



FAA Approved Facility

# Passive L1/L2 GPS Antenna, P/N: 2.3G1215X-XRS-4

## Low Profile 2.3" Square, Flat/Back Mount Configuration

### Suitable for Forming Multiple Element CRPA

"-PL-" or "-AL-" for Limiter Options for High Power Pulse Protection



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2.31 [58.56] SQ.  
1.91 [48.56] SQ.  
4x.20 [5.00]  
4x.20 [5.00]  
.37 [9.35]  
.28 [7.19]  
.09 [2.16]  
.41 [10.29]  
.20 [5.00]  
.20 [5.00]

4xR.12 [R3.00]  
4xR.72 [R18.19]  
4xØ.15 [Ø3.70] Thru.

SMA Right Angle Female Con.  
(OPTION: TNC, TNC Bulkhead, N, N-Bulkhead, MCX, MMCX, or Cable)  
Clearance Hole: 0.4" Dia.  
0.52" Dia. for TNC Con.  
0.63" Dia. for N Con.

SIZE: 1: 2" SQ. 1215: L1,L2 A2: WITH 20 dB LNA  
1.9: 1.9" SQ. 15: L1 ONLY A4: WITH 40 dB LNA  
2: 2.3" SQ. P: WITHOUT LNA  
2.2: 2.2" DIA. P2: WITHOUT LNA, WITH RHCP/LHCP POLARIZATION  
3: 3.5" DIA. P2L: WITHOUT LNA, WITH DUAL LINEAR POLARIZATION

CABLE'S LENGTH: X: NO CABLE S: SMA, P, PZ: PINS  
M: MAG. N: NO MAG. M: MCX, MM: MMCX  
F: CABLE LENGTH (IN) N: NB: RS: R: SMA  
R: RIGHT ANGLE CON. T, TB: TNC, TNC-Bulkhead

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

COLOR: 1: GLOSS WHITE #17925 PER FED-STD-595B  
2: LUSTERLESS GRAY #93520 PER FED-STD-595B  
3: OLIVE DRAB GREEN #34031 PER FED-STD-595B  
4: LUSTERLESS BLACK #37038 PER FED-STD-595B

### SPECIFICATIONS

**ELECTRICAL:**

	L1: (1575.42±12) MHz			L2: (1227.60±12) MHz		
FREQUENCY:						
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.5:1			< 1.5:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBic):	Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90 ° (ZENITH):	+2.7	+4.7	+3.1	+1.5	+3.3	+4.5
@ 10 ° Elevation:	-4.4	-1.8	-1.9	-6.7	-3.8	-3.5
@ 20 ° Elevation:	-2.3	-0.3	+0.6	-5.6	-2.0	-0.8
@ 30 ° Elevation:	-0.8	+1.4	+1.7	-4.5	-0.5	+1.4
@ 60 - 90 ° Elevation:	>2.0	>3.9	>2.4	> 0.0	>2.7	>2.2
BEAM WIDTH (3dB):	113 Deg.	114 Deg.	143 Deg.	85 Deg.	106 Deg.	74 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: 2.31 in. [58.56 mm] SQ.  
HEIGHT: 0.37 in. [9.35 mm]  
WEIGHT: 2.3 oz. (65.2 g)  
FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL  
BASE IRIDITEPERMIL-C-5441  
MATERIAL: 6061-T6ALUMINUMALLOY BASE  
THERMOSETPLASTICRADOME,UV, ABRASIONAND  
SKYDROL RESISTANCE  
CONNECTOR: SMA FEMALE  
(OPTION: PIN, TNC, TNC-Bulkhead,N, N-Bulkhead,  
MCX, MMCX, or Cable)

**ENVIRONMENTAL:**

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

**FEDERAL & MILITARY SPECIFICATIONS**

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

1	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	ITEM NO
1	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± 1/64 .XX ± .020 .XXX ± .010					
	TOLERANCE SYM PER ANSI Y14.5 CHECKED: ENGINEER: APPROVED: S. HUYNH DEC-08-06					
	REMOVE ALL BURRS BREAK EXTERNAL EDGES .005 TO .015 FILETS R .030 TO R .050 SCREW THREADS PER MIL-S-8879 DIA'S ON A CONFORM TO 24.005 MACHINED SURFACES 125 DO NOT SCALE DRAWING					

**ANTCOM CORP.** TORRANCE CALIFORNIA

2.3" SQUARE, L1/L2 PASSIVE GPS ANTENNA

SCALE 1/1 SHEET 1 OF 1

Wide Band GNSS Option Is Available

Antenna Mounts: http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf  
Amplifiers/Power Divider/Combiner/Filters: http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts1.pdf