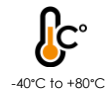


## ANTENNAS | GPS-1

# GPS/GLONASS ACTIVE ANTENNA

## GPS/GLONASS



- **GPS / GLONASS**
- **Robust (IK10), vandal resistant and water proof (IP68) GPS**
- **Ideal for positioning and timing systems for transportation, marine and IoT/M2M use**
- **Ultra-versatile mounting options for easy installation**



## Product Overview

Poynting's new V2 version of the GPS-1 antenna offers a small profile antenna for use in the IoT/M2M and transportation markets, where rugged and accurate positioning and timing is required. This new enclosure for the active GPS antenna keeps implementation as simple as possible with its many mounting options. The GPS/GLONASS system frequency band is 1575.42/1600 MHz and operating at temperatures as low as -40°C

## Features


- Small & Low-Profile (100mm x h 36mm)
- Careful mechanical design provides ruggedness, corrosion, water, dust resistance (IP68)
- Fire Resistant (complies with ECE-R 118.02)
- UV Stable Enclosure
- Easy installation; multi implementation options (as standard)
  - Spigot Mount
  - Magnetic Mount
  - Adhesive Tape Mount
  - Bracket Mount

## Application Areas

- Industrial automation, robotic machinery and other M2M systems
- Transport, tracking (Busses, Utility & Public Safety)
- Mining Vehicles & Machinery communications and positioning (M2M & IoT)
- Agricultural machinery
- Marine: small boats, yachts.
- Clocking and timing systems



## Antenna Overview

|                   |  |
|-------------------|---|
| Ports             | 1   |
| Frequency Bands   | 1575.42 MHz/1600 MHz  |
| Peak Gain         | 21 dBi  |
| Coax Cable Type   | RTK-031   |
| Coax Cable Length | 2m  |
| Connector Type    | SMA Male  |

## GPS/Glonass Antenna Electrical Specifications

|                              |  |
|------------------------------|--|
| Frequency Range (GPS):       | 1575.42MHz/1600MHz                       |
| Gain (Max):                  | 21+/-2dBi                                |
| VSWR:                        | ≤1.5:1                                   |
| DC Voltage:                  | 2.7-3.3 V                                |
| DC Current:                  | 5-15mA                                   |
| Noise Figure:                | ≤1.5 dB                                  |
| Nominal Impedance:           | 50 Ω                                     |
| Polarisation:                | RHCP                                     |
| Filter Out Band Attenuation: | 12dB Min f0+50MHz,<br>16dBi Min f0-50MHz |
| Cable:                       | RTK-031                                  |
| Connector:                   | SMA male                                 |
| Voltage:                     | 2.7 - 3.3V                               |
| Max. Power-W:                | 50                                       |
| Polarisation:                | RHCP                                     |
| Filter Out Band Attenuation: | 12dB Min f0+50MHz,<br>16dBi Min f0-50MHz |
| Voltage:                     | 2.7 - 3.3V                               |
| Max. Power-W:                | 50                                       |

## Coax Cable & Connector Type - GPS

|                  |            |
|------------------|------------|
| Cable length:    | 2m ±5%     |
| Coax cable type: | RTK-031    |
| Connector type:  | SMA (Male) |

\*The coax cables & connectors are factory mounted to the antenna

## Product Box Contents

|                   |  |
|-------------------|--|
| Antenna:          | A-GPS-0001-V2-01   |
| Mounting bracket: | Ø20 Threaded Spigots (Up to 60mm clamping thickness), Adhesive Surface Mounting & Magnetic Mount |

## Ordering Information

|                     |                  |
|---------------------|------------------|
| Commercial name:    | GPS-1            |
| Order product code: | A-GPS-0001-V2-01 |
| EAN number:         | 0707273469823    |

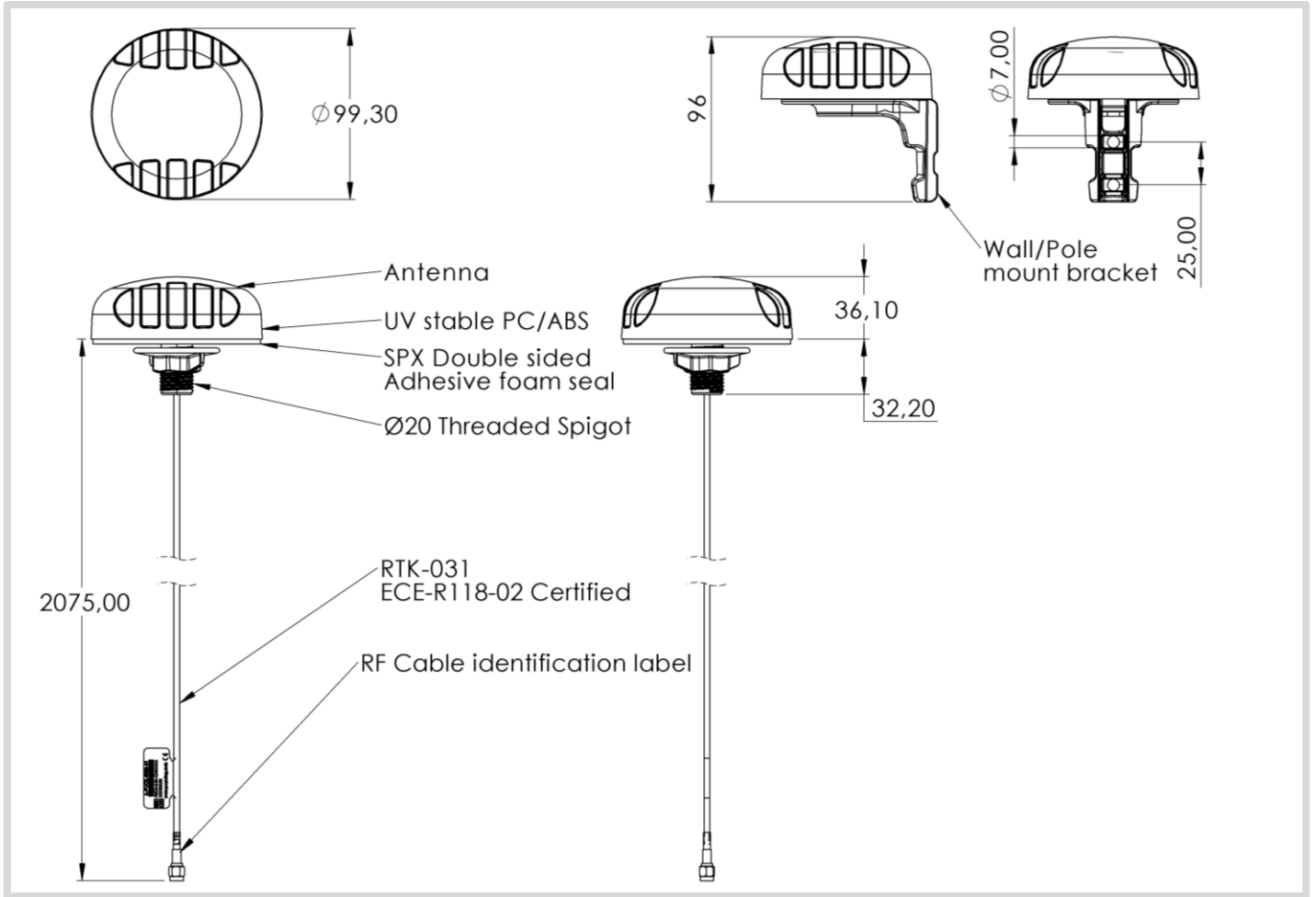
## Mechanical Specifications

|                      |   |
|----------------------|---|
| Product dimensions   | Ø99.3 mm x 36 mm  |
| Packaged dimensions: | 150 mm x 150mm x 120mm                                      |
| Weight:              | 0.312kg   |
| Packaged weight:     | 0.443kg   |
| Radome material:     | PC+ABS (Halogen free)                                       |
| Radome colour:       | Pantone Black   |
| Mounting Type:       | Ø20 Threaded Spigot, Pole, Wall, Surface and Magnetic mount |

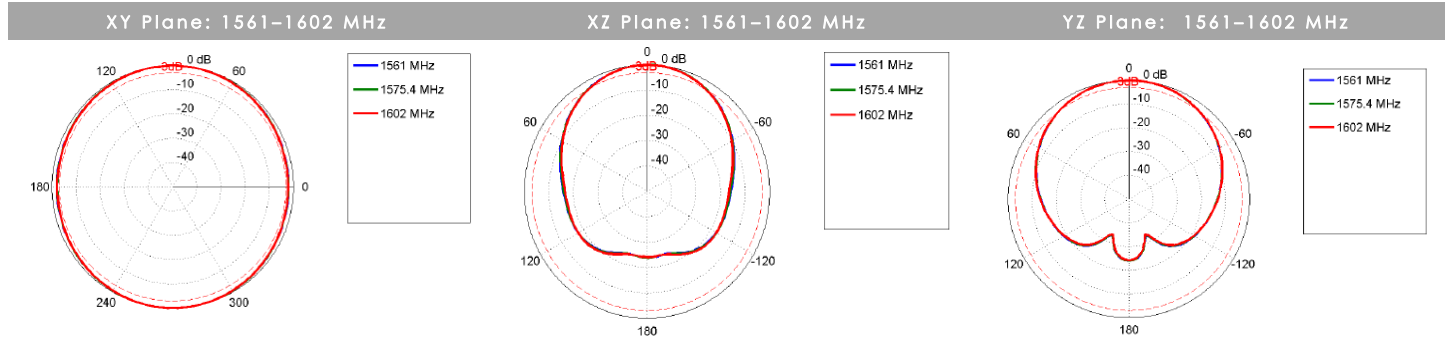
## Environmental Specifications, Certification & Approvals

|  |  |
|--|--|
| Wind Survival:                           | <220 km/h                              |
| Temperature Range (Operating):           | -40°C to +80°C                         |
| Environmental Conditions:                | Outdoor/Indoor                         |
| Water ingress protection ratio/standard: | IP 68                                  |
| Salt Spray:                              | MIL-STD 810F/ASTM B117                 |
| Operating Relative Humidity:             | Up to 98%                              |
| Storage Humidity:                        | 5% to 95% - non-condensing             |
| Storage Temperature:                     | -40°C to +80°C                         |
| Enclosure Flammability Rating:           | UL 94-HB, ECE-R118.02 Certified cables |
| Impact resistance:                       | IK 10                                  |
| Product Safety & Environmental:          | Complies with CE and RoHS standards    |

Technical Drawings



### Radiation Patterns – GPS

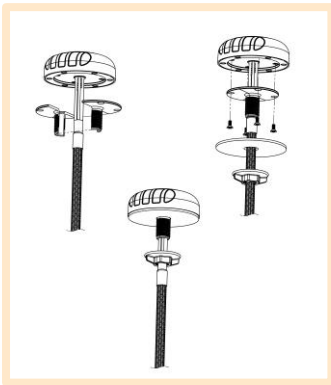


## Mounting Options

### Many Mounting Possibilities – included as standard

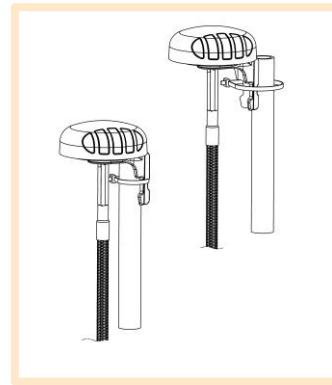
Poynting's new PUCK antenna range provides easy installation with the multiple mounting options. This includes as standard:

- Spigot Mount - two different lengths included (40mm & 80mm)
- Vertical Pole mount (inner & outer mounting for smaller and larger poles)
- Horizontal Pole Mount (e.g. marine rails)
- Magnetic Mount
- Surface Mount (Double Sided Tape)
- Wall Mount



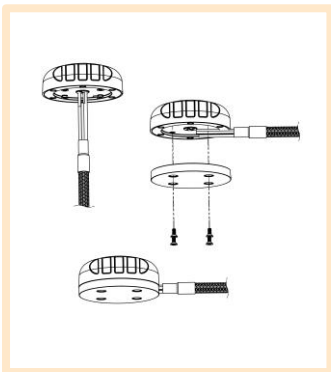
#### Spigot Mount

Removable 40mm & 80mm threaded spigot (included)



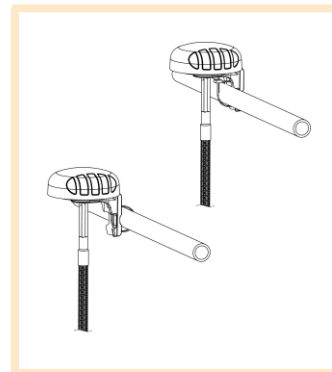
#### Vertical Pole Mount

Pole/Wall Mounting bracket (included)



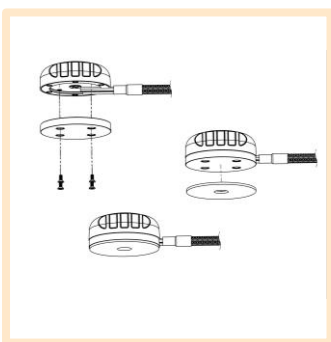
#### Magnetic Mount

Magnetic Base (included)  
 For temporary and low mobility installations.



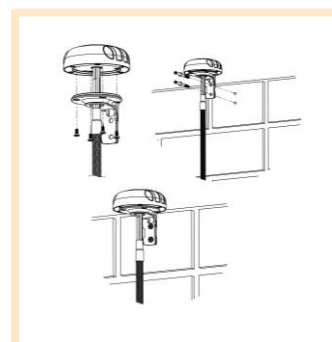
#### Horizontal Pole Mount

Pole/Wall Mounting bracket (included)



#### Surface Mount

Adhesive Surface Mounting (included) or can also be directly secured with longer M4 bolts (not included) to the female threaded inserts located in the antenna base



#### Wall Mount

Pole/Wall Mounting bracket (included)

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## Additional Accessories

See accessories technical specifications on [www.poynting.tech](http://www.poynting.tech)

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## Contact Poynting

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