

Mobility 82G

TAA 
COMPLIANT





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.



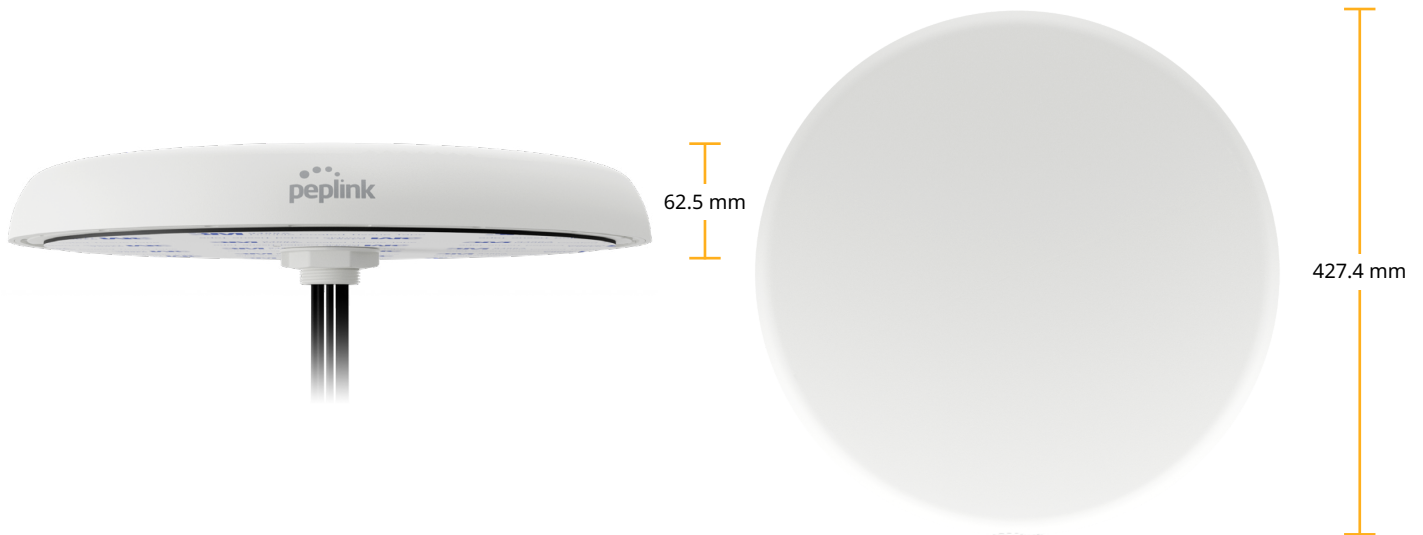
Easy **Installation**

Surface, panel installation for various applications.



Flexible **Applications**

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



Specifications

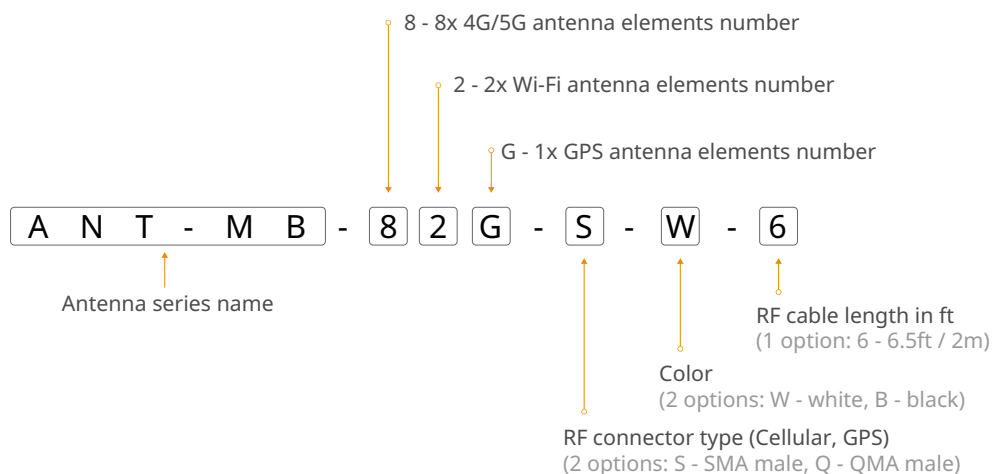
| Cellular | | GPS | |
|------------------------------------|--|---------------------------|---|
| Antenna Elements | 8 elements | Frequency Range | 1575-1602 MHz |
| Peak Gain & Frequencies | 5.4dBi: 617-960MHz 7.5dBi: 1400-2700MHz 8.1dBi: 3400-4200MHz 8.7dBi: 5000-6000MHz | Peak Gain | 1.2 dBiC: 1575MHz 2.0 dBiC: 1602MHz |
| VSWR | < 2.0 over 95% of the band | VSWR | < 1.6 |
| Feed Power Handling | 10W | Output Return Loss | -10dB max |
| Input Impedance | 50 Ω | Gain: LNA | 29 ± 3 dB |
| Polarisation | Linear | Operating Voltage | 3.3 V |
| | | Power Consumption | 6 ±2 mA at 3.3 V |
| WiFi | | Cable (LTE/5G, Wi-Fi) | |
| Antenna Elements | 2 elements 6.0dBi: 2400-2500MHz 7.4dBi: 5000-6000MHz | Type | CFD-200 |
| VSWR | < 2.0 | 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 |
| Feed Power Handling | 10W | Diameter | 0.2 in. / 5.0 mm |
| Input Impedance | 50 Ω | Jacket | Half matt PVC, UV resistant |
| Polarisation | Linear | Termination | QMA male, SMA male, RP-SMA male (Wi-Fi) |

Specifications are subject to change without notice.

Specifications

| Cable (GPS) | | Package Contents | |
|----------------------------|---|-------------------------------|--|
| Type | RG-174 | Antenna | MB-82G |
| Loss | 3.4 dB/m @ 1000 MHz 4.9 dB/m @ 1800 MHz | Accessories | Long and short thread Double sided 3M adhesive pad - Diameter: 15.2" / 386 mm - Thickness: 0.08" / 2 mm |
| Diameter | 0.1" / 2.7mm | | |
| Jacket | Half matt PVC, UV resistant | | |
| Termination | QMA male, SMA male | | |
| Mounting | | Environmental, Compliance | |
| Supported Types | Panel, surface (with additional mount) magnetic (with additional mount) | IP Rating | IP67 |
| Mounting Hole | 1.7" / 43mm | Operating Temperature | -40° - 176°F / -40° - 80°C |
| Max Panel Thickness | up to 6.7" / 170mm | Storage Temperature | -40° - 176°F / -40° - 80°C |
| Mechanical | | Compliance | ROHS, REACH, WEEE |
| Product Dimensions | 2.46" / 62.5 mm - Height (spigot not included) 16.83" / 427.4 mm - Diameter | Wind Survivability | 137mph (220km/h) |
| Packaged Dimensions | 20.16" x 20.09" x 9.06" 512x510x230mm | Enclosure Flammability | UL 94 HB |
| Radome Material | UV stable PC | Cable Flammability | UL 758 (VW-1) |
| | | UV Resistance | UL 746C (F1 long-term UV exposure) |
| | | Salt Spray | MIL-STD 810F |

Ordering Information

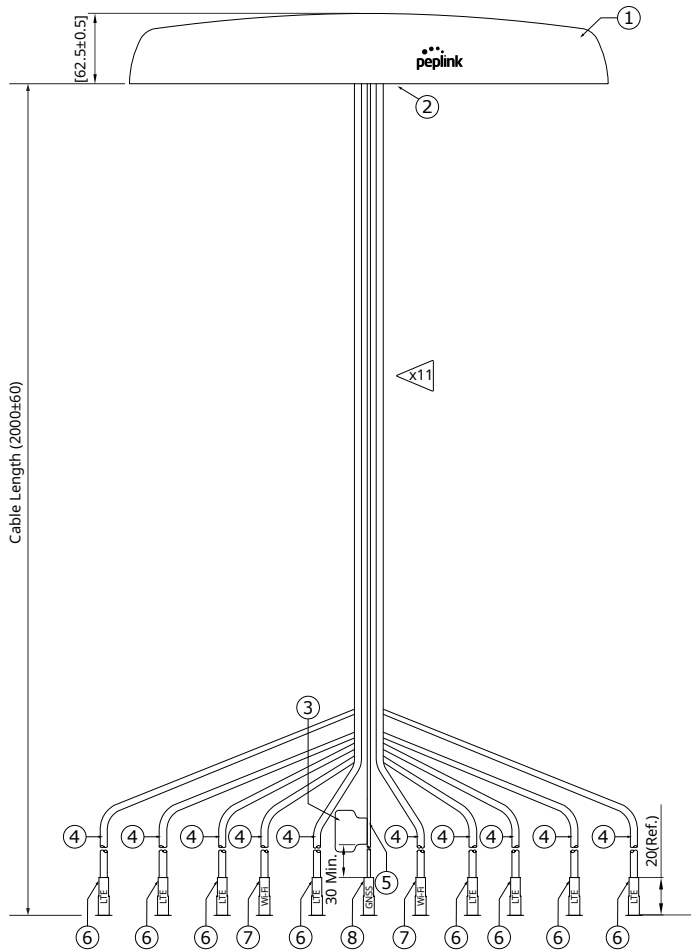


| Product Code | Description |
|------------------|--|
| ANT-MB-82G-S-W-6 | 8x LTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, SMA (Cellular, GPS), RP-SMA (Wi-Fi), White, 6.5ft / 2m |
| ANT-MB-82G-S-B-6 | 8x LTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, SMA (Cellular, GPS), RP-SMA (Wi-Fi), Black, 6.5ft / 2m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

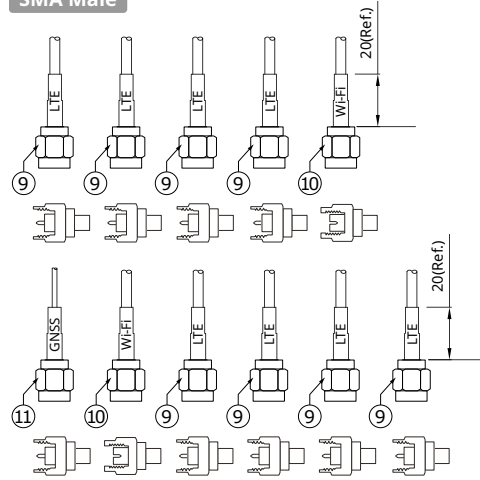
Technical Drawing

(unit: mm)

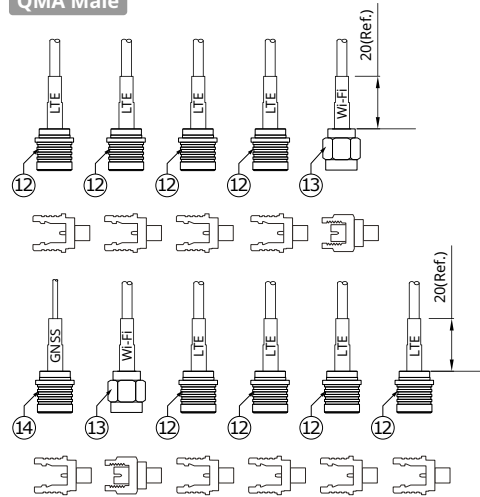
Antenna



SMA Male

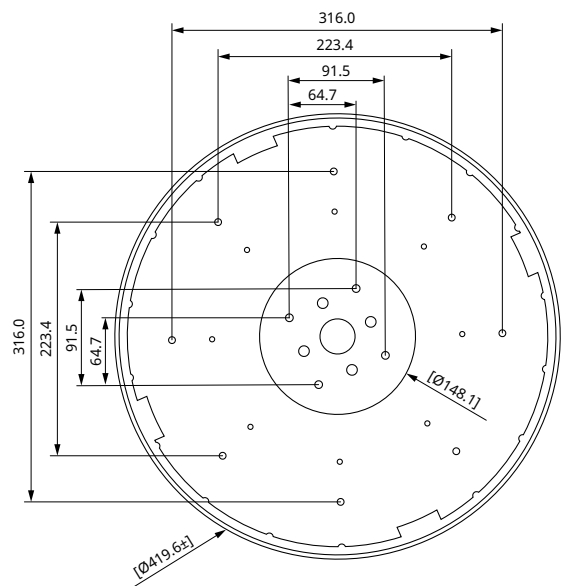


QMA Male



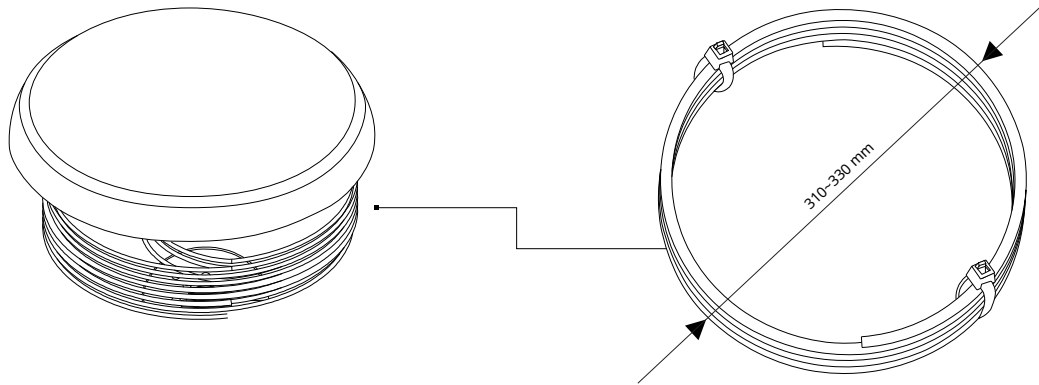
Index

| No. | Description | Qty |
|-----|---------------------------------------|-----|
| 1 | Antenna top cover (PC) | 1 |
| 2 | Antenna bottom cover (PC) | 1 |
| 3 | Label | 1 |
| 4 | Cable CFD-200 (4G/5G, Wi-Fi) | 10 |
| 5 | Cable RG-174 (GPS) | 1 |
| 6 | LTE/5G H.S. tube | 8 |
| 7 | Wi-Fi H.S. tube | 2 |
| 8 | GPS H.S. tube | 1 |
| 9 | LTE/5G antenna connector (SMA male) | 8 |
| 10 | Wi-Fi antenna connector (RP-SMA male) | 2 |
| 11 | GPS antenna connector (SMA male) | 1 |
| 12 | LTE/5G antenna connector (QMA male) | 8 |
| 13 | Wi-Fi antenna connector (RP-SMA male) | 2 |
| 14 | GPS antenna connector (QMA male) | 1 |

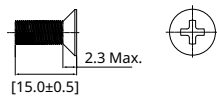


Technical Drawing

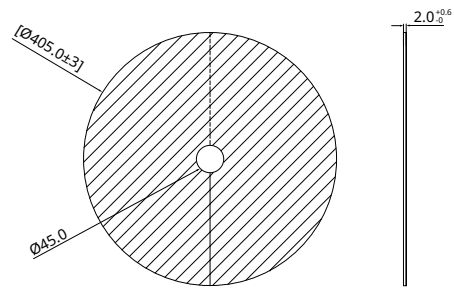
(unit: mm)



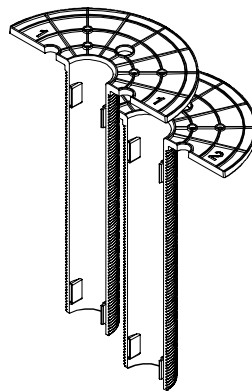
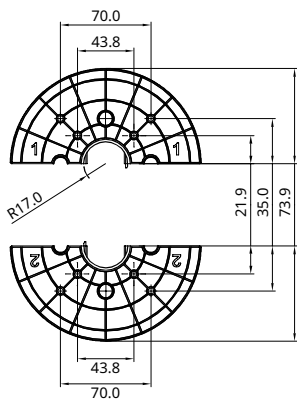
Mounting Set



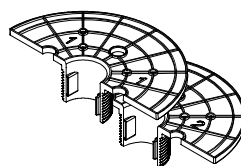
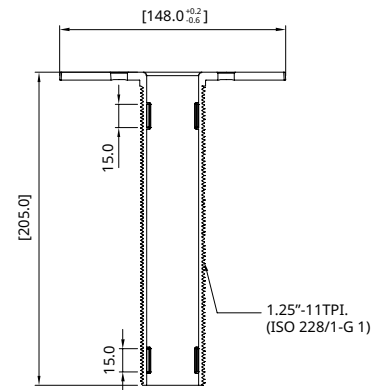
Screws
(4 pcs, M4*P0.7*15L)



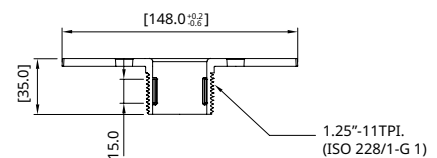
Double sided 3M adhesive pad



Long thread

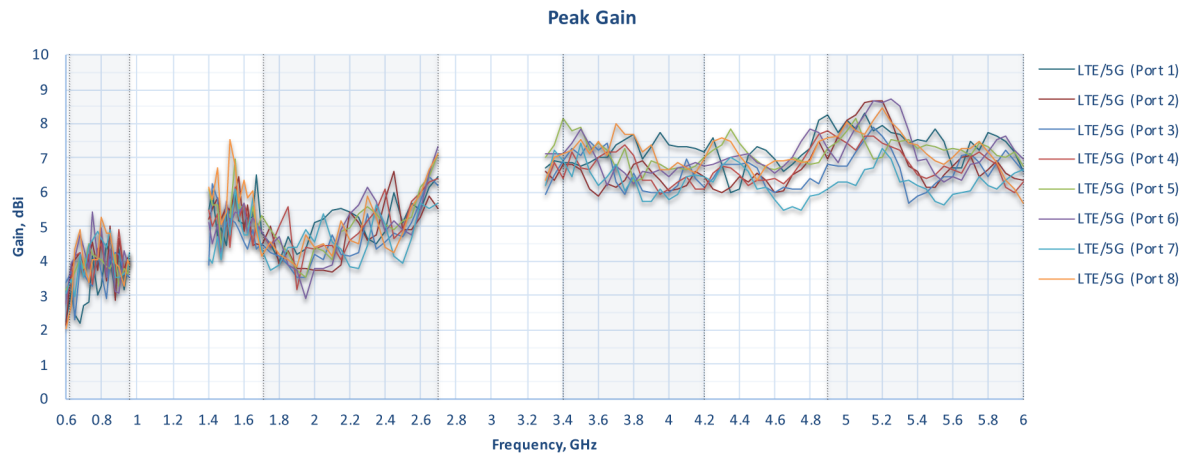


Short thread

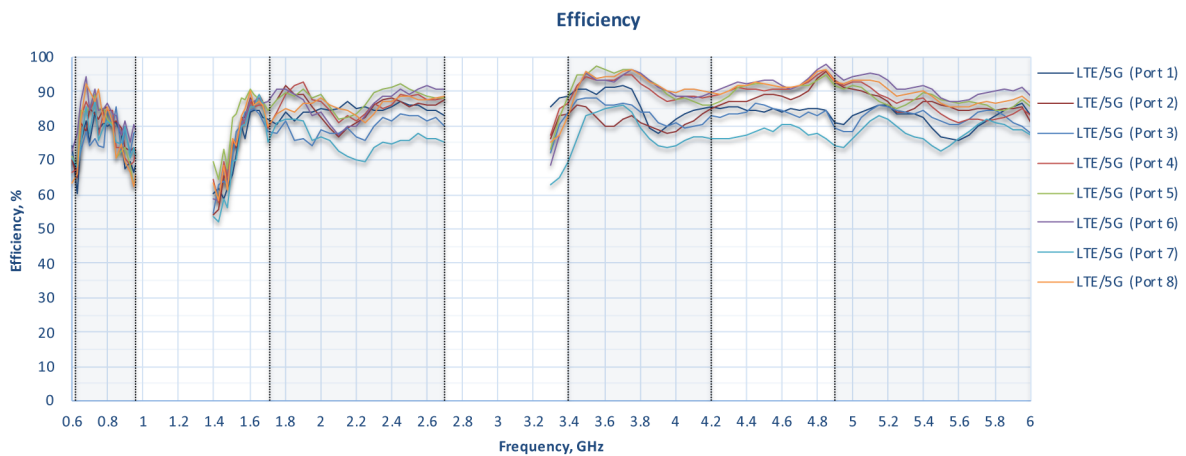


Graphs

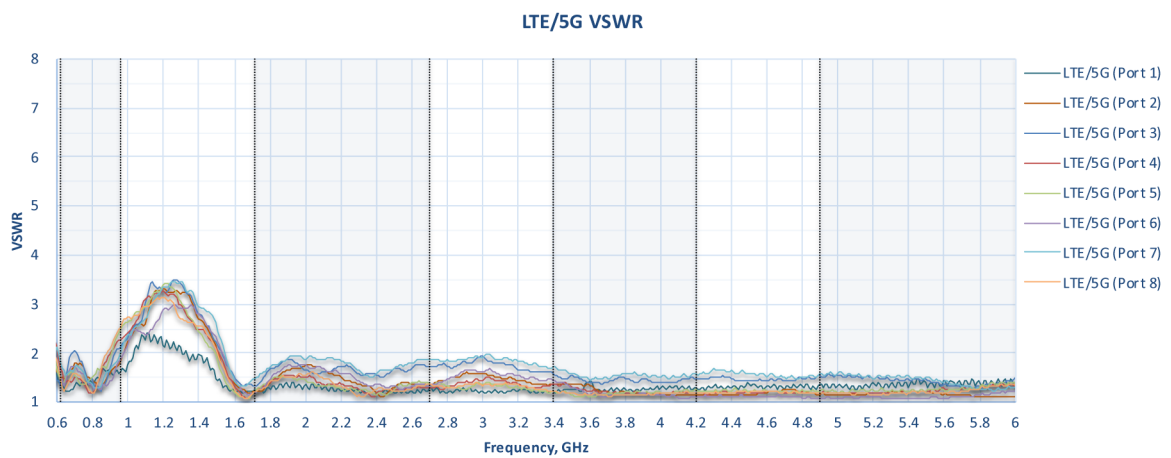
LTE/5G Antenna Gain



LTE/5G Antenna Efficiency

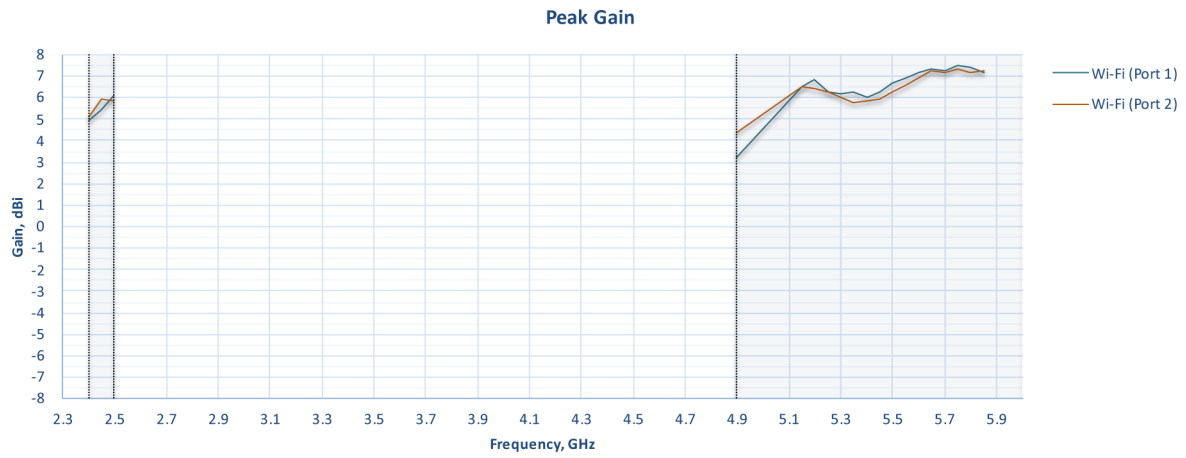


LTE/5G Antenna VSWR

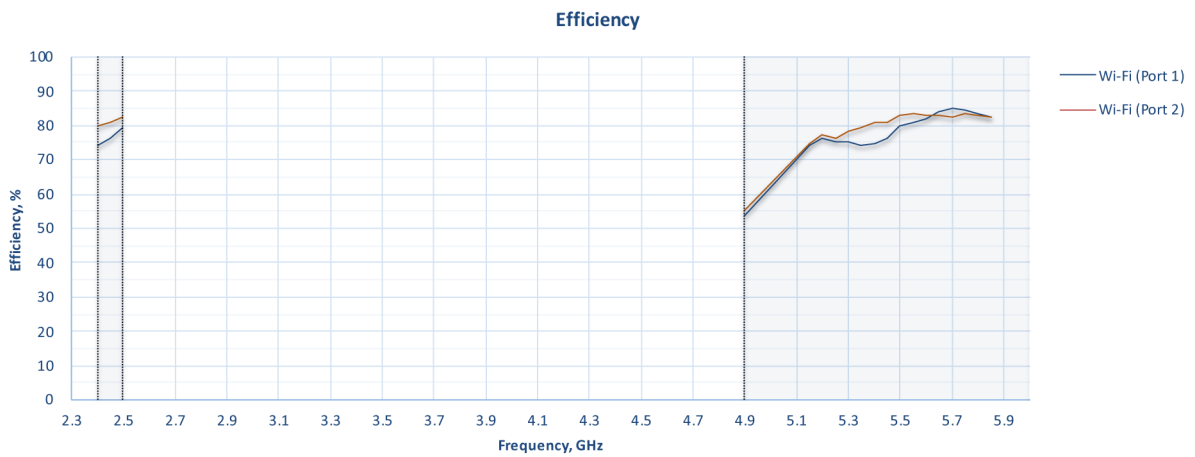


Graphs

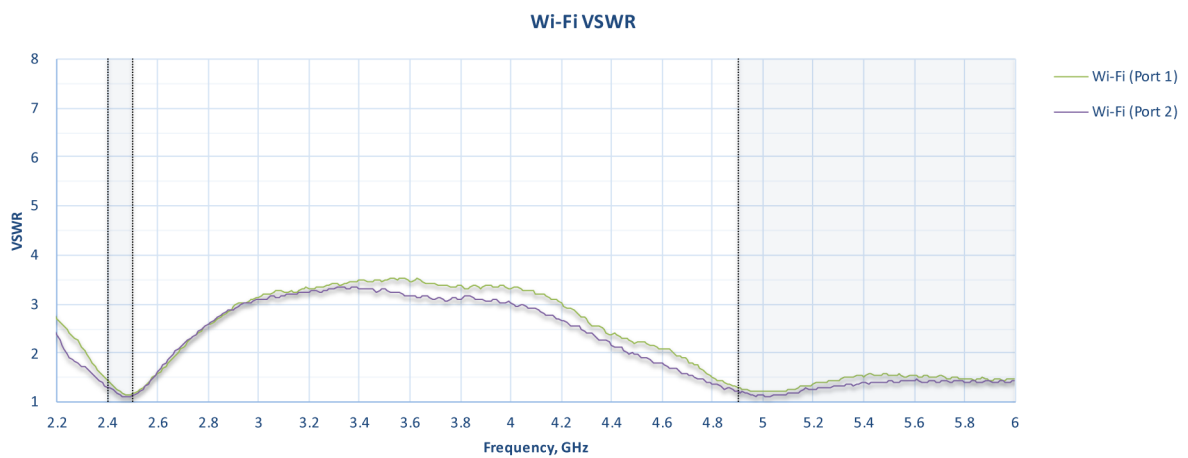
Wi-Fi Antenna Gain



Wi-Fi Antenna Efficiency



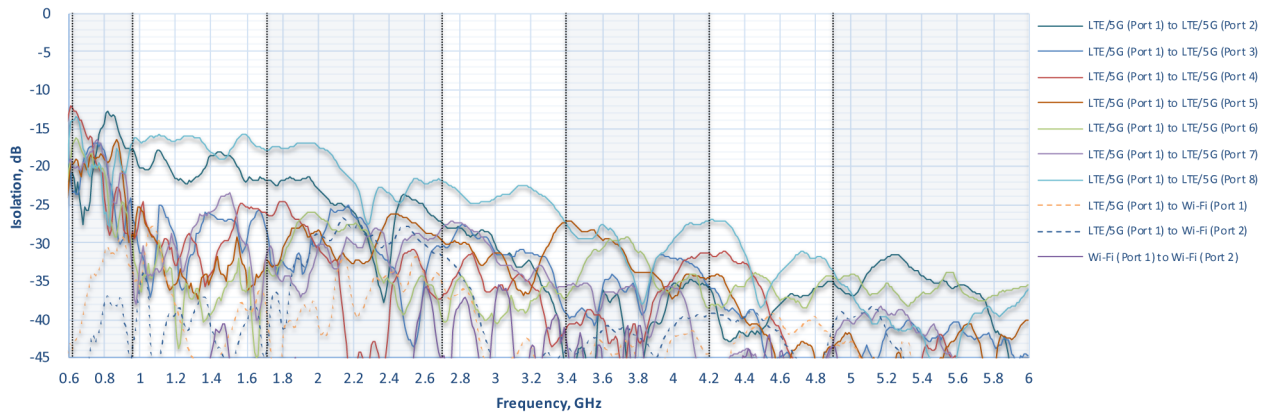
Wi-Fi Antenna VSWR



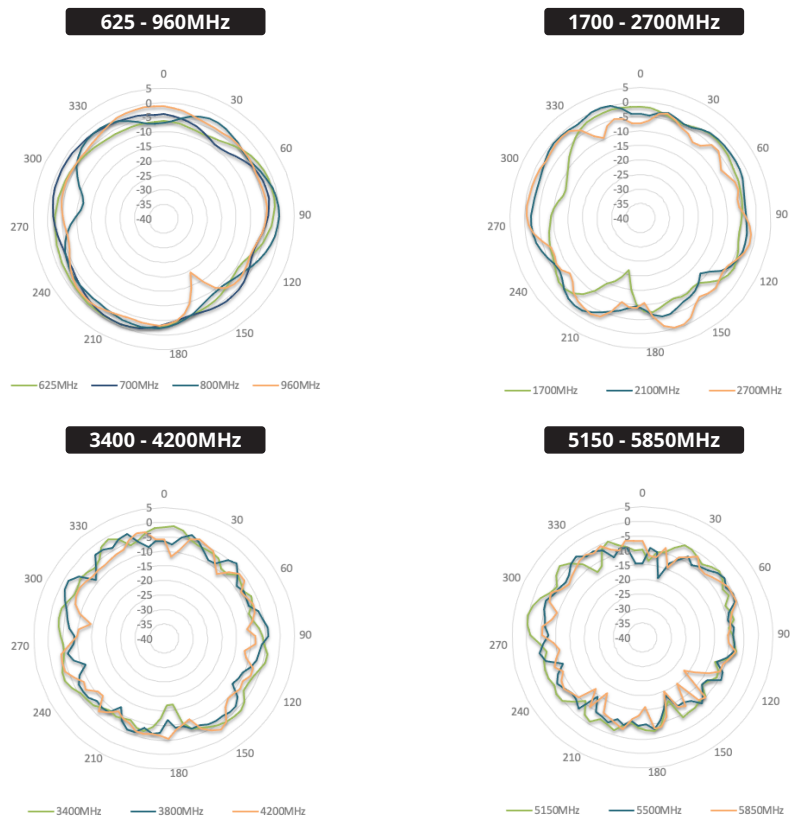
Graphs

LTE/5G & Wi-Fi Antenna Isolation

LTE/5G and Wi-Fi antenna elements isolation

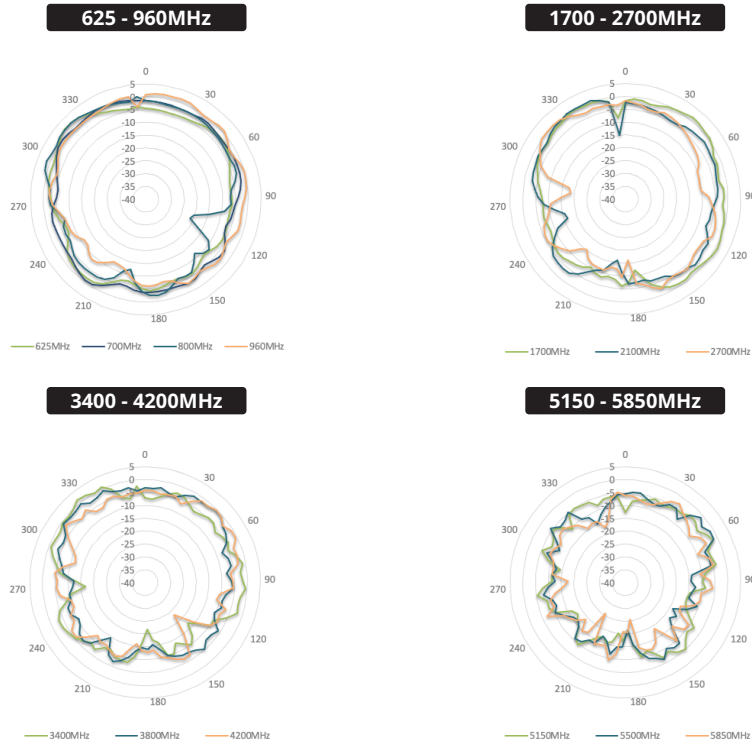


Radiation Pattern - LTE Radiation Patterns (Azimuth)

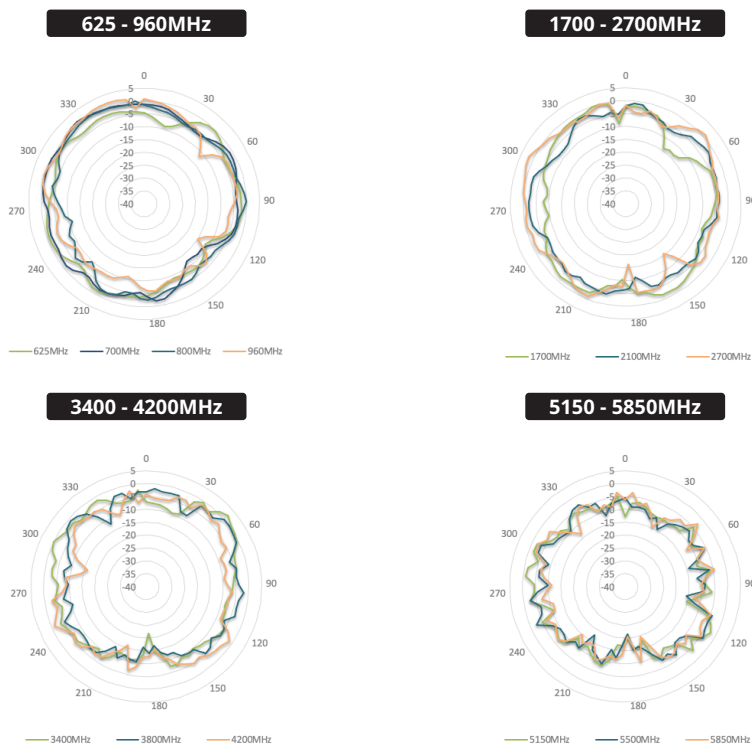


Graphs

Radiation Pattern - LTE Radiation Patterns (Elevation 1)



Radiation Pattern - LTE Radiation Patterns (Elevation 2)



Graphs

Radiation Pattern - Wi-Fi Radiation Patterns (Azimuth)



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



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



Installation Recommendation

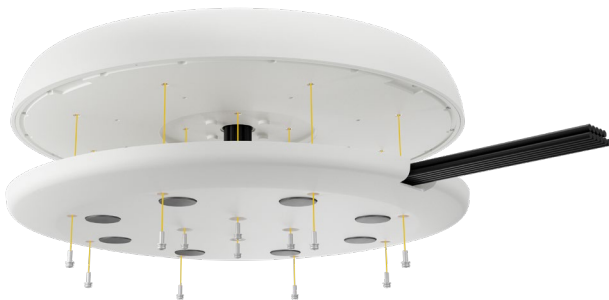
Panel (Through Hole)



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

