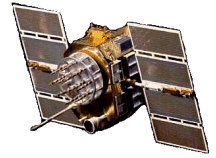




# Active L1/L2 GPS Antennas

## P/N: 1.9G1215AL3-XRS-2-LW2.5-3.5R

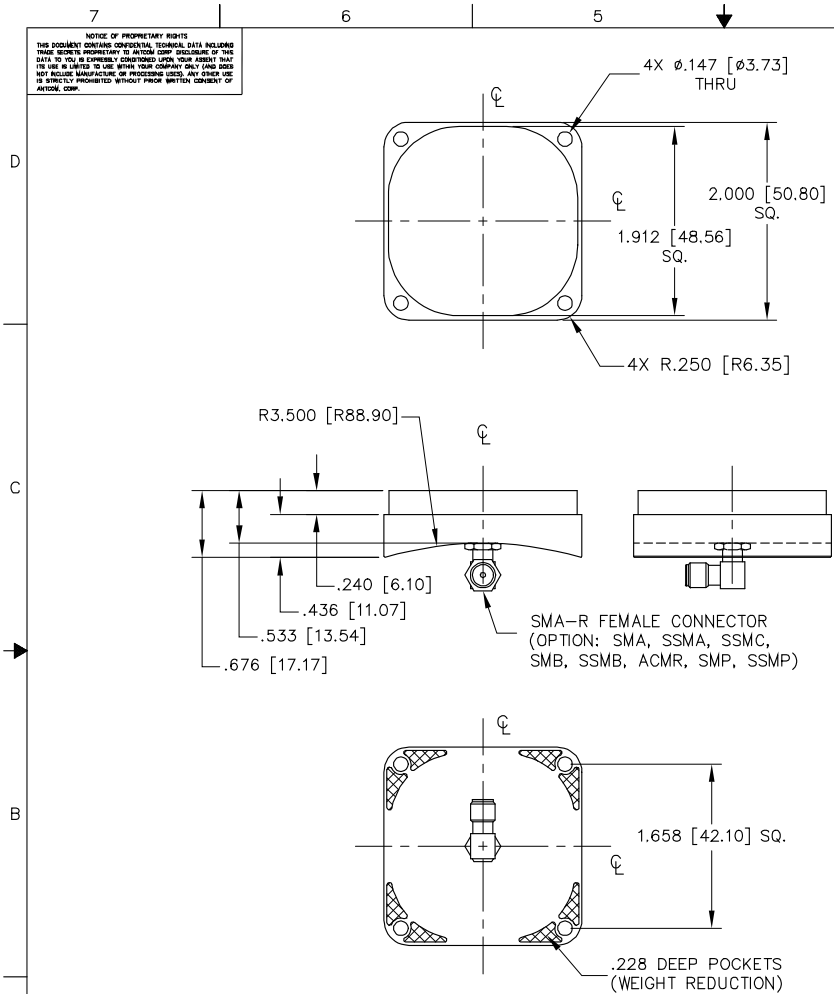


Other Mounting Radius, Connector and Color Options Are Available

ISO 9001:2008/FAA Approved Facility 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>

NOTICE OF PROPRIETARY RIGHTS  
THIS DOCUMENT CONTAINS CONFIDENTIAL, TECHNICAL DATA INCLUDING TRADE SECRETS PROPRIETARY TO ANTCOM CORP. DISCLOSURE OF THIS DATA TO ANY OTHER ENTITY WITHOUT THE WRITTEN CONSENT OF ANTCOM CORP. IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORP.



### SPECIFICATIONS

ZONE	REV	REVISIONS					
		DESCRIPTION	DATE	APPROVED			
<b>ELECTRICAL:</b>							
FREQUENCY:		L1: (1575.42 ±12) MHz		L2: (1227.60 ±12) MHz			
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	+ 3.1	+ 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 (Option A), 20 dB (Option A2)					
LNA NOISE FIGURE:		3.0 dB (Option A), 2 dB (Option A2)					
LNA P1dB Out:		+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 = 2.00 in. [50.80 mm], WIDTH = 2.00 in. [50.80 mm]  
 HEIGHT = 0.676 in. [17.17 mm]

**WEIGHT:** 2.8 oz. (79 g)

**FINISH:** SKYDROL RESISTANT POLYURETHANE ENAMEL  
 BASE IRIDITE PER MIL-C-5441F

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

**CONNECTOR:** SMA-R FEMALE  
 (OPTION: SMA, SSMA, SSMC, SMB, SSMB, SMP, SSSP)

### 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:

QUANTITY	RECD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	ITEM NO
1							3
1							2
1							1
-2	-1						

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .002 .005 ± 1°	ORIGINALLY DESIGNED S. HUYNH Mar-13-13	<b>ANTCOM CORP.</b> ACTIVE L1/L2 GPS ANTENNA D13CVE1 1.9G1215AL3-XRS-2-LW2.5-3.5R SCALE 1/1 SHEET 1 OF 1
TOLERANCE SYM PER ANSI Y14.5 REMOVE ALL DIMENSIONS FROM DIMENSIONED EDGES .005 TO .010 PER ASME Y14.5 PER MIL-STD-883C 2013 ON A DIMENSION > .250 MACHINED SURFACES 12.5	ORIGINALLY DESIGNED S. HUYNH Mar-13-13	
DO NOT SCALE DRAWING	UPDATED S. HUYNH Apr-21-17	
	APPROVED S. HUYNH Apr-21-17	

**P/N: 1.9G1215AL3-XRS-2-LW2.5-3.5R**

<b>SIZE:</b>	<b>FREQ. BAND:</b>	<b>LNAs:</b>
1: 2" SQ.	1215; L1/L2	A3: WITH 33 dB Gain LNA
1.9; 1.8" SQ.	15; L1 ONLY	AL3: WITH 33 dB Gain LNA WITH LIMITER
2: 2.6" DIA.		A2: WITH 20 dB Gain LNA WITHOUT REJECTION FILTERS
3: 3.5" DIA.		A4: WITH 40 dB Gain LNA WITHOUT REJECTION FILTERS
4: MINI ARINC		P: WITHOUT LNA

<b>CABLE LENGTH:</b>	<b>CONNECTOR:</b>	<b>COLOR:</b>
X: NO CABLE	UMCX/UMCX	-1: GLOSS WHITE #17925 PER FED-STD-595B
M: MAG. N: NO MAG.	S: SMA; SMC; SMC; P: PINS	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
#: CABLE LENGTH (IN)	M: MCX; NIM; MMCX	-3: CAMO GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	T, TB, TNC, N,N	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
		-5: DESERT TAN #33446 PER FED-STD-595B

2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION  
 1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]  
 NOTES: UNLESS OTHERWISE SPECIFIED:

NMO Connector Option is Now Available for Some Antennas