



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 G1
 - 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:

L1A, L1P, L1G1A, L1G1P, S14GT, S18GT, RMS216, RMS232



L1G1A-STD DATA SHEET

059-FAN-AKD-AWY-RYZ-SP-001

09/01/2015

www.gpssource.com

1 L1G1A-STD Specifications

Table 1-1. Electrical Specifications

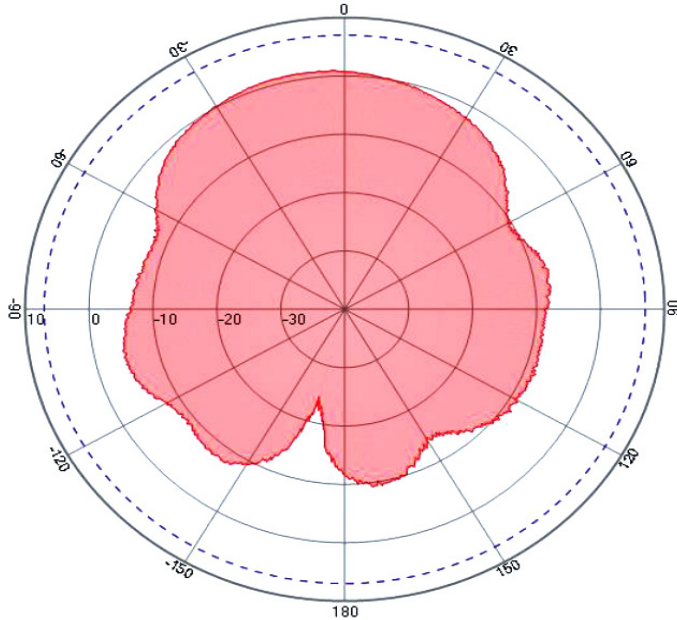
Operating Temperature -54°C to 71°C

Parameter	Conditions	Min	Typ	Max	Units
Frequency Range (Passband)	GPS L1 GLONASS G1 Galileo E1 Ant: Output = 50Ω	1559	1575.42	1610	MHz
Out Impedance			50		Ω
Element Gain	GPS L1	> +3			dBiC
	GLONASS G1	>+3			
	Galileo E1	> +3			
LNA Gain	GPS L1	> +30			dB
	GLONASS G1	> +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

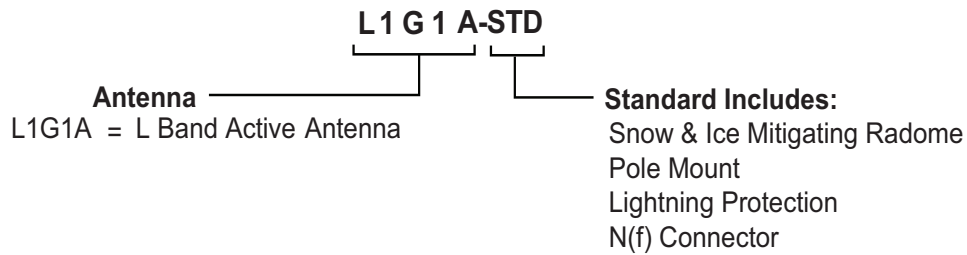
2 Performance Data

2.1 L1 Radiation Pattern

Figure 2-1. Measured at 1597 MHz



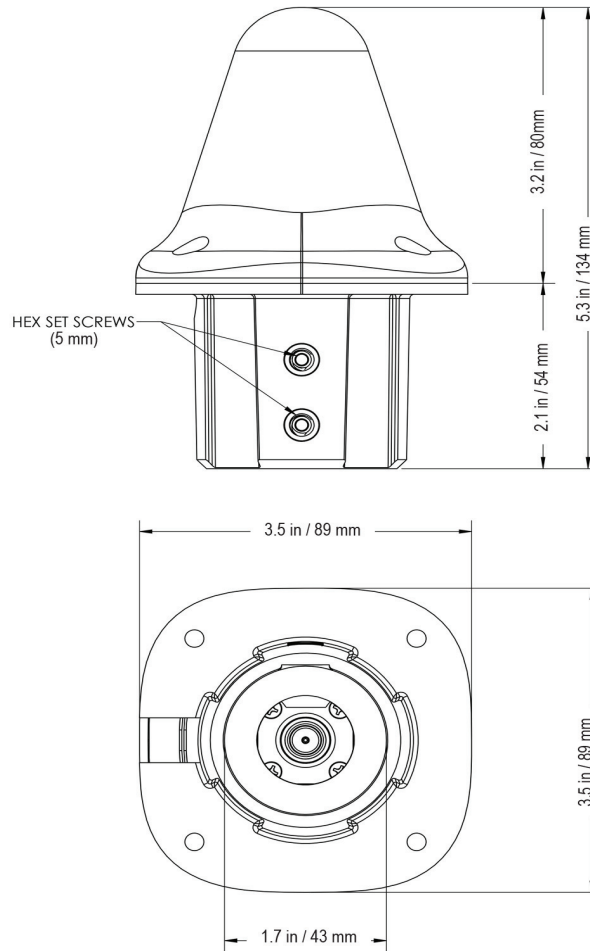
3 Product Code Decoder

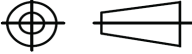


Note: Other configurations are available for this GNSS antenna product. Contact GPS Source at wireless@gpssource.com or visit the website at www.gpssource.com.

4 Mechanical Drawing

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



GPS Source Part No. L1G1A	Finish N/A	Size C	Mass .59 lbs	Tolerances	
Description L1G1 ACTIVE BOTTOM MOUNT N(F) ANTENNA	Material SEE BOM	3rd Angle Projection 	Linear		Angular
			.X = ± .1	.XX = ± .01	.XXX = ± .005
Dimensions are in inches unless otherwise specified. IAW ASME Y14.5M - 1994					



L1G1A-STD DATA SHEET

059-FAN-AKD-AWY-RYZ-SP-001
Page 5 of 5, 09/01/2015

64 N. Mission Drive
Pueblo West, CO 81007
Phone: (+1)(719) 561.9520
Fax: (+1)(719) 565.0890
wireless@gpssource.com
www.gpssource.com

AS9100C:2009 and ISO 9001:2008 Compliant Company



© 2014 GPS Source, Inc. All rights reserved.

GPS Source, Inc., GPS Live Inside, GPS Source logo, and other GPS Source, Inc. products, brands, and trademarks mentioned in this document are property of GPS Source, Inc. and/or its affiliates in the United States and/or other countries. Other products, brands, and trademarks are property of their respective owners/companies. Any rights not expressly granted herein are reserved.

DISCLAIMER: The materials in this document could include inaccuracies or typographical errors and are subject to change at any time. The materials are provided "as is" without warranty of any kind. To the maximum extent permitted by applicable law, GPS Source, Inc. and its suppliers hereby disclaim all warranties, either expressed or implied, and conditions with respect to the materials, their quality, performance, suitability, merchantability, fitness for a particular purpose, title, and non-infringement. LIMITATION OF LIABILITY: IN NO EVENT WILL GPS SOURCE, INC. AND ITS SUPPLIERS BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT OR TORT, ARISING OUT OF THE USE OR INABILITY TO USE THE MATERIALS AVAILABLE IN THIS DOCUMENT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN PARTICULAR AND WITHOUT LIMITATION, GPS SOURCE, INC. SHALL HAVE NO LIABILITY FOR ANY LOSS OF USE, DATA, INCLUDING THE COSTS OF RECOVERING SUCH DATA, OR PROFITS.