



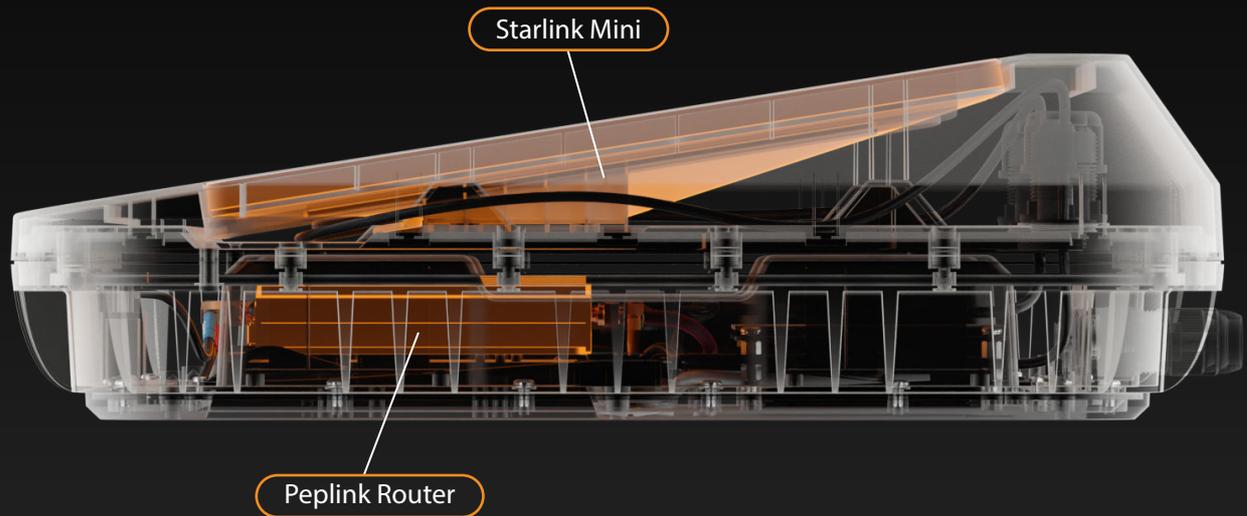
# Antenna MAX S

Maximum Synergy

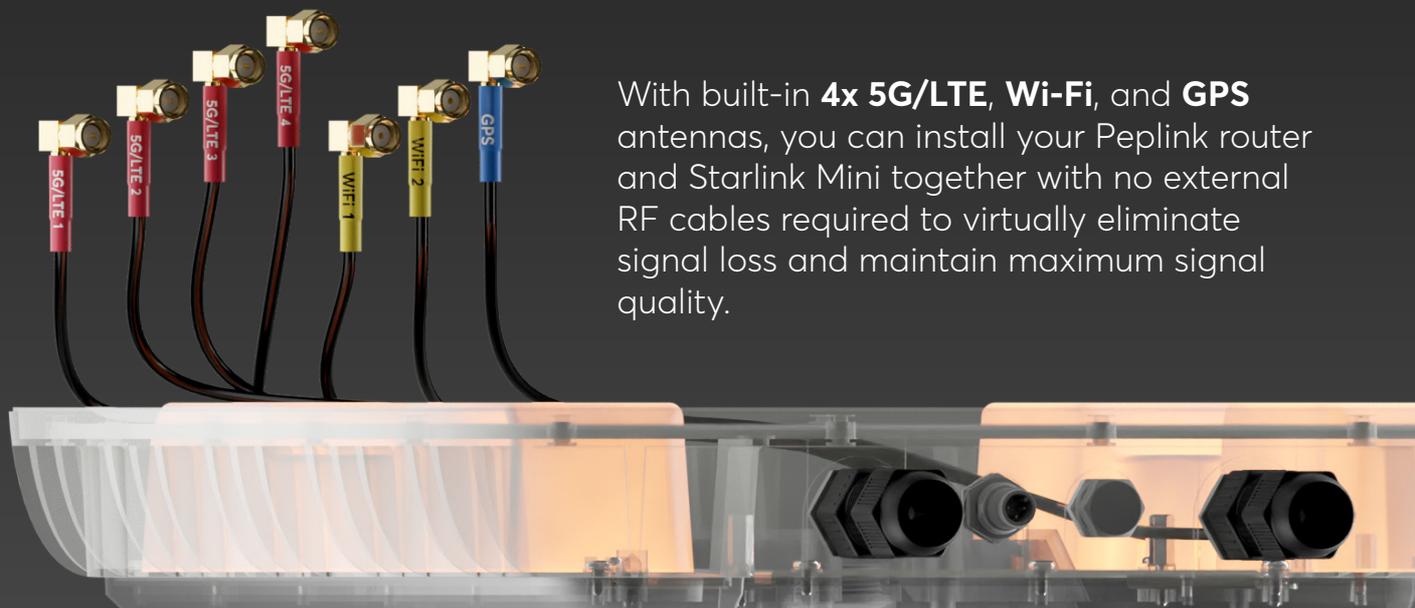
Integrated Antenna Enclosure for Peplink and Starlink

## Integration to the MAX

One enclosure. One install. All performance.



The **Antenna MAX S** takes hybrid connectivity to the MAX by combining the power of satellite and cellular in a single, integrated enclosure.



With built-in **4x 5G/LTE**, **Wi-Fi**, and **GPS** antennas, you can install your Peplink router and Starlink Mini together with no external RF cables required to virtually eliminate signal loss and maintain maximum signal quality.

## peplink × STARLINK

Use Peplink's SpeedFusion to seamlessly bond or failover between Starlink and 5G, ensuring continuous, high-quality connectivity even in areas with physical obstructions.



## Durability to the MAX

The Antenna MAX S is engineered for outdoor longevity, built with UV- and salt-resistant plastics, fitted with a metal base for heat dissipation, designed to withstand high wind loads for fixed or mobile applications.



## Convenience to the MAX

Supporting both Power over Ethernet (PoE) and DC input, the Antenna MAX S gives you flexibility in how you deploy.

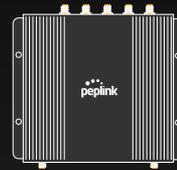
Use the top cover's watertight clasp system to conveniently secure the Peplink router of your choice:



BR1 Mini Series <sup>1</sup>



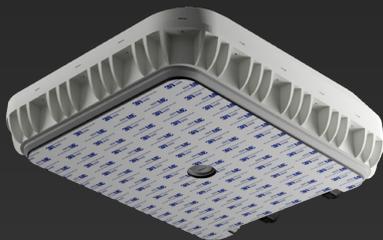
Transit Duo Pro



BR1 Pro 5G / CAT20

<sup>1</sup> BR1 Mini series: BR1 Mini, BR1 Mini Core, BR1 Mini 5G, BR1 Mini M2M.

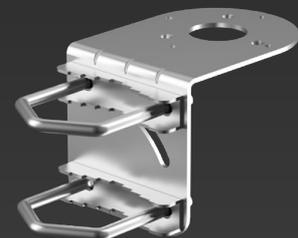
Mount it your way with a variety of installation options ideal for vehicles, rooftops, poles, or even custom rack systems.



Surface Mount



Deck Mount



Pole Mount

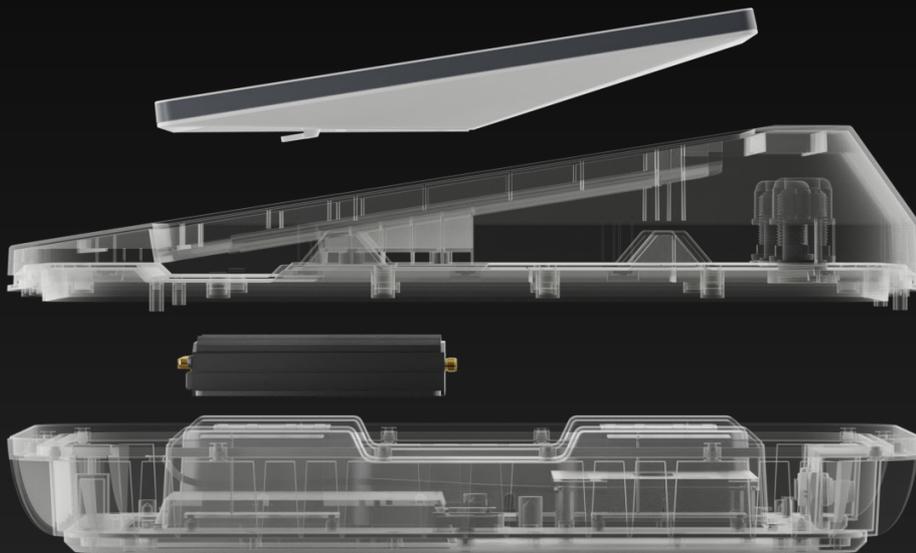


Magnetic Mount

Note: The deck and magnetic mount kits is **NOT included** in the package.

## Value to the MAX

Designed for performance and priced for practicality, the Antenna MAX S delivers an all-in-one Starlink and cellular solution at a price that makes sense for businesses, fleets, and integrators alike.



Whether you're operating from a remote location, working in an RV, or maintaining mission-critical connections on the move, it saves time, space, and cost - without compromising performance.





## Specification

### Cellular

<b>Antenna Elements</b>	4 elements
<b>Peak Gain &amp; Frequencies</b>	5.7dBi: 617-960MHz 6.8dBi: 1410-2700MHz 8.9dBi: 3300-4400MHz 7.3dBi: 5000-6000MHz
<b>VSWR</b>	< 2.5 over 95% of the band
<b>Feed Power Handling</b>	10W
<b>Input Impedance</b>	50 $\Omega$
<b>Polarisation</b>	Linear
<b>Connectors</b>	Right angle SMA male

### Wi-Fi

<b>Antenna Elements</b>	2 elements
<b>Peak Gain &amp; Frequencies</b>	6.3dBi: 2400-2500MHz 7.4dBi: 5000-6000MHz
<b>VSWR</b>	< 3.0
<b>Feed Power Handling</b>	10W
<b>Input Impedance</b>	50 $\Omega$
<b>Polarisation</b>	Linear
<b>Connectors</b>	Right angle RP-SMA male

### GPS

<b>Frequency Range</b>	1575-1602 MHz
<b>Peak Gain</b>	0.9dBi@1575MHz 0.8dBi@1602MHz
<b>VSWR</b>	< 2.0
<b>Gain: LNA</b>	27 $\pm$ 3dB
<b>Noise Figure</b>	2.5dB
<b>Operating Voltage</b>	3.3V
<b>Power Consumption</b>	10 $\pm$ 3.0mA
<b>Connectors</b>	Right angle SMA male

Specifications are subject to change without notice.

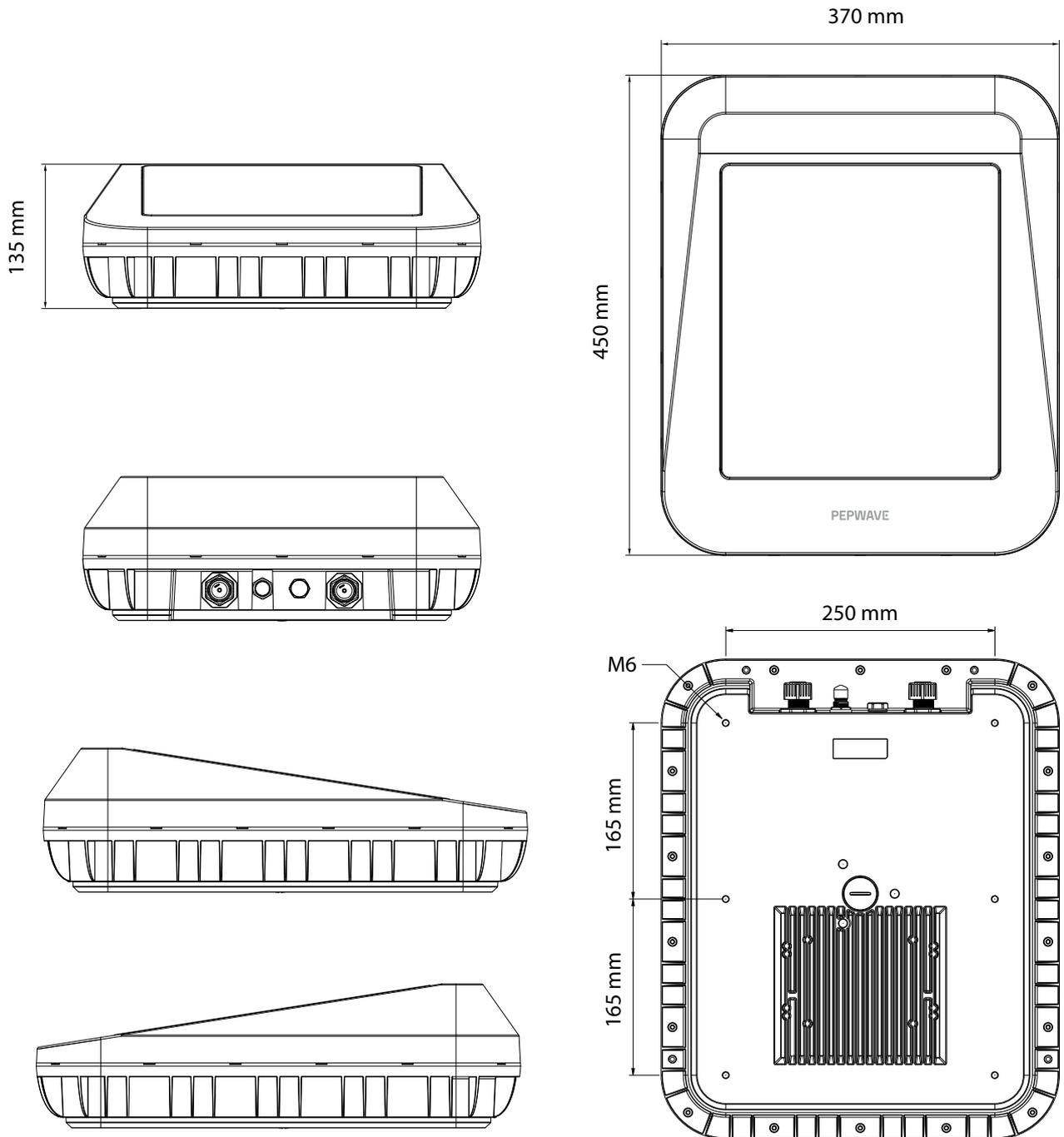
## Specification

Mounting		Mechanical	
<b>Supported Types</b>	Surface, Pole, Magnet, Vehicle roof racks or Custom mounts	<b>Product Dimensions</b>	17.6" / 448 mm - Length 14.5" / 368 mm - Width 5.3" / 135 mm - Height
Package Contents		<b>Packaged Dimensions</b>	585 x 456 x 185 mm / 23.03" x 17.95" x 7.28"
<b>Package Contents</b>	Antenna MAX S L-Mount Set Power supply/splitter mounting set Router fixation screws 3pcs M25 cable glands 1pcs M25 hole plug 2pcs RJ45 glands 2pcs RJ45 caps 2pcs Hole plug 1pcs DC Cable Connector 1pcs Starlink power cable (35.4" / 900 mm) 1pcs Starlink Ethernet cable (35.4" / 900 mm) 1pcs Double sided 3M adhesive pad 1pcs Ethernet cable (7.87" / 200 mm) 1pcs DC cable (3.93" / 100 mm)	<b>Enclosure Material</b>	Bottom plate - Aluminium Other parts - UV stable PC
Environmental, Compliance			
<b>IP Rating</b>	IP67	<b>Compliance</b>	ROHS, REACH, WEEE
<b>Operating Temperature</b>	-40° - 176°F / -40° - 80°C	<b>Wind survivability</b>	TBD
<b>Storage Temperature</b>	-40° - 176°F / -40° - 80°C	<b>Enclosure Flammability</b>	UL 94 V-0 (1.47 mm)
		<b>UV resistance</b>	UL 746C (F1 long-term UV exposure)
		<b>Salt Spray</b>	MIL-STD 810F/ASTM 8117

## Ordering Information

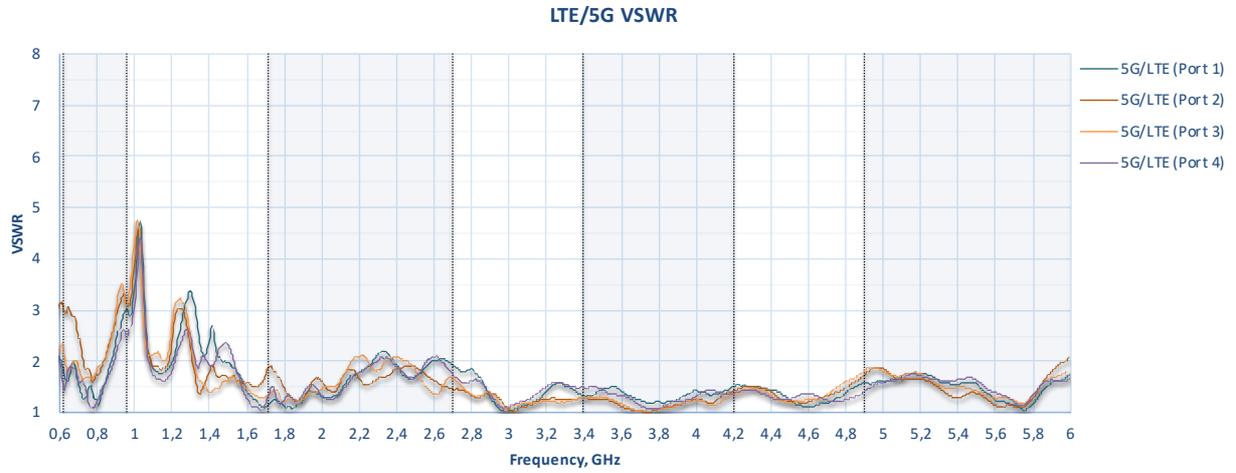
Product Code	Description
ANT-MAX-S	Enclosure with integrated 4x 5G/LTE, 2x Wi-Fi, GPS antennas for Peplink routers and Starlink Mini bundle solution.

## Technical Drawing

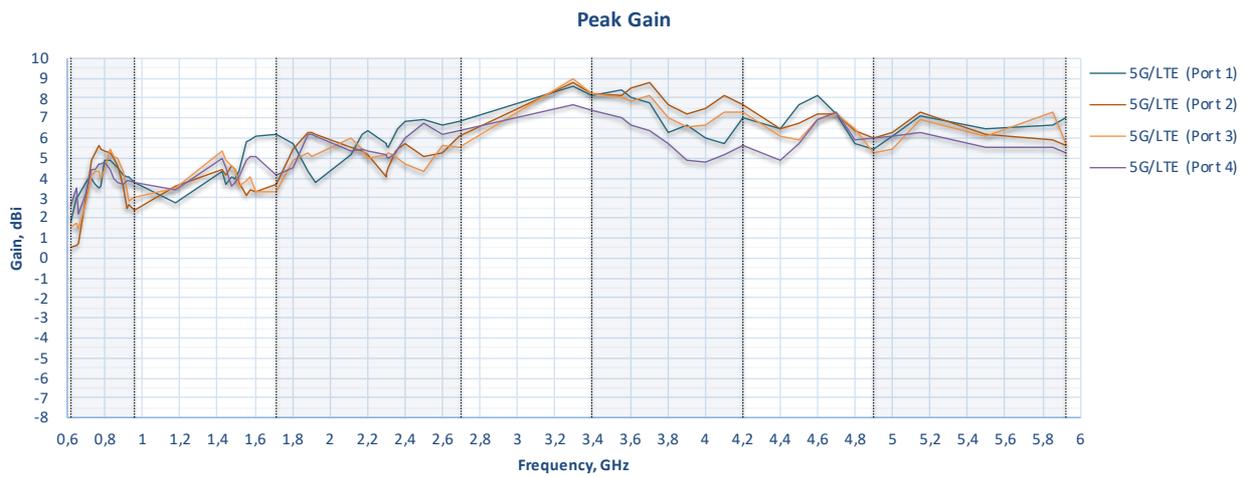


## Cellular Antenna Performance

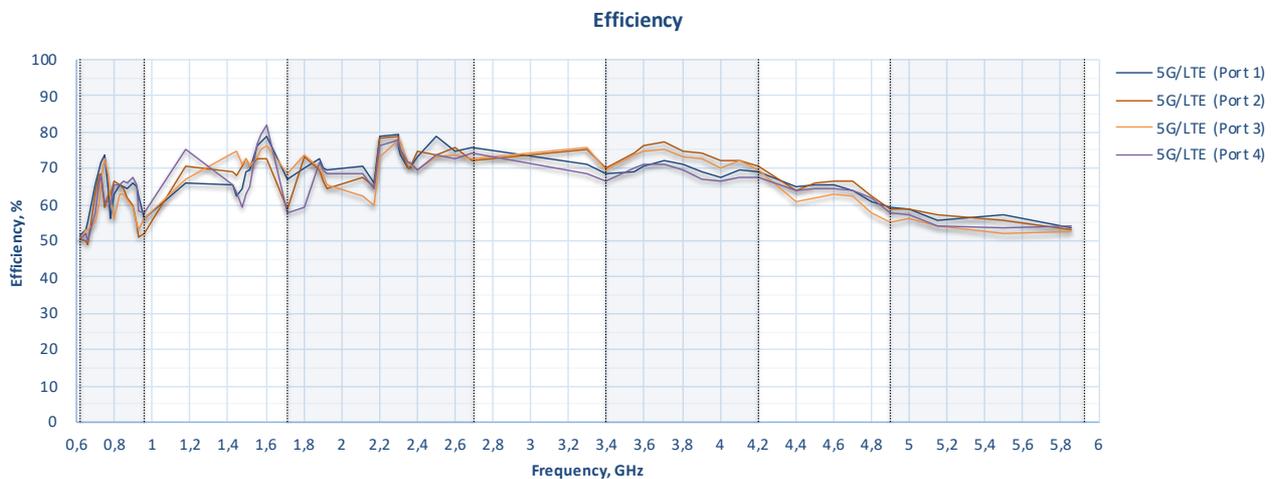
### Cellular Antenna VSWR



### Cellular Antenna Gain



### Cellular Antenna Efficiency

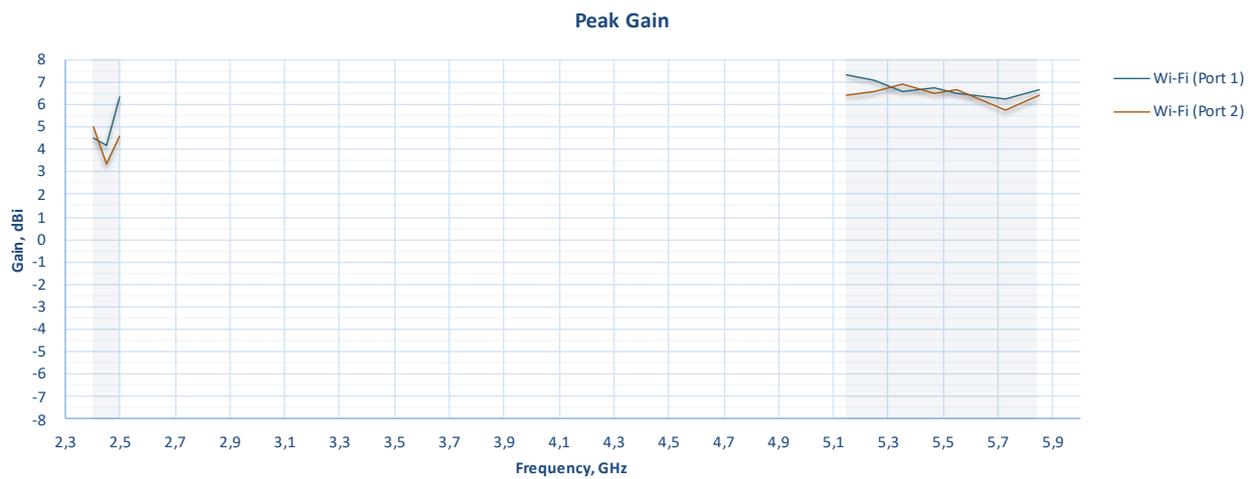


## Wi-Fi Antenna Performance

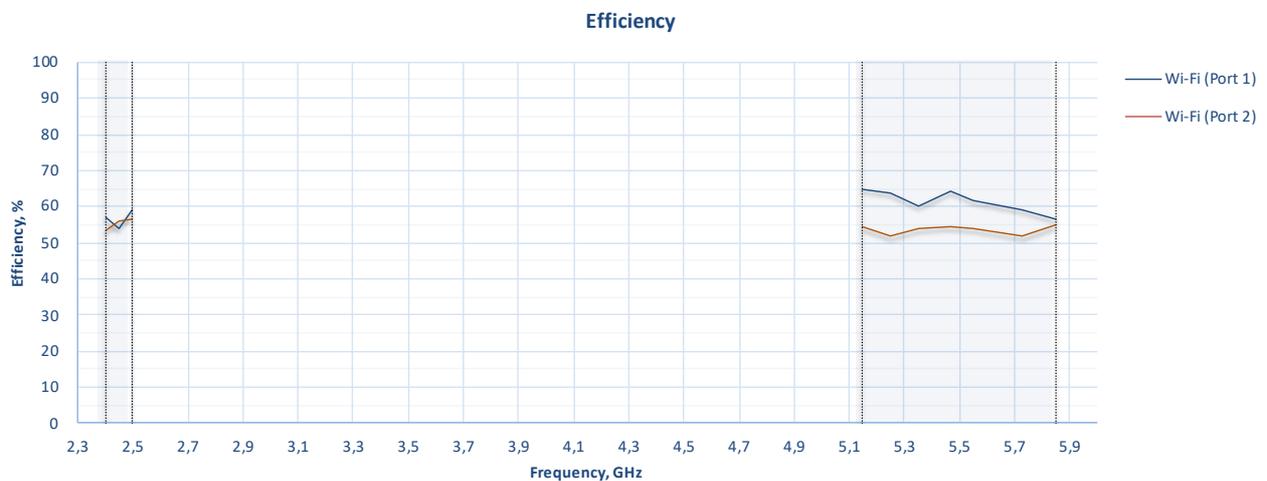
### Wi-Fi Antenna VSWR



### Wi-Fi Antenna Gain

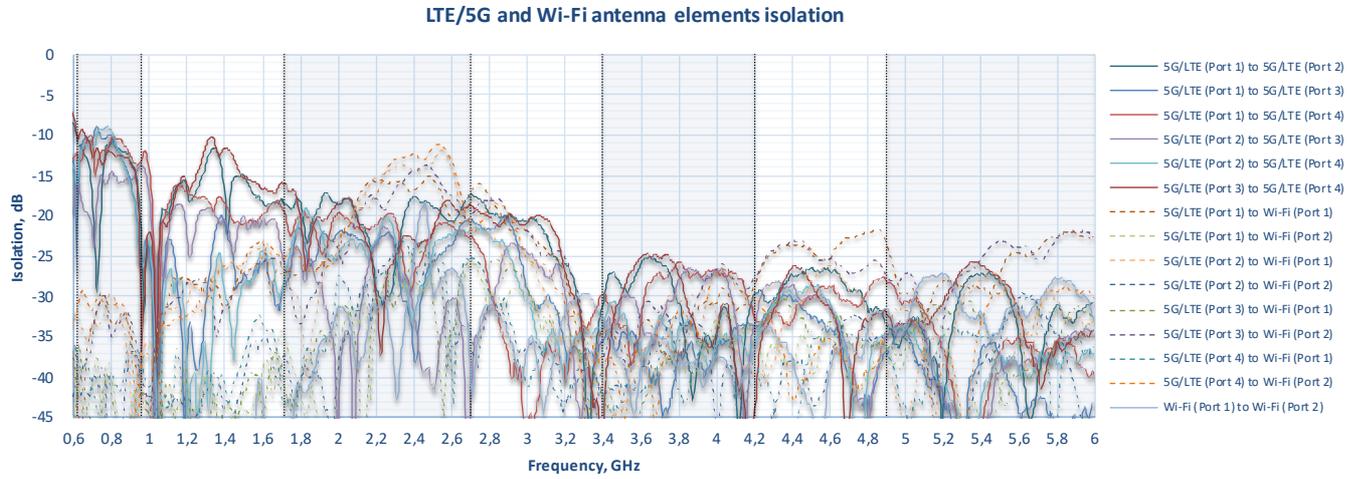


### Wi-Fi Antenna Efficiency



## Cellular & Wi-Fi Antenna Performance

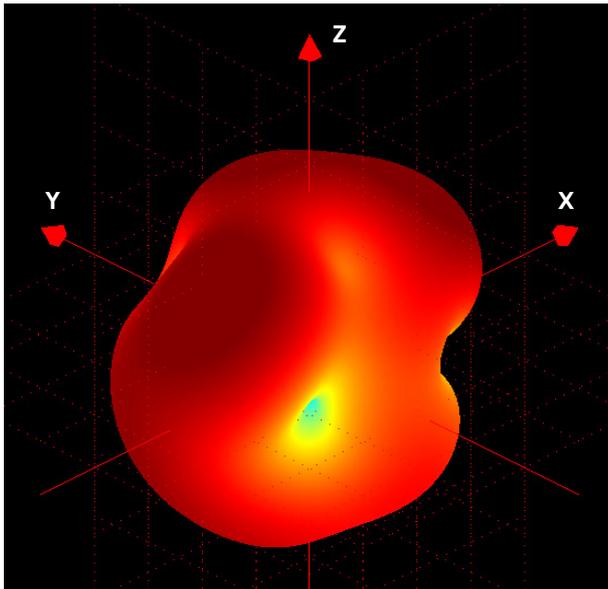
### Cellular & Wi-Fi Antenna Isolation



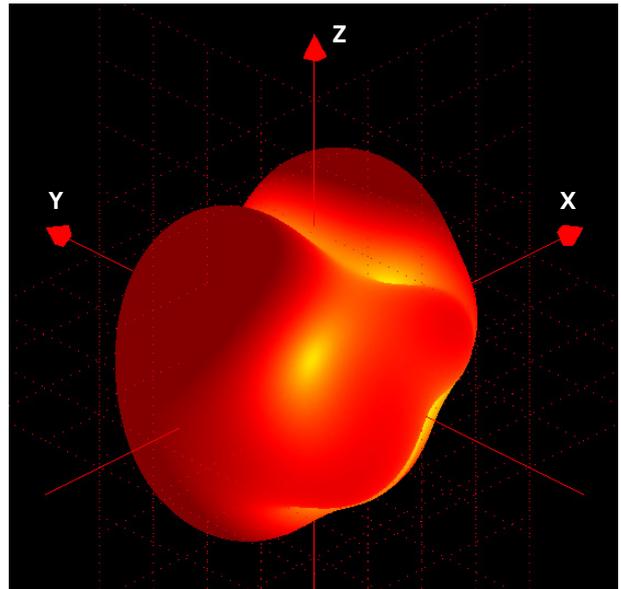
## Cellular & Wi-Fi Antenna Performance

Typical Radiation Pattern

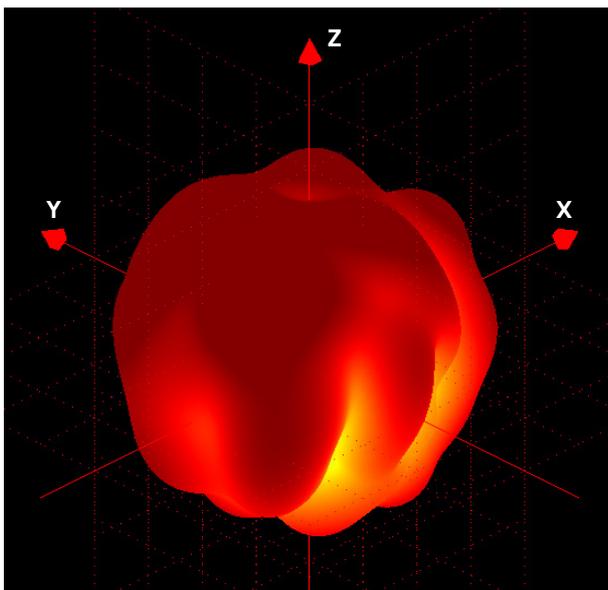
617 MHz



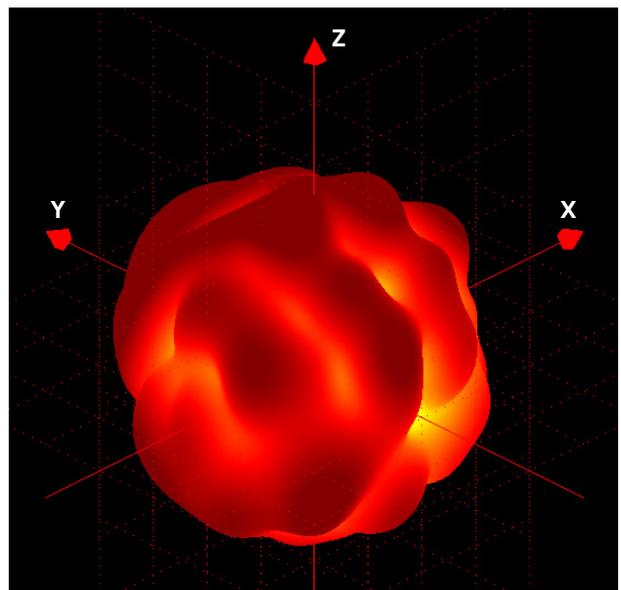
798 MHz



1496 MHz



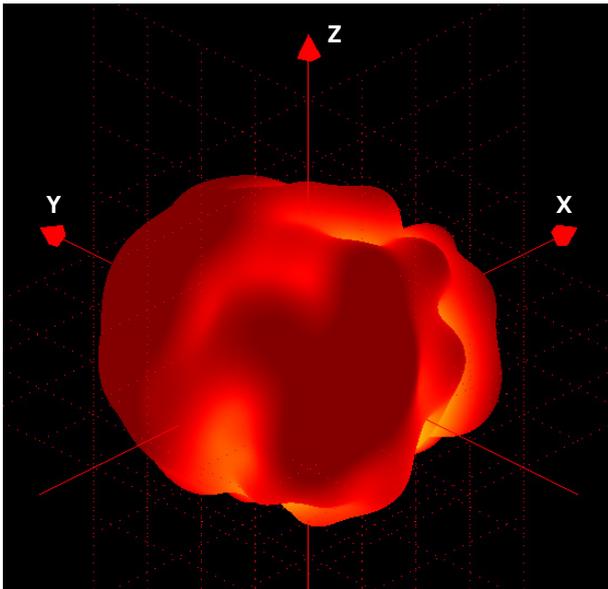
1805 MHz



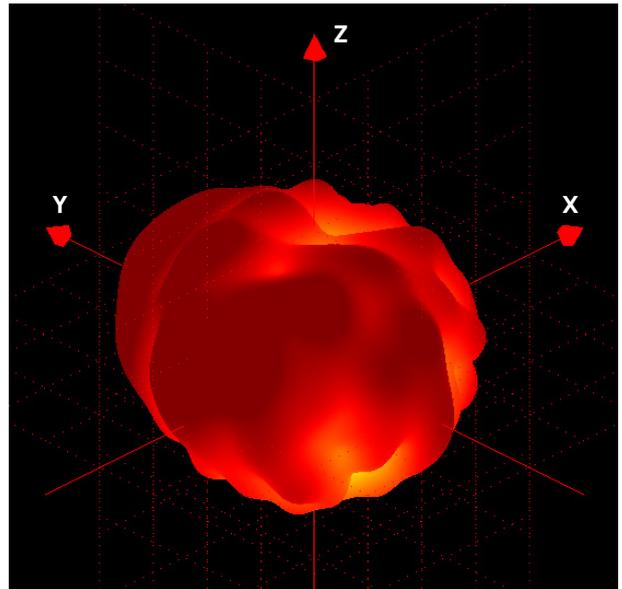
## Cellular & Wi-Fi Antenna Performance

Typical Radiation Pattern

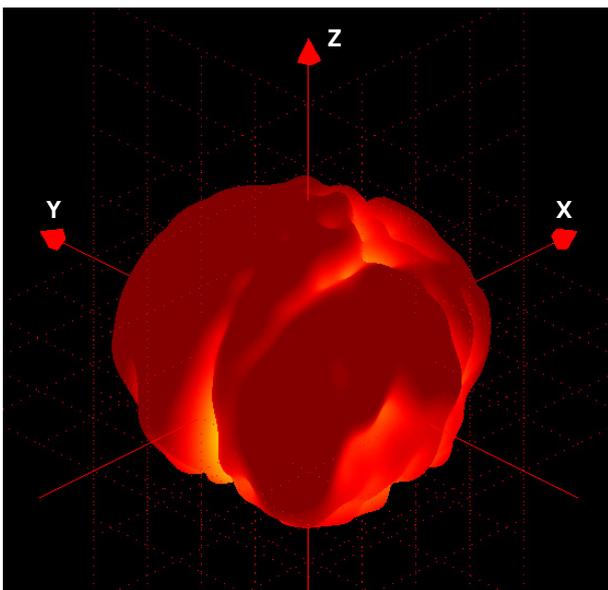
2110 MHz



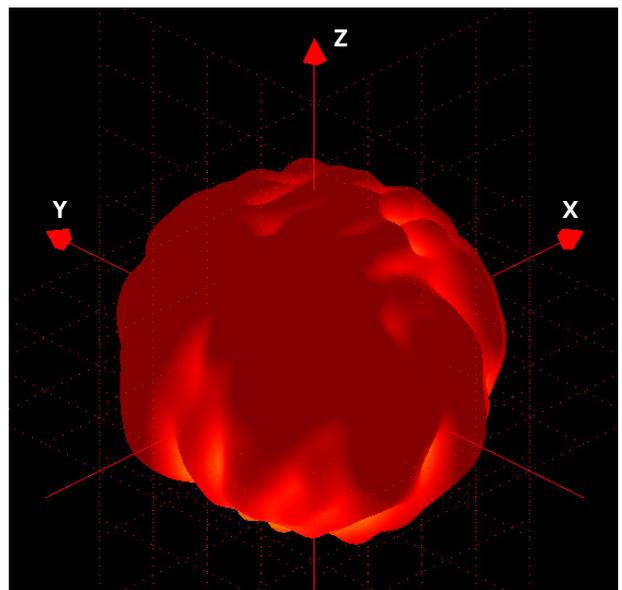
2400 MHz



3550 MHz

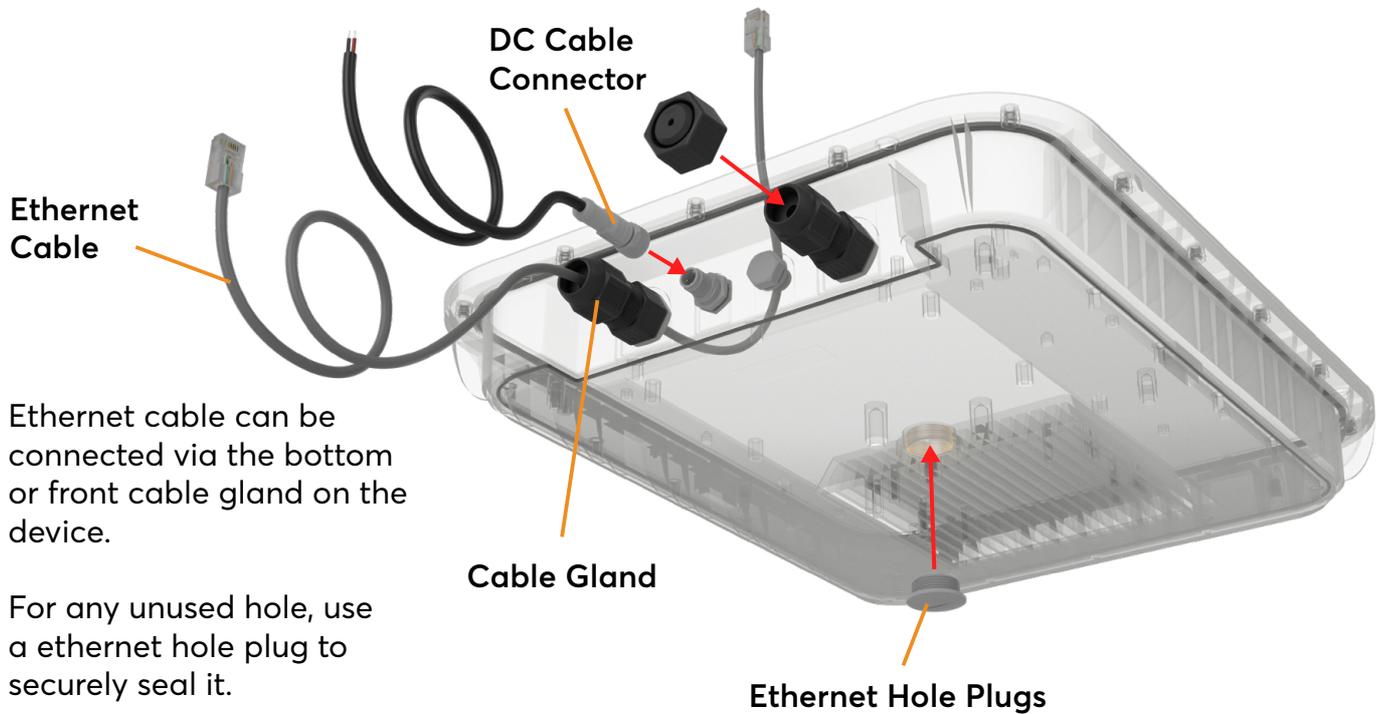


3800 MHz



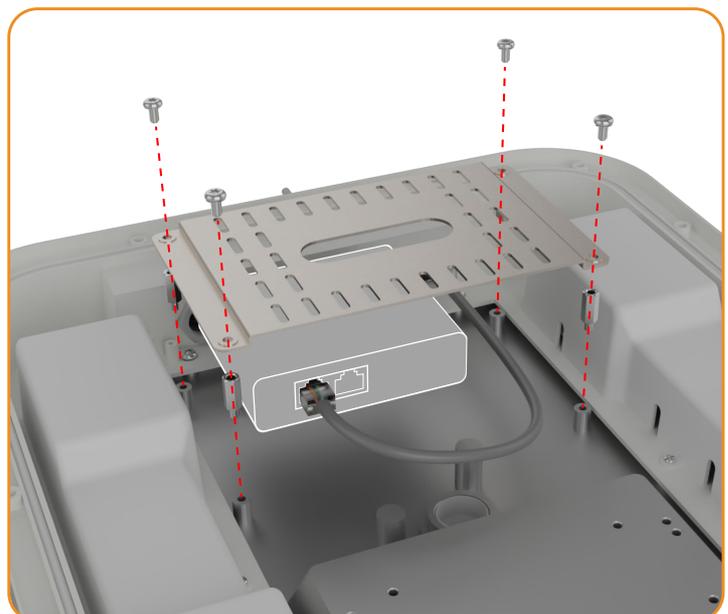
## Installation Recommendation

### Ethernet and DC Power Cable



### Install PoE Splitter

Depend your power option, connect the DC Power cable and Ethernet cable to the PoE Splitter\* and securely tighten the screws into the corresponding splitter mounting holes.

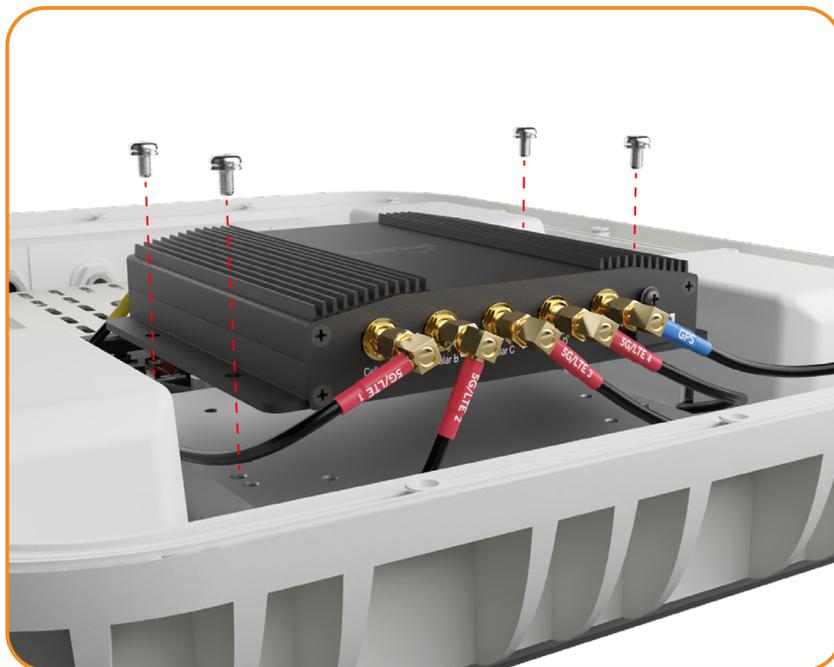


Note: The PoE Splitter is **NOT included** in the package.

## Installation Recommendation

### Install Router

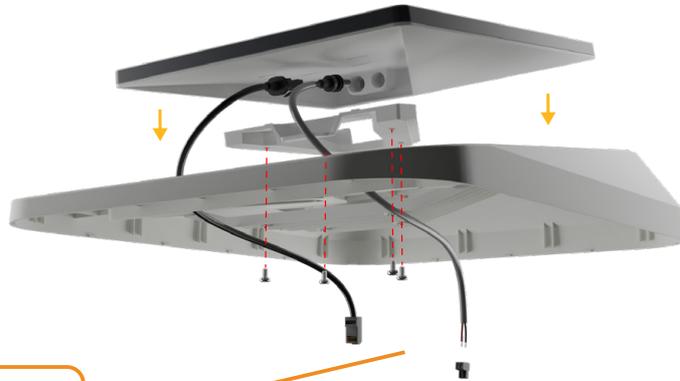
Connect the Cellular, Wi-Fi, and GPS antennas.



Then, connect the power and Ethernet cable to the PoE Splitter. After that, securely tighten the screws into the corresponding router mounting holes.

## Installation Recommendation

### Install Starlink Mini

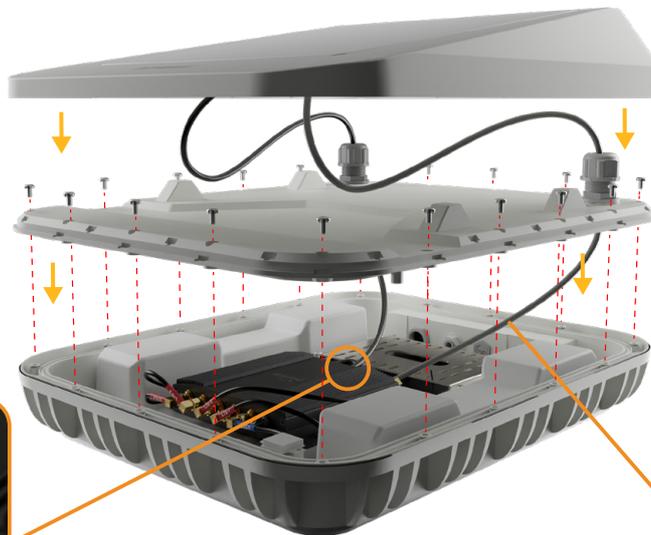


Connect the Ethernet and power cables to the Starlink Mini, and securely tighten the screws into the corresponding antenna mounting holes.



Insert the ends of the wires into the micro fit connector. Use a screwdriver to tighten the screw and secure the wires in place.

### Connect to the Router and Splitter



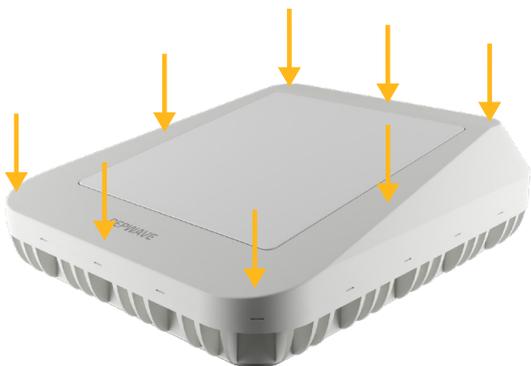
Starlink power cable can be connected via the cable gland to the PoE Splitter.



Connect the Ethernet cable to the WAN port of the router.

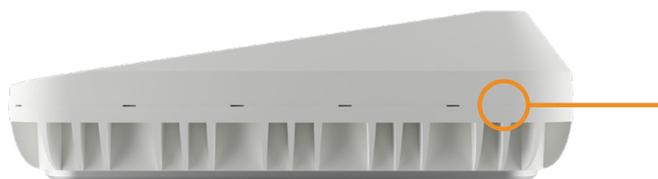
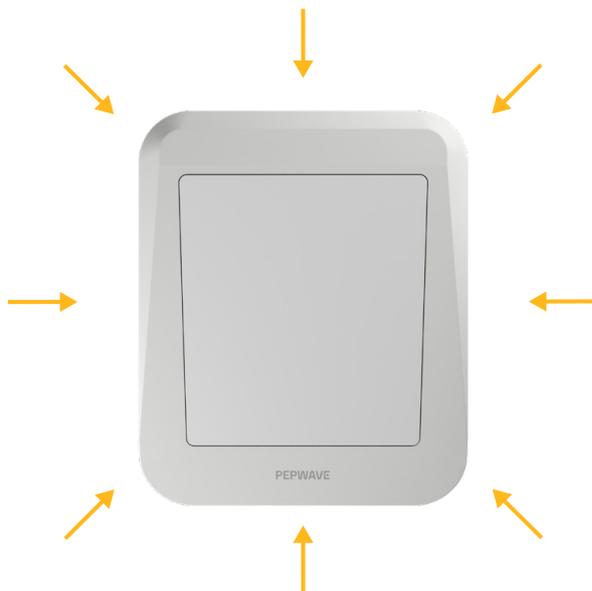
## Installation Recommendation

Ensure Proper Locking of the Upper Cover



To securely attach the upper cover, apply a downward force to lock it in place vertically.

Apply pressure from the side to ensure the lock is secured horizontally.



Verify that there is no gap between the upper and lower covers.

## Installation Recommendation

### Wall Mount



### Pole Mount



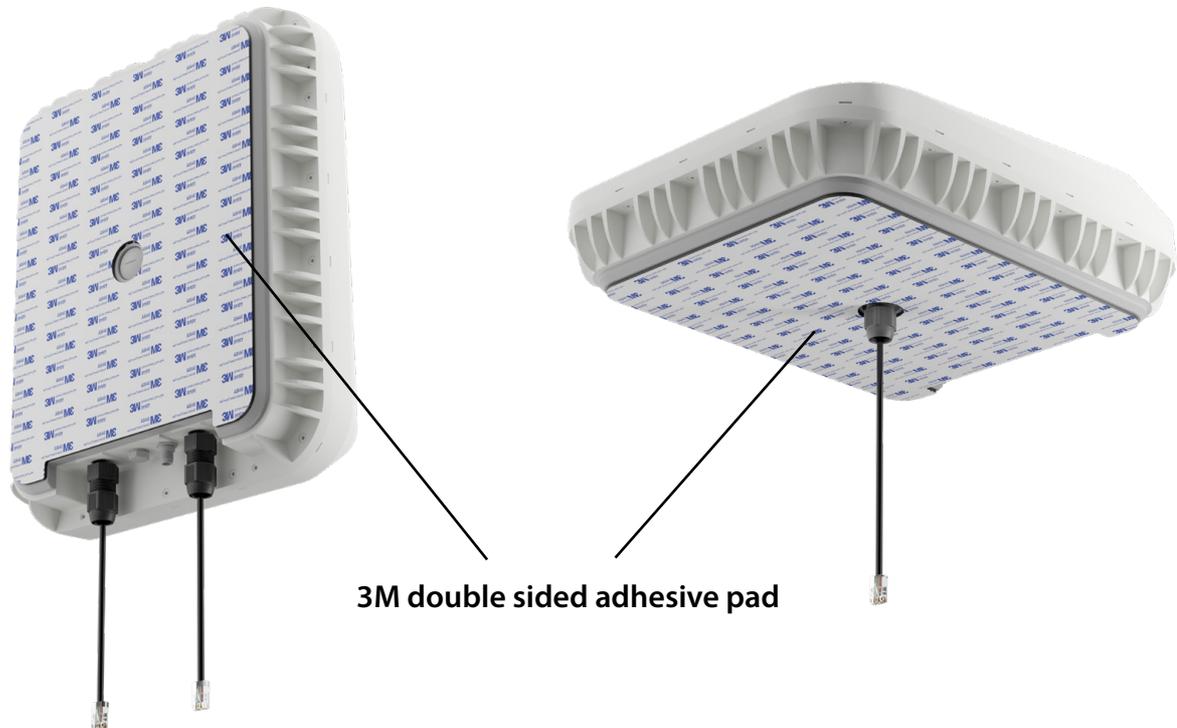
**Horizontal Pole**



**Vertical Pole**

## Installation Recommendation

### Surface Mount



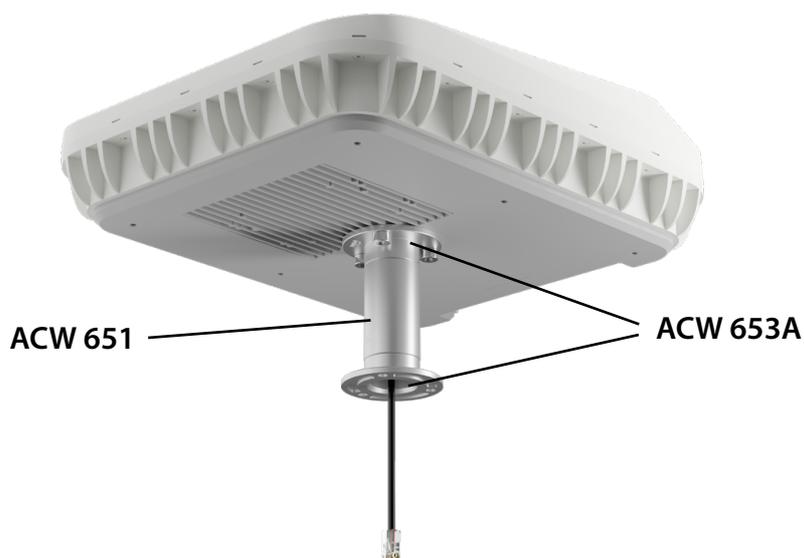
### Magnetic Mount



Note: The magnetic mount is **NOT included** in the package.

## Installation Recommendation

### Deck Mount



Note: The deck mount kit is **NOT included** in the package.

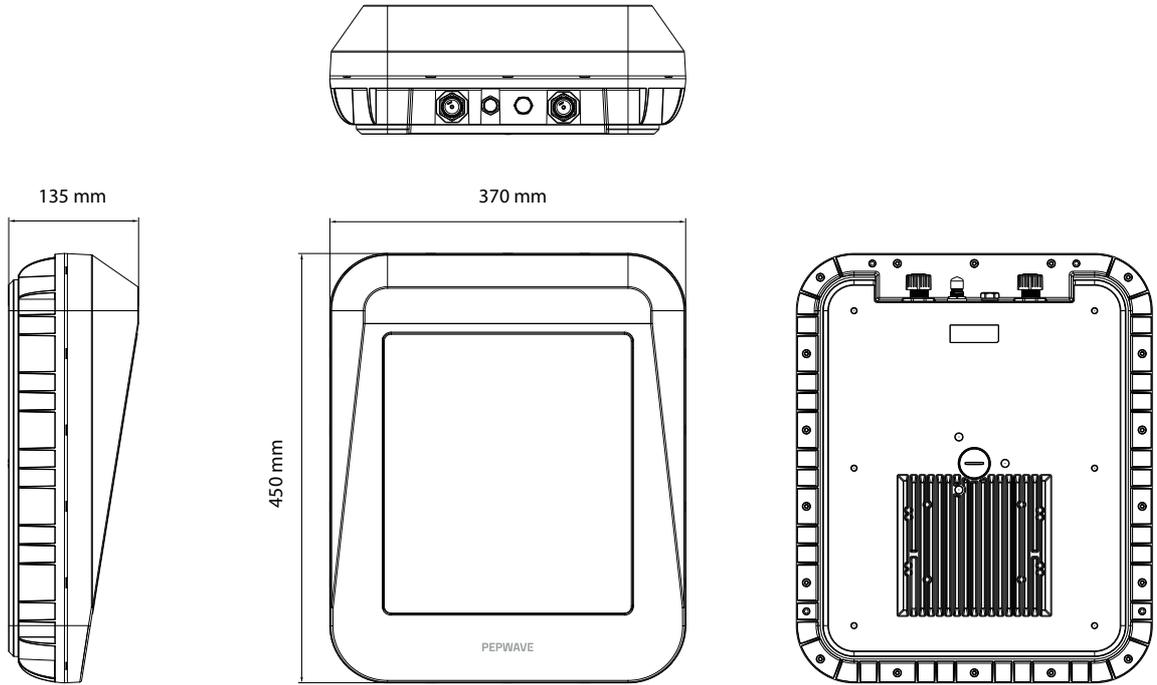
### Fasten the Antenna MAX S by using M6 screws

The holes labeled in orange are suitable for assembling components that use M6 screws. They can also be utilized to secure the Antenna MAX S to vehicle roof racks or custom mounts.



## Packing List Information

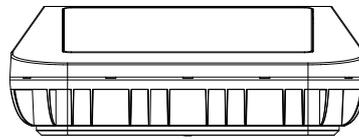
### Antenna



L-wrench  
(T20 M4\*8)



M25 hole plug  
(1 pcs)



RJ45 Caps  
(2 pcs)



DC Cable Connector  
(1 pcs)



Bolt  
(28 pcs, T20 M4xL8)  
Cover



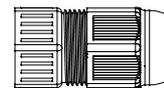
Bolt  
(4 pcs, T20 M4xL8)  
PoE



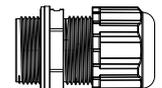
M4 Spring Washer  
(4 pcs)



M4 HEX Standoff Screw  
(4 pcs)

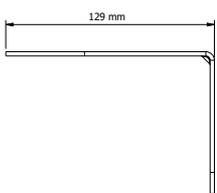


RJ45 Gland  
(2 pcs)

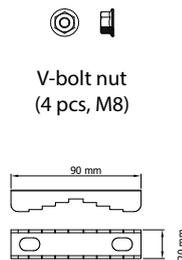
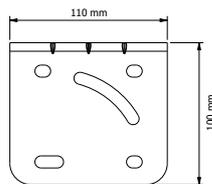


M25 Cable Gland  
(3 pcs)

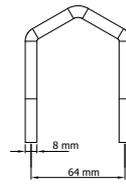
### L-Mount Mount Set



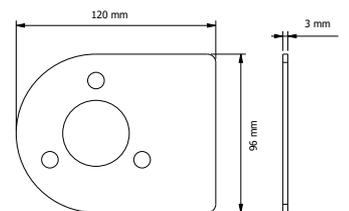
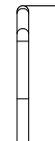
L-Mount



Bracket  
(2 pcs)



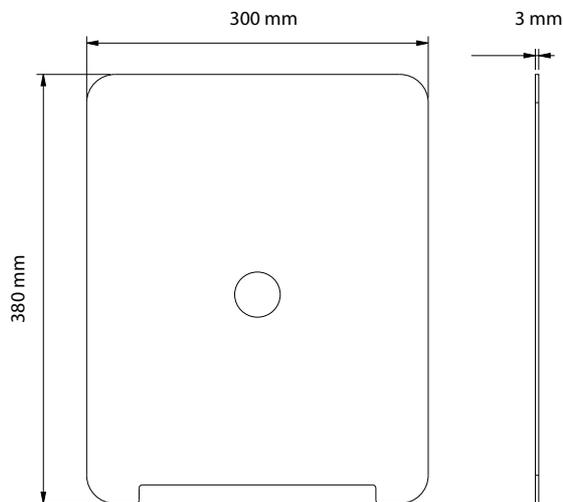
V-bolt  
(2 pcs)



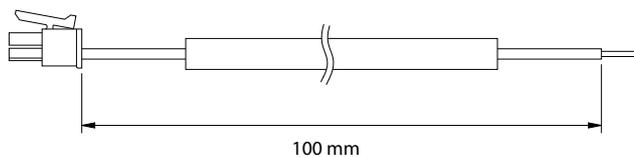
Rubber Pad  
(1 pcs)

## Packing List Information

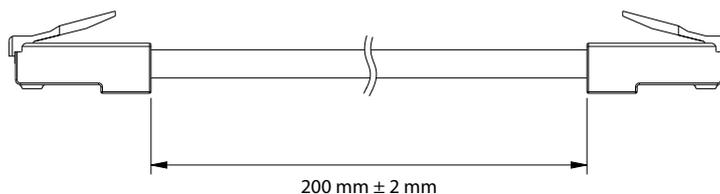
### Adhesive Pad



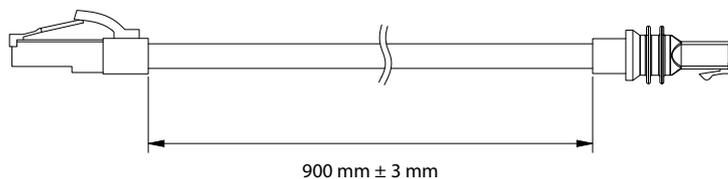
### Cables



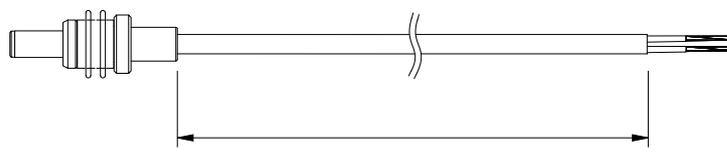
DC Cable



Ethernet Cable



Starlink Ethernet cable

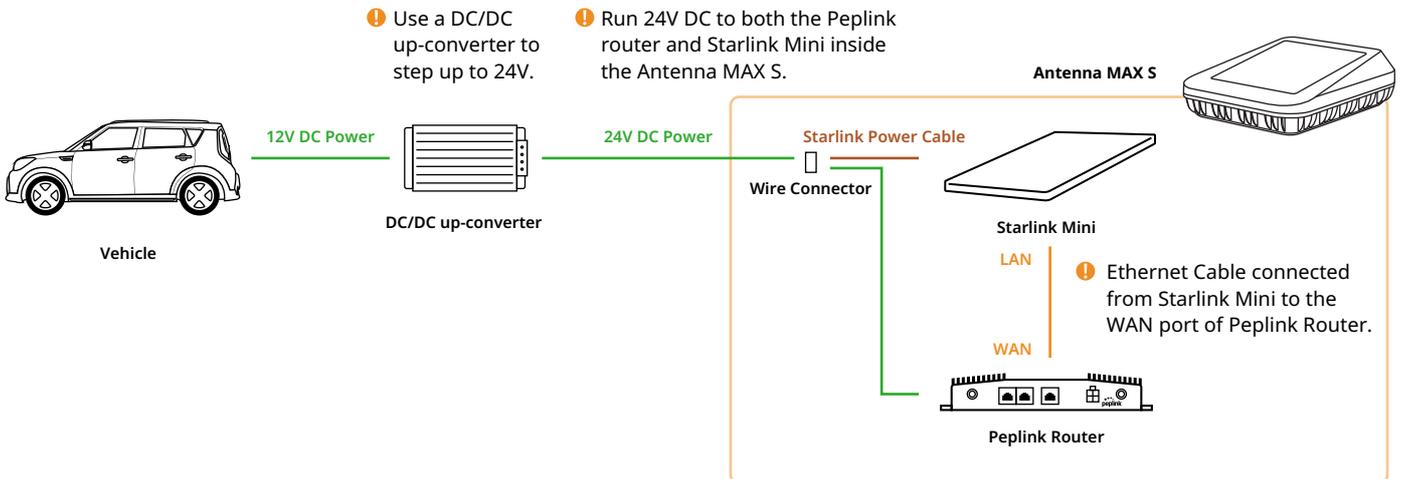


Starlink power cable

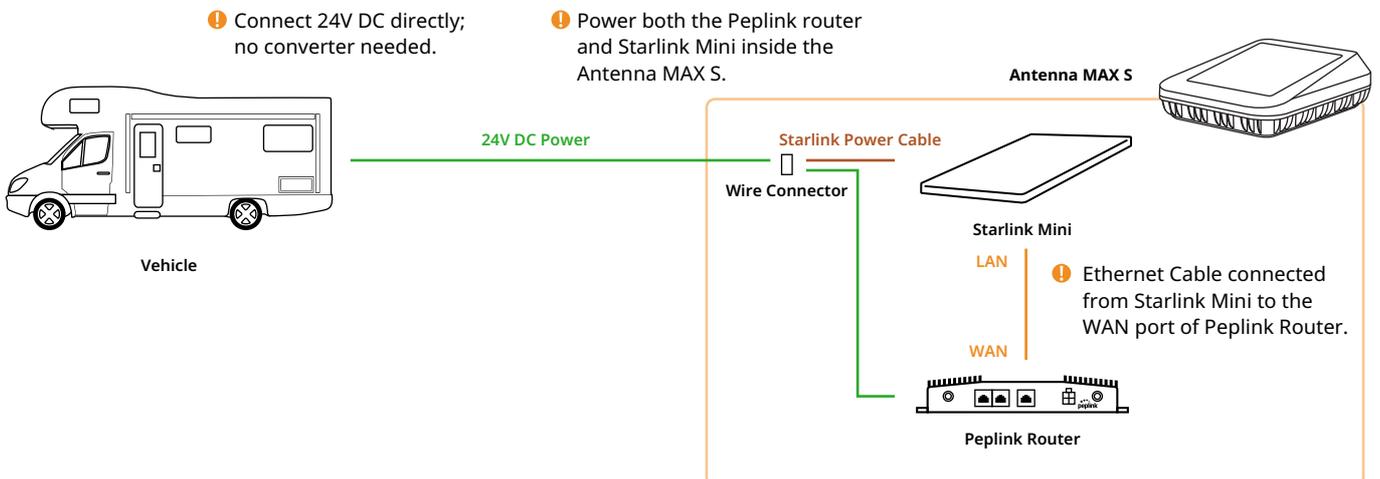
## FAQ

Q. What are the recommended vehicle power setups for Antenna MAX S with Peplink router and Starlink Mini?

### 12V Vehicle Battery



### 24V Vehicle Battery



## FAQ

Q. How does Power over Ethernet (PoE) work for Antenna MAX S installations?

802.3bt 90W PoE

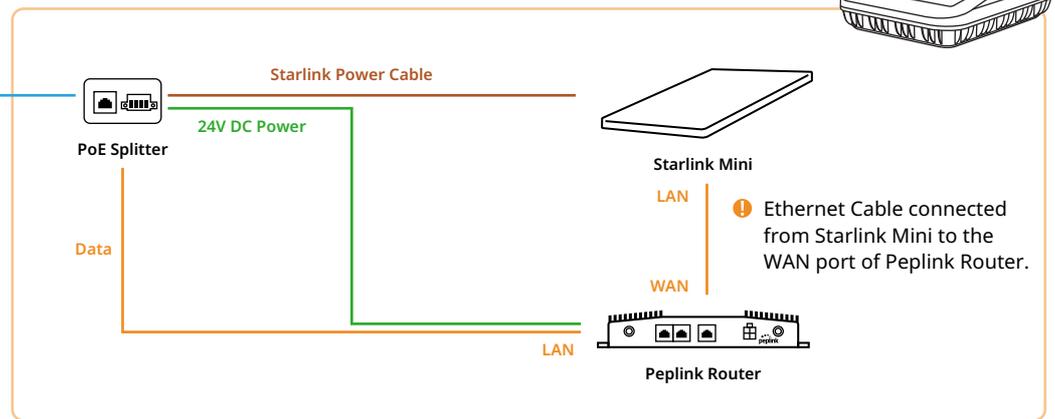
⚠ **PoE Switch or PoE injector** is required to supply PoE Output.



PoE++ Output

Power + Data

⚠ Inside the Antenna MAX S, the **PoE splitter** separates power (DC) and data (Ethernet) for the Peplink router and only power (DC) for Starlink Mini.



Antenna MAX S



Starlink Mini

LAN

WAN



Peplink Router

⚠ Ethernet Cable connected from Starlink Mini to the WAN port of Peplink Router.