

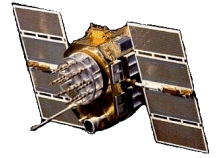


ISO 9001:2008/FAA Approved Facility

# Active L1/L2 GPS Antennas, P/N: 1G1215A-2.9SMP-3 Rev A

## Paint with Olive Drab Green #34094 per Fed-Std-595B

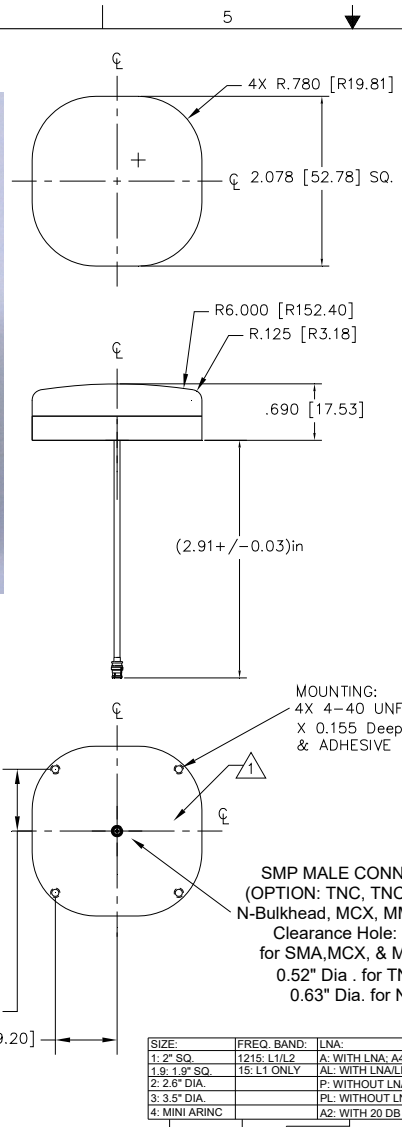
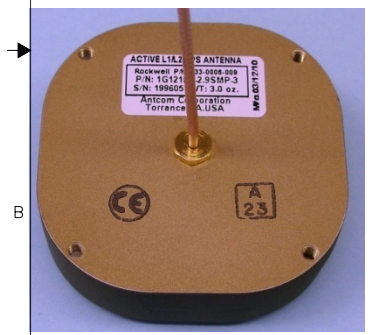
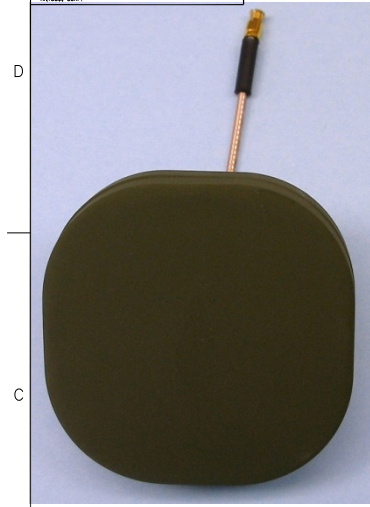
### 2" Square, Back Mount, Bottom Center Connector Configuration



Antenna Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>

ANTCOM CORPORATION . 367 Van Ness Way, #602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: [antennas@antcom.com](mailto:antennas@antcom.com) . <http://www.antcom.com>

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### SPECIFICATIONS ELECTRICAL:

	REVISIONS						
	ZONE	REV	DESCRIPTION	DATE	REQUESTED	REVISED	APPROVED
	A		RELEASE	06-05-12	K.L.	P.T	K.L.

	L1: (1575.42 ±15) MHz			L2: (1227.60 ±15) MHz		
FREQUENCY:						
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP			RHCP		
VSWR:	< 1.5:1			< 1.5:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBi):	Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90 ° (ZENITH):	+ 3.7	+ 4.7	+ 3.1	- 1.7	+ 3.3	+ 4.5
@ 10 ° Elevation:	- 2.9	- 1.8	- 1.9	- 7.3	- 3.8	- 3.5
@ 20 ° Elevation:	- 1.3	- 0.3	+ 0.6	- 6.2	- 2.0	- 0.8
@ 30 ° Elevation:	0.0	+ 1.4	+ 1.7	- 5.2	- 0.5	+ 1.4
@ 60 - 90 ° Elevation:	> 3.0	> 3.9	> 2.4	> - 3.2	> 2.7	> 2.2
BEAM WIDTH (3dB):	108 Deg.	114 Deg.	143 Deg.	100 Deg.	106 Deg.	74 Deg.
AXIAL RATIO:	2 dB			2 dB		
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	33 dB			35 dB		
LNA NOISE FIGURE:	3.0 dB			3.0 dB		
LNA P1dB Out:	+13 dBm			+13 dBm		
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA					
REJECTION @ (-50/+50) MHz	-41 dB / -59 dB			-40 dB / -40 dB		
@ (-100/+100) MHz	< -65 dB			< -65 dB		
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 microsec Pulse (-AL-)					

### MECHANICAL:

SIZE: LENGTH: 2.080 in. [52.78 mm], WIDTH: 2.080 in. [52.78 mm]  
 HEIGHT: 0.690 in. [17.53 mm], 0.58" [14.73] (Optional for Passive)

WEIGHT: 3.0 oz. (85 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
 BASE IRIDITE PER MIL-C-5441, With Radome matching color

MATERIAL: 6061-T6 ALUMINUM ALLOY BASE  
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,  
 SKYDROL RESISTANCE, AND FIRE RETARDANT

CONNECTOR: SMP MALE  
 (OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead,  
 MCX, MMCX, or Cable)

### ENVIRONMENTAL:

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]  
 ALTITUDE: 70,000 ft.  
 VIBRATION: > 30 G's  
 LEAKAGE: HERMETICALLY SEAL

### FEDERAL & MILITARY SPECIFICATIONS:

DESIGN TO: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541,  
 MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100

SIZE	FREQ. BAND	LNA
1: 2" SQ.	1215: L1/L2	A: WITH LNA; A4: WITH 40 DB LNA WITHOUT REJECTION FILTERS
1.9: 1.9" SQ.	15: L1 ONLY	AL: WITH LNA/LIMITER
2: 2.6" DIA.		P: WITHOUT LNA
3: 3.5" DIA.		PL: WITHOUT LNA and THINNER (0.58" THICK)
4: MINI ARINC		A2: WITH 20 DB LNA WITHOUT REJECTION FILTERS

## P/N: 1G1215A-XSC-3

CABLE LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	RSC: R-SMA; SC: SMA	-1: GLOSS WHITE #17925 PER FED-STD-595B
M: MAG; N: NO MAG.	MC: MCX; MMC: MMCX; PC: PINS	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
F: CABLE LENGTH (IN)	NC: N/C; N: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	TC: TBC; TNC, TNC-Bulkhead	-4: LUSTERLESS BLACK #37036 PER FED-STD-595B
		-5: TAN #; FS 23446 or 33446, FED-STD-595

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
 DECIMALS ± 1/64 FRACTIONS ± 1/32 ANGLES ± 1°  
 TOLERANCE S/H PER ANSI Y14.5  
 FINISH: ALL SURF. BREAM EXTERNAL EDGES .008 TO .016  
 FILLER'S USE TO P. 600  
 SCREW THREADS PER MIL-S-8879  
 D/A'S ON A COMB. 1/24 DIA.  
 MACHINED SURFACES ± .0005  
 DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA  
 Center Connector,  
 2in Square Active  
 L1/L2 GPS ANTENNA

DRAWING NO: D13CVE1  
 PART NO: 1G1215A-XXC-X  
 SCALE: 1/1  
 SHEET: 1 OF 1

- 0.32 BRUSH FINISH ON SURFACE INDICATED
  - ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION
  - DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
- NOTES: UNLESS OTHERWISE SPECIFIED:

NMO Connector Option is Now Available for Some Antennas