

# ANTENNA MAX

Maximum Flexibility, Maximum Gain  
Outdoor Cellular / GPS Antenna + Enclosure

**TAA**   
COMPLIANT

## Maximum Gain: Up to 6.6dBi

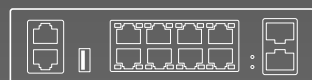
### Worried about cable loss?

Minimize cable loss by installing your router directly into the antenna enclosure.

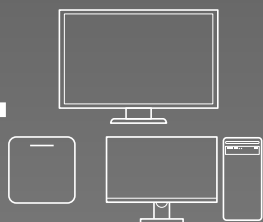
Retain maximum signal gain by connecting the Antenna Max to the rest of your network with an ethernet cable.

### Achieve Near 0dB cable loss

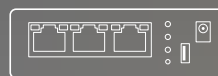
by eliminating RF cables from your setup.



Switch



Client devices



Router

### Conventional Antenna



### 5m RF cable 5dB+ cable loss

A 5m RF cable could lead to nearly complete signal loss on higher frequencies (2100MHz+)

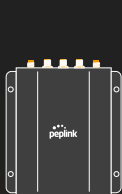
## Maximum Durability

UV-resistant plastic enclosure resists moisture, water intrusion, salt spray and corrosion.



## Maximum Flexibility

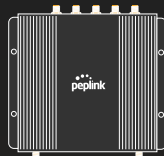
Mix-and-match the antenna with many routers including:



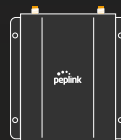
BR1 Mini Series <sup>1</sup>



Transit Duo Pro <sup>3</sup>



BR1 Pro 5G <sup>3</sup> / CAT20 <sup>3</sup>



Adapter Series <sup>2,3</sup>



AP One Rugged

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

<sup>2</sup> Adapter Series: POTS Adapter and MAX Adapter

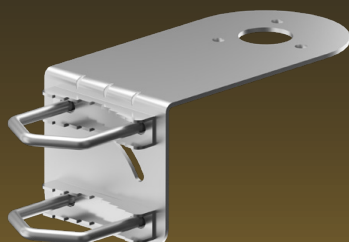
<sup>3</sup> For certain products which do not support PoE In, a PoE Splitter is required.

## Fixed-roof L-mount set included

Mounts easily on mobile equipment and vehicles - trucks, vans, boats.



Deck Mount



Pole Mount



Wall - Mount

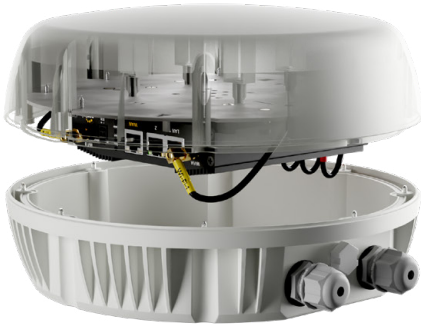


Surface Mount

## Maximum Value

Antenna Max is a **cost-effective way** to get maximum performance from your cellular and 5G routers in outdoor environments.





Specification

Cellular		Wi-Fi	
Antenna Elements	4 elements	Antenna Elements	2 elements
Peak Gain & Frequencies	3.0dBi: 617-960MHz 6.2dBi: 1410-2700MHz 5.7dBi: 3400-4400MHz 6.6dBi: 5000-6000MHz	Peak Gain & Frequencies	5.4dBi: 2400-2500MHz 7.4dBi: 5000-6000MHz
VSWR	< 2.5 over 95% of the band	VSWR	< 2.5
Feed Power Handling	10W	Feed Power Handling	10W
Input Impedance	50 Ω	Input Impedance	50 Ω
Polarisation	Linear	Polarisation	Linear
Connectors	Right angle SMA male	Connectors	Right angle RP-SMA male

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

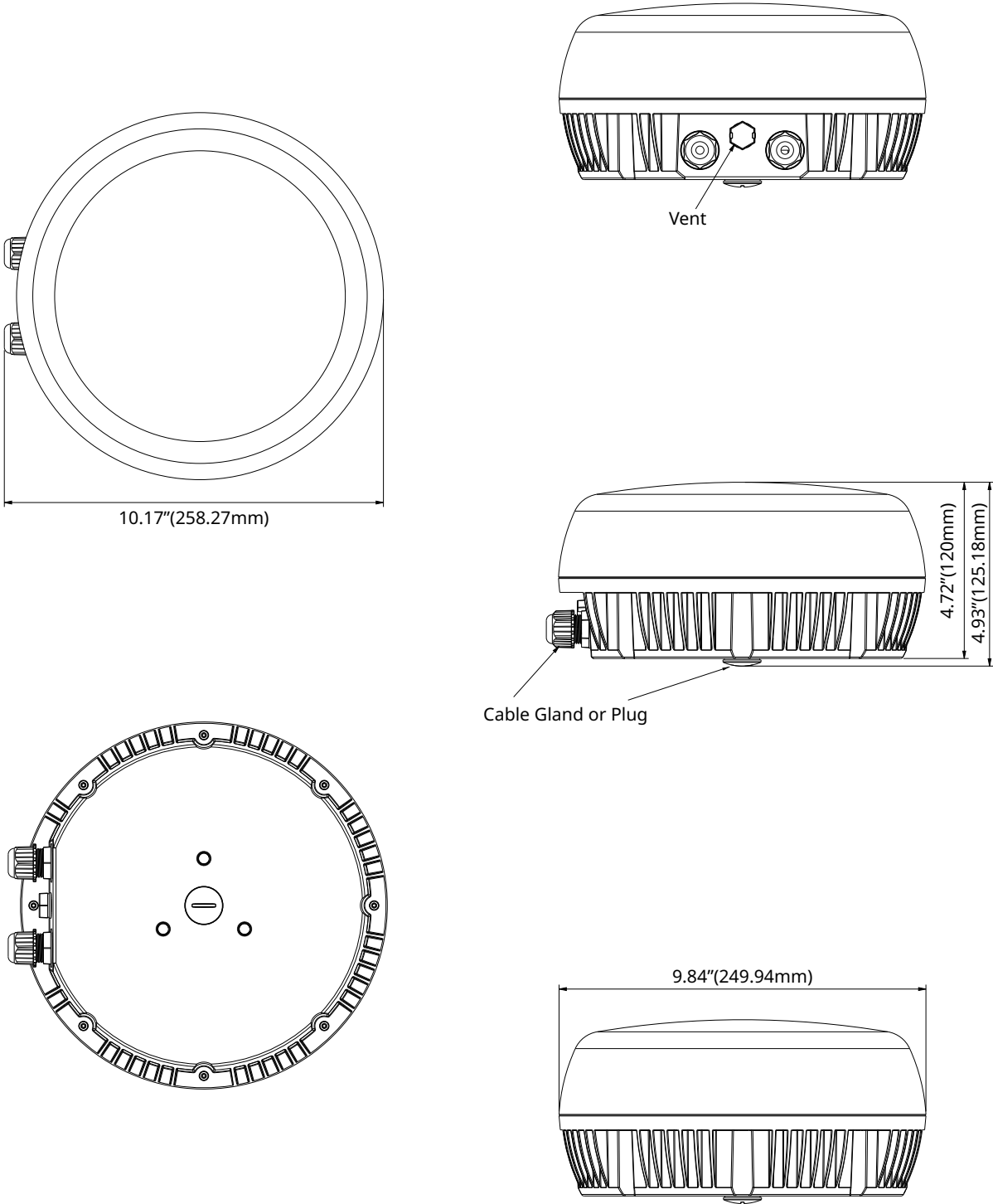
Specification

Mounting		Mechanical	
Supported Types	Surface, wall, pole	Product Dimensions	4.72" / 120 mm - Height 9.84" / 250 mm - Diameter
Package Contents		Packaged Dimensions	13.82" x 11.61" x 5.75" 351x295x146mm
Package Contents	Antenna MAX L-Mount Set Double sided 3M adhesive pad 3pcs Cable Gland 2pcs Hole Plug	Enclosure Material	UV stable PC
Environmental, Compliance			
IP Rating	IP68	Compliance	ROHS, REACH, WEEE
Operating Temperature	-40° - 176°F / -40° - 80°C	Enclosure Flammability	UL 94 V-0 (1.47 mm)
Storage Temperature	-40° - 176°F / -40° - 80°C	UV resistance	UL 746C (F1 long-term UV exposure)
		Salt Spray	MIL-STD 810F/ASTM 8117

Ordering Information

Product Code	Description
ANT-MAX	4xLTE/5G, 2x Wi-Fi, 1xGPS 600-6000MHz, IP68, SMA male (Cellular, GPS), RP-SMA male (Wi-Fi), White

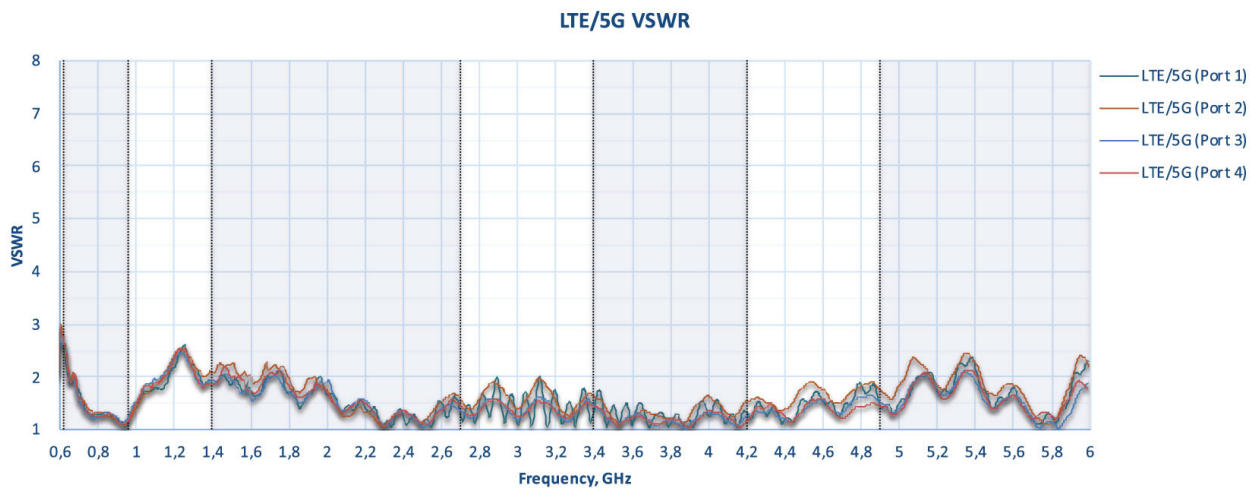
Technical Drawing



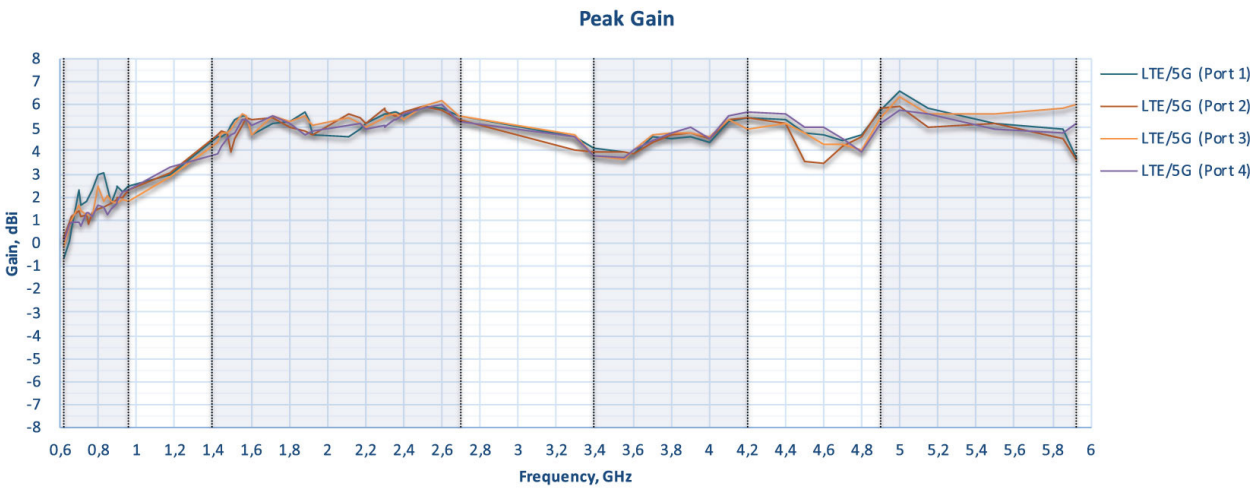


## Cellular Antenna Performance

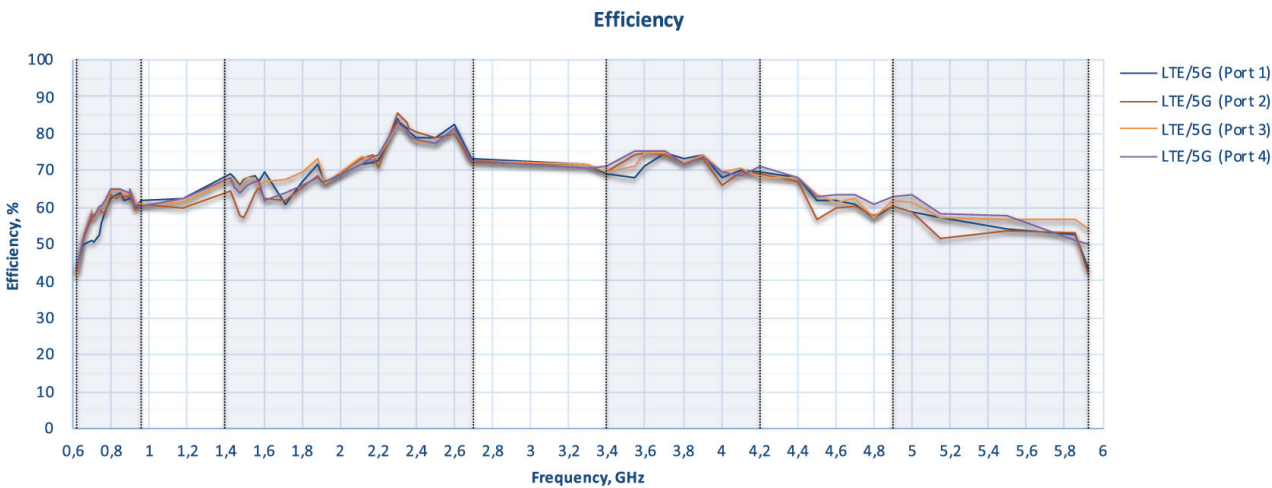
### Cellular Antenna VSWR



### Cellular Antenna Gain

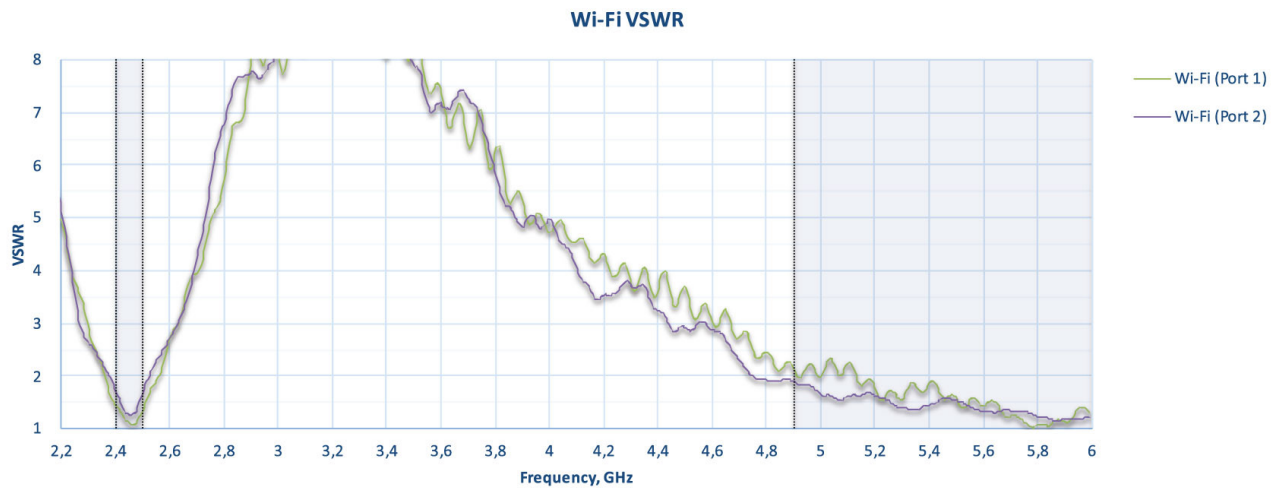


### Cellular Antenna Efficiency

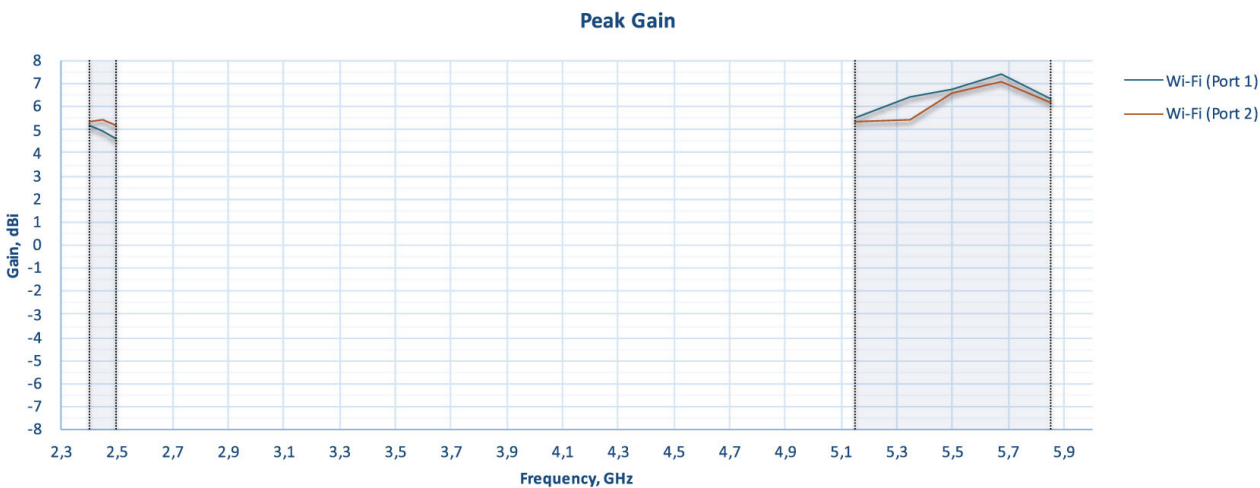


## Wi-Fi Antenna Performance

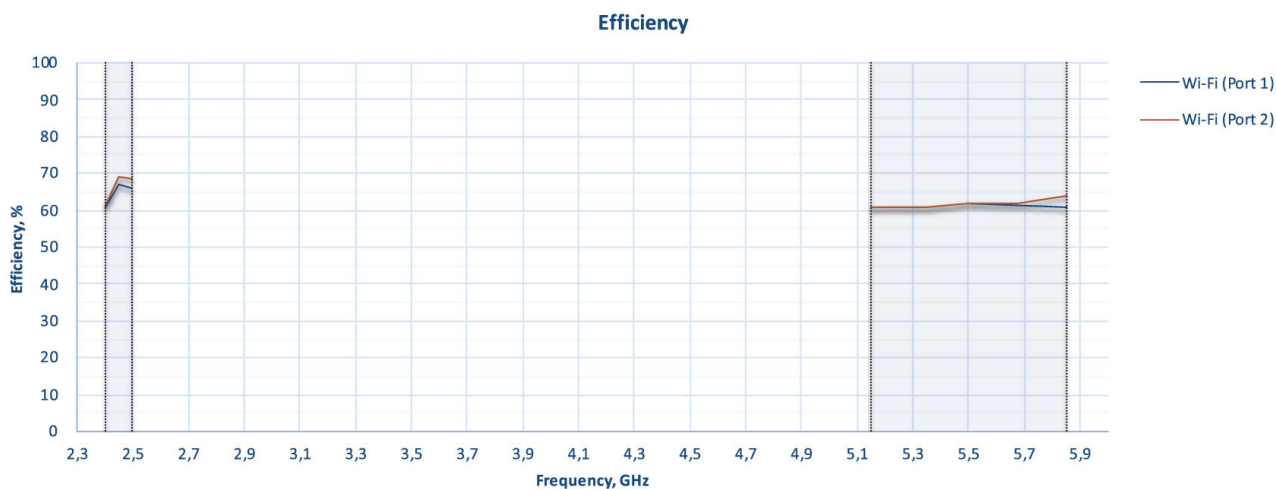
### Wi-Fi Antenna VSWR



### Wi-Fi Antenna Gain



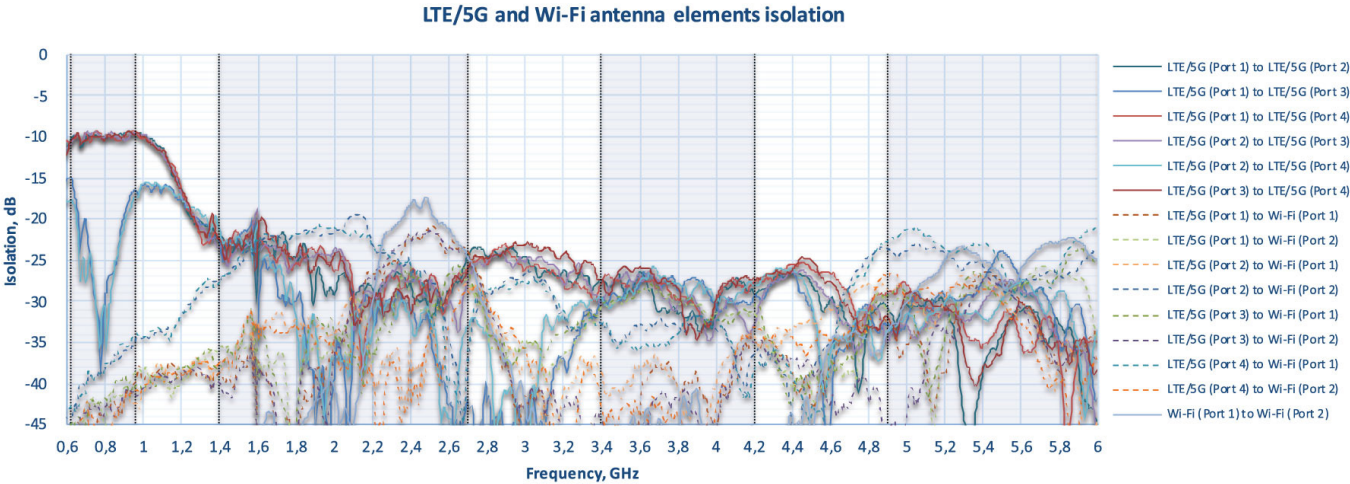
### Wi-Fi Antenna Efficiency





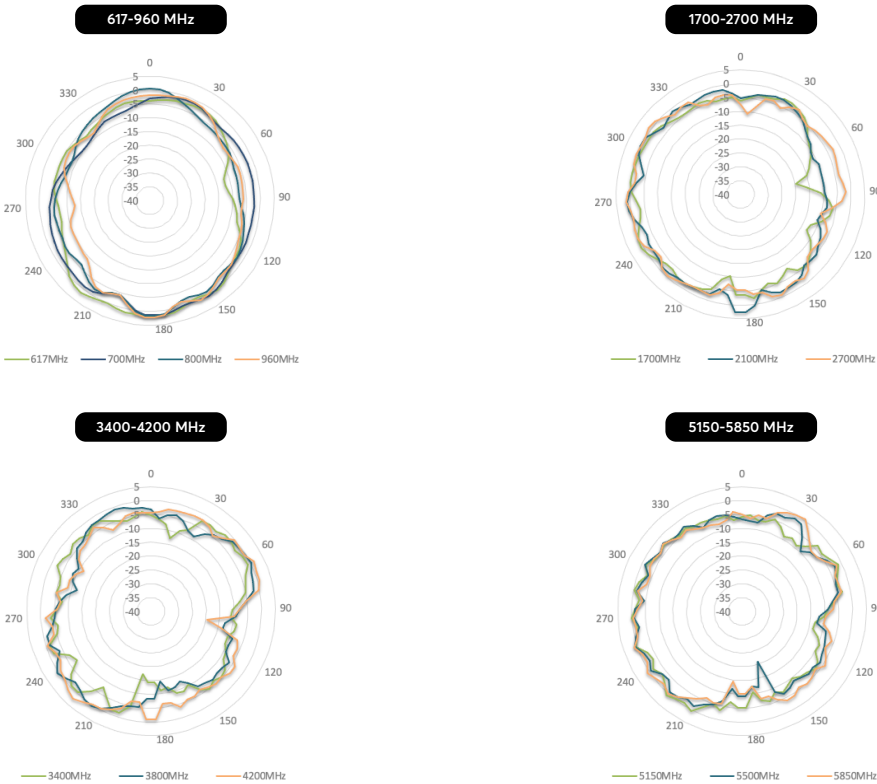
## Cellular & Wi-Fi Antenna Performance

Cellular & Wi-Fi Antenna Isolation

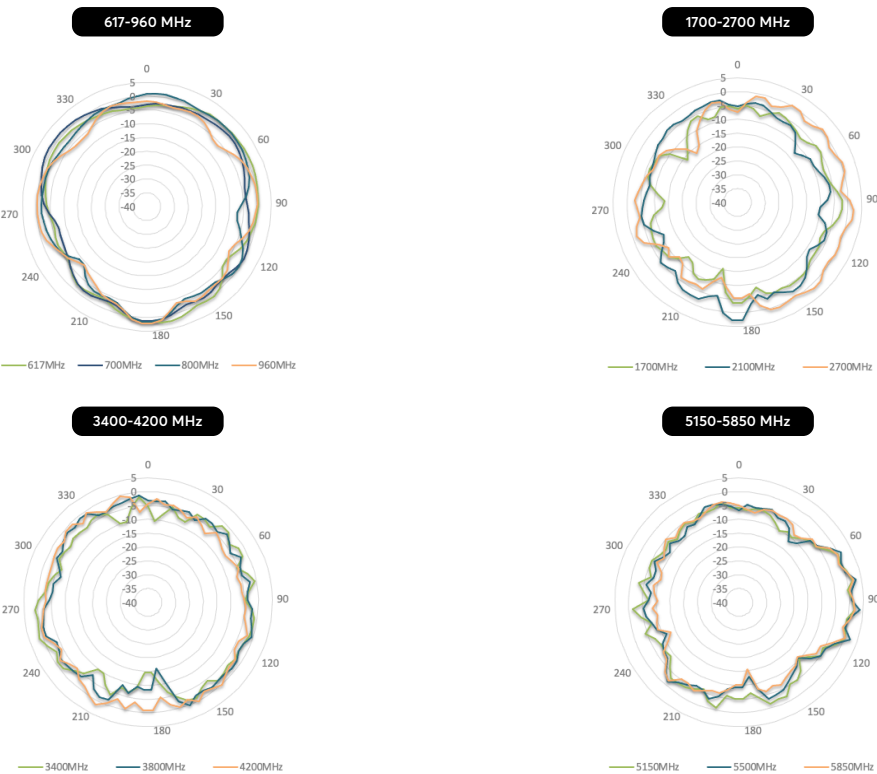


Radiation Pattern

LTE Radiation Patterns (Elevation 1)

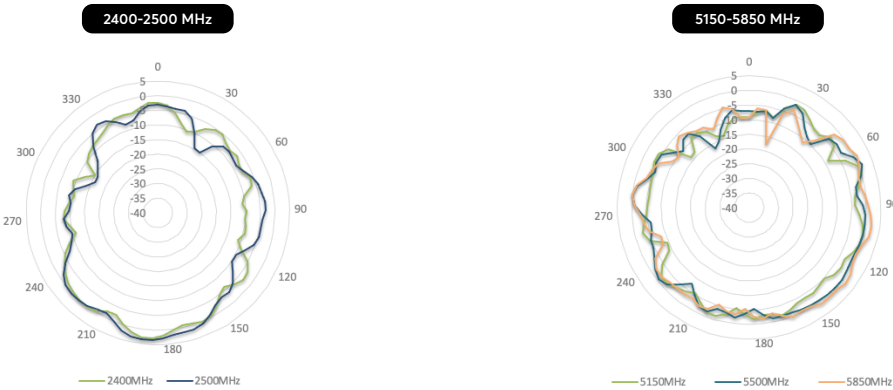


LTE Radiation Patterns (Elevation 2)

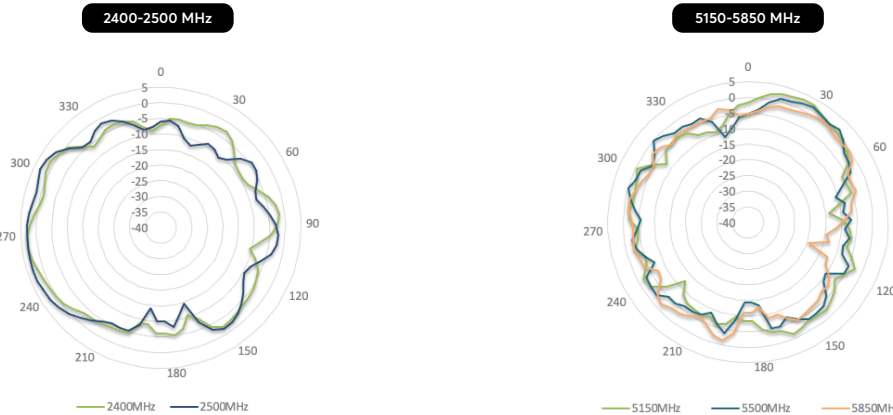


Radiation Pattern

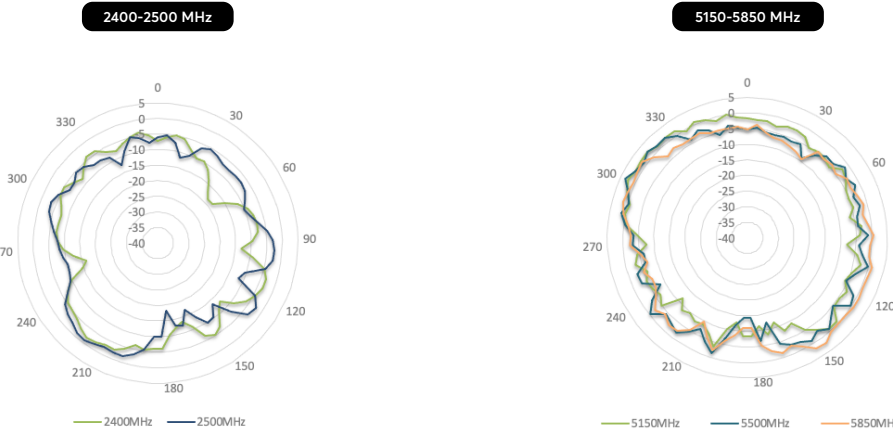
Wi-Fi Radiation Patterns (Azimuth)



Wi-Fi Radiation Patterns (Elevation 1)

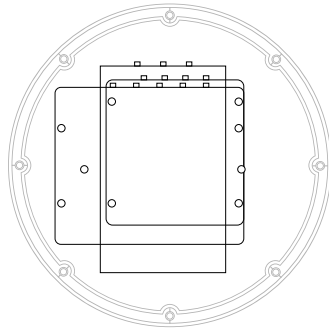


Wi-Fi Radiation Patterns (Elevation 2)



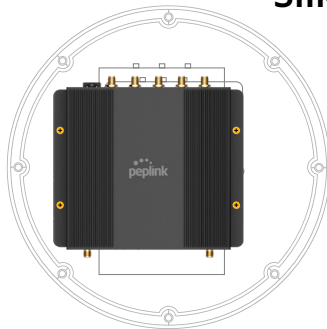
## Installation Recommendation

### Position Router

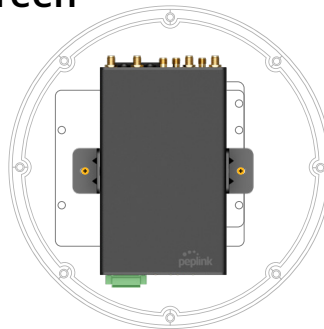


Make sure you align the router with the placement mark on the silkscreen.

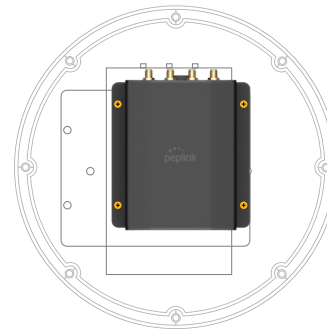
### Silkscreen



BR1 Pro 5G



Transit Duo Pro

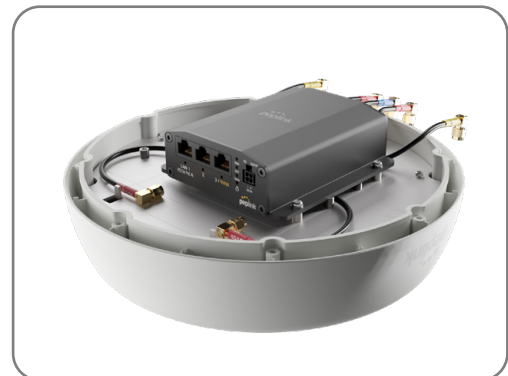


BR1 Mini Series

### Install Router



Tighten the screws securely into the corresponding router's mounting holes.



## Installation Recommendation

### Connect Cables to Router

Align the **Wi-Fi**, **LTE** and **GPS** SMA cables with the corresponding ports on the router. Tighten the connector into the port securely in place.

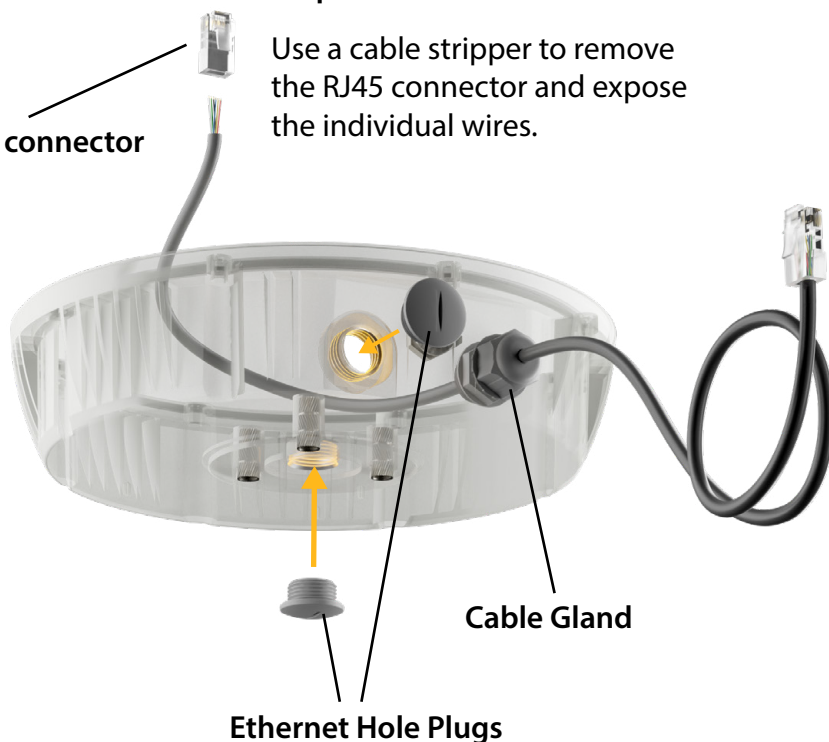


### Ethernet Cable

#### Step 1

Use a cable stripper to remove the RJ45 connector and expose the individual wires.

RJ45 connector



#### Step 2

Ethernet cable can be connected via the bottom or side cable gland on the device.

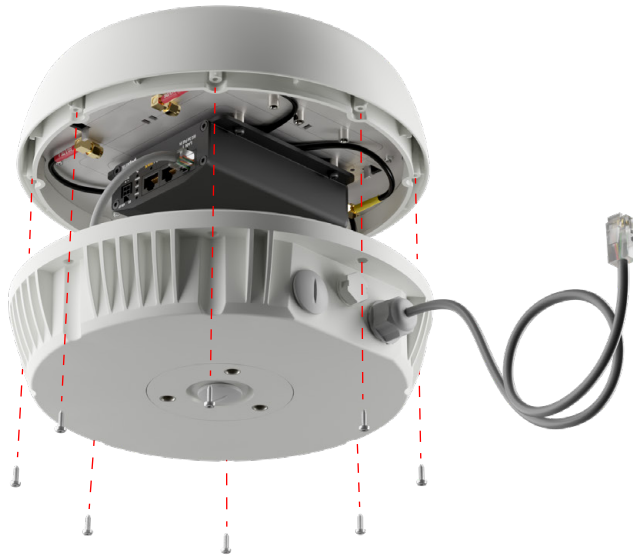
For any unused hole, use a **ethernet hole plug** to securely seal it.

Note: Be sure not to use excessive force when removing the connector as it is delicate.



## Installation Recommendation

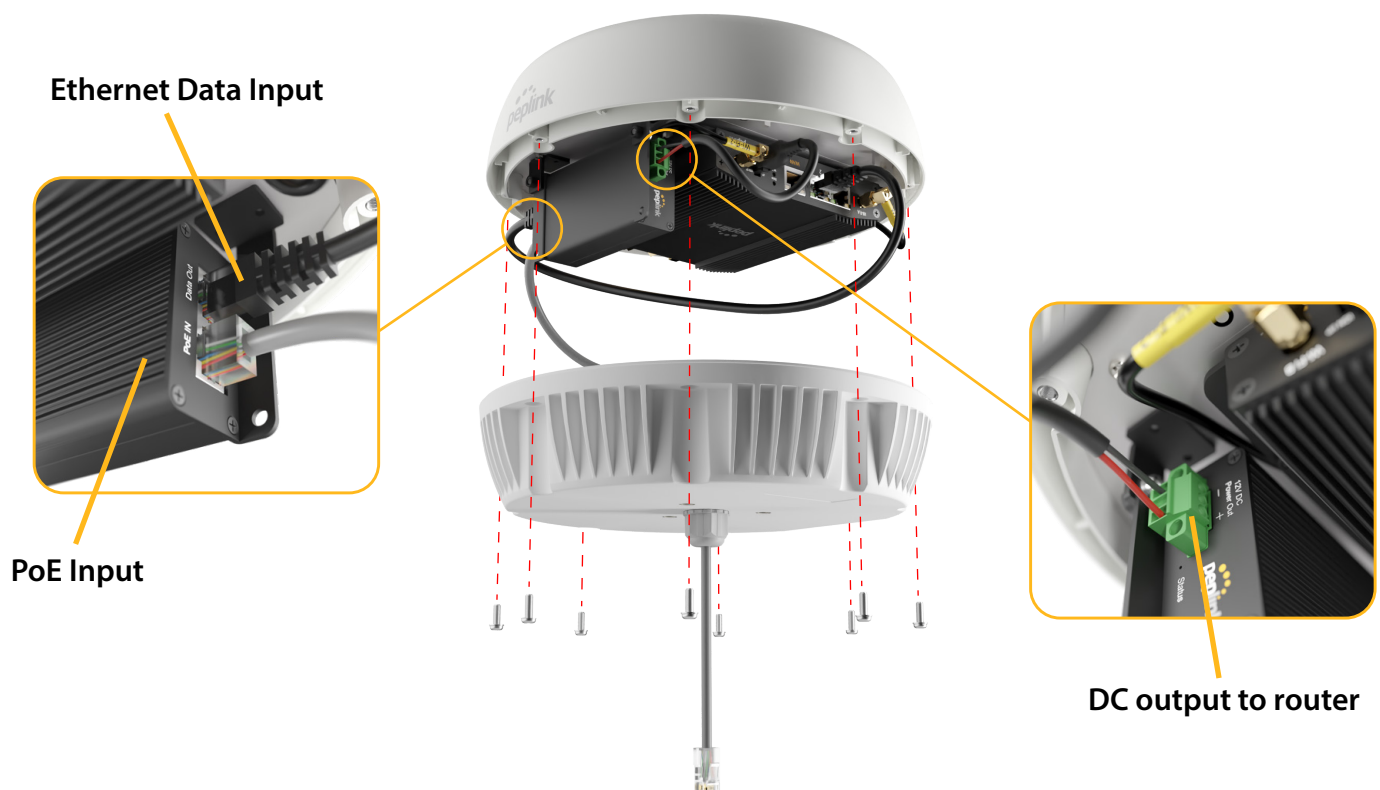
### Attach Bottom Cover



Align the bottom cover with the top cover , secure it in place, and then tighten the screws.

### Install PoE Splitter

While some routers may not support Power over Ethernet (PoE) input, **Peplink PoE splitter** can be used to provide power to these devices.



## Installation Recommendation

### Wall Mount



### Pole Mount



Vertical Pole



Horizontal Pole

## Installation Recommendation

### Surface Mount



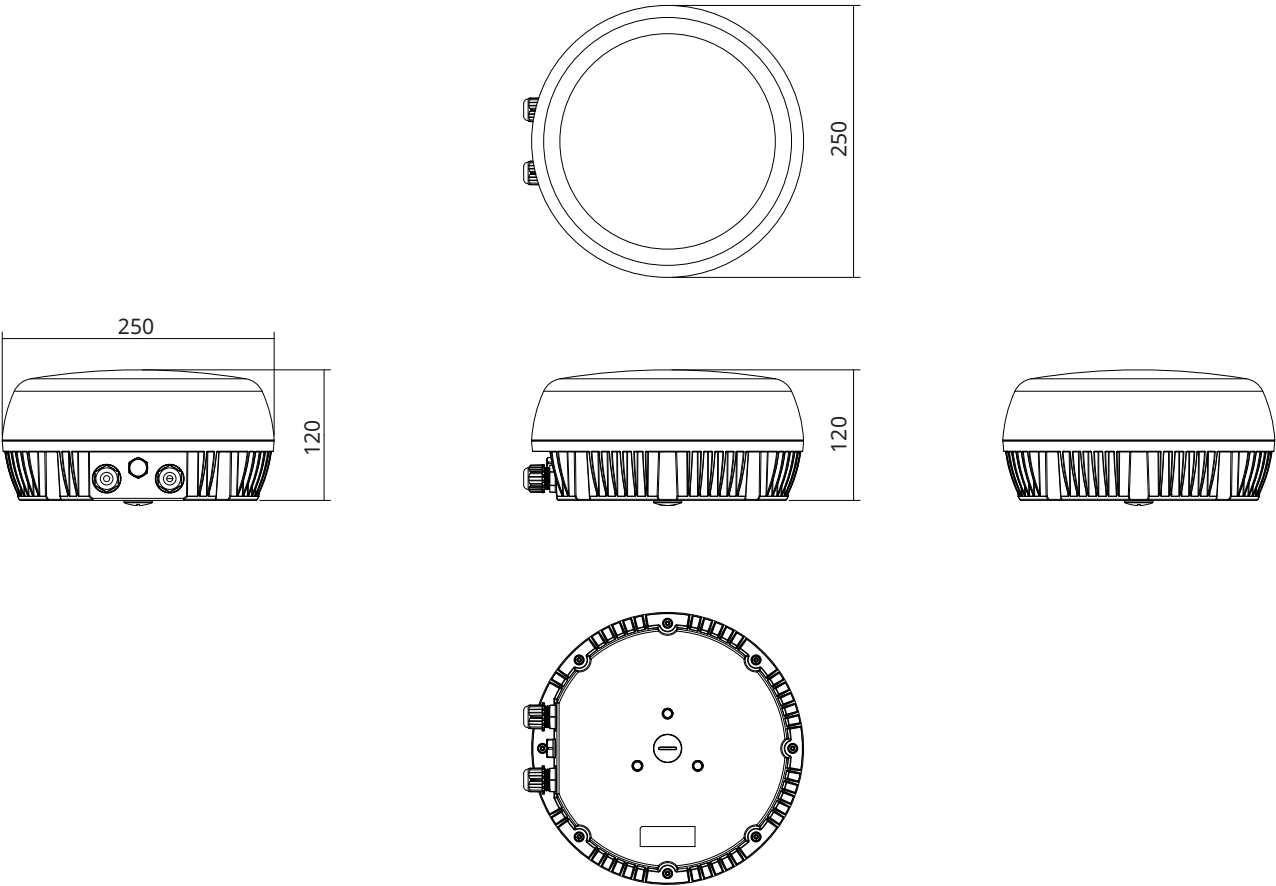
### Deck Mount



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

Packing List Information

Antenna



L-wrench for T20 bolts



Bolt  
(4 pcs, T20 M4xL8)  
Router

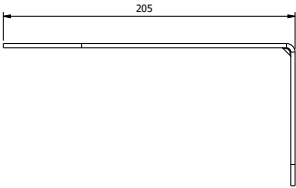


Bolt  
(2 pcs, T20 M4xL8)  
PoE

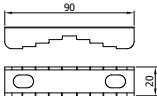
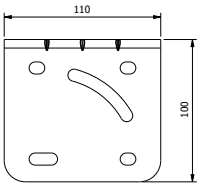


Bolt  
(8 pcs, T20 M4xL12)  
Cover

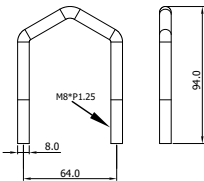
L-Mount Set



L-Mount



Bracket  
(2 pcs)



V-bolt  
(2 pcs)



Hex Socket  
(3pcs, H6, M8xL20)



V-bolt nut  
(4 pcs, M8)