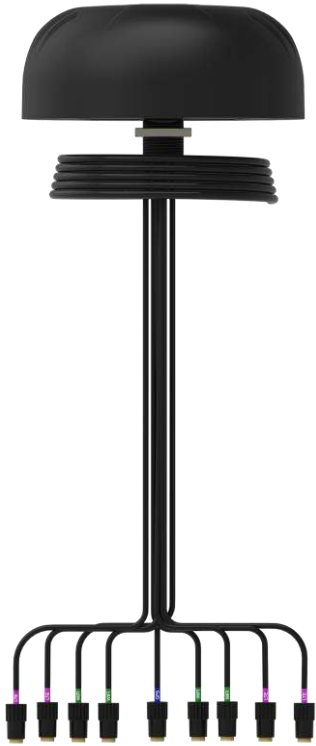
POYNTING

BEYOND A CONNECTED LIFE

MIMO-4



User Guide

Revision 4.0

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**Antenna colour and number of cables will differ with different versions*

1. Packing Check List

Item	Description	Quantity
1.	*A-MIMO-0004 Antenna Only	1
2.	M4 x 10mm Flat Head Stainless Steel Screws	4 (Attached to the antenna)
3.	37mm and 85mm Threaded Male Spigots	2 (1 Attached to the antenna)
4.	55mm Threaded Female Female Spigot	1
5.	Magnetic Base Adapters	4
6.	**Pole/ Wall Mount Bracket	1
7.	Locking Nut	1
8.	Spigot/Adhesive Mount Foam Seal	1
9.	Grip Extenders	9***
10.	SMA(F) to RP-SMA (M) Adapters	4***
11.	Pipe Clamp	1
12.	Wall Knock-in Screws	2
13.	Magnet Mount Foam Seal	1

**Antenna will differ with different versions*

***Pole/wall mount for non-mobility applications*

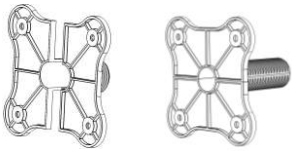
****Quantity will differ with different versions*

Appearance of components

Antenna Unit

M4 x 10mm Flat Head Stainless Steel Screws

37mm and 85mm Threaded Male Spigots



55mm Threaded Female Spigot

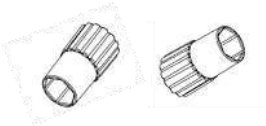
Magnetic Base Adapter

Pole/ Wall Mount Bracket

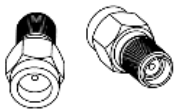
Locking Nut

Spigot/Adhesive Mount Foam Seal

Grip Extenders

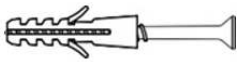


*SMA(F) to RP-SMA(M) Adapters

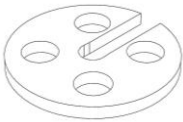


Pipe Clamp

Wall Knock-in Screws



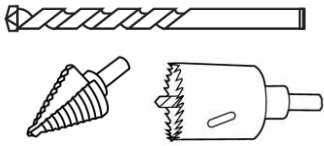
Magnet Mount Foam Seal



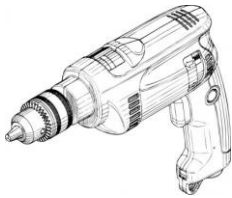
**Antennas with Wi-Fi only*

Tools Required

Drills (Pilot drill (3mm) and Hole saw (22mm) or step drill (4-22mm))



Impact Drilling Machine



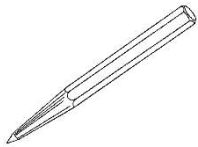
Hammer

Safety Goggles

27mm Spanner/Wrench

Masking Tape

Centre Punch



Drilling Template

(Available on www.poynting.tech/downloads)

2. Introduction

This User Guide provides information on the installation instructions of the Omni-directional antenna (A-MIMO-0004).

Note:

Ensure that all RF connections made outdoors are adequately waterproofed. Waterproof connector boots are recommended.

Antenna Configuration 1

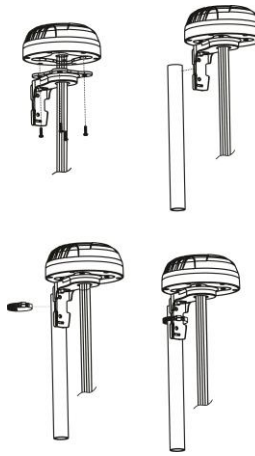
Pole mount with supplied bracket and pipe clamp.

- Lay the antenna out at the installation site.
- Attach the bracket onto the base of the antenna using four flat head screws.
- Secure the pipe clamp around the bracket and pole until the bracket is secured to the pole.

Several pole mount configurations are possible:

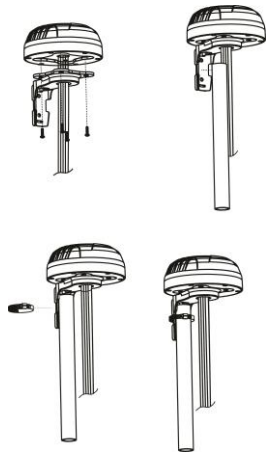
a) Exterior vertical pole mount with bracket and supplied pipe clamp

Exploded View



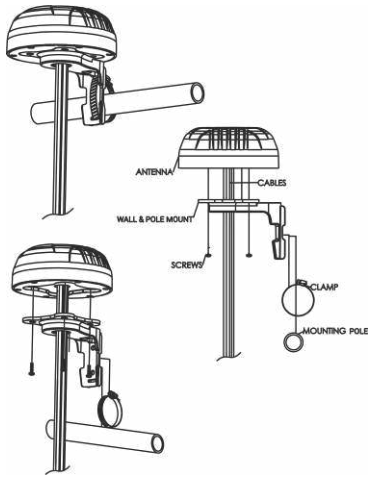
b) Interior vertical pole mount with bracket and supplied pipe clamp

Exploded View



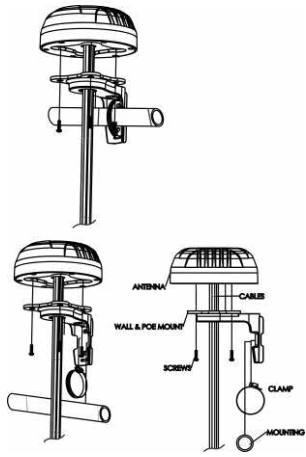
c) Exterior horizontal pole mount with bracket and supplied cable clamp

Exploded View



d) Interior horizontal pole mount with bracket and supplied cable clamp

Exploded View



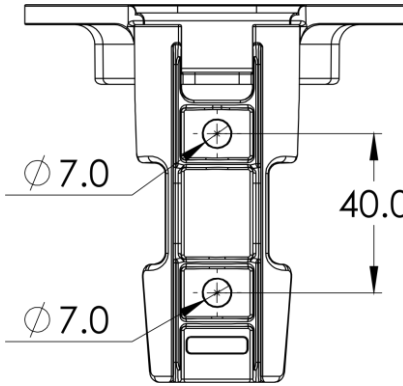
Antenna Configuration 2

Wall mount with supplied bracket and wall knock-in screws.

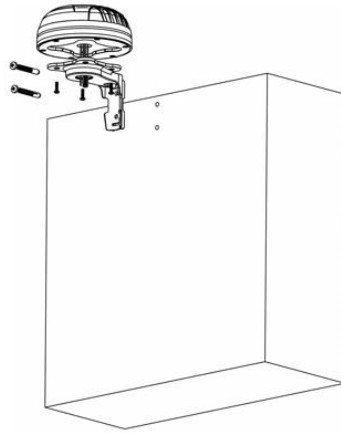
- Select a suitable place for mounting the antenna.
- Attach the bracket onto the base of the antenna using four flat head screws.
- Using the wall mount bracket as a guide, mark two points to drill on the wall. Use a Ø6mm masonry drill bit to drill the marked points.
- Place the bracket over the two holes and line up the holes in the bracket with the holes in the wall.
- Insert the two knock-in screws to mount the bracket to the wall.

Note:

Use a 6mm masonry drill bit to drill two holes into the wall. See the dimensions below.



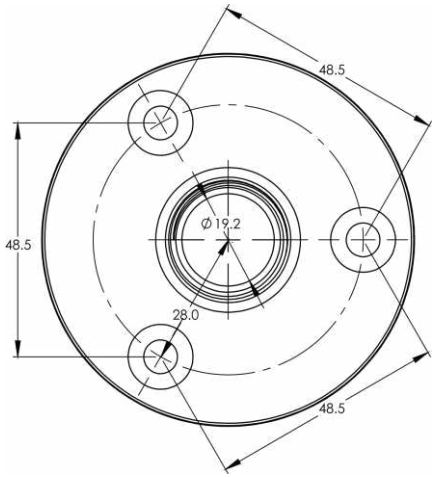
Exploded View



Antenna Configuration 3

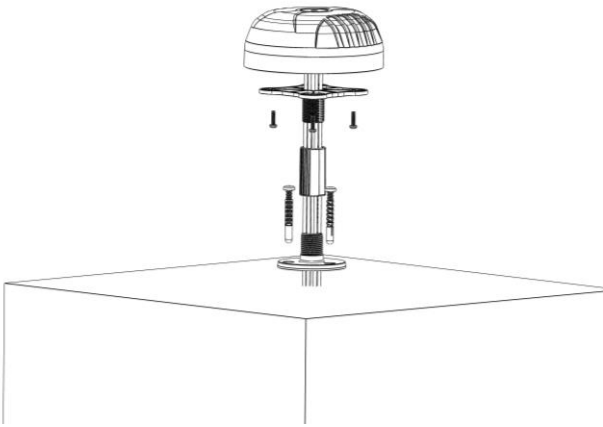
Marine mount with supplied wall knock-in screws and marine bracket (BRKT-37- Not provided).

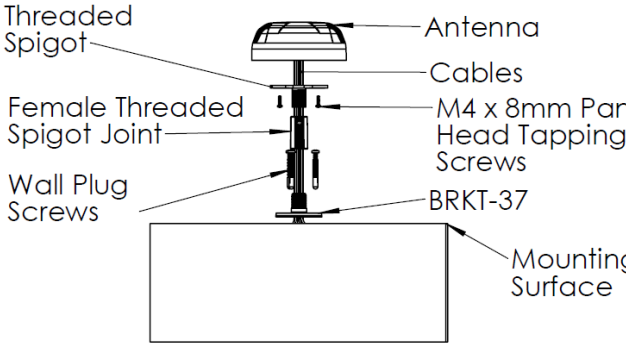
- Select a suitable place for mounting the antenna.
- Drill four holes into the surface for the cables and fasteners. See the dimensions below.



- Mount the marine bracket (BRKT-37) onto the surface using suitable fasteners.
- Remove the spigot mount seal.
- Use the female threaded spigot joint to attach the antenna to the BRKT-37, with the cables being passed through the center.

Exploded View





Antenna Configuration 4

Threaded spigot mounting.

Use the Drill template below or download the 1:1 drill template from
http://www.poynting.tech/downloads

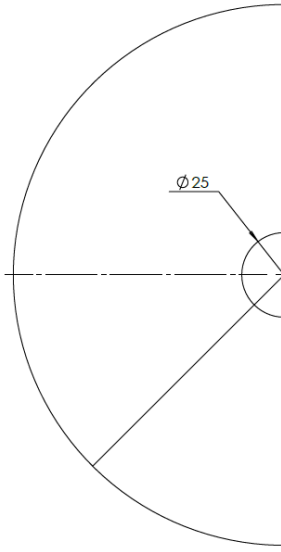
- Choose a flat mounting location which should be at least 50cm from heat sources, with a clear line of sight to the sky.
- Once you have decided on the location and checked that there are no obstructions such as cables or channels below the mounting surface, for the fastening nut and cables to pass through, use the downloaded 1:1 drill template to mark the mounting location.
- To prevent the marking tool or drill sliding off course, use masking tape over the drilling point to help hold the drill point in place. The masking tape also prevents hot shavings from the drill or hole saw which could penetrate and damage the painted surface.
- Drill the required hole.
- Clean the entire surface on which you plan to mount the antenna. Cleaning is done so as not to damage the vehicle's paint and to ensure good contact of the foam surface to the mounting area.
- Alcohol wipes can be used to remove oil and dirt from the surface.
- The 37mm threaded Spigot should be used to secure the antenna to a surface structure of 22mm thickness or less. Likewise, the 85mm threaded Spigot should be used to secure the

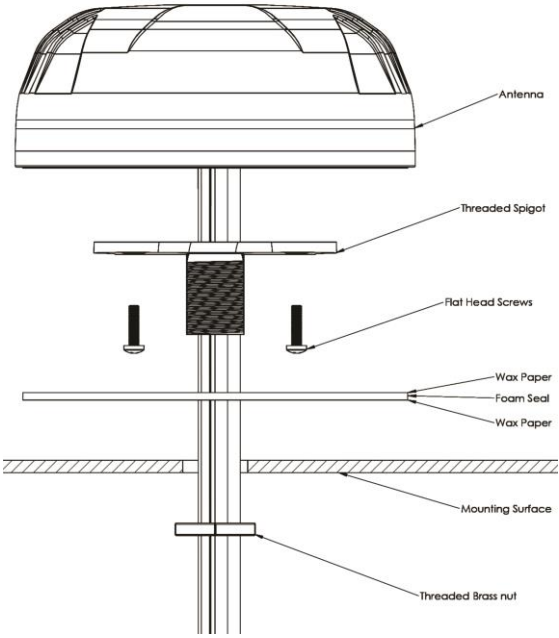
antenna to a surface structure of 70mm thickness or less.

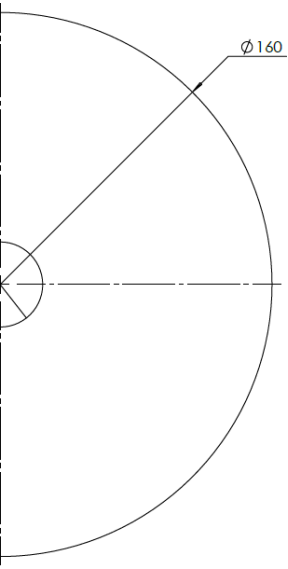
Securing the antenna

- Fasten the required spigot with the Flat head screws.
- Clean the plastic surface of the antenna base and threaded spigot.
- Peel off the top wax paper layer from the spigot mount adhesive foam seal and stick the foam seal to the antenna surface.
- Carefully slide the cable through the drilled hole.
- Peel off the second wax paper layer and firmly press the antenna down onto the surface.
- Tighten the nut so that it compresses the foam seal

Note: Be careful not to over tighten the nut



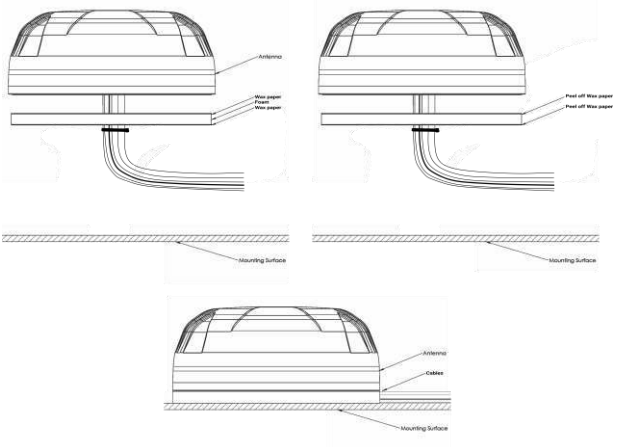

Antenna
Threaded Spigot
Flat Head Screws
Wax Paper
Foam Seal
Wax Paper
Mounting Surface
Threaded Brass nut


Ø160

Antenna Configuration 5

Adhesive mounting

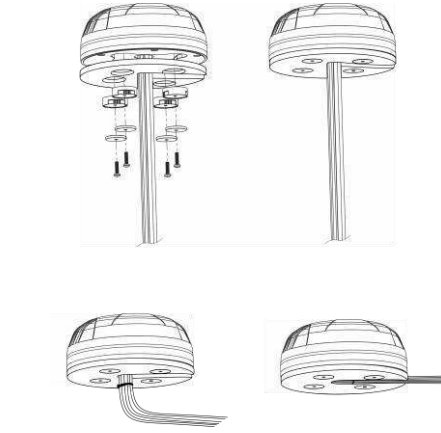
- Clean the entire surface on which you plan to stick the antenna. Alcohol wipes can be used to remove oil and dirt from the surface.
- Remove the nut, foam seal, flat head screws and short spigot from antenna.
- Put the foam seal back through the cables and towards the base of the antenna.
- Peel off the wax paper layer and stick the adhesive mount foam seal to the bottom antenna surface.
- Peel off the second wax paper layer and firmly press the antenna down onto the surface.
- Route the cable as required.



Antenna Configuration 6

Optional magnetic mount with magnetic base kit (A-MBK-003 -Not Provided). For temporary and low mobility installations.

- Clean the entire surface on which you plan to place the antenna. Alcohol wipes can be used to remove oil and dirt from the surface.
- Remove nut, spigot mount foam seal and spigot from antenna.
- Secure the magnetic base adapters and magnets from the MBK-3 to the antenna using the screws provided with the MBK-3.
- Peel off the wax paper on one side of the magnet mount foam seal and paste the seal onto the bottom antenna surface.
- Place antenna onto magnetic surface.
- Route the cable as required.



3. Antenna Mounting Precautions

- Place the antenna at the highest point possible and ensure that there are not any surrounding obstructions to the antenna.
- In order to avoid communication interference, ensure that the antenna is placed at least 0.5m away from other antennas and metal objects.
- Avoid installing the antenna near a chimney, as the smoke and soot emitted by the chimney can obstruct the signal level achieved by the antenna.
- Install the antenna away from heat sources and flammable gases.

4. Cable Routing

- Survey the planned cable route and look for any blocked passages. Consider alternate routes to find the best available path. Always keep the cables as short as possible to make sure that minimum cable losses are achieved.
- Note: Take advantage of any existing cable channels. e.g., wiring conduits to route the cables.
- Avoid running cables through components or sharp apertures that may cause excessive chafing. Doing so may erode the jacket and break signal continuity. Also, avoid kinking, pinching, or twisting a cable during a run.
- Use cable ties to secure the antenna cables.

When handling the antenna cables, it is essential you follow these basic rules:

- Never pull on the cable connectors; pull only on the cable.
- Cover connectors with insulation tape before threading them through a hole.
- Tighten the connectors and ensure that the cables don't rattle loose.

5. Safety

- If you are installing an antenna for the first time or unsure about how to install your antenna, obtain the help of a professional installer.
- Carefully survey the installation site before installation to locate secure handholds, dangerous conditions (such as powerlines and weak roofs) and the safest and most convenient placement for ladders if necessary.
- The antenna may not be used as a climbing or pulling device.
- Considerations must be taken when mounting the antenna that people do not hang or pull on it.
- When installing your antenna, remember:

1. Do not install on a wet or windy day or when there is lightning or thunder in the area.
2. Wear shoes with rubber soles and heels, protective clothing (long sleeve shirt or jacket) and rubber gloves.
3. Avoid installation while under the influence of drugs, alcohol or medication.
4. Make sure that any loose-fitting

jewelry or clothing is secured and tie back long hair as they can get caught in moving parts during installation.

5. If the antenna assembly starts to fall, get away from it and let it fall to avoid harming yourself.

- When drilling remember:

1. Use safety goggles when drilling the holes.
2. Avoid using bits that are dull, bent or damaged.
3. Be aware of where your fingers are in relation to the drill bit when using the drilling machine.
4. To stop the drilling machine, let the drill chuck come to a complete stop on its own. Do not grasp the chuck in an attempt to stop the drill bit.
5. Avoid awkward hand positions where a sudden slip could cause a hand to move into the drill bit or cutting tool.

CAUTION:
Antennas must be installed to provide a separation distance of at least 20cm from all persons so as to comply with SAR (Specific Absorption Rate) RF Exposure requirements.

European Waste Electronic Equipment Directive 2002/96/EC
Please ensure that old waste, electricals and electronics are recycled.

CE Directive 2011/65/EU (RoHS 3)
This product is fully compliant with the RoHS 3 directive.

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