **Cable flammability:** UL 758 (VW-1)
- **Compliance:** RoHS, REACH & WHEE
- **Enclosure flammability:** UL 94 HB
- **IP rating:** IP68
- **Operating temperature:** -40° - 80°C
- **Storage temperature:** -40° - 80°C
- **Salt Spray:** MIL-STD 810F/ASTM 8117
- **UV resistance rating:** UL 746C (F1, long-term UV exposure)
- **Wind Survival:** 220 km/h

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



ORDERING INFORMATION

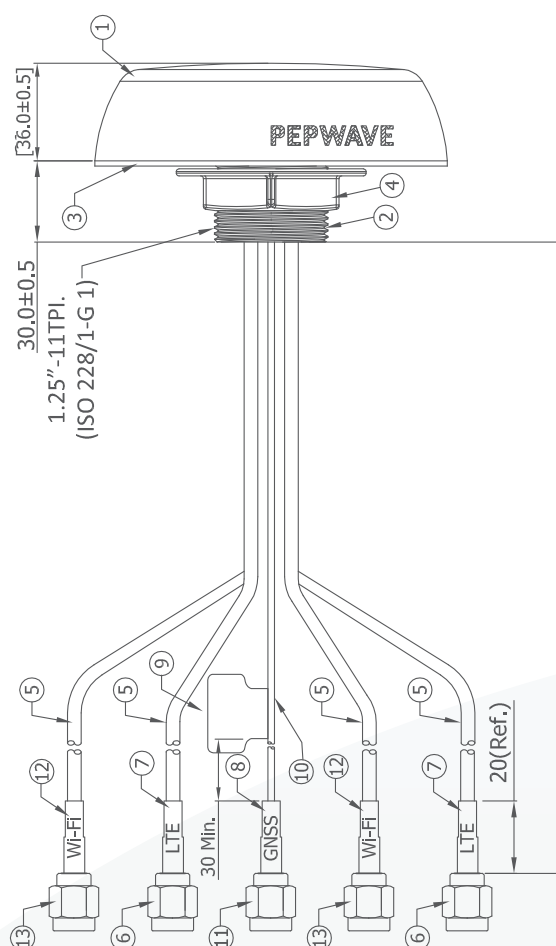
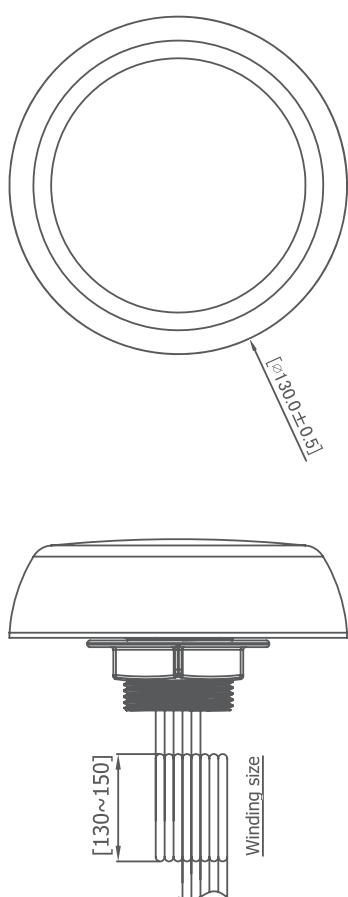
MOBILITY 22G

Product Code	Description
ANT-MB-22G-S-W-6	2xLTE, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, SMA/RP-SMA, White, 6.5ft / 2m
ANT-MB-22G-S-B-6	2xLTE, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, SMA/RP-SMA, Black, 6.5ft / 2m
ANT-MB-22G-Q-W-1	2xLTE, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, QMA, White, 1 ft / 0.3m
ANT-MB-22G-Q-B-1	2xLTE, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, QMA, Black, 1 ft / 0.3m

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-RQ-15	Wi-Fi elements	Extension coax cable, RP-SMA male to QMA female connector, 15ft / 4.5m

TECHNICAL DRAWING

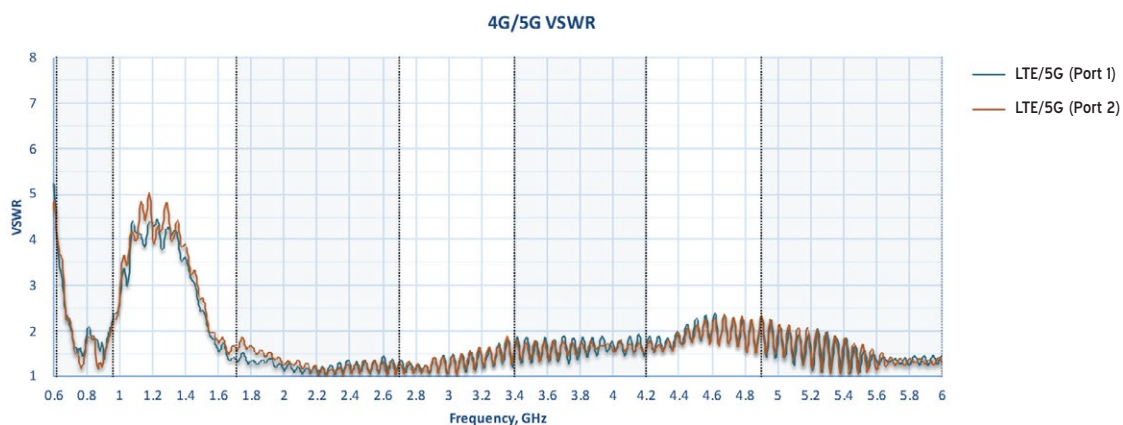


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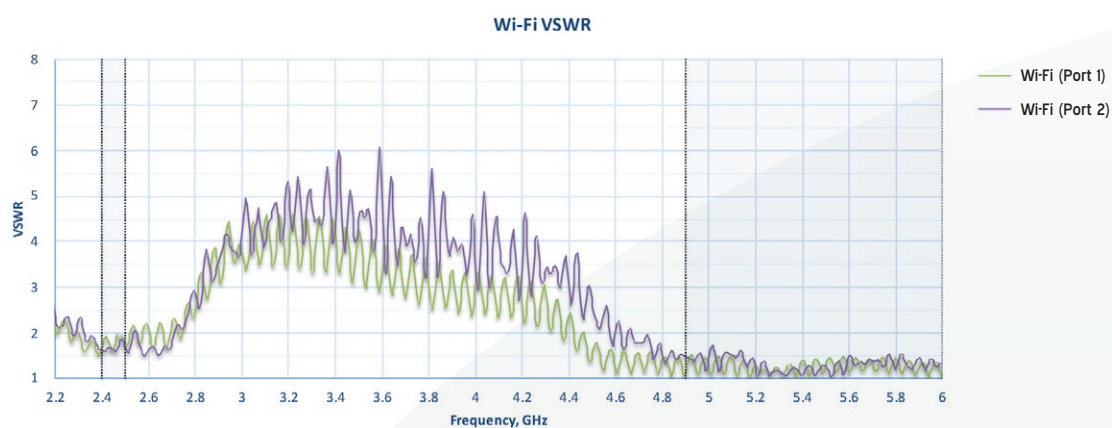
No.	Description	Qty
1	Antenna top cover (PC+ABS)	1
2	Antenna bottom cover (PC+ABS)	1
3	Double sided 3M adhesive pad	1
4	Hexagon NUT (PC+ABS)	1
5	Cable CFD-200 (4G/5G, Wi-Fi)	4
6	LTE/5G antenna connector	2
7	LTE/5G cable marking	2

No.	Description	Qty
8	GPS cable marking	1
9	Label	1
10	Cable RG-174 (GPS)	1
11	GPS antenna connector	1
12	Wi-Fi cable marking	2
13	Wi-Fi antenna connector	2

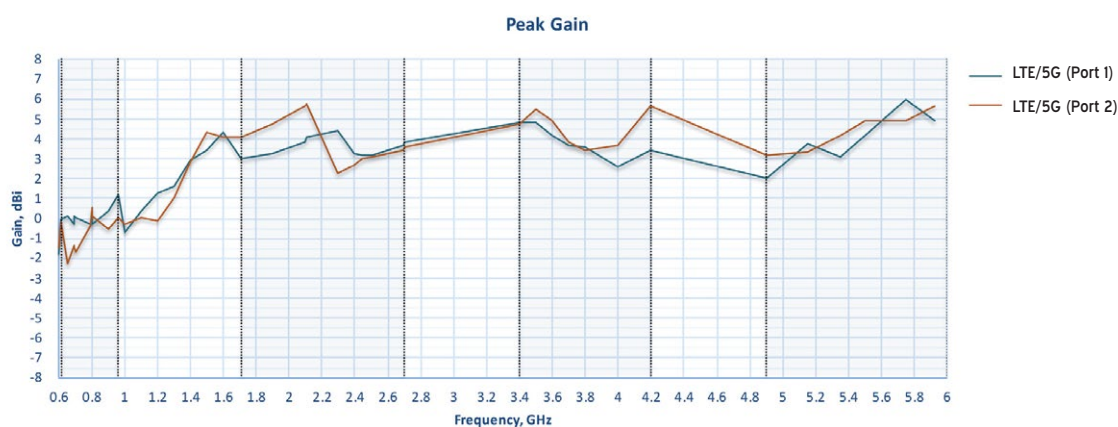
LTE/5G Antenna VSWR



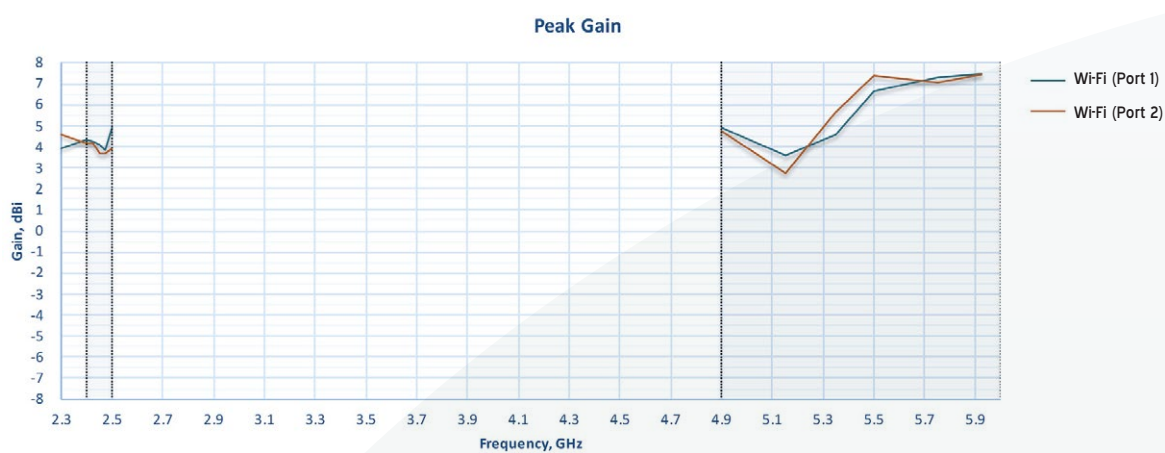
Wi-Fi Antenna VSWR



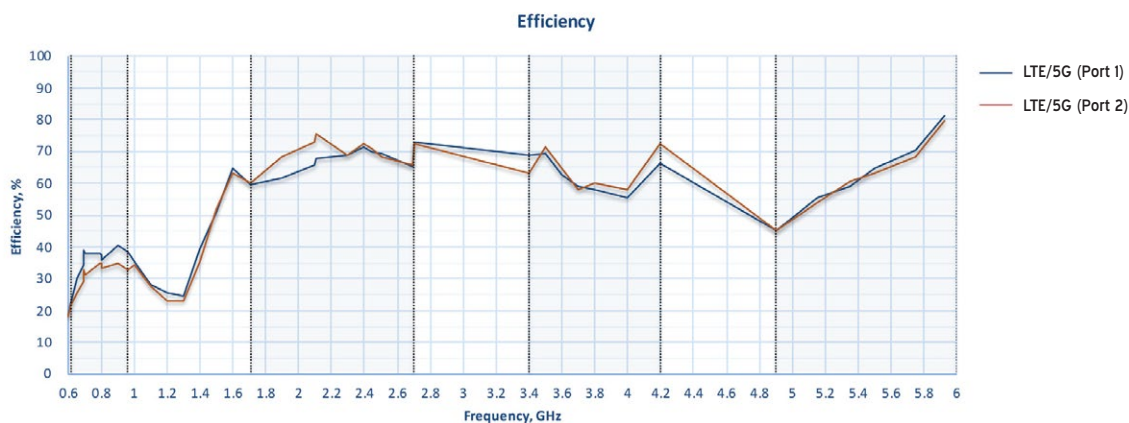
LTE/5G Antenna Gain



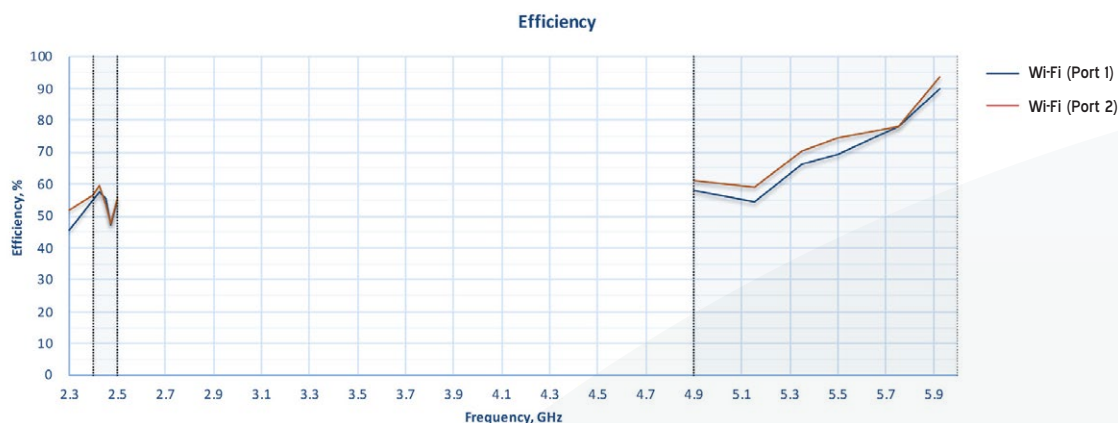
Wi-Fi Antenna Gain



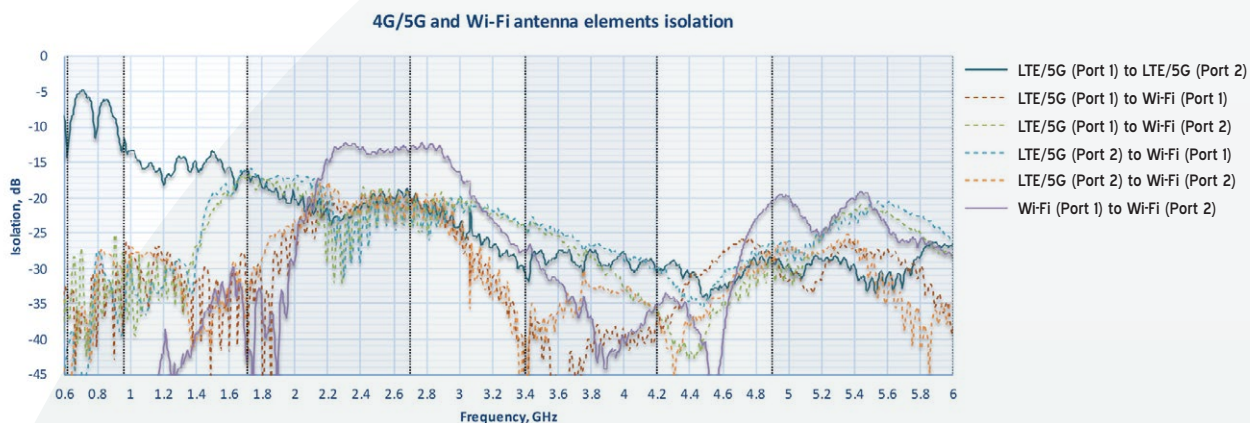
LTE/5G Antenna Efficiency



Wi-Fi Antenna Efficiency

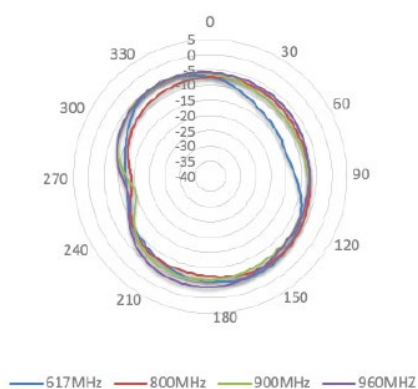


Antenna Isolation

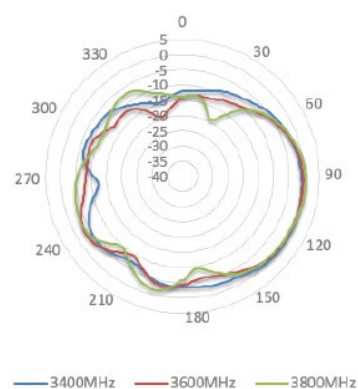


LTE/5G Antenna Radiation Patterns (Azimuth)

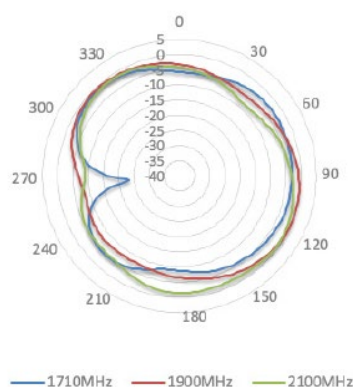
617-960 MHz



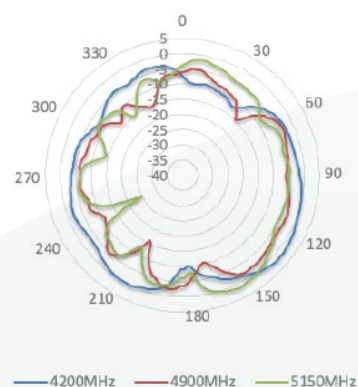
3400-3800 MHz



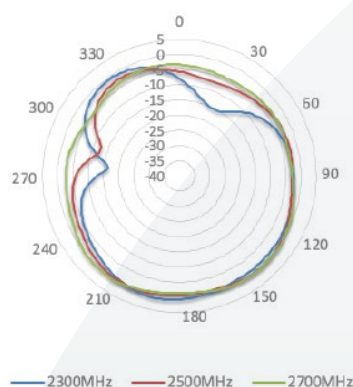
1710-2100MHz



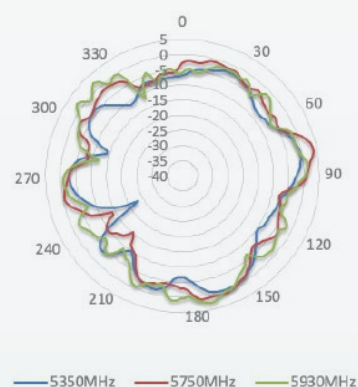
4200-5150 MHz



2300-2700 MHz

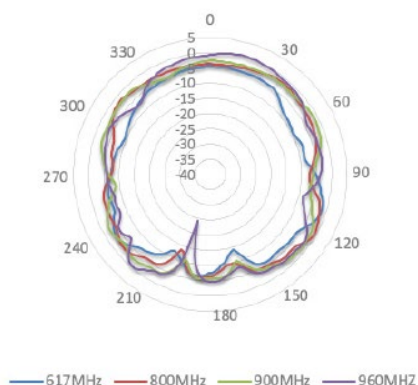


5350-5930 MHz

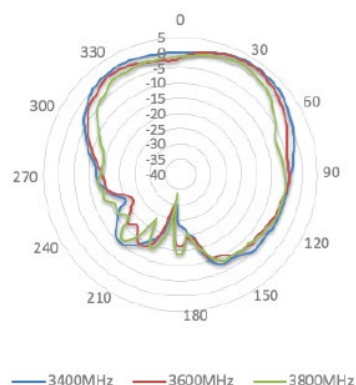


LTE/5G Antenna Radiation Patterns (Elevation 1)

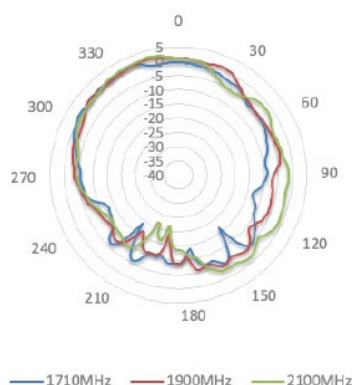
617-960 MHz



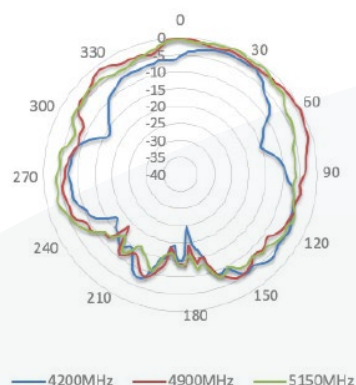
3400-3800 MHz



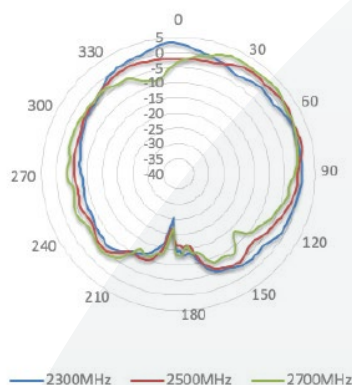
1710-2100MHz



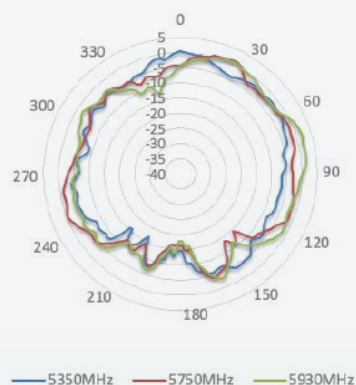
4200-5150 MHz



2300-2700 MHz

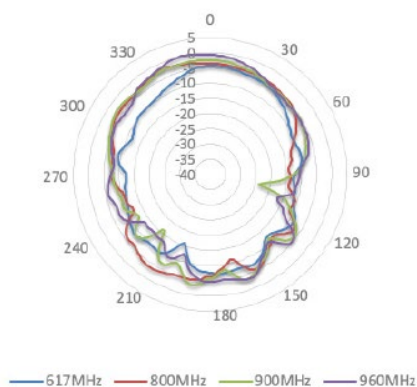


5350-5930 MHz

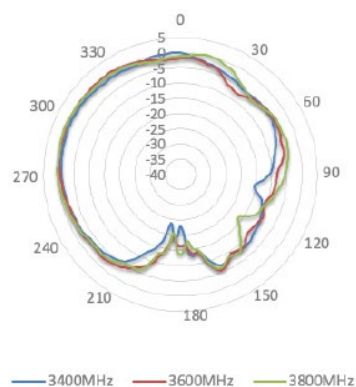


LTE/5G Antenna Radiation Patterns (Elevation 2)

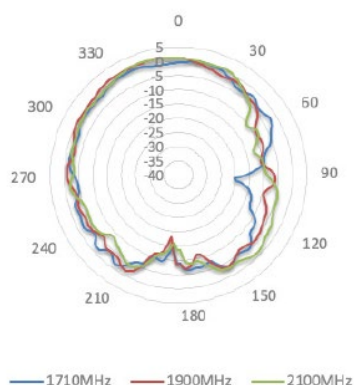
617-960 MHz



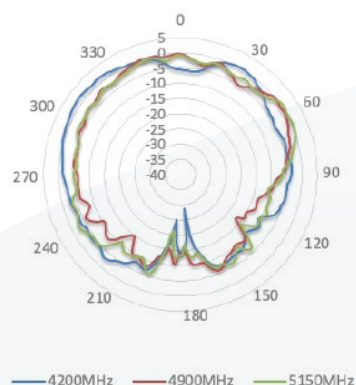
3400-3800 MHz



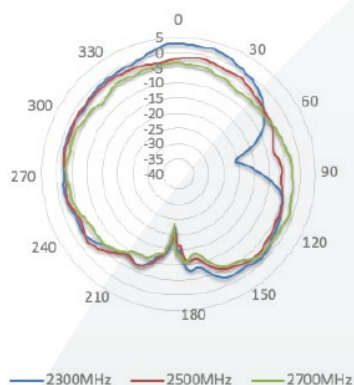
1710-2100MHz



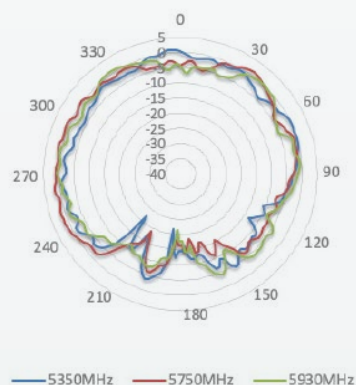
4200-5150 MHz



2300-2700 MHz

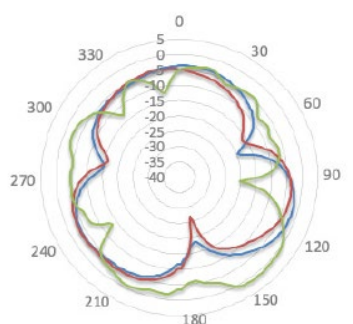


5350-5925 MHz



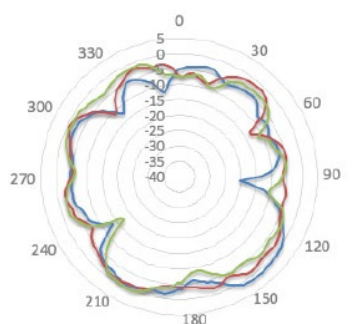
Wi-Fi Antenna Radiation Patterns (Azimuth)

2400-2500 MHz



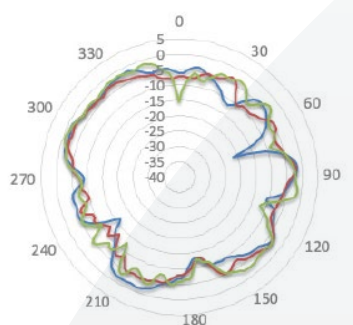
— 2400MHz — 2450MHz — 2500MHz

4900-5350 MHz



— 4900MHz — 5150MHz — 5350MHz

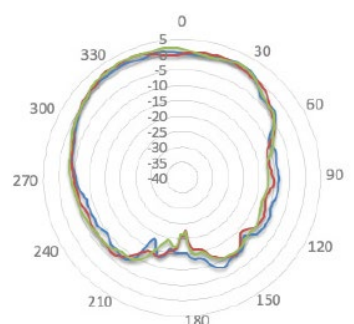
5500-5950 MHz



— 5500MHz — 5750MHz — 5925MHz

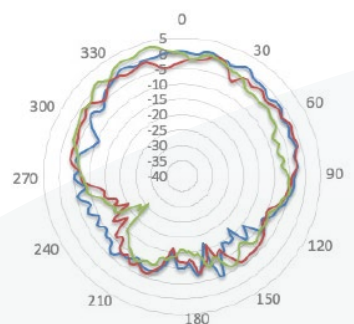
Wi-Fi Antenna Radiation Patterns (Elevation 1)

2400-2500 MHz



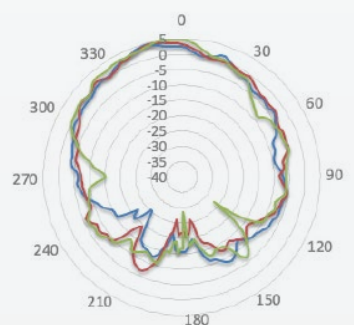
— 2400MHz — 2450MHz — 2500MHz

4900-5350 MHz



— 4900MHz — 5150MHz — 5350MHz

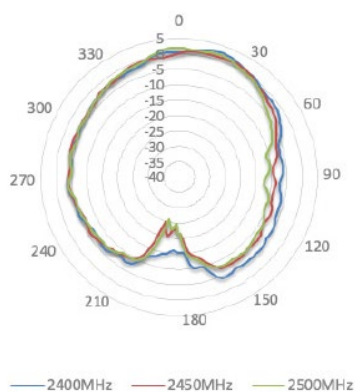
5500-5950 MHz



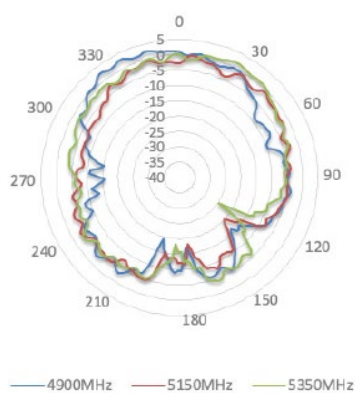
— 5500MHz — 5750MHz — 5925MHz

Wi-Fi Antenna Radiation Patterns (Elevation 2)

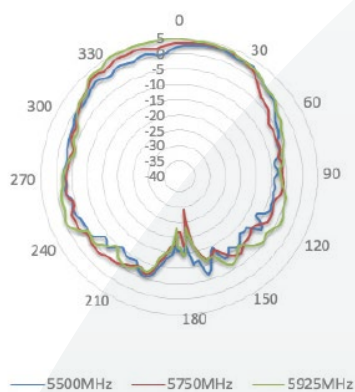
2400-2500 MHz



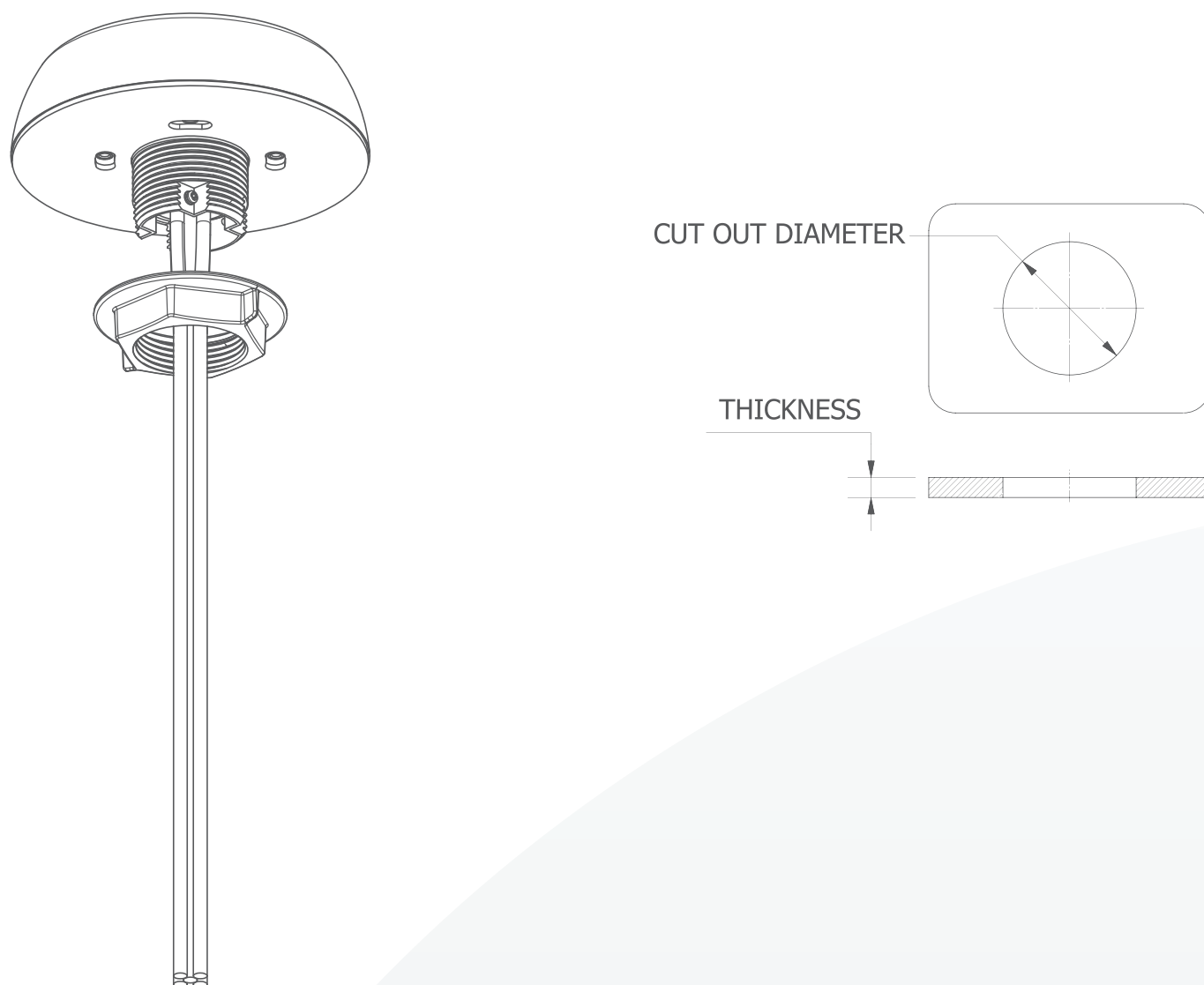
4900-5350 MHz



5550-5950 MHz



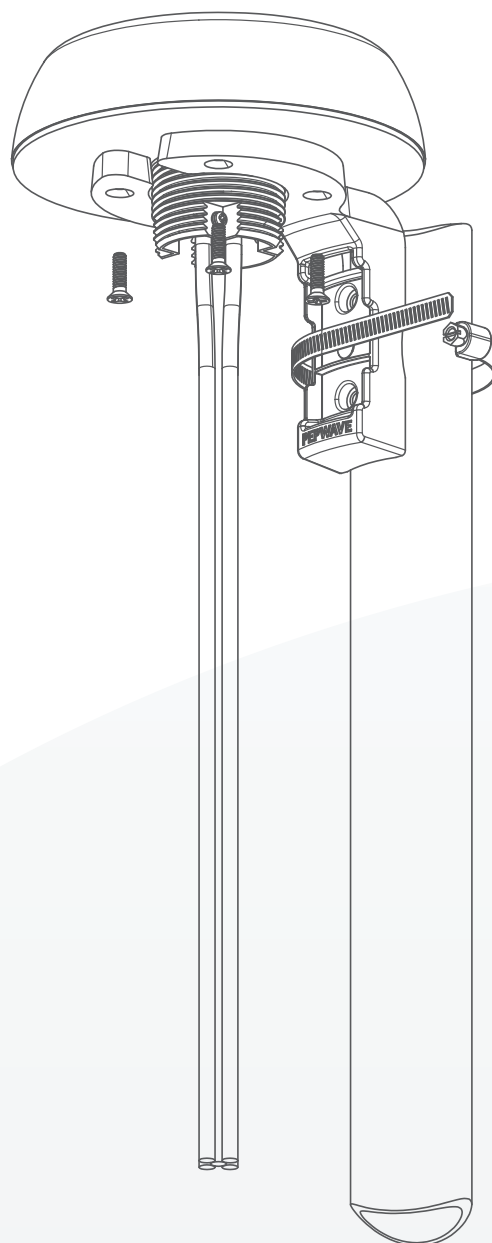
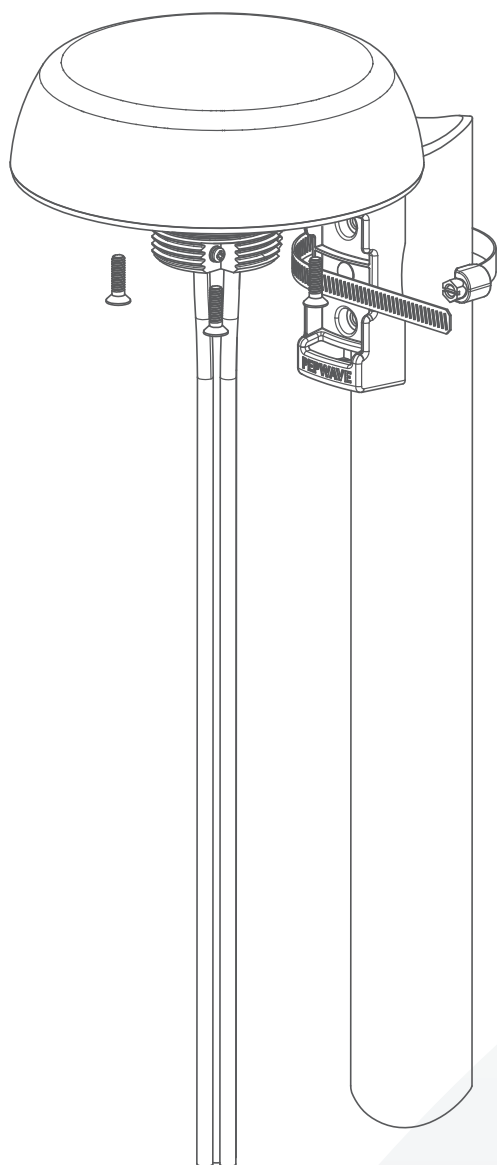
Panel Mount Installation Recommendation



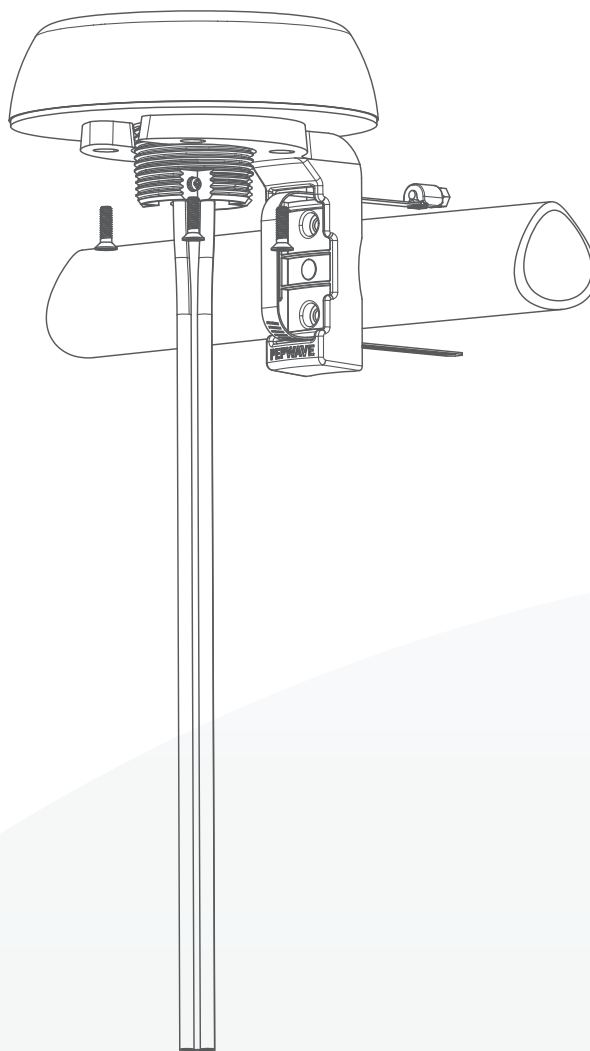
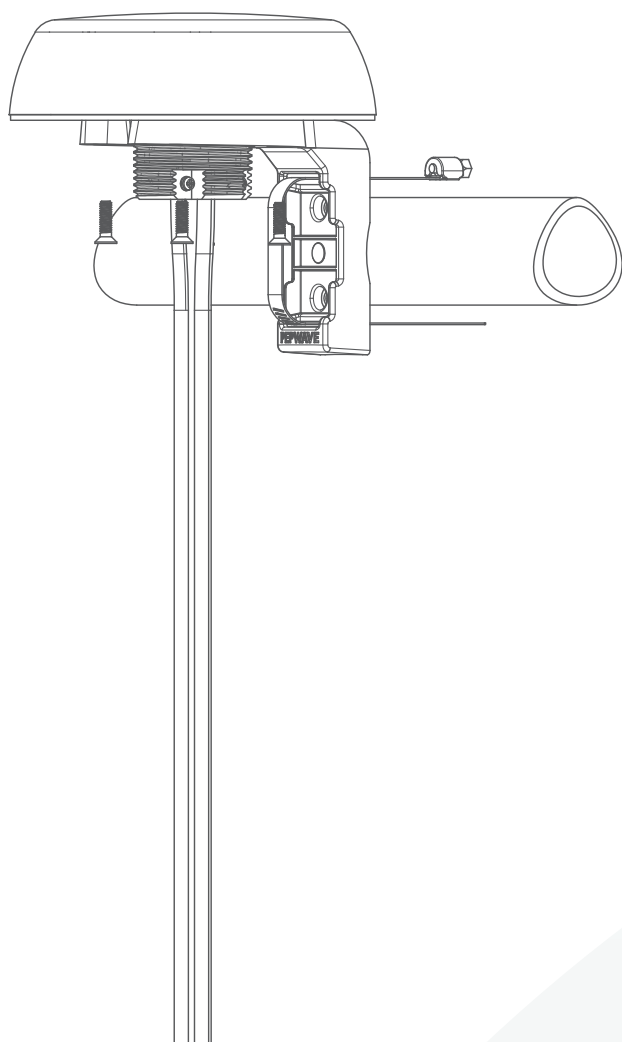
Notes

- 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 - 15mm.
- After a drill clean up the surface and apply some paint around the hole to prevent corrosion. Attach the antenna.

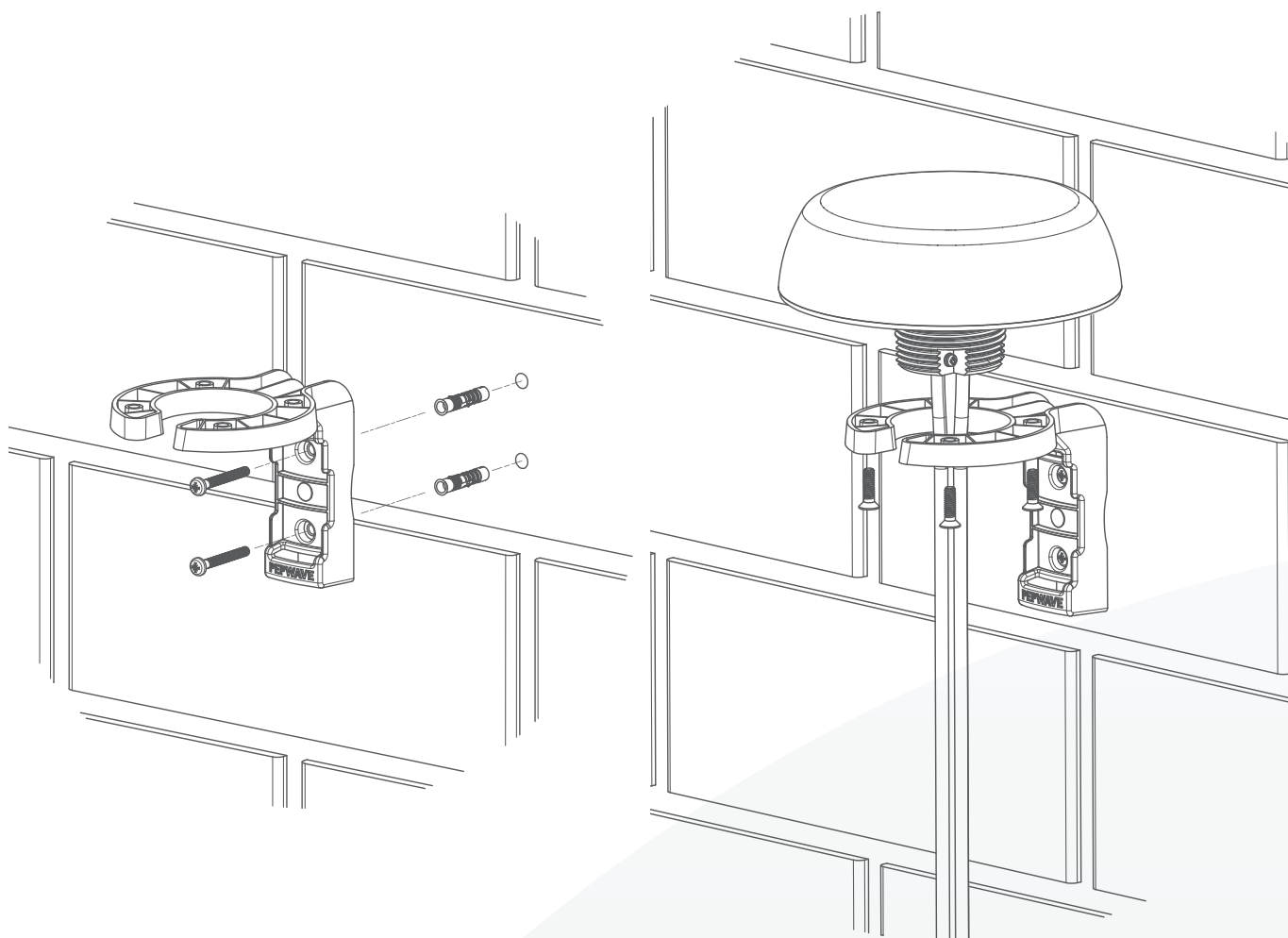
Pole Mount Installation Recommendation



Horizontal Pole Mount Installation Recommendation



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.