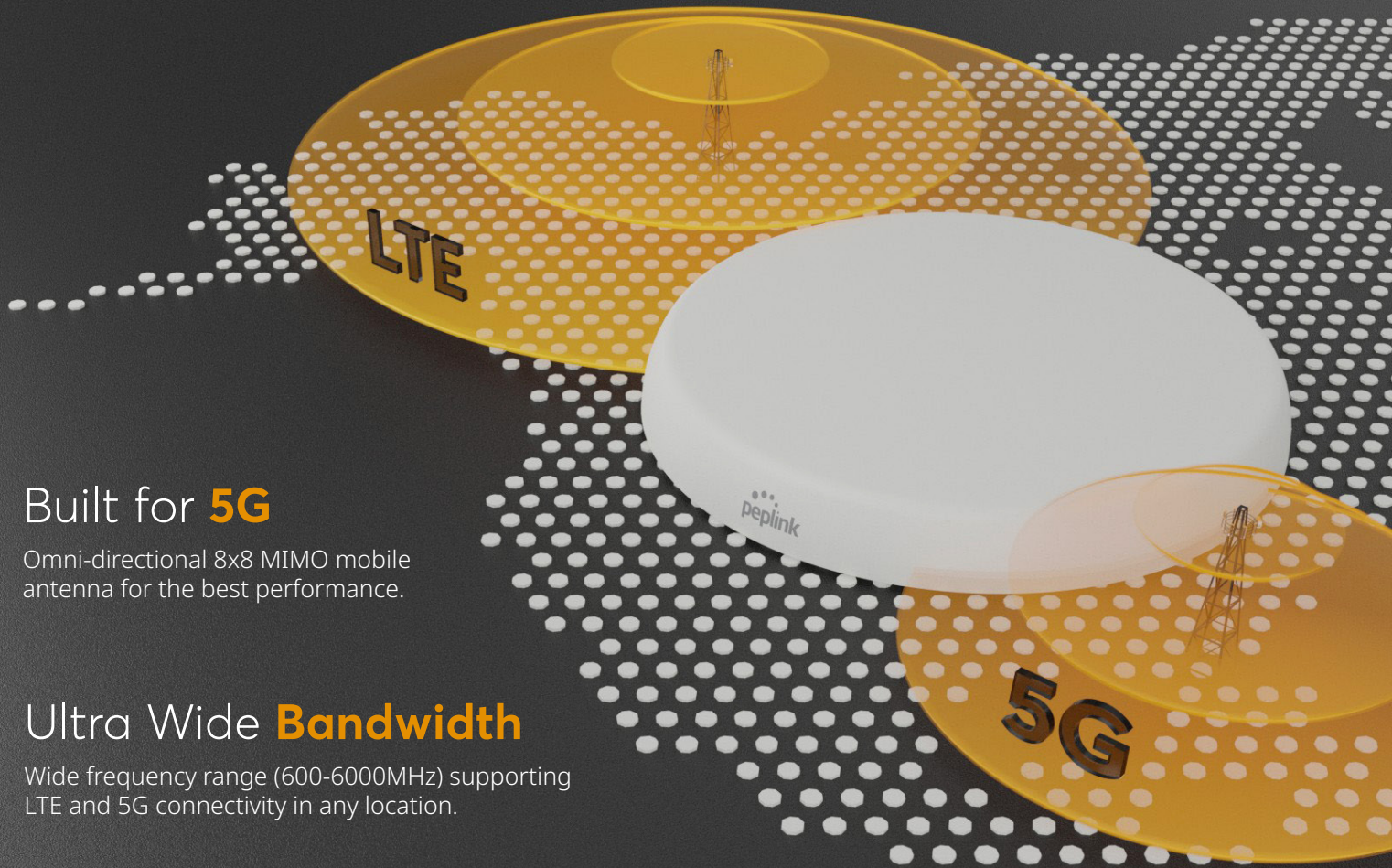


# Mobility 82G

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## 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.





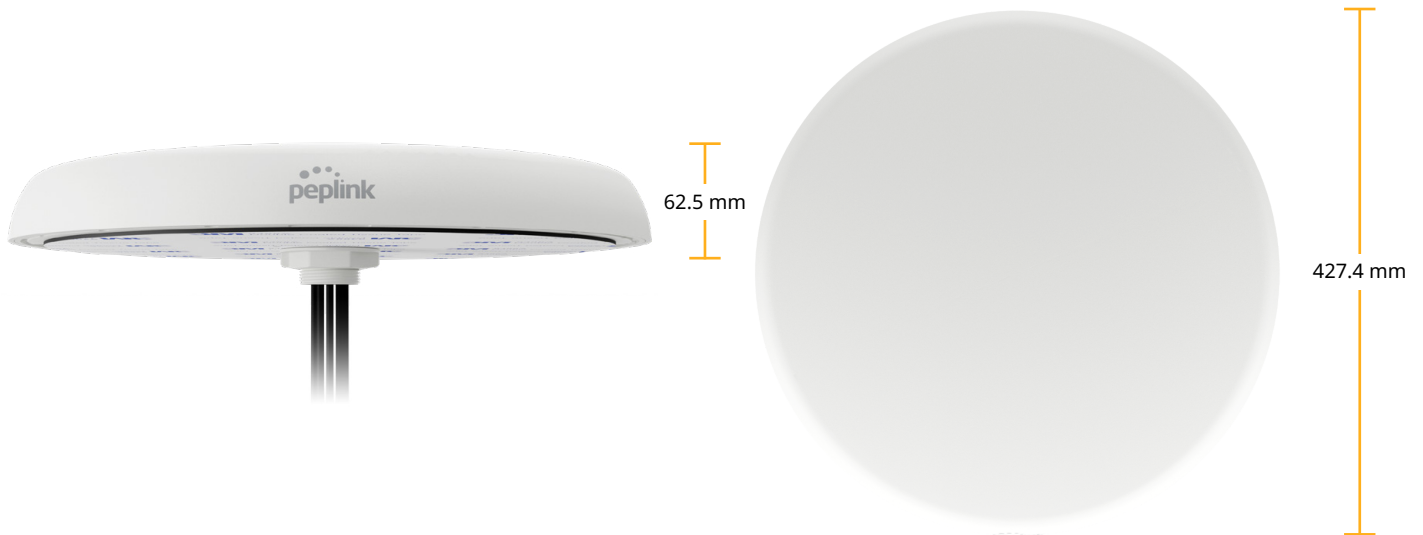
## Easy **Installation**

Surface, panel installation for various applications.



## Flexible **Applications**

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



## Specifications

Cellular		GPS	
<b>Antenna Elements</b>	8 elements	<b>Frequency Range</b>	1575-1602 MHz
<b>Peak Gain &amp; Frequencies</b>	5.4dBi: 617-960MHz 7.5dBi: 1400-2700MHz 8.1dBi: 3400-4200MHz 8.7dBi: 5000-6000MHz	<b>Peak Gain</b>	1.2 dBiC: 1575MHz 2.0 dBiC: 1602MHz
<b>VSWR</b>	< 2.0 over 95% of the band	<b>VSWR</b>	< 1.6
<b>Feed Power Handling</b>	10W	<b>Output Return Loss</b>	-10dB max
<b>Input Impedance</b>	50 Ω	<b>Gain: LNA</b>	29 ± 3 dB
<b>Polarisation</b>	Linear	<b>Operating Voltage</b>	3.3 V
		<b>Power Consumption</b>	6 ±2 mA at 3.3 V
WiFi		Cable (LTE/5G, Wi-Fi)	
<b>Antenna Elements</b>	2 elements 6.0dBi: 2400-2500MHz 7.4dBi: 5000-6000MHz	<b>Type</b>	CFD-200
<b>VSWR</b>	< 2.0	<b>Loss</b>	0.33 dB/m @ 900 MHz 0.49 dB/m @ 2000 MHz 0.55 dB/m @ 2500 MHz 0.87 dB/m @ 5800 MHz
<b>Feed Power Handling</b>	10W	<b>Diameter</b>	0.2 in. / 5.0 mm
<b>Input Impedance</b>	50 Ω	<b>Jacket</b>	Half matt PVC, UV resistant
<b>Polarisation</b>	Linear	<b>Termination</b>	QMA male, SMA male, RP-SMA male (Wi-Fi)

Specifications are subject to change without notice.

## Specifications

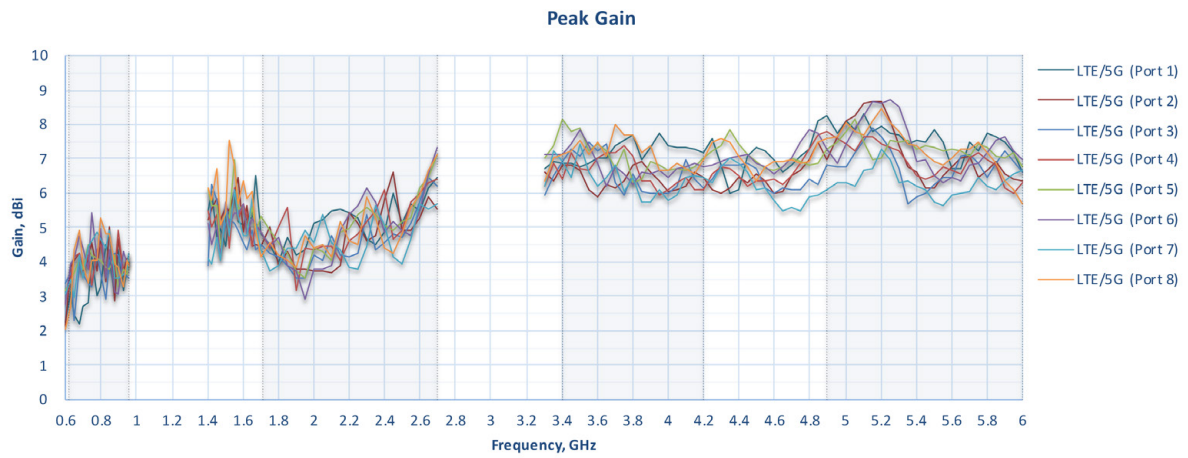
Cable (GPS)		Package Contents	
<b>Type</b>	RG-174	<b>Antenna</b>	MB-82G
<b>Loss</b>	3.4 dB/m @ 1000 MHz 4.9 dB/m @ 1800 MHz	<b>Accessories</b>	Long and short thread Double sided 3M adhesive pad - Diameter: 15.2" / 386 mm - Thickness: 0.08" / 2 mm
<b>Diameter</b>	0.1" / 2.7mm		
<b>Jacket</b>	Half matt PVC, UV resistant		
<b>Termination</b>	QMA male, SMA male		
Mounting		Environmental, Compliance	
<b>Supported Types</b>	Panel, surface (with additional mount) magnetic (with additional mount)	<b>IP Rating</b>	IP67
<b>Mounting Hole</b>	1.7" / 43mm	<b>Operating Temperature</b>	-40° - 176°F / -40° - 80°C
<b>Max Panel Thickness</b>	up to 6.7" / 170mm	<b>Storage Temperature</b>	-40° - 176°F / -40° - 80°C
Mechanical		<b>Compliance</b>	ROHS, REACH, WEEE
<b>Product Dimensions</b>	2.46" / 62.5 mm - Height (spigot not included) 16.83" / 427.4 mm - Diameter	<b>Wind Survivability</b>	137mph (220km/h)
<b>Packaged Dimensions</b>	20.16" x 20.09" x 9.06" 512x510x230mm	<b>Enclosure Flammability</b>	UL 94 HB
<b>Radome Material</b>	UV stable PC	<b>Cable Flammability</b>	UL 758 (VW-1)
		<b>UV Resistance</b>	UL 746C (F1 long-term UV exposure)
		<b>Salt Spray</b>	MIL-STD 810F/ASTM 8117

## Ordering Information

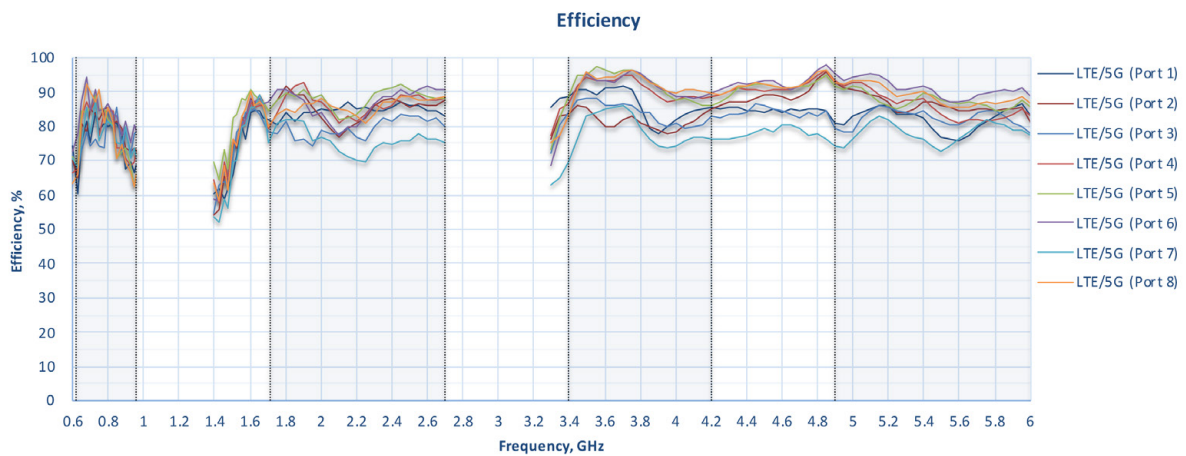
Product Code	Description
ANT-MB-82G-S-W-6	8xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, SMA (Cellular, GPS), RP-SMA (Wi-Fi), White, 6.5 ft / 2m
ANT-MB-82G-Q-W-6	8xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP67, QMA (Cellular, GPS), RP-SMA (Wi-Fi), White, 6.5 ft / 2m
ACW-667	Surface mount
ACW-668	Surface mount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

## Graphs

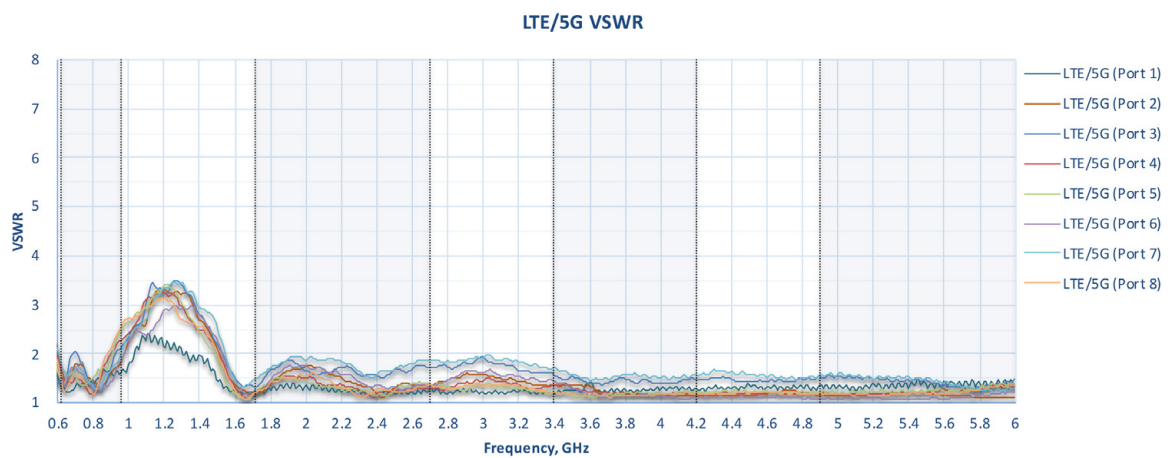
### LTE/5G Antenna Gain



### LTE/5G Antenna Efficiency

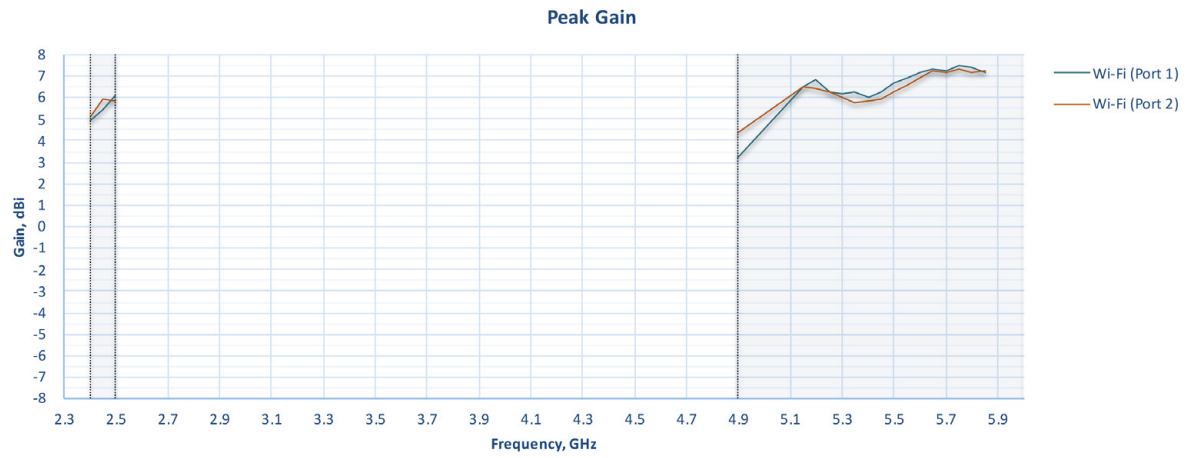


### LTE/5G Antenna VSWR

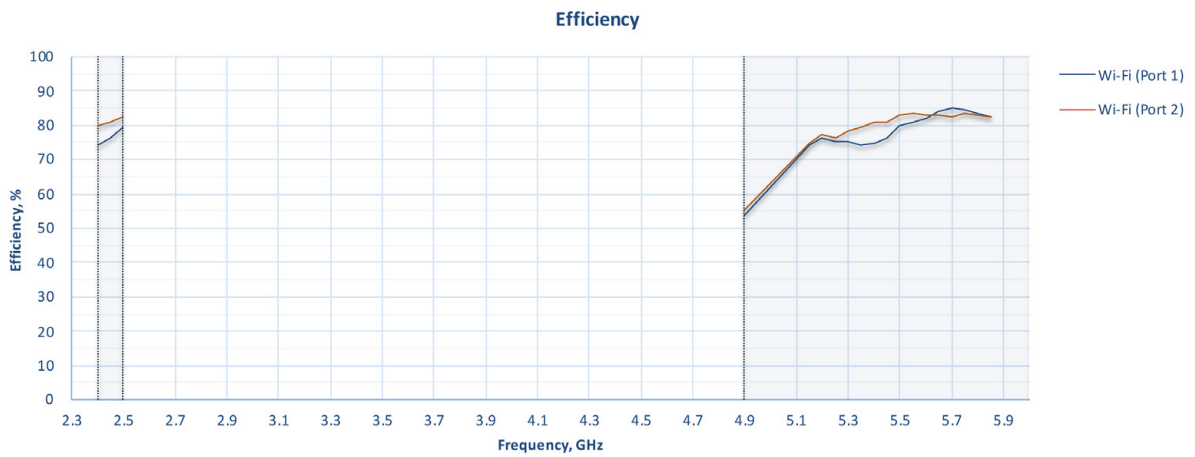


## Graphs

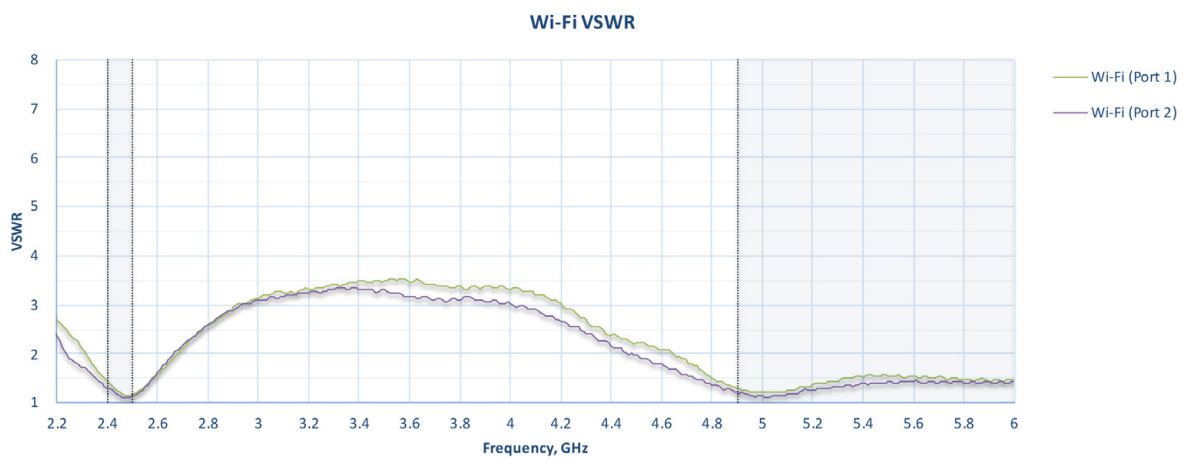
### Wi-Fi Antenna Gain



### Wi-Fi Antenna Efficiency



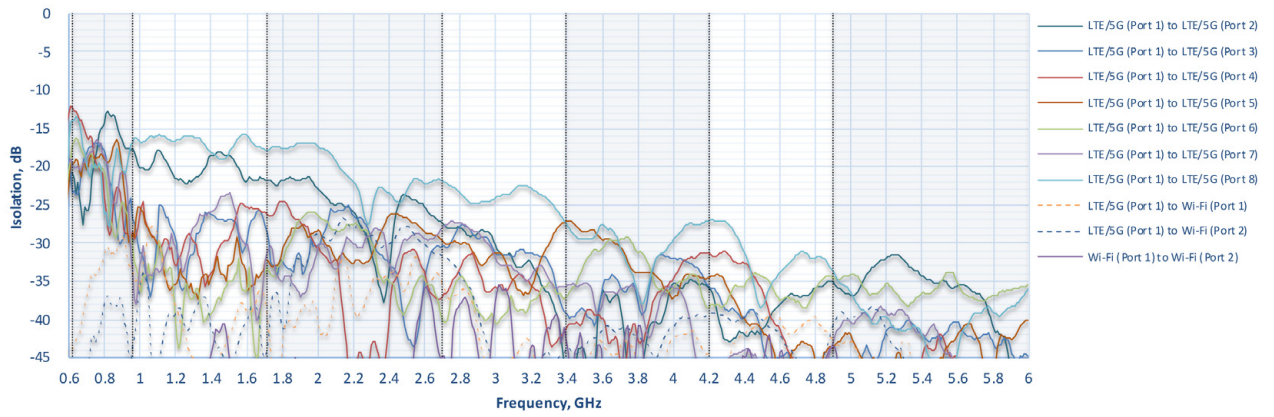
### Wi-Fi Antenna VSWR



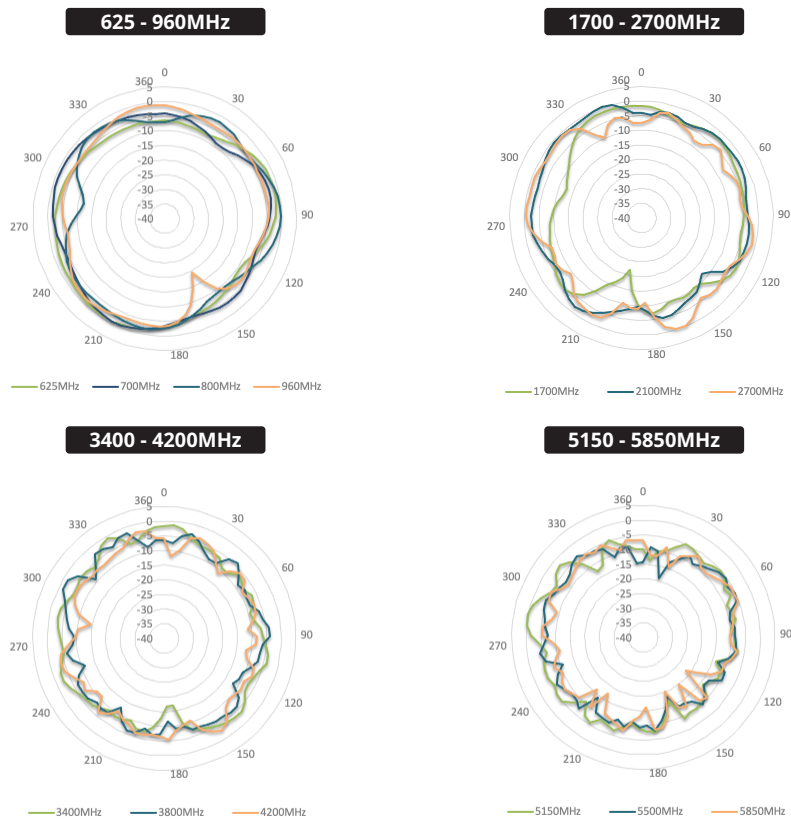
## Graphs

### LTE/5G & Wi-Fi Antenna Isolation

LTE/5G and Wi-Fi antenna elements isolation



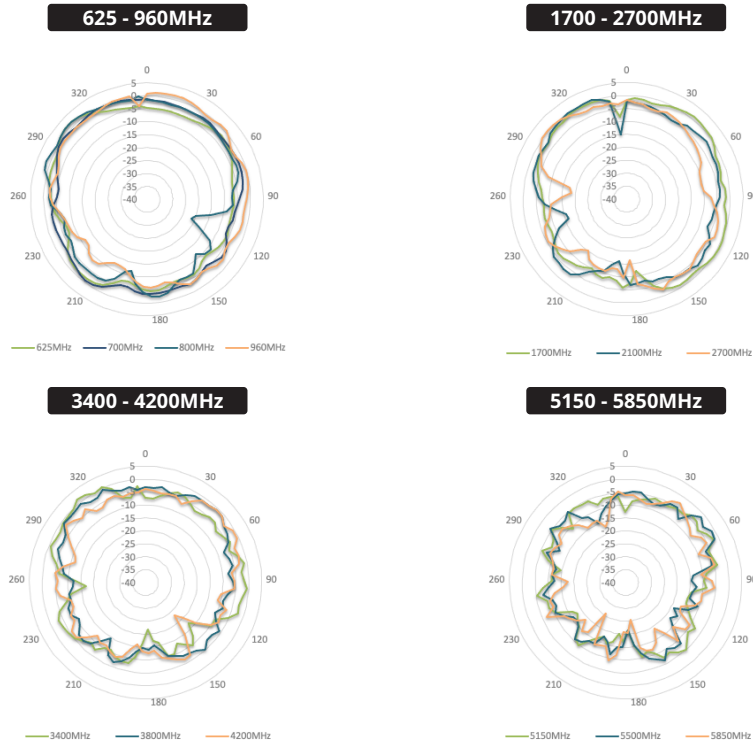
### Radiation Pattern - LTE Radiation Patterns (Azimuth)



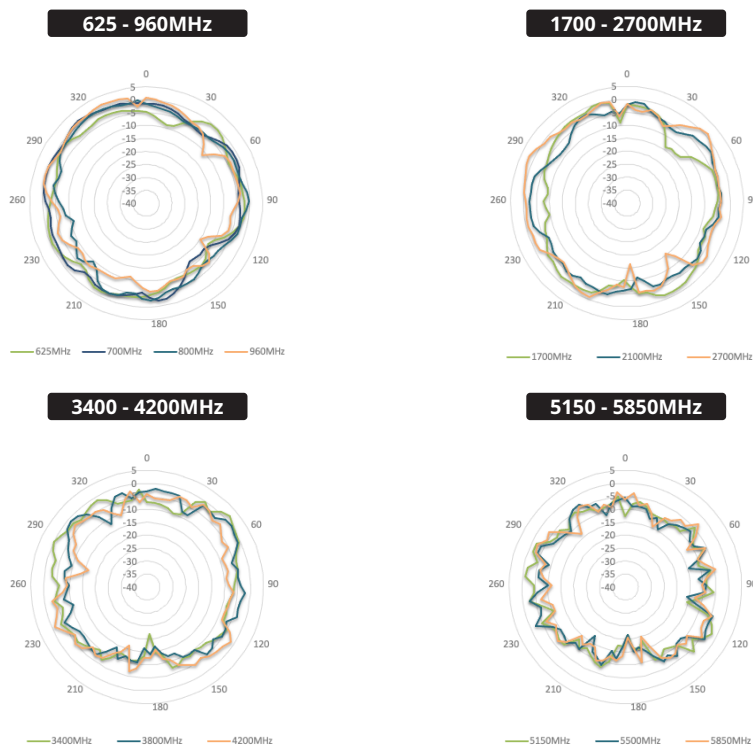


## Graphs

### 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

