

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.





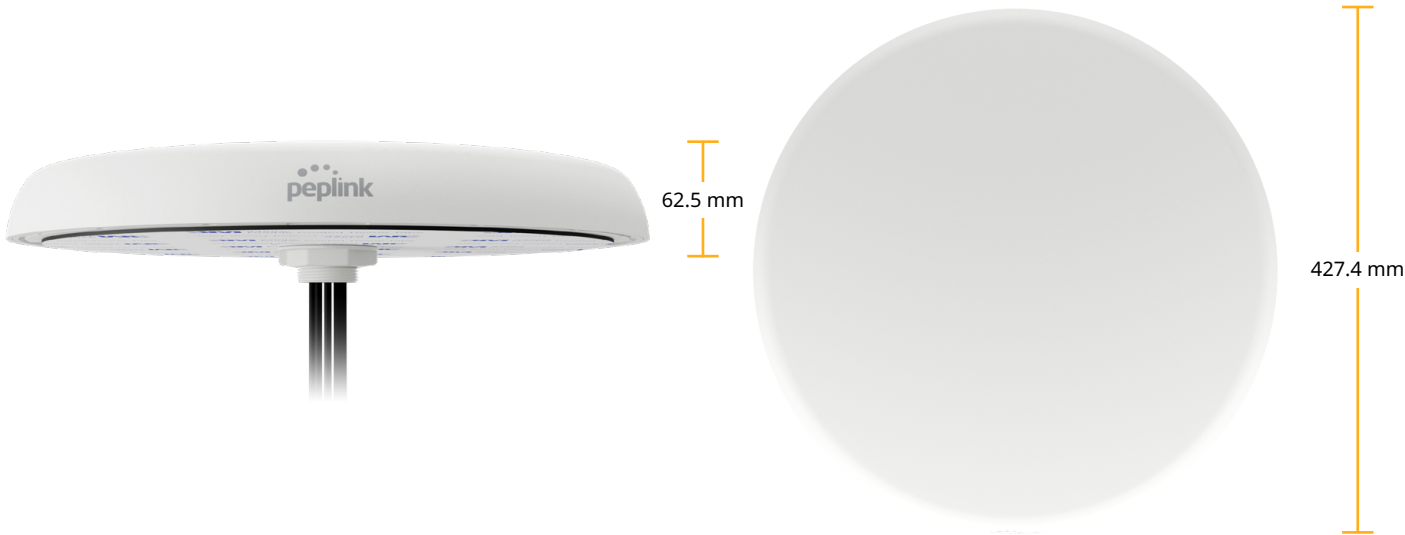
Easy **Installation**

Surface, panel installation for various applications.



Flexible **Applications**

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



Specifications

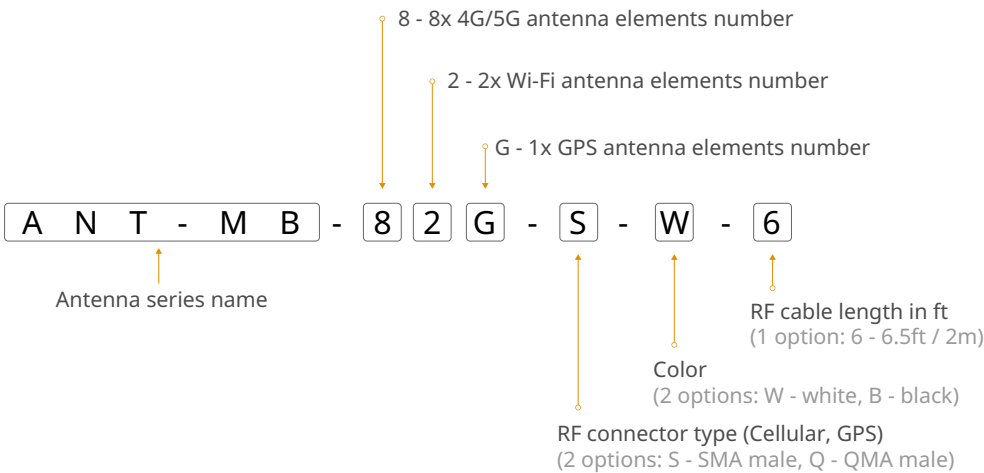
Cellular		GPS	
Antenna Elements	8 elements	Frequency Range	1575-1602 MHz
Peak Gain & Frequencies	5.4dBi: 617-960MHz 7.5dBi: 1400-2700MHz 8.1dBi: 3400-4200MHz 8.7dBi: 5000-6000MHz	Peak Gain	1.2 dBiC: 1575MHz 2.0 dBiC: 1602MHz
VSWR	< 2.0 over 95% of the band	VSWR	< 1.6
Feed Power Handling	10W	Output Return 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

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/ASTM 8117

Ordering Information

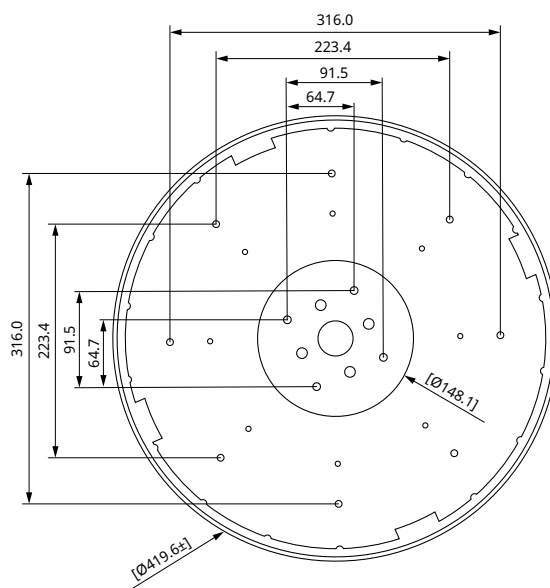


Product Code	Description
ANT-MB-82G-S-W-6	8x LTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, SMA (Cellular, GPS), RP-SMA (Wi-Fi), White, 6.5ft / 2m
ANT-MB-82G-S-B-6	8x LTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, SMA (Cellular, GPS), RP-SMA (Wi-Fi), Black, 6.5ft / 2m
ANT-MB-82G-Q-W-6	8x LTE/5G, 2x Wi-Fi, 1xGPS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

(unit: mm)

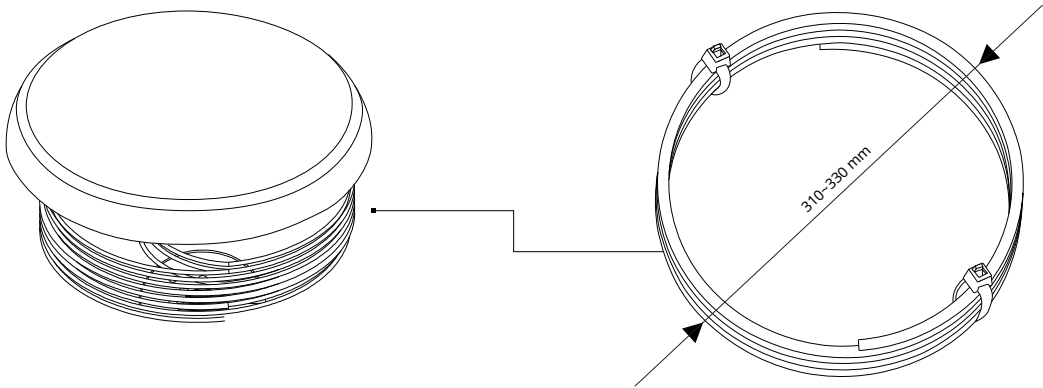
The diagram illustrates the correct and incorrect placement of the QMA Male connector. The top row shows the correct placement, where the connector is aligned with the 20(Ref.) dimension. The bottom row shows the incorrect placement, where the connector is misaligned, causing the 20(Ref.) dimension to be exceeded.

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

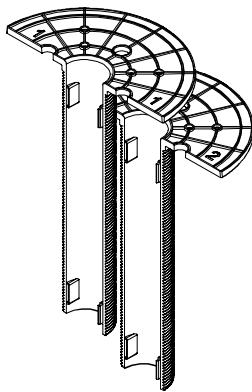
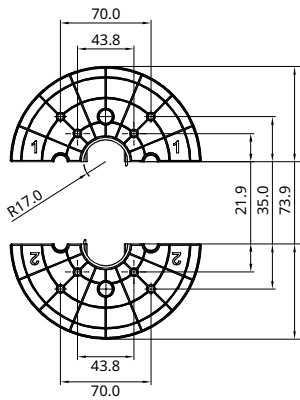
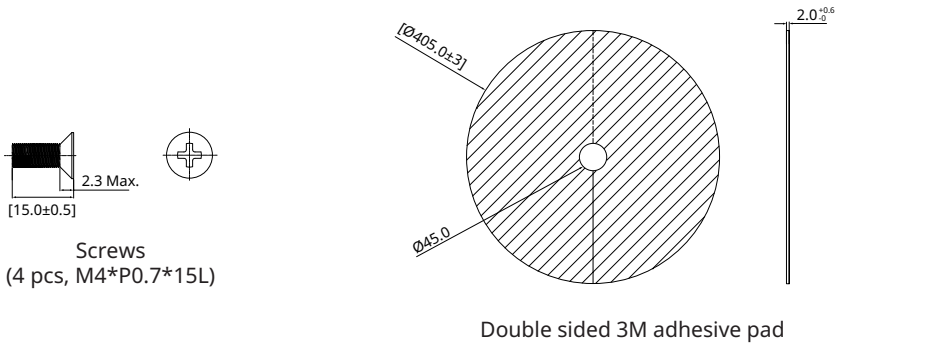


Technical Drawing

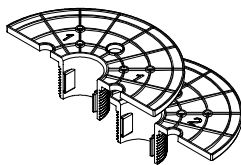
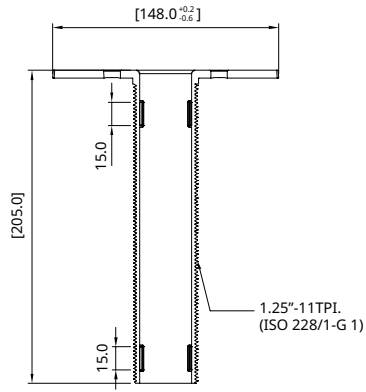
(unit: mm)



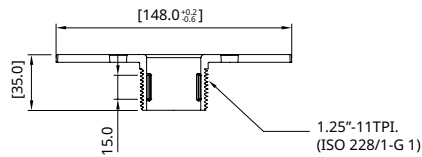
Mounting Set



Long thread

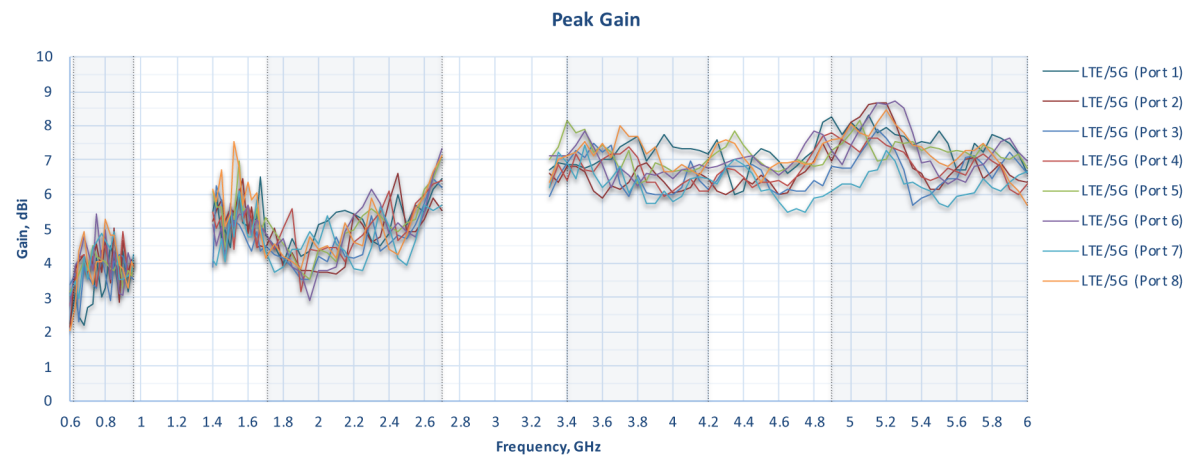


Short thread

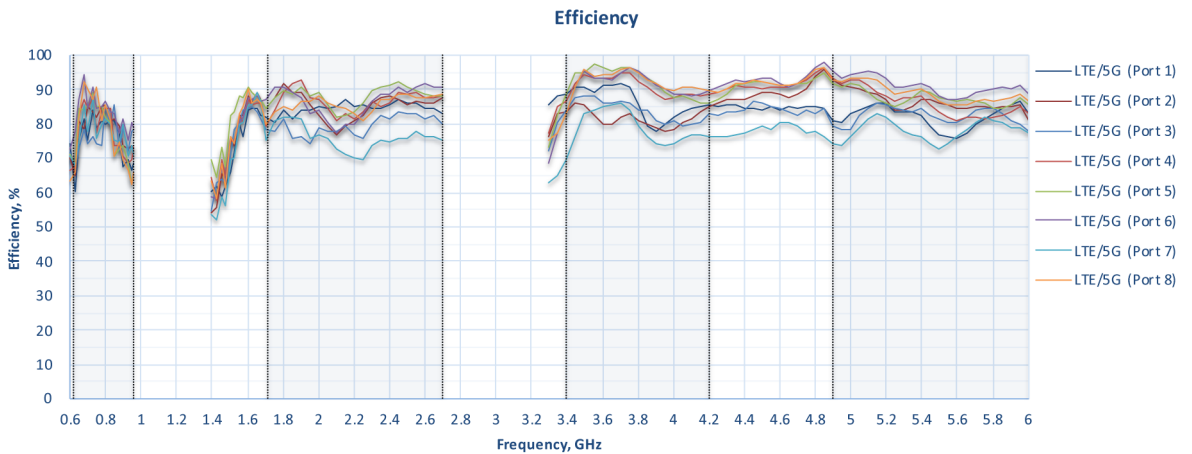


Graphs

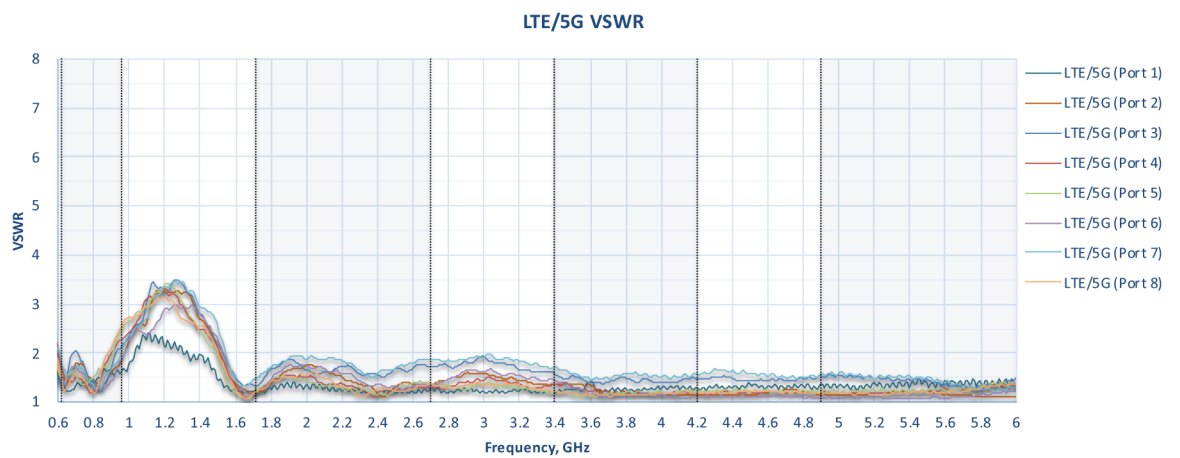
LTE/5G Antenna Gain



LTE/5G Antenna Efficiency

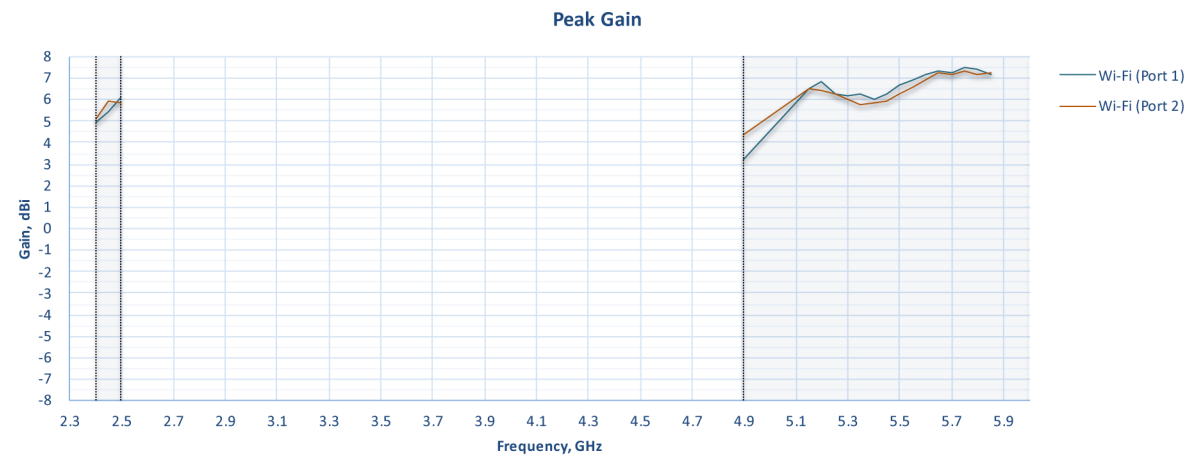


LTE/5G Antenna VSWR

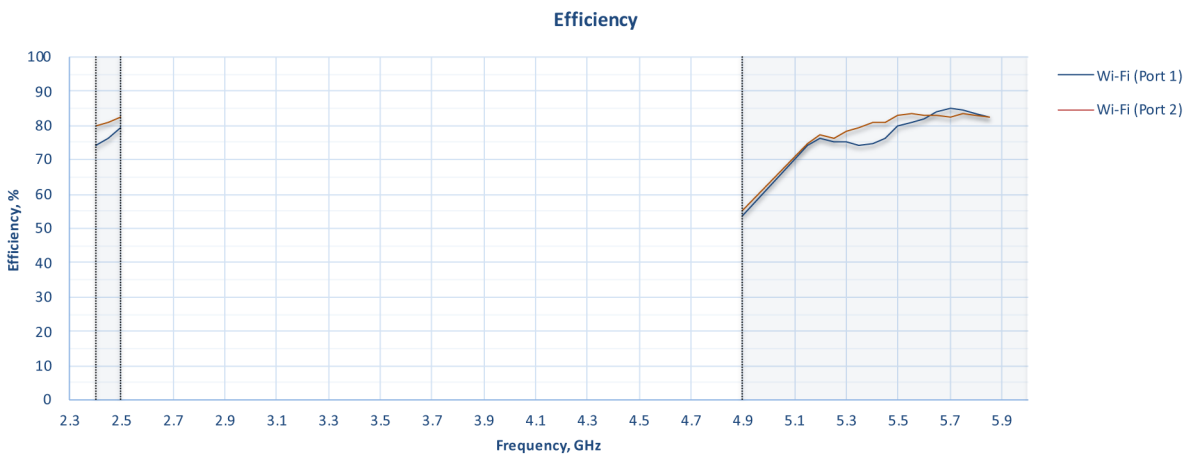


Graphs

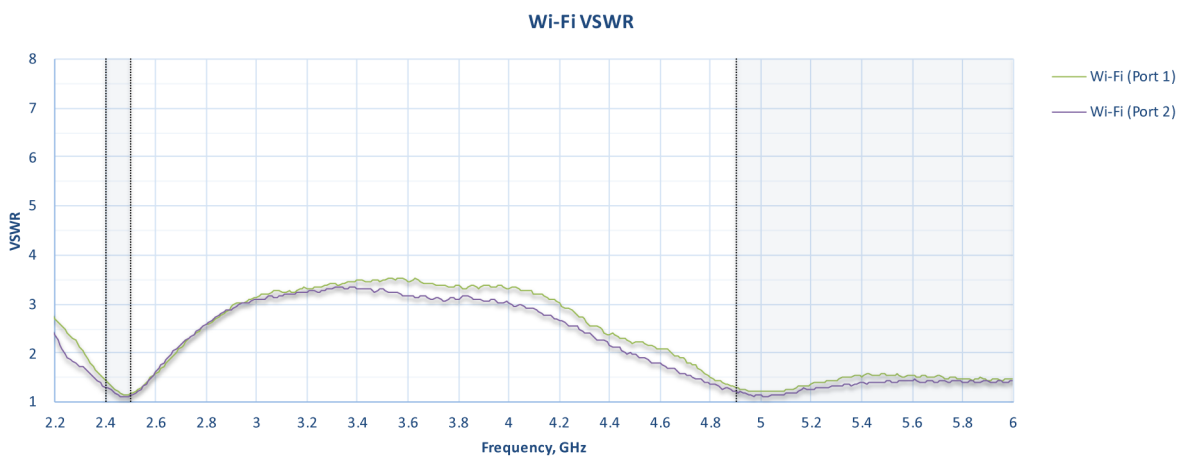
Wi-Fi Antenna Gain



Wi-Fi Antenna Efficiency

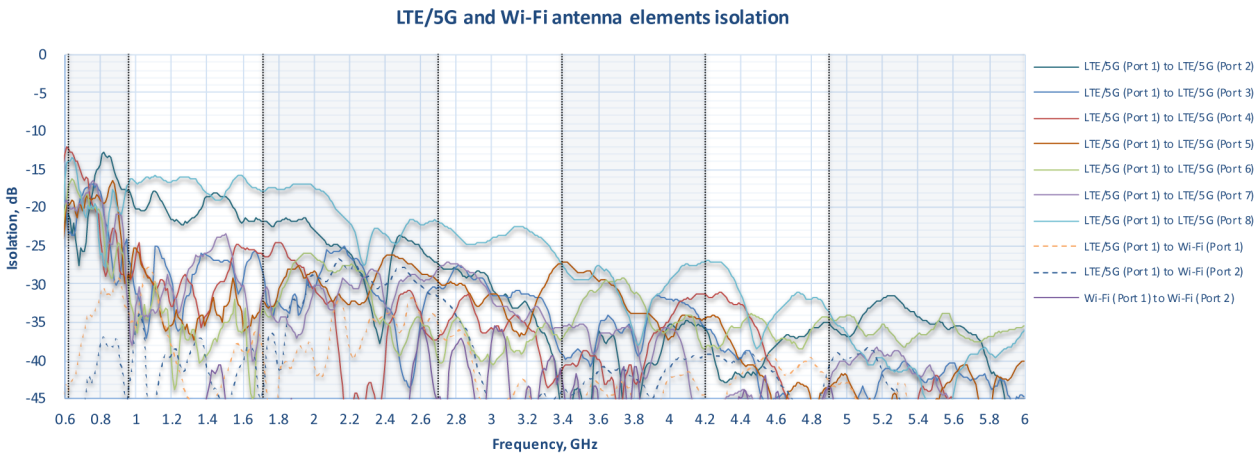


Wi-Fi Antenna VSWR

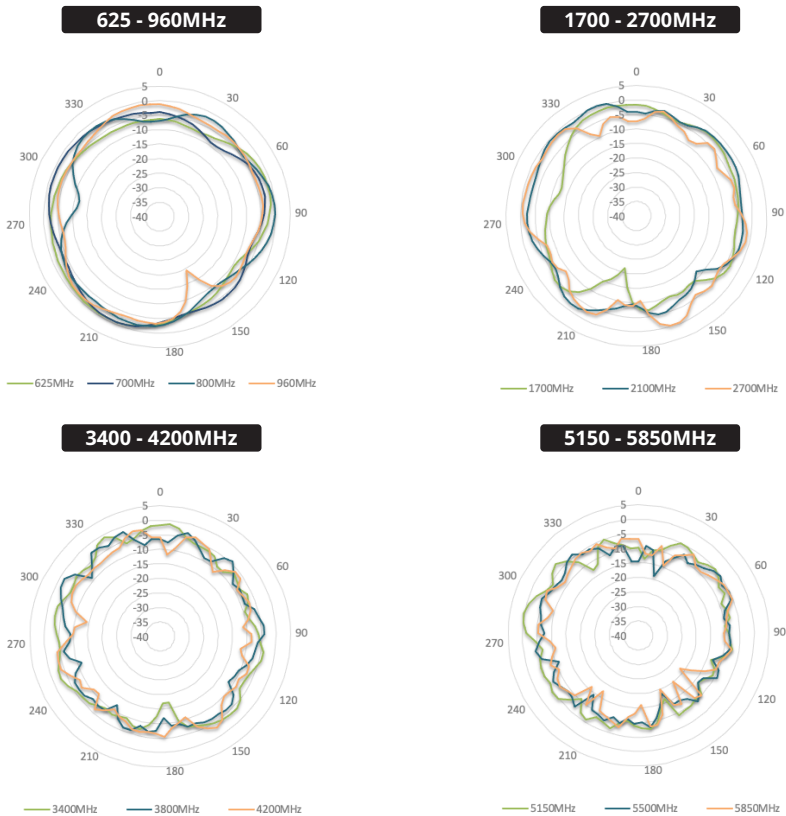


Graphs

LTE/5G & Wi-Fi Antenna Isolation

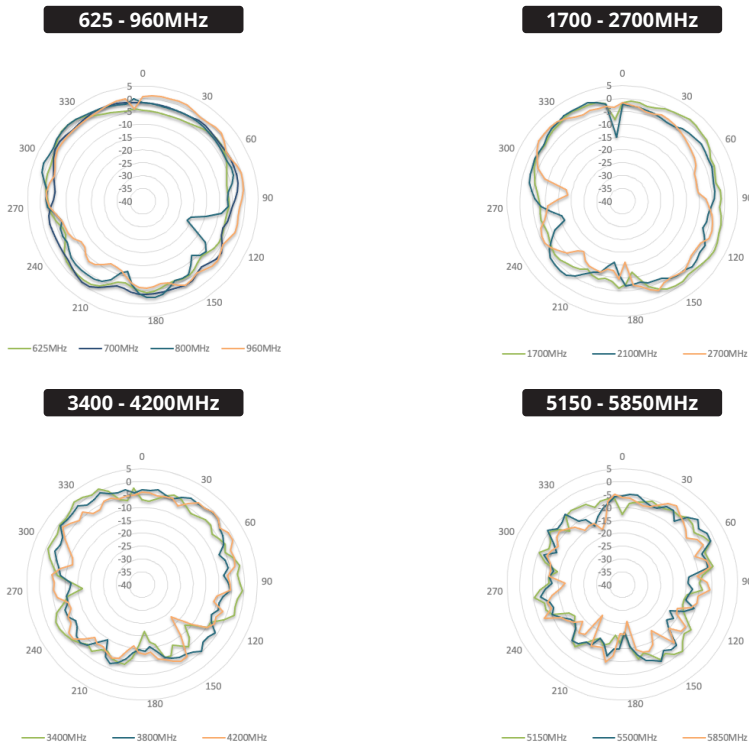


Radiation Pattern - LTE Radiation Patterns (Azimuth)

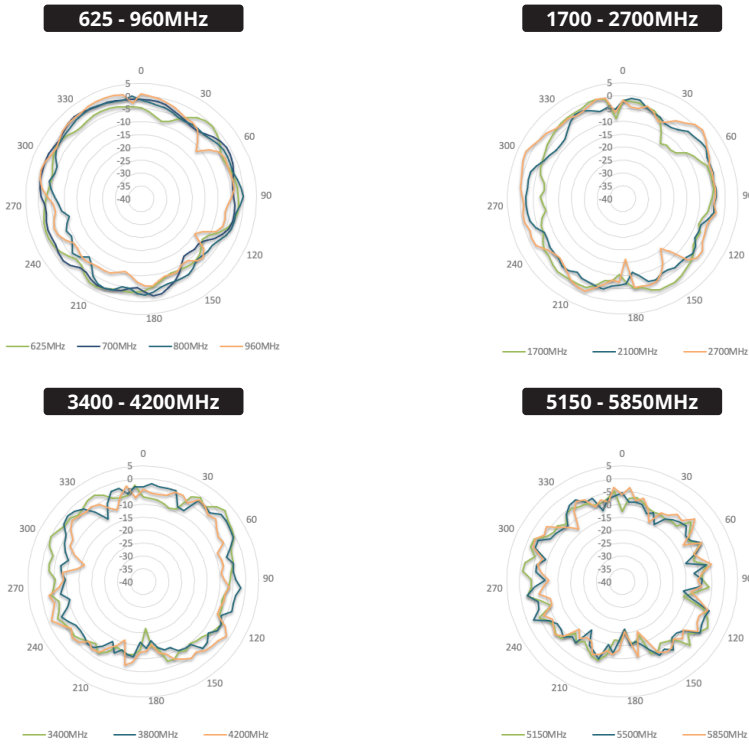


Graphs

Radiation Pattern - LTE Radiation Patterns (Elevation 1)

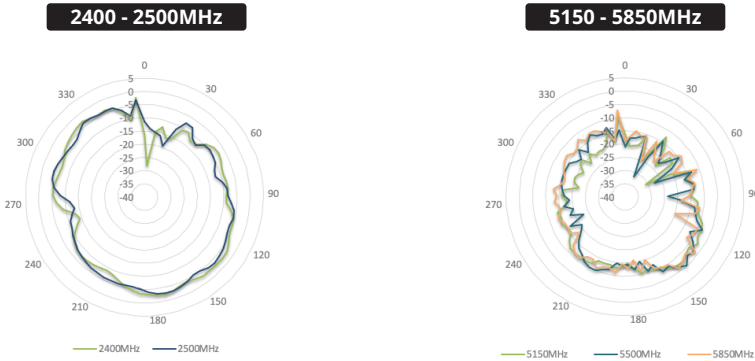


Radiation Pattern - LTE Radiation Patterns (Elevation 2)



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

