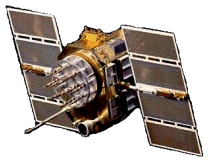
# L1/L2 GPS Antenna, P/N: 11G1215A-XB-X Rev D

1.36” Diameter x 9.8” Tall, C130/Sextant Port with 2 Lock-Pin Configuration
with BNC, TNC, SMA or N Connector Options



ISO 9001:2008/FAA Approved Facility

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

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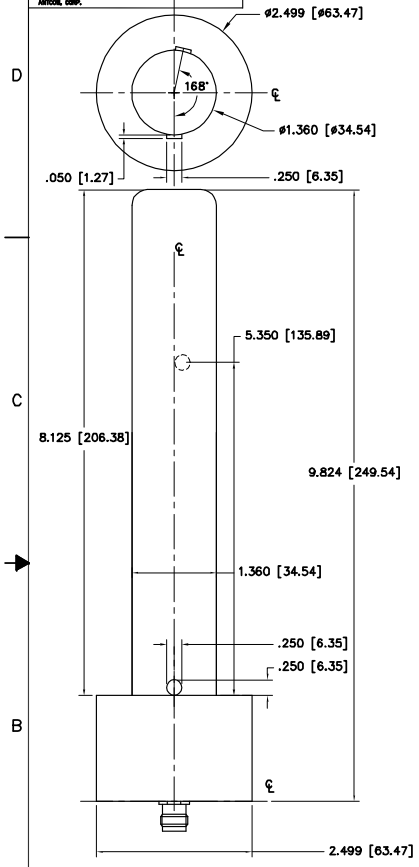


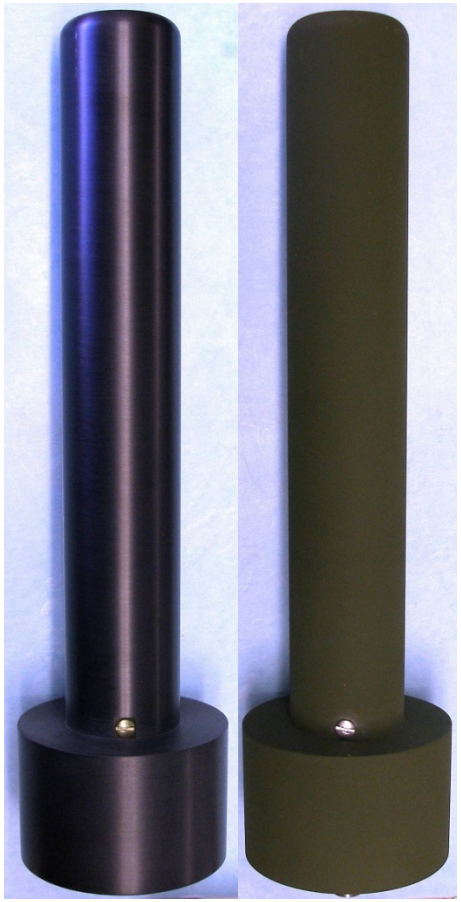

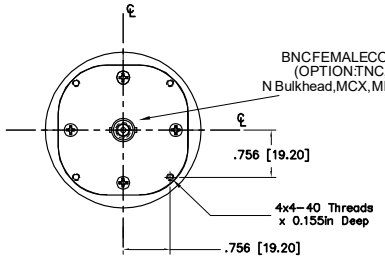


1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

## SPECIFICATIONS

### ELECTRICAL:

| | | | | |
|---|---|---|---|---|
| FREQUENCY: | INMARSA T Rx: (1542 .50 ±17.5) MHz<br>INMARSA T Tx: (1642 .50 ±17.5) MHz<br>GPS L1: (1575 .42 ±13) MHz | | | GPS L2: (1227 .60 ±13) MHz |
| RADIATION PATTERN: | HEMISPHERICAL | | | HEMISPHERICAL |
| POLARIZATION: | RHCP | | | RHCP |
| VSWR: | < 1.5:1 | < 1.5:1 | < 1.5:1 | < 2.0:1 |
| GAIN (dBic) | GPS L1 | Satcom Tx | Satcom Rx | GPS L2 |
| @ 90° (Zenith): | +2.6 | -4.2 | -0.7 | 0.0 |
| @ 10° Elevation | 0.0 | -6.7 | -4.2 | -2.4 to -6.3 |
| @ 20° Elevation | +1.2 | -5.6 | -2.9 | -1.8 to -4.8 |
| @ 30° Elevation | +1.7 | -4.9 | -2.1 | -1.3 to -3.4 |
| @ 45° Elevation | +2.4 | -4.9 | -1.4 | -0.5 to -1.5 |
| @ 70° Elevation | +2.3 | -5.4 | +0.1 | 0.0 to -0.5 |
| BEAM WIDTH (3dB) | 165 Deg. | 155 Deg. | 142 Deg. | (120 to 165) Deg. |
| AXIAL RATIO (dB) | 1 to 3 | 1 to 3 | 1 to 4 | 1 to 5 |

DC GROUNDING YES (LIGHTNING PROTECTION)

### LNA OPTION

| | | |
|---|---|---|
| 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: DIAMETERS= 1.36in [35mm], 2.6in [64mm]
HEIGHT= 9.824 in. [249 mm]

WEIGHT: 9.8 oz. (277 g)

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

COLOR: OLIVE DRAB GREEN #34031 PER FED-STD-595B

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

CONNECTOR: BNC CONNECTOR,
(OPTION: TNC, SMA, N, N Bulkhead, MCX, MMCX)
MCX, MMCX, or Cable)

### ENVIRONMENTAL:

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]
ALTITUDE: 70,000ft.
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

| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| | B | ADD on BNC Connector Option | OCT-20-08 | S.H |
| | C | 1 LOCKING PIN | NOV-24-08 | S.H |
| | D | 2 LOCKING PIN | Jan-20-09 | S.H |

| FREQ. BAND: | LNA: |
|---|---|
| 1215: L1/L2 | A: WITH LNA |
| 15: L1 ONLY | P: WITHOUT LNA |
| 1216: L1/L2/INMARSAT | |
| 0416: UHF/L1/L2/INMARSAT (2 Connectors) | |

P/N: 11G1216A-XB-4

| CABLE'S LENGTH | CONNECTOR | COLOR |
|---|---|---|
| X: NO CABLE | S: SMA; B: BNC Female | -1: GLOSS WHITE #17925 PER FED-STD-595B |
| M: MAG., N: No MAG. | M: MCX; MM: MMCX | -2: LUSTERLESS GRAY #36320 PER FED-STD-595B |
| #: CABLE LENGTH (IN) | N, NB: N, N-Bulkhead | -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 |

| QUANTITY REQD | | DESCRIPTION | PART NO | SPECIFICATION | MATERIAL | FINISH | ITEM NO |
|---|---|---|---|---|---|---|---|
| 1 | 1 | | | – | | | 1 |
| -2 | -1 | | | – | – | – | |

PARTS LIST

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± 1/64 DECIMALS .XX ± .015 .XXX ± .005 ANGLES ± 1°
TOLERANCE SYM PER ANSI Y14.5
REMOVE ALL BURRS
BREAK EXTERNAL EDGES .005 TO .015
FILLETS R .005 TO R .030
SCREW THREADS PER MIL-S-8879
DIA'S ON A COMMON Ø .005
MACHINED SURFACES 125
DO NOT SCALE DRAWING

DRAWN
CHECKED
ENGINEER
APPROVED S. HUYNH May-20-08
CAD FILE NO

**ANTCOM CORP.** TORRANCE, CALIFORNIA

C130/Sextant Port
ACTIVE L1/L2
GPS HELIX ANTENNA

CAGE NO 3CVE1 | DRAWING NO 11G1215A-XB-4 | REV D
SCALE 1/1 | SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas