



FAA Approved Facility

# Passive L1/L2 GPS Antenna, P/N: 2.3G1215P-XRS-4 RevA

## Low Profile (2.15x2.07x0.37) in, Flat/Front Mount Configuration



“-PL-” or “-AL-” for Limiter Options for High Power Pulse Protection

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

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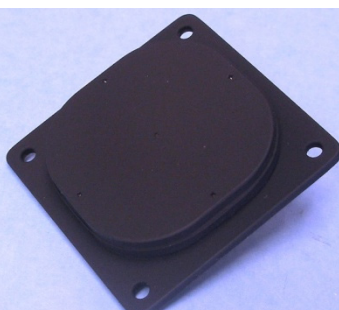
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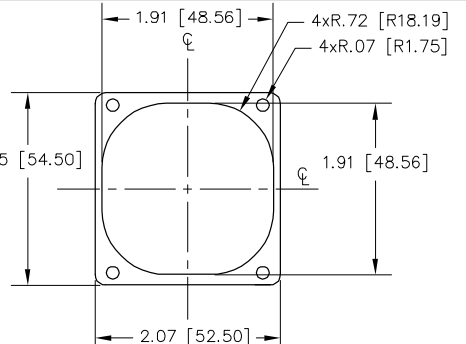
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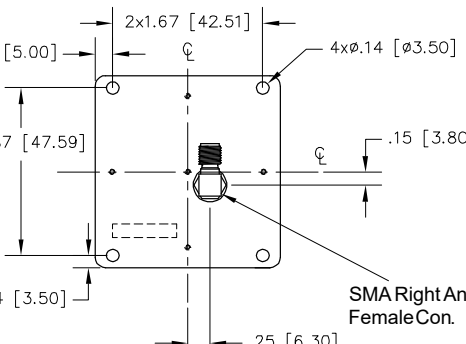


**SPECIFICATIONS**

**ELECTRICAL:**

|                        |                      |                      |           |            |           |           |
|------------------------|----------------------|----------------------|-----------|------------|-----------|-----------|
| FREQUENCY:             | L1: (1575.42±12) MHz | L2: (1227.60±12) MHz |           |            |           |           |
| RADIATION PATTERN:     | HEMISPHERICAL        |                      |           |            |           |           |
| POLARIZATION:          | RHCP                 |                      |           |            |           |           |
| VSWR:                  | < 1.5:1              |                      |           |            |           |           |
| IMPEDANCE:             | 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: 2.4 oz. (68 g)

FINISH: SKYDROL RESISTANT POLYURETHAN ENAMEL BASE IRIDITE PER MIL-C-5441

MATERIAL: 6061-T6 ALUMINUM ALLOY BASE THERMOSET PLASTIC RADOME, UV, ABRASION AND SKYDROL RESISTANCE

CONNECTOR: SMA RIGHT ANGLE 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: 70,000 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, AND MIL-STD-810

**SIZE:**

|               |             |                                                 |
|---------------|-------------|-------------------------------------------------|
| 1: 2" SQ.     | FREQ. BAND: | LNA:                                            |
| 1.9: 1.9" SQ. | 1215: L1&L2 | A2: WITH 20 dB LNA                              |
| 2.3: 2.3" SQ. | 15: L1 ONLY | A4: WITH 40 dB LNA                              |
| 2: 2.6" DIA.  |             | P: WITHOUT LNA                                  |
| 3: 3.5" DIA.  |             | P2: WITHOUT LNA, WITH RHCP/LHCP POLARIZATION    |
|               |             | P2L: WITHOUT LNA, WITH DUAL LINEAR POLARIZATION |

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|                      |                          |                                              |
|----------------------|--------------------------|----------------------------------------------|
| CABLE LENGTH:        | CONNECTOR:               | COLOR:                                       |
| X: NO CABLE          | S: SMA; P: PZ PINS       | -1: GLOSS WHITE #17925 PER FED-STD-595B      |
| M: MAG. IN; NO MAG.  | M: MMCX; MM: MMCX        | -2: LUSTERLESS GRAY #93520 PER FED-STD-595B  |
| F: CABLE LENGTH (IN) | N: NB; RS: R-SMA         | -3: OLIVE DRAB GREEN #34031 PER FED-STD-595B |
| R: RIGHT ANGLE CON.  | T, TB: TNC; TNC-Bulkhead | -4: LUSTERLESS BLACK #37038 PER FED-STD-595B |

|   |                                                                                                                                     |         |               |          |        |         |
|---|-------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|----------|--------|---------|
| 1 | DESCRIPTION                                                                                                                         | PART NO | SPECIFICATION | MATERIAL | FINISH | ITEM NO |
| 1 | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS TOLERANCES ARE: DECIMALS ANGLES ± 1/64 .XX ± .020 ± .1° .XXX ± .010   |         |               |          |        |         |
|   | TOLERANCE SYM PER ANSI Y14.5 CHECKED                                                                                                |         |               |          |        |         |
|   | 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 COMMON 6-24 .005 |         |               |          |        |         |
|   | MACHINED SURFACES 125                                                                                                               |         |               |          |        |         |
|   | DO NOT SCALE DRAWING                                                                                                                |         |               |          |        |         |

**ANTCOM CORP.** TORRANCE CALIFORNIA

L1/L2 PASSIVE GPS ANTENNA FOR NLOS (PAM)

APPROVED: S. HUYNH Sep/04/07

CAD FILE NO: D:\3CVE1\2.3G1215P-XRS-4.A

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/Filter: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts1.pdf>