



FAA Approved Facility

**RHCP/LHCP L1/L2GPS Antenna, P/N: 1.9G1215RL-PP-XRS-X Rev B**  
**Dual Linear (V/H) L1/L2GPS Antenna, P/N: 1.9G1215VH-PP-XRS-X Rev B**  
**1.9" Square Configurations with Back Mounting Option**

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



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1.91 [48.56] SQ.  
 .36 [9.02] (+/-0.010in)  
 4xR.50 [R12.70]  
 4xR.72 [R18.19]  
 .12 [3.05]  
 0.10" (PIN), 0.25" [6.37] (MCX/MMCX), .53 [13.46] (SMA/R-SMA), 0.57" [14.53] (TNC), 0.83"[21.00] (TNC-BH), 0.72" [18.29] (N, N-BH)  
 4X 4-40 UNF-2A X 0.100in DEEP  
 2X.15 [3.77]  
 2X .756 [19.20]  
 2X 1.512 [38.40]  
 2xØ.37 [Ø9.52]  
 2X.25 [6.48]  
 MOUNTING: ADHESIVE  
 SMA Right Angle Female Con. (OPTION:TNC, TNC Bulkhead,N, N-Bulkhead, MCX, MMCX, or Cable) ClearanceHole: 0.4" Dia. 0.52" Dia . for TNC Con. 0.63" Dia. for N Con.

**SIZE:**  
 1: 2" SQ  
 1.9: 1.9" SQ  
 2: 2.6" DIA  
 3: 3.5" DIA  
 4: MINI ARINC

**FREQ. BAND:**  
 1215: L1/L2  
 15: L1 ONLY

**POLARIZATION:**  
 RL: RHCP/LHCP  
 VL: VER/HOR

**LNA:**  
 A: WITH LNA  
 AL: WITH LNA/LIMITER  
 P: WITHOUT LNA  
 PL: WITHOUT LNA and THINNER (HEIGHT = 0.58")

**CABLE'S LENGTH**  
 X: NO CABLE  
 M: MAG. N: NO MAG.  
 # : CABLE LENGTH(IN)  
 R: RIGHT ANGLE CON

**CONNECTOR**  
 S: SMA, RS: SMA-R, P: PINS  
 M: MCX, MM: MMCX  
 N, NB: N, N-Bulkhead  
 T, TB: TNC, TNC-Bulkhead

**COLOR**  
 -1: GLOSS WHITE #17925 PER FED-STD-595B  
 -2: LUSTERLESS GRAY #36320 PER FED-STD-595B  
 -3: OLIVE DRAB GREEN #34031 PER FED-STD-595B  
 -4: LUSTERLESS BLACK #37038 PER FED-STD-595B

**SPECIFICATIONS**

**ELECTRICAL:**

FREQUENCY:	L1: (1575.42 ±12) MHz	L2: (1227.60 ±12) MHz
RADIATION PATTERN:	HEMISPHERICAL	
POLARIZATION:	RHCP/LHCP	
VSWR:	< 1.5:1	
IMPEDANCE:	50 ohms	
ANTENNA GAIN (dBi):	Free Space	3 in G.P.
@ 90° (ZENITH):	+2.7	+4.7
@ 10° Elevation:	-4.4	-1.9
@ 20° Elevation:	-2.3	-0.3
@ 30° Elevation:	-0.8	+1.4
@ 60 - 90° Elevation:	>2.0	>3.9
BEAM WIDTH (3dB):	113 Deg.	114 Deg.
AXIAL RATIO:	2 dB	2 dB
LIGHTNING PROTECTION:	DC GROUNDING	

**LNA OPTION:**

LNA GAIN: (21.0+/-2.0) dB  
 LNA NOISE FIGURE: 1.8 dB  
 LNA P 1dB Out: +16 dBm  
 VOLTAGE/CURRENT: (+2.8 TO +28) Volts DC / (15 TO 25) mA

**MECHANICAL:**

SIZE: 1.912 in. [48.56mm] SQ.  
 HEIGHT: 0.36 in. [9.02 mm]  
 WEIGHT: 2.3 oz. (65 g)  
 FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5441  
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE THERMOSET PLASTIC DOME, UV, ABRASION AND SKYDROL RESISTANCE  
 CONNECTOR: 0.030" DIA. PIN, 0.100" LONG (OPTION: SMA, 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, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, AND MIL-STD-810

REV	DESCRIPTION	DATE	APPROVED
1	ADHESIVE GASKET	12345G-3M-1G	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
 FRACTIONS DECIMALS ANGLES  
 ± 1/64 ± .005 ± .010 ± 1°

TOLERANCE SYN PER ANSI Y14.5  
 REMOVE ALL SURFS  
 BREAK EXTERNAL EDGES .005 TO .015  
 FILLETS R .005 TO R .030  
 SCREW THREADS PER MIL-S-8879  
 DIA'S ON A COMMON & .0005

DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE CALIFORNIA

**1.9" SQUARE, L1/L2 PASSIVE RHCP/LHCP GPS ANTENNA**

SIZE: 3CVE1 GAGE NO: DRAWING NO: 1.9G1215RL-PP-XRS-4 REV: B

APPROVED: S. HUYNH Sep-19-01

SCALE: 1/1 SHEET 1 OF 1

http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts1.pdf (Amplifiers/Power Divider/Combiner/Filters)