

ANTENNAS | GPS-1 SERIES

GPS/GLONASS ACTIVE ANTENNA

GPS/GLONASS



						 Industrial	
1575.42 MHz 1600 MHz	21 dBi	GPS Included	IP 69K	-40°C to +80°C	Chemical Protection		
							 Rural/Farm
Fire Resistant	Robust						 Marine

• GPS / GLONASS • Robust, vandal-resistant and waterproof (IP 69K) • Ideal for positioning and timing systems for transportation, marine and IoT/M2M use • Ultra-versatile mounting options for easy installation	 Transportation
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APPLICATION AREAS

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 (Ø100mm x 36mm (h))
- Careful mechanical design provides ruggedness, corrosion, water and dust resistance (IP 69K)
- Fire Resistant
- UV Stable Enclosure
- 5G Ready – includes the 3.2 GHz to 4.2 GHz CBRS Band
- Easy installation; multi-implementation options available:
 - 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
Polarisation	RHCP
Peak Gain	21 dBi
Coax Cable Type	RTK-031
Coax Cable Length	2m
Connector Type	SMA (M)

*The coax cable & connector are factory mounted to the antenna

Electrical Specifications – GPS/Glonass Antenna

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

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:	6009710927151
EU Homologation Number:	E1*10R06/01*9551*00

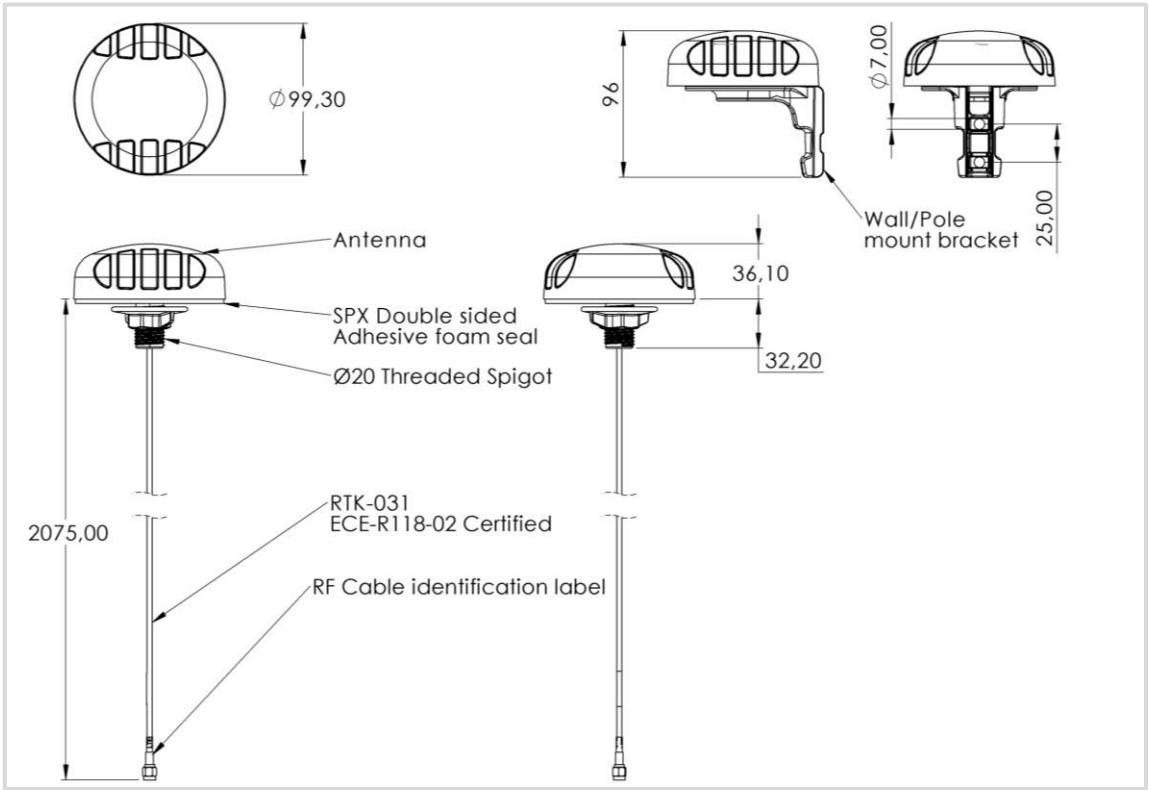
Mechanical Specifications

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

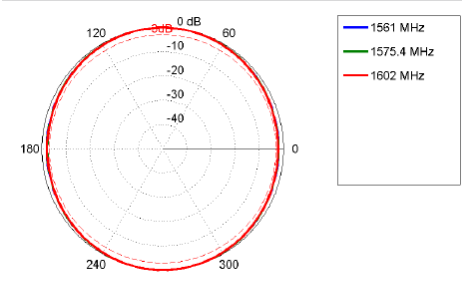
Wind Survival:	≤220 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Water Ingress Protection Ratio/Standard:	IP 69K
Salt Spray:	MIL-STD 810G/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-40°C 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 Drawing

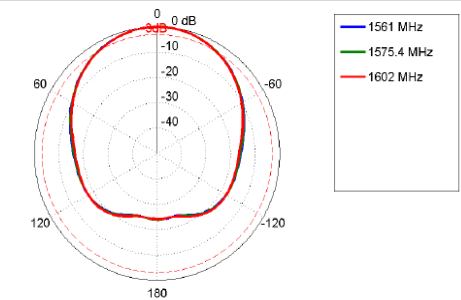


Radiation Patterns - GPS

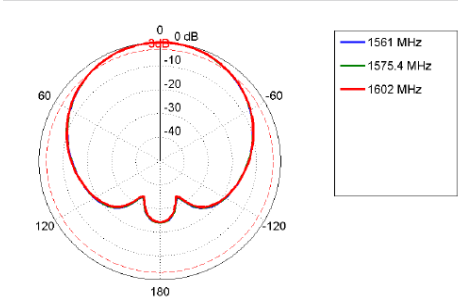
XY Plane: 1561-1602 MHz



XZ Plane: 1561-1602 MHz



YZ Plane: 1561-1602 MHz

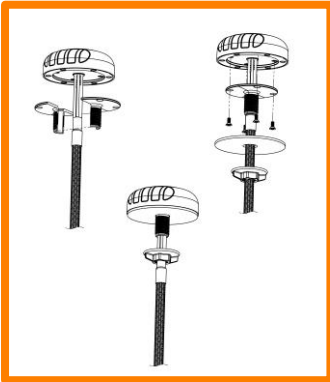


Mounting Options

Many Mounting Possibilities – included as standard

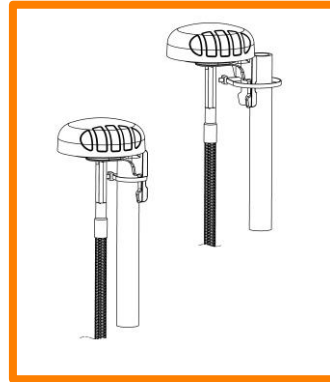
Poynting's GPS-1 provides easy installation with multiple mounting options. This includes as standard:

- Spigot Mount - two different lengths included (35mm & 75mm)
- 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



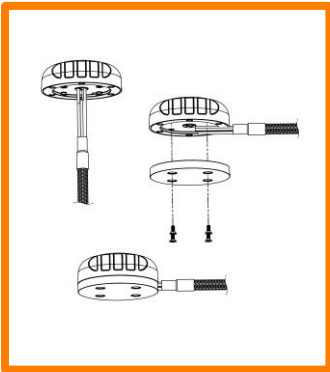
Spigot Mount

Removable 35mm & 75mm threaded spigot (included)



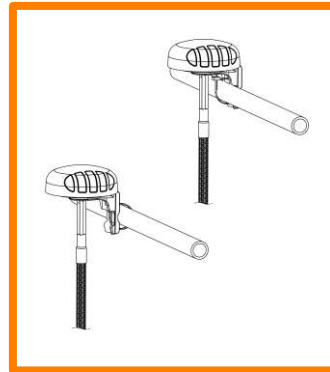
Vertical Pole Mount

Pole/Wall Mounting bracket (included)



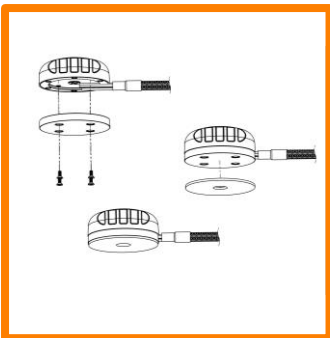
Magnetic Mount

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



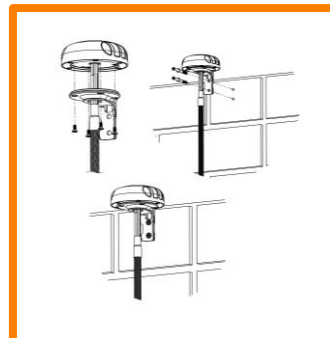
Horizontal Pole Mount

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 www.poynting.tech

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