# GPS-1



ANTENNAS | GPS-1

# GPS/GLONASS ACTIVE ANTENNA

# GPS/GLONASS







**GPS / GLONASS** 

and IoT/M2M use





Robust (IK10), vandal resistant and water proof (IP68) GPS Ideal for positioning and timing systems for transportation, marine

Ultra-versatile mounting options for easy installation







70



**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
- 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**

	GPS
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

RHCP Polarisation:

12dB Min f0+50MHz. Filter Out Band Attenuation: 16dBi Min f0-50MHz

Cable: RTK-031

Connector: SMA male

2.7 - 3.3V Voltage:

Max. Power-W: 50

Polarisation: RHCP

12dB Min f0+50MHz, Filter Out Band Attenuation: 16dBi Min f0-50MHz

2.7 - 3.3V Voltage:

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

Ø20 Threaded Spigots (Up to 60mm clamping thickness), Adhesive Surface Mounting bracket:

Mounting & Magnetic Mount

# **Ordering Information**

Commercial name: GPS-1

Order product code: A-GPS-0001-V2-01

EAN number: 0707273469823

## **Mechanical Specifications**

Radome material:

**Product dimensions** Ø99.3 mm x 36 mm

Packaged dimensions: 150 mm x 150mm x 120mm

Weight: 0.312kg

Packaged weight: 0.443kg

PC+ABS (Halogen free) Radome colour: Pantone Black

Ø20 Threaded Spigot, Pole, Wall, Surface and **Mounting Type:** 

Magnetic mount

# **Environmental Specifications, Certification & Approvals**

Wind Survival: <220 km/h

**Temperature Range** -40°C to +80°C

(Operating):

**Environmental Conditions:** Outdoor/Indoor

Water ingress protection IP 68 ratio/standard:

MIL-STD 810F/ASTM B117 Salt Spray:

Operating Relative Humidity: Up to 98%

**Storage Humidity:** 5% to 95% - non-condensing

**Storage Temperature:** -40°C to +80°C

**Enclosure Flammability** 

UL 94-HB, ECE-R118.02 Certified cables Rating:

Impact resistance: IK 10

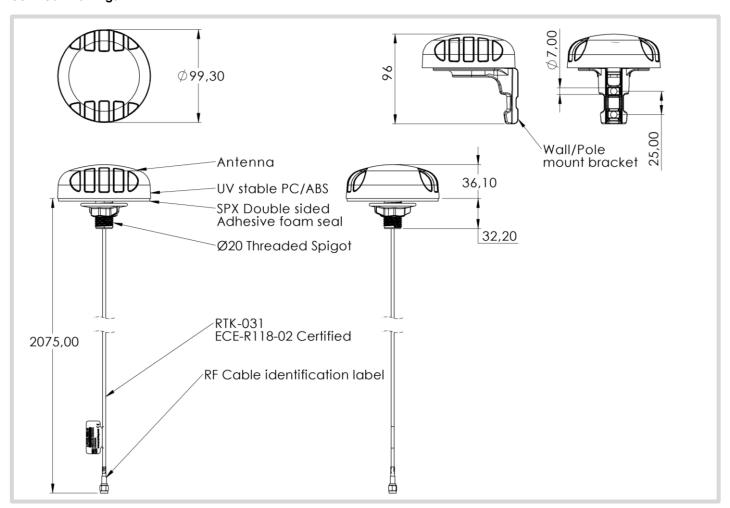
**Product Safety &** Complies with CE and RoHS standards **Environmental**:





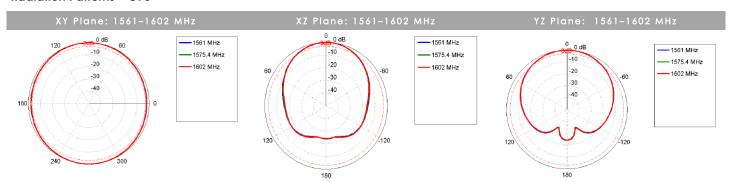


# **Technical Drawings**





# 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)



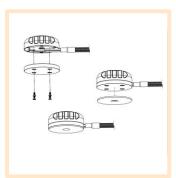
## **Magnetic Mount**

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)



## **Additional Accessories**

See accessories technical specifications on <a href="https://www.poynting.tech">www.poynting.tech</a>

# **Contact Poynting**

Poynting Antennas (Pty) Ltd - Head Office Unit 4, N1 Industrial Park Landmarks Avenue, Samrand, 0157 South Africa

**Phone:** +27 (0) 12 657 0050 **E-mail:** sales@poynting.co.za

# **Poynting Europe**

Regus Business Center Neue Messe Riem Kronstadter Straße 4 81677 München Germany

**Phone:** +49 89 208026538

**E-mail:** sales-europe@poynting.tech