

TECHNICAL PRODUCT DATA SHEET

L1L2-S2GA

L1/L2 Active Antenna

DESCRIPTION

The L1L2-S2GA is a dual band active L1/L2 GPS antenna designed for long term reliability. It is small and lightweight, with exceptional protection against the elements.

Designed to support the Warfighter, the portable, yet precise GPS L1/L2 antenna is built for tough applications. The radome is made of a high-grade polymer, with a design to protect from UV, rain, lightning, chemical and jet fuels.

FEATURES

- Military and Civilian Aviation Applications
- L1/L2 Dual Band
- Waterproof
- Excellent LNA gain
- Small Form Factor
- High Out-of-Band Rejection
- Custom Gain Available
- Side or Magnet Mount
- Multiple Color Options

OPTIONS

The L1L2-S2GA comes with many available options to meet specific needs. Please contact GPS Source via phone, email, or visit the website for further information on product options and specifications.



1 L1L2-S2GA Specifications

Table 1-1. Electrical Specifications

Operating Temperature -54°C to 71°C

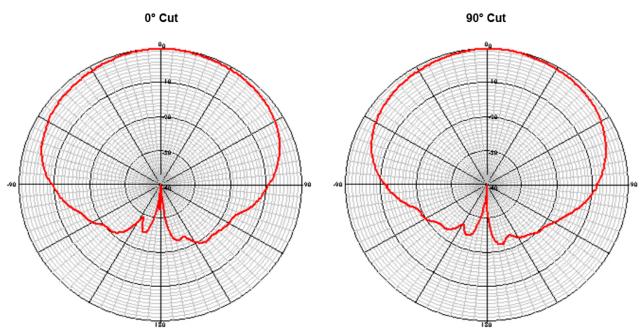
Parameter		Conditions	Min	Тур	Max	Units	
Frequency Range (Passband)	L1	– Ant: Output = 50Ω	1560	1575.42	1590	MHz	
	L2		1212	1227.60	1242		
Out Impedance				50		Ω	
Element Gain	L1	– Output = 50Ω, 4ft G.P.	3	3.40	4	dBiC	
	L2		3	6.70	7		
LNA Gain	L1	Output = 50Ω	31.50	33	34.50	dB	
	L2		31.50	33	34.50		
Output SWR		Output = 50Ω			2:1	—	
Required DC Input Voltage			5		16	VDC	
LNA Current		Output = 50Ω, 5V		44	50	mA	
LNA OP1dB Compression				13		dBm	
LNA OIP3				25		dBm	
Noise Figure		Output = 50Ω, 5V			3	dB	
Rejection	+/-50MHz	> 12dB		1		1	
	+/-100MHz	> 42dB					
Polarization		Right Hand Circular					
Axial Ratio at Peak		2dB Max					
Beam Width		115° +/-5° at -3dB from Peak					
Altitude		50,000ft					
Lightning Protection		DC Ground on the Antenna Element					



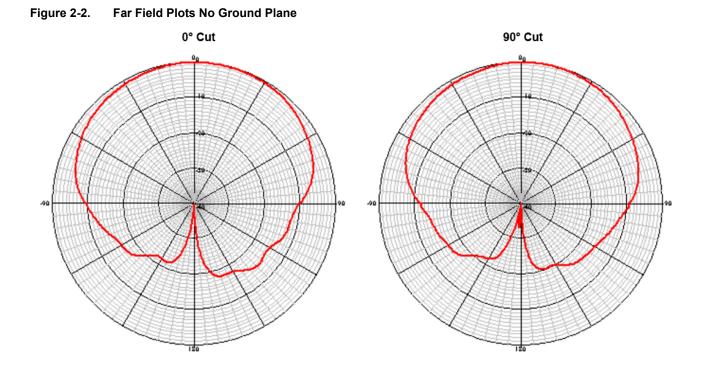
2 Performance Data

2.1 L1 Center Frequency





2.2 L2 Center Frequency



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3 Environmental Requirements

The L1L2-S2GA has been designed to meet the MIL-STD-810 following requirements.

Table 3-1. MIL-STD-810 Requirements

Environment	MIL-STD	-810 Requirements
Mechanical Vibration	810G	Mtd 514.6
Functional Shock	810G	Mtd 516.6
Crash Hazard	810G	Mtd 516.6
Temperature and Altitude	810D	Mtd 520.0, Proc. III
Temperature Shock	810D	Mtd 503.2, Proc. I
Humidity	810D	Mtd 507.2, Proc. III
Salt Fog	810D	Mtd 509.2, Proc. I
Fungus	810D	Mtd 508.3
Sand and Dust:	810D	Mtd 510.2, Proc. I
Explosive Atmosphere	810D	Mtd 511.2, Proc. I

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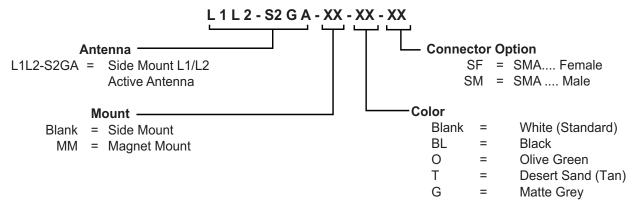


4 Product Options

Table 4-1. L1L2-S2GA Available Options

Туре	Options			
Connector	SMA	Male and Female		
Mounts	Side			
Mounts	Magnet			
	White (Standard)	Gloss		
	Black	Matte		
Color (FED-STD-595B)	Olive Green	Matte		
	Desert Sand	Matte		
	Gray	Matte		

5 Product Code Decoder



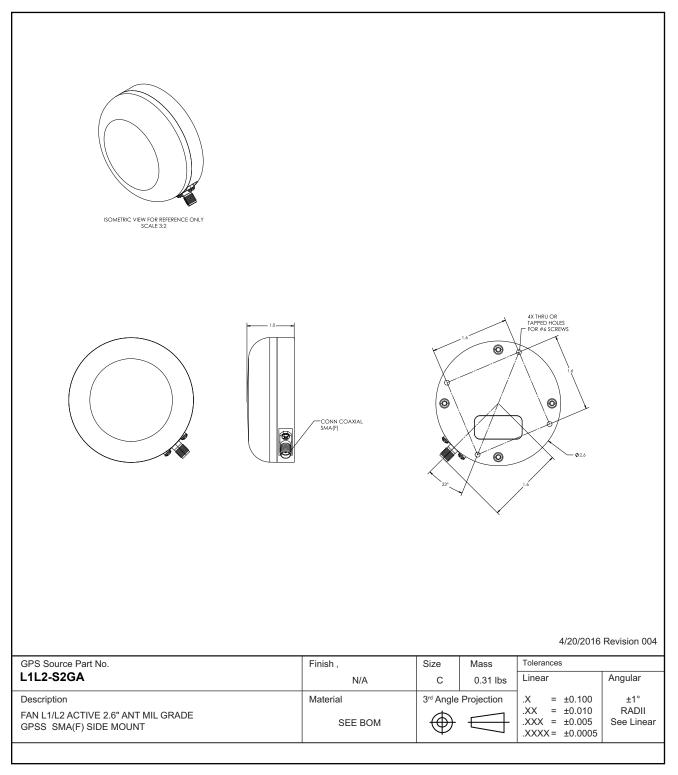
Note: To have product/part codes customized to meet exact needs, contact GPS Source at GPSS-Sales@gd-ms.com or visit the website at www.gpssource.com.



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6 Mechanical Drawing

6.1 L1L2-S2GA L1/L2 Active Antenna



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AS9100 and ISO 9001 Compliant Company

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