TECHNICAL PRODUCT DATA SHEET

L1G1A-STD

GNSS L1/G1/E1 Active Antenna

DESCRIPTION

The L1G1A-STD is a professional grade, active GNSS L1/G1/E1 antenna built for long lasting, trouble-free deployment. It is small and lightweight, with exceptional protection against the elements.

Built to support the wireless telecommunications industry, including DAS, the precise L1G1A antenna features low noise and high gain to provide optimum signal quality.

Designed for easy installation in outdoor locations, the durable, unobtrusive cover protects against UV, rain, lightning, or chemicals.

FEATURES

- GNSS Bands:
  - GPS L1
  - GLONASS L1
  - GALILEO E1
- Low noise and high gain
- Integrated lightning protection
- Easy to install
- Operates in a wide range of environmental conditions
- RoHs-Compliant (Pb-free)

OPTIONS

This GNSS antenna is available with several different configuration options. Please contact GPS Source for further information on product options.

RELATED PRODUCTS:

L1AW, L1PW, L1G1A, L1G1P, S14GT, S18GT, RMS216, RMS232

1 L1G1A-STD Specifications

Table 1-1. Electrical Specifications

Operating Temperature -54°C to 71°C

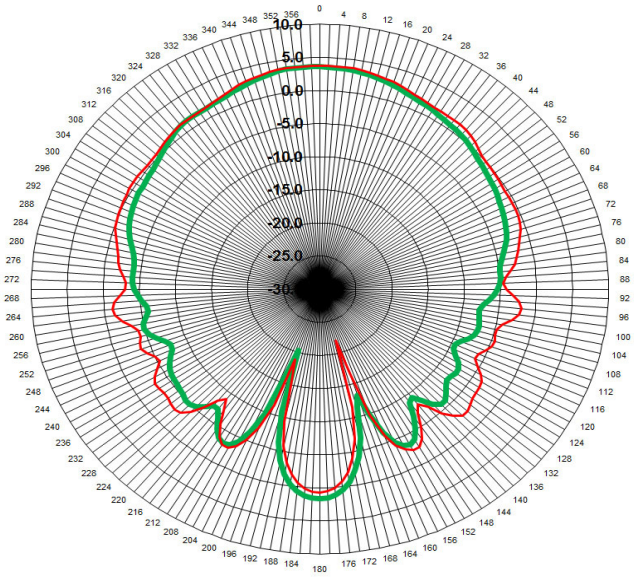
Parameter		Conditions	Min	Typ	Max	Units
Frequency Range (Passband)	GPS L1 GLONASS L1 Galileo E1	Ant: Output = 50Ω	1559	1575.42	1610	MHz
Out Impedance				50		Ω
Element Gain	GPS L1	Output = 50Ω	> +3			dBiC
	GLONASS L1		>+3			
	Galileo E1		> +3			
LNA Gain	GPS L1	Output = 50Ω	> +30			dB
	GLONASS L1		> +30			
	Galileo E1		> +30			
Output SWR		Output = 50Ω			2:1	—
Required DC Input Voltage			3		16	VDC
LNA Current		Output = 50Ω			50	mA
LNA OPIdb Compression				10		dBm
LNA OIP3				15		dBm
Noise Figure					3.0	dB
Polarization		Right Hand Circular				
Axial Ratio at Peak		< 6 dB Max				
Beam Width		75 +/-5° at -3dB from Peak (Free Space)				
Altitude		50,000 ft				
Lightning Protection		EN6100-4-5, 8/20 µs		4		KA

wireless@gpssource.com
www.gpssource.com

2 Performance Data

2.1 L1 Radiation Pattern

Figure 2-1. Measured at 1575 MHz



3 Product Code Decoder

L1 G 1 A-STD

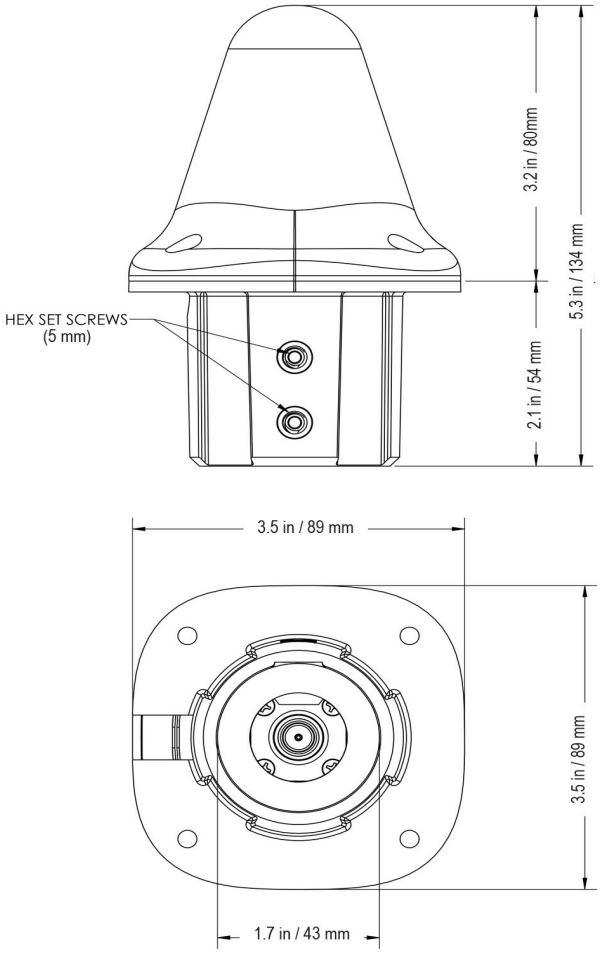
Antenna
L1G1A = L Band Active Antenna

Standard Includes:
Snow & Ice Mitigating Radome
Pole Mount
Lightning Protection
N(f) Connector

Note: Other configurations are available for this GNSS antenna product. Contact GPS Source at wireless@gpssource.com or visit the website at www.gpssource.com.

4 Mechanical Drawing

4.1 L1G1A-STD GNSS L1/G1/E1 Active Antenna



GPS Source Part No.	Finish	Size	Mass	Tolerances	
L1G1A-STD	**N/A**	**C**	.59 lbs	Linear .X = ± .1 .XX = ± .01 .XXX = ± .005	Angular ±1° RADII See Linear
Description **L1G1 ACTIVE BOTTOM MOUNT N(F) ANTENNA**	Material SEE BOM	3rd Angle Projection			

Dimensions are in inches unless otherwise specified. IAW ASME Y14.5M - 1994

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