

L1L2-2GAD

GPS Active DAGR Antenna

Features

- ❖ Designed Specifically for Operation with The Defense Advanced GPS Receiver (DAGR)
- ❖ L1/L2 Dual Band
- ❖ Spec Compliant Performance Over the Entire Environmental and Voltage Range
- ❖ Side or Bottom Mount
- ❖ Multiple Color Options



Description

The L1L2-2GAD is a dual band active L1/L2 GPS antenna that is specifically designed for operation with the US DoD DAGR military grade receiver. The L1L2-2GAD is available with bottom or side mount connector and multiple radome colors to meet the customer's specific needs.

Please call (719) 561-9520 or visit our website (www.gpssource.com) for further information on how to order or details on product options.

L1L2-2GAD

Electrical Specifications, Operating Temperature -54⁰ to 71⁰ C

Parameter		Conditions	Min	Typ	Max	Units
Frequency Range: (Passband)	L1	Ant – Output = 50Ω	1560.5	1575.5	1590.5	MHz
	L2	Ant – Output = 50Ω	1212.6	1227.6	1242.6	MHz
Out Imped.				50		Ω
Element Gain	L1	Output = 50Ω, 4 ft G.P.	3.0	3.4	4.0	dBiC
	L2	Output = 50Ω, 4 ft G.P.	3.0	6.7	7.0	
LNA Gain	L1	Output = 50Ω	30	31.0	33.5	dBm
	L2	Output = 50Ω	30	31.0	33.5	
Output SWR		Output = 50Ω			2.0:1	-
LNA Current		Output = 50Ω, Voltage=3.3V		31	35	mA
LNA OP1dB Compression				8		dBm
LNA OIP3				20		dBm
Noise Figure		Output = 50Ω, Voltage=3.3V		3.0	3.5	dB
Rejection @ +/- 50 MHz						>12dB
@ +/- 100 MHz						>42dB
Polarization						Right Hand Circular
Axial Ratio @ Peak						2dB max
Beam width						115° +/-5° at -3dB from peak
Altitude						50,000ft
Lightning Protection						DC ground on the antenna element

Environmental:

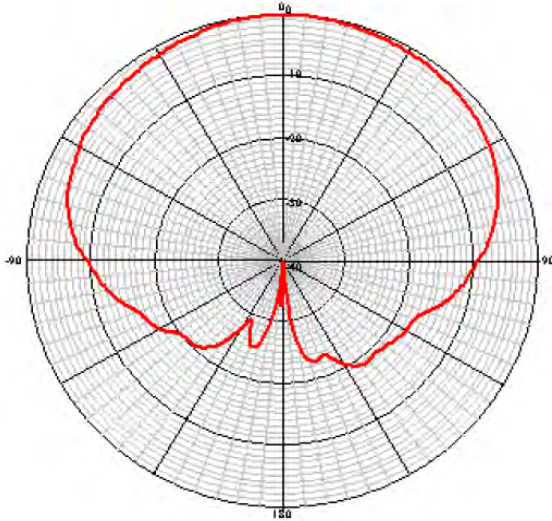
The L1L2-2GAD has been designed to meet the MIL-STD-810 following requirements:

- Mechanical Vibration: 810G, Mtd 514.6
- Functional Shock: 810G, Mtd 516.6
- Crash Hazard: 810G, Mtd 516.6
- Temp & 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 & Dust: 810D, Mtd 510.2, Proc. I
- Explosive Atmosphere: 810D, Mtd 511.2, Proc. I

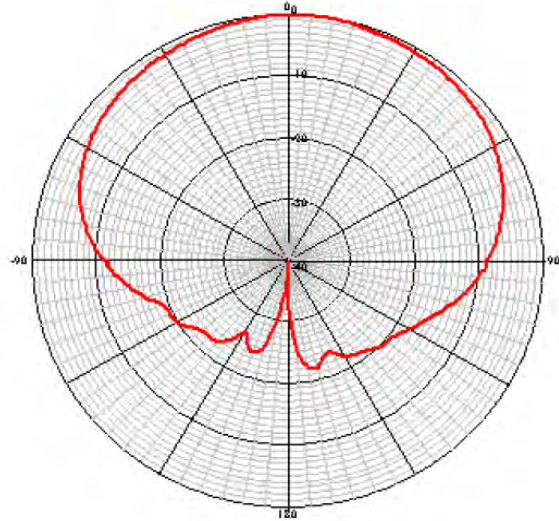
L1L2-2GAD Performance Data

Far-Field Plots - No Ground Plane, L1 Center Frequency

0-deg Cut

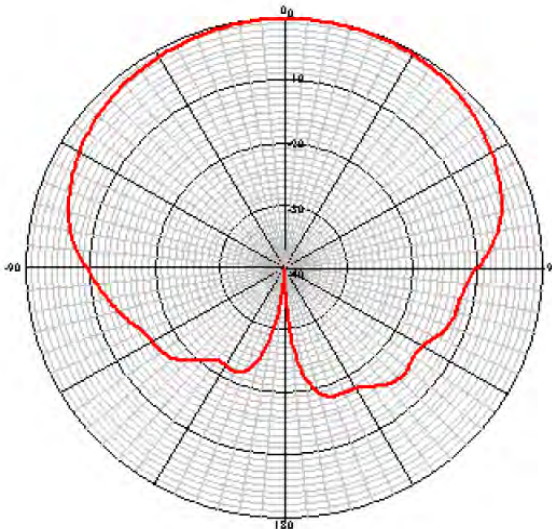


90-deg Cut



Far-Field Plots - No Ground Plane, L2 Center Frequency

0-deg Cut



90-deg Cut

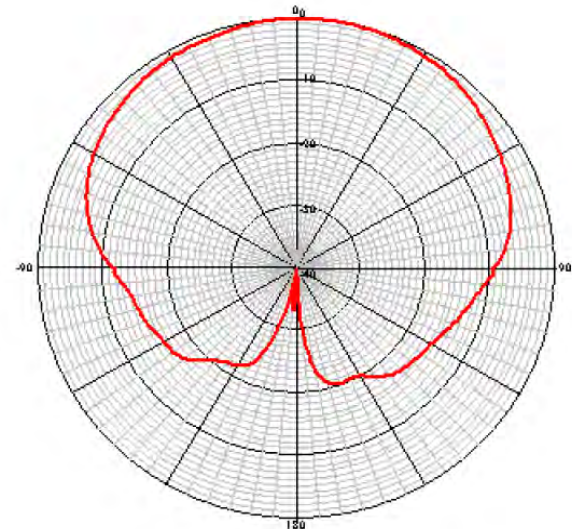


Figure 1. Antenna Far Field Pattern Data

L1L2-2GAD

BULKHEAD CONNECTION

Mechanical (1 OF 2):

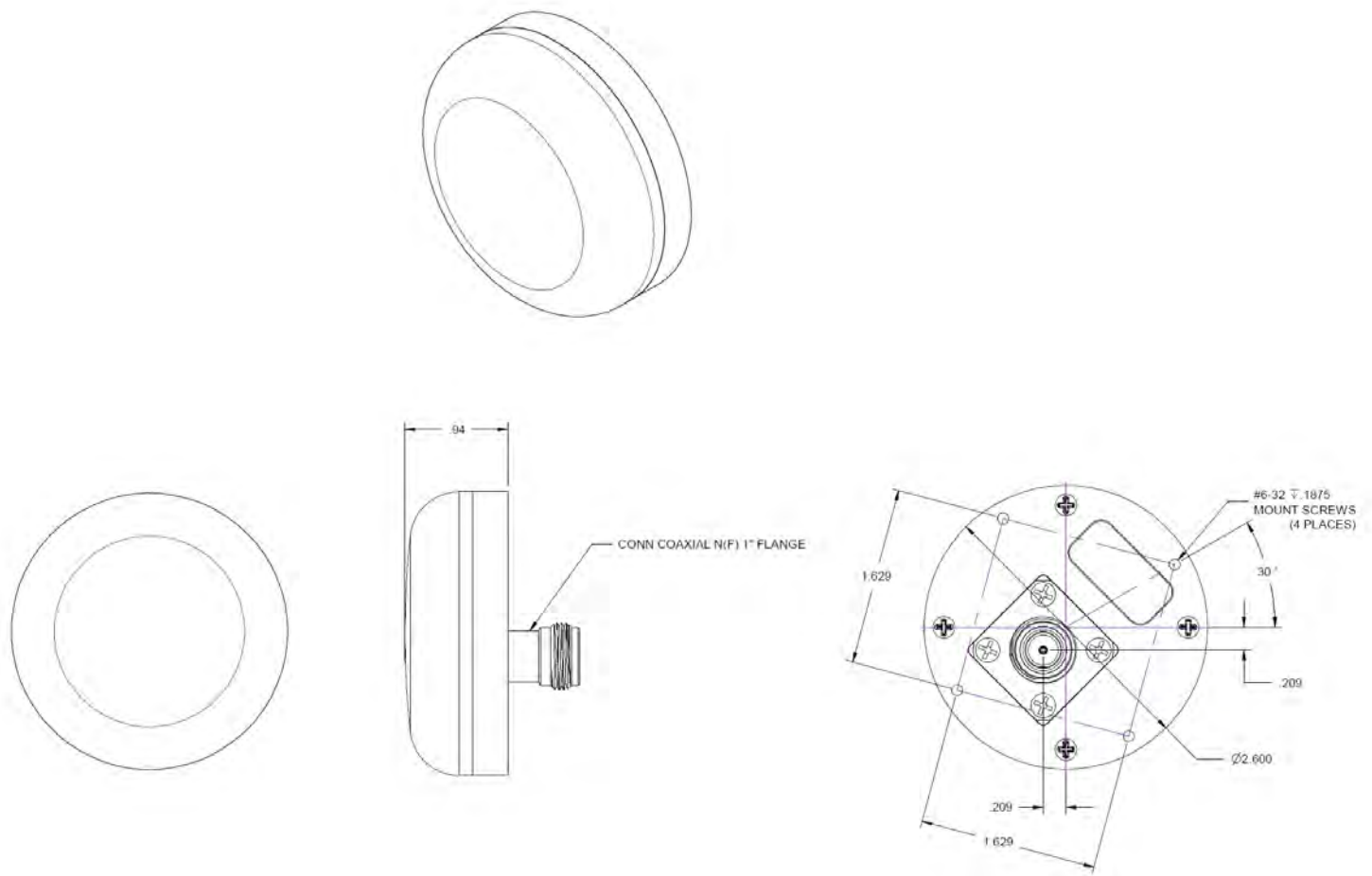


Figure 2. Antenna Mechanical Data

L1L2-2SGAD

Mechanical (2 OF 2):

SIDEMOUNT (SMA)

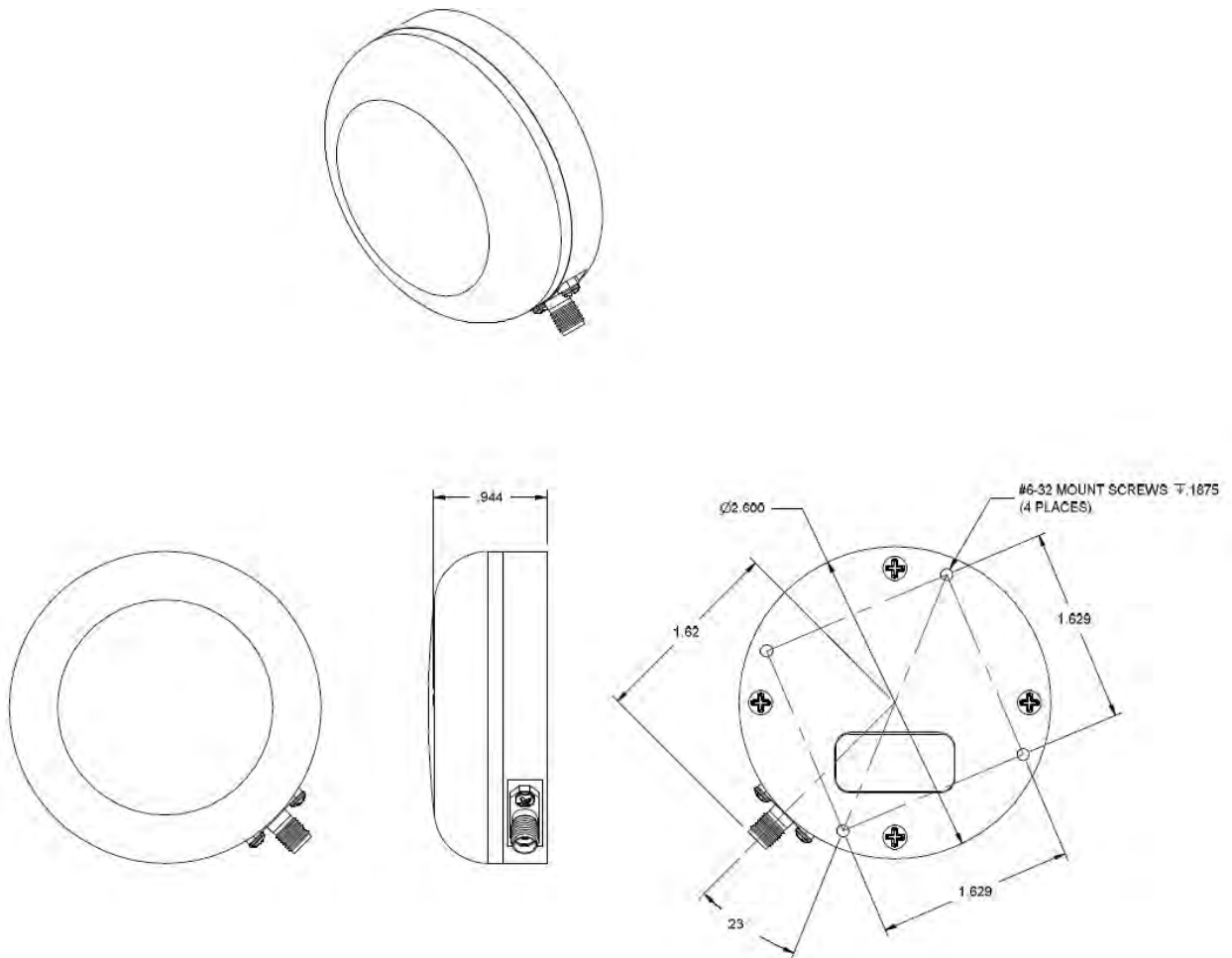


Figure 3. Antenna Mechanical Data

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Options:	
Mounting Option	Bottom Mount Side Mount (SMA only)
Color Options	White, Gloss
	Black, Matte
	Olive Green, Matte
	Tan, Matte
Connector Options (Connector Type)	N (Male & Female)
	SMA (Male & Female)
	TNC (Female)

L1L2-2GAD

Part Number

L1L2 - 2GAD - X - M

Product:
Standard L1L2 GPS
Active Antenna

Mount Options:
2GAD - Bottom Mount
2SGAD - Side Mount (SMA only)

Color Options:
1 – White, Gloss
3 – Olive Green, Matte
2 – Black, Matte
4 – Tan, Matte

Connector Option:
NM – N, Male
NF – N, Female
SM – SMA, Male
SF – SMA, Female
TF – TNC, Female

For help in creating the part number to meet your exact needs, contact Sales@gpssource.com or visit our website at www.gpssource.com.