

Antenna 22G

5-in-1 cellular and a Wi-Fi antenna system with GPS.

Features

- 5-in-1 cellular and Wi-Fi antenna system with GPS antenna
- 2x2 Cellular frequencies: 600-6000 MHz
- 2x2 Wi-Fi frequencies: 2400-2500 MHz & 5000-6000 MHz
- Durable and UV-stable housing
- Black or white color options
- IP68 rated

Applications

- Public Safety and mission-critical connectivity
- Mobile healthcare
- Transportation Connectivity

Overview

- Antenna elements: 2x LTE/5G, 2x WIFI, 1x GPS
- Cellular frequencies: 1.2dBi: 617-960MHz 5.7dBi: 1710-2700MHz 5.6dBi: 3400-4200MHz 6.0dBi: 5000-6000MHz
- Cellular bands: LTE bands B1 to B86 (except B31, B72, B73, B87, B88),
- Wi-Fi frequency bands: 4.8dBi: 2400-2500MHz 7.4dBi: 5000-6000MHz
- GPS frequency bands: 1.6dBi, LNA 28dB: 1561-1602MHz
- IP rating: IP68
- Dimensions (Height) 1.42" / 36mm (spigot not included) , (Diameter) 5.12" / 130mm
- Coax cable type: CFD-200 (4G/5G, Wi-Fi) RG-174 (GPS)
- Connector type: SMA male (4G/5G, GPS), RP-SMA male (Wi-Fi)



The Antenna 22G is a 5-in-1 antenna built for mobile applications. It supports 2x2 cellular MIMO for high bandwidth and solid reliability, dual-band (2.4GHz & 5GHz) Wi-Fi, and GPS. It is also 5 G-ready and supports a wide range of global cellular frequencies.

The GPS antenna is equipped with high-gain LNA, making it ideal for location tracking.

The Antenna 22G has a solid housing made of UV-stable plastic materials. Two color options are available (black and white) to fit different deployments. For easier installation, the antenna comes with different cable length options.

Cellular

Antenna elements

2 elements

Cellular frequencies

1.2dBi: 617-960MHz 5.7dBi: 1710-2700MHz 5.6dBi: 3400-4200MHz 6.0dBi: 5000-6000MHz

Cellular bands

LTE bands B1 to B86
(except B31, B72, B73, B87, B88),

VSWR

< 2.5 over 85% of the band

Feed power handling

10W

Input impedance

50 Ω

Polarization

Linear

Ground plane

Not required #

WI-FI

Antenna elements

2 elements

Peak gain

4.8dBi: 2400-2500MHz 7.4dBi: 5000-6000MHz

VSWR

< 2.5

Feed power handling

10W

Input impedance

50 Ω

Polarization

Linear

GPS

Frequency range

1561-1602 MHz

Peak gain

0.5dBi@1575MHz 1.6dBi@1602MHz

VSWR

< 2 dB

Output return loss

10dB max

Gain: LNA

28 ±3dB

Noise figure

1.5dB max at 3.3V

Operating Voltage

3.3V

Power consumption

8.5 ±2.5mA at 3.3V

CABLE

Type

CFD-200

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

Diameter

0.2" / 5.0mm

Jacket

Half matt PVC, UV resistant

Termination

SMA male and RP-SMA male

Type

RG-174

Loss

3.4 dB/m @ 1000 MHz 4.9 dB/m @ 1800 MHz

Diameter

0.1" / 2.7mm

Jacket Termination

Half matt PVC, UV resistant SMA male

MOUNTING

Supported types

Panel, wall, pole

Mounting hole

1 11/16" / 43mm

Max panel thickness

19/32" / 15mm

MECHANICAL

Product dimensions

(Height)

1.42" / 36mm (spigot not included)

(Diameter)

5.12" / 130mm

Packaged dimensions

8.90" x 8.46" x 4.29" / 226 x 215 x 109mm

Radome material

UV stable PC+ABS

PACKAGE CONTENTS

Antenna

Mobility 22G

Mounting

Mounting bracket
Wall/pole mount
Double-sided 3M adhesive pad,
Diameter: 5.08" / 129mm, Thickness:
0.08" / 2mm

ENVIRONMENTAL, COMPLIANCE

Cable flammability

UL 758 (VW-1)

Compliance

RoHS, REACH & WHEE

Enclosure flammability

UL 94 HB

IP ra

IP68

Operating temperature

-40° - 176°F / -40° - 80°C

Storage temperature

-40° - 176°F / -40° - 80°C

Salt Spray

MIL-STD 810F/ASTM 8117

UV resistance rating

UL 746C

(F1, long-term UV exposure)

Wind Survival

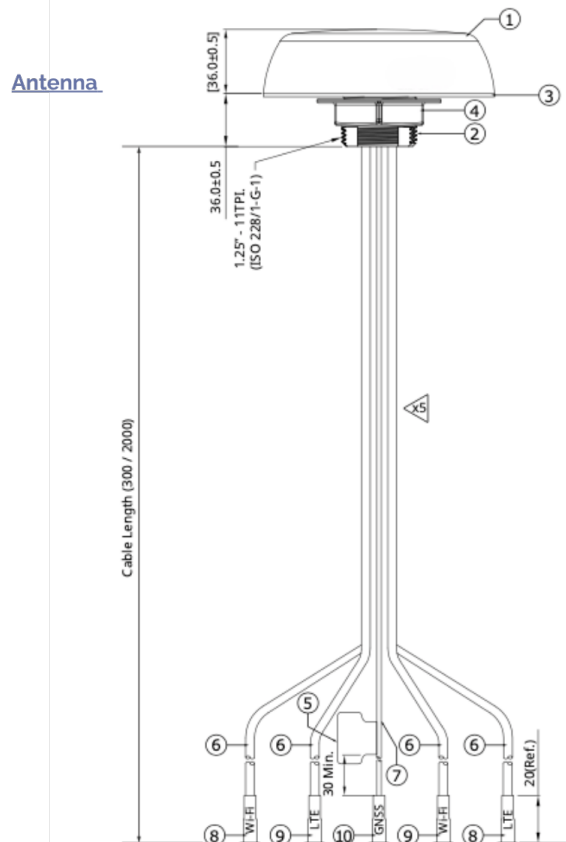
220 km/h

#All measurements stated in this document were obtained without a ground plane.

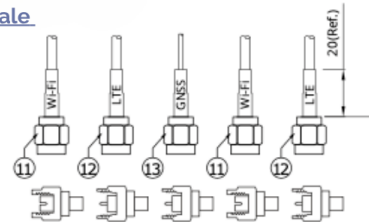
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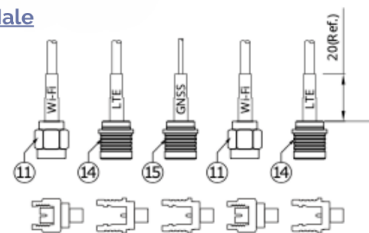
Technical drawing



SMA Male

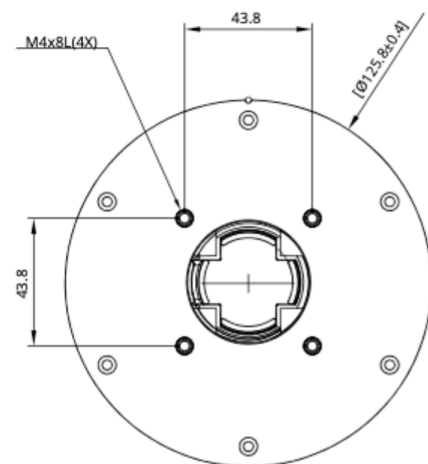


QMA Male



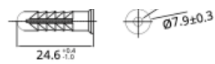
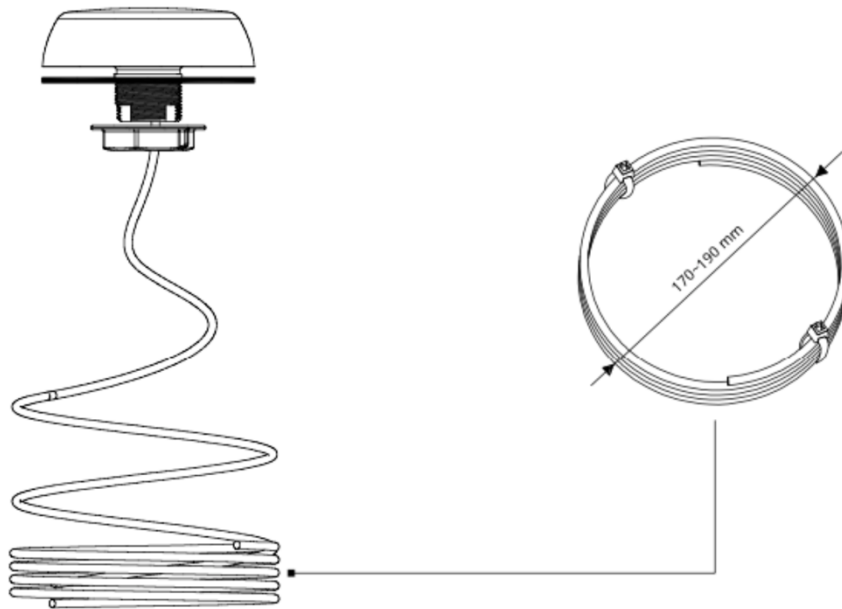
Index

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

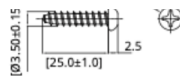


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Technical drawing



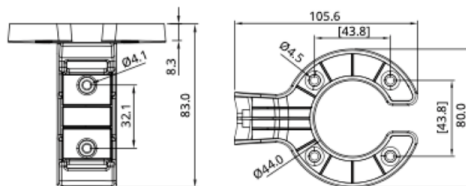
Plastic fixing for M3.5 screw
(2 pcs)



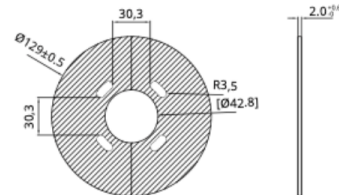
Tapping screws
(2 pcs, M3.5*24L)



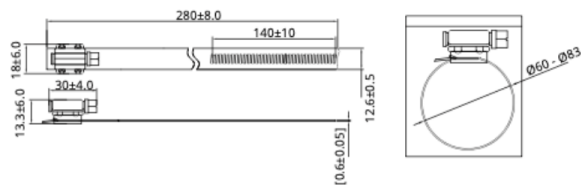
Screws
(4 pcs, M4*15L)



Mounting bracket



Double sided 3M adhesive pad



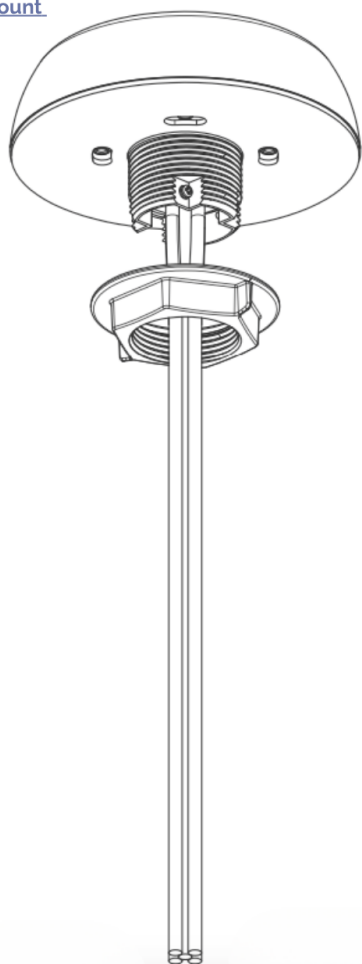
Hose clamp

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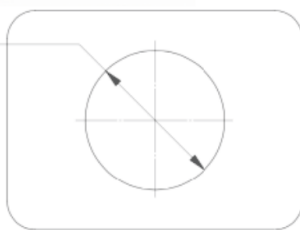
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Installation recommendation

Panel Mount



CUT OUT DIAMETER



THICKNESS



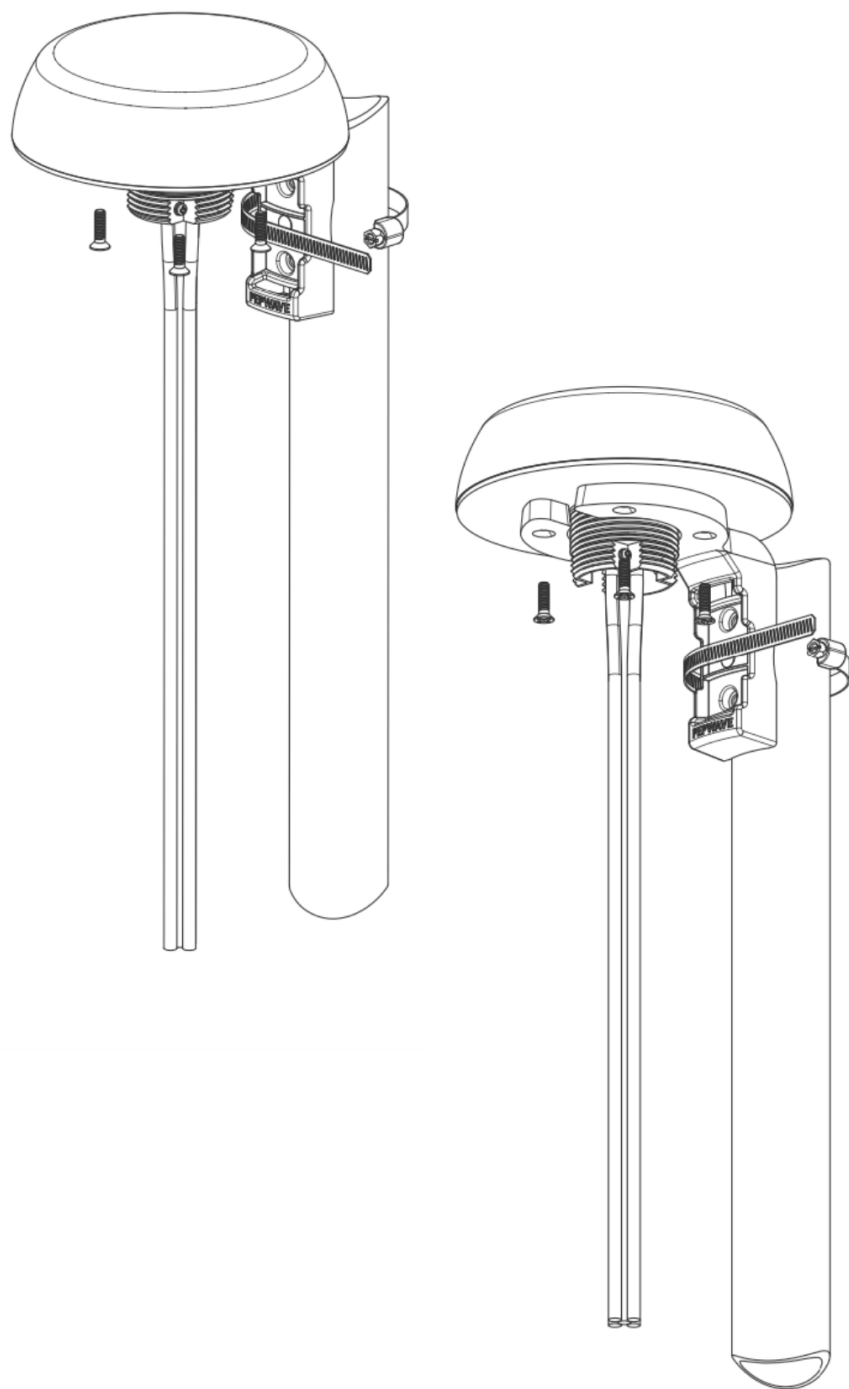
Notes

- Cover panel. Surfaces 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 – 15mm.
- After a drill, clean up the surface and apply some paint around the hole to prevent Corrosion. Attach the antenna.

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Installation recommendation

Pole Mount

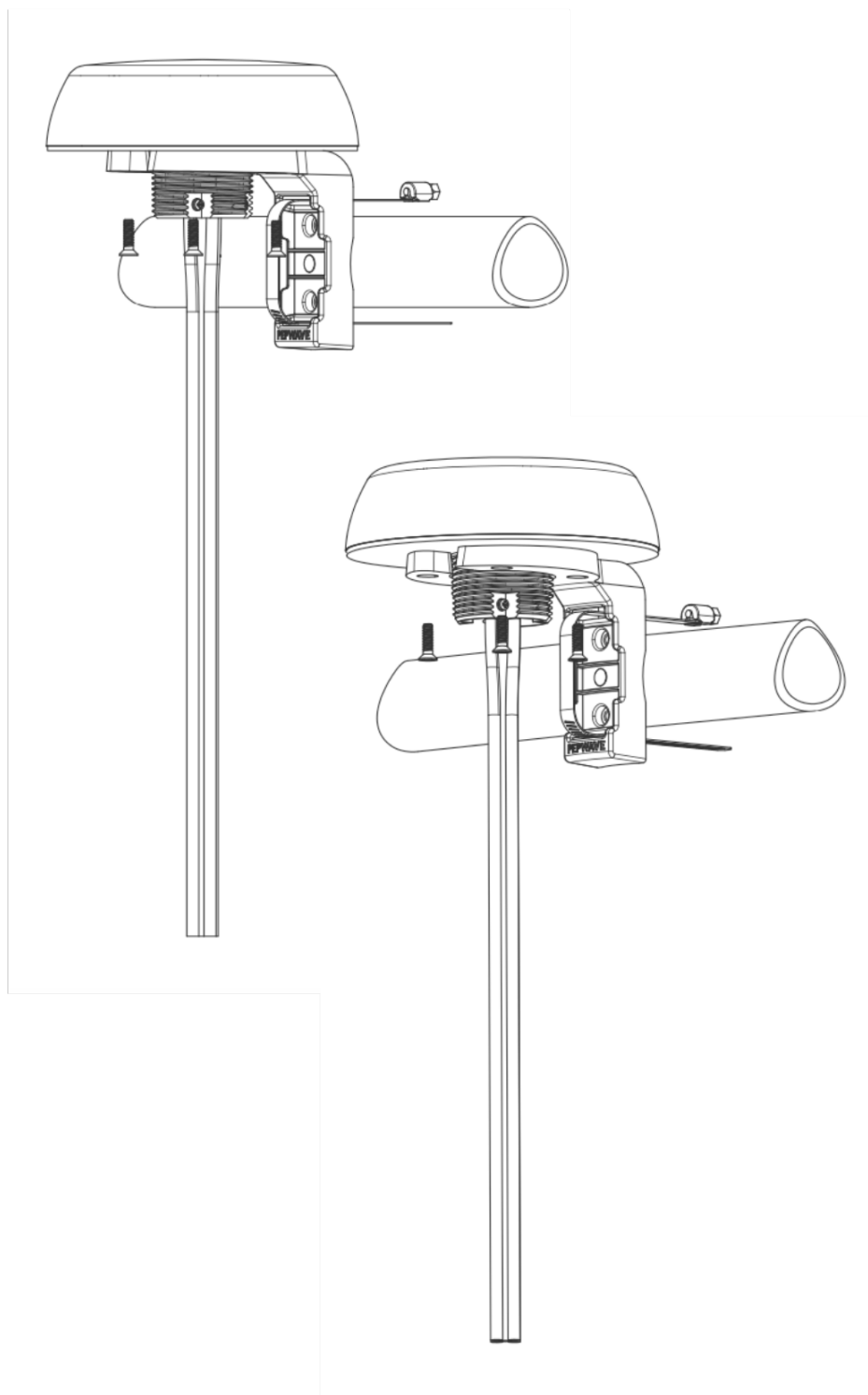


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Installation recommendation

Horizontal Pole Mount

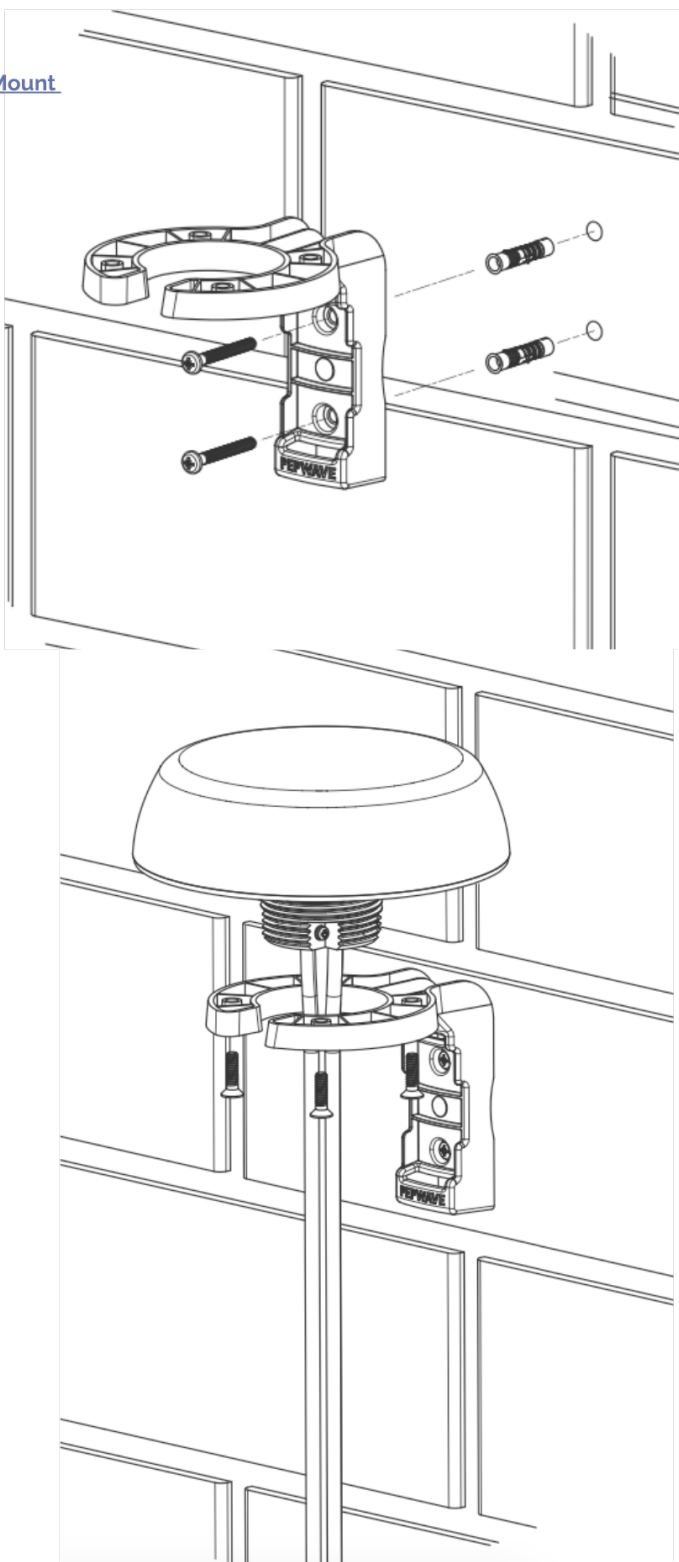


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Installation recommendation

Wall Mount



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