



FAA Approved Facility

Dual Linear (V/H) L1/L2 GPS Antenna, P/N: 1.2G1215P2L-8NSSF-4

1.2" Square, Flat Mount Configuration

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



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Wide Band GNSS Option Is Available

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SPECIFICATIONS

| ZONE | REV | DESCRIPTION | DATE | APPROVED |
|------|-----|------------------|-----------|----------|
| A | | 3dB More In Gain | Sep-21-06 | S.H |

ELECTRICAL:

| | L1: (1575.42 ±12) MHz | L2: (1227.60 ±12) MHz |
|-----------------------|-----------------------|-----------------------|
| FREQUENCY: | | |
| RADIATION PATTERN: | HEMISPHERICAL | |
| POLARIZATION: | DUAL LINEAR (V/H) | |
| VSWR: | < 1.5:1 | < 1.5:1 |
| IMPEDANCE: | 50 ohms | 50 ohms |
| ANTENNA GAIN (dBic): | Free Space 3 in G.P. | Free Space 3 in G.P. |
| @ 90° (ZENITH): | -0.8 +3.8 | -3.7 +2.7 |
| @ 10° Elevation: | -9.3 -4.3 | -9.9 -6.3 |
| @ 20° Elevation: | -6.8 -2.2 | -9.2 -4.2 |
| @ 30° Elevation: | -5.2 -0.7 | -7.8 -2.4 |
| @ 60 - 90° Elevation: | > -2.1 > 2.5 | > -4.7 > 1.3 |
| BEAM WIDTH (3dB): | 100 Deg. 120 Deg. | 100 Deg. 90 Deg. |
| AXIAL RATIO: | | |
| LIGHTNING PROTECTION: | DC GROUNDING | |

LNA OPTION:

LNA GAIN: 24.0 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: 1.25 in. [31.75 mm] SQ.
HEIGHT: 0.547 in. [13.89 mm]
WEIGHT: 1.1 oz. (31.2 g)
FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDIUM PER MIL-C-5441
MATERIAL: 6061-T6 ALUMINUM ALLOY BASE COMPOSITE RADOME, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT
CONNECTOR: 4.5" LONG FLEXIBLE CABLE WITH RIGHT ANGLE MMCX (OPTION: MCX, SMA, SMB, SSMA, SSMC, SSMC, OR TNC)

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: ATP-GPS-L1L2-100

REVISIONS

| REV | DESCRIPTION |
|-----|-----------------|
| 1 | ADHESIVE GASKET |
| 2 | |
| 3 | |
| 4 | |

OUTPUT PORT CAN BE FROM THE BOTTOM (PIN, MMCX, MCX, SMA R-SMA, SSMA, SMB, SSMB, SSMC, SSMP)

| SIZE | FREQ BAND | LNA |
|---------------|-------------|---|
| 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: 2.6" DIA. | | P: PASSIVE (WITHOUT LNA) |
| 3: 3.5" DIA. | | P2: DUAL CP (RHCPL) HCP AND PASSIVE (WITHOUT LNA) |
| 4: MINIARINC | | P2L: DUAL LINEAR (VERT. HOR. AND PASSIVE) (WITHOUT LNA) |

P/N: 1.2G1215P2L-8NSSF-4

| CABLE LENGTH | CONNECTOR | COLOR |
|----------------------|-------------------------------------|--|
| X: NO CABLE | SS: SMA MALE, SSF: SMA FEMALE | -1: GLOSS WHITE #17925 PER FED-STD-595B |
| #: CABLE LENGTH (IN) | MM: MCX MALE, MMF: MCX FEMALE | -2: LUSTERLESS GRAY #36320 PER FED-STD-595B |
| | OTHER CONNECTORS ARE ALSO AVAILABLE | -3: OLIVE DRAB GREEN #34031 PER FED-STD-595B |
| | | -4: LUSTERLESS BLACK #37038 PER FED-STD-595B |

| QUANTITY REQD | DESCRIPTION | PART NO | SPECIFICATION | MATERIAL | FINISH | ITEM NO |
|---------------|-----------------|----------------|---------------|----------|--------|---------|
| 1 | ADHESIVE GASKET | 12345G-3M-1.2G | | | | 5 |
| 1 | | | | | | 3 |
| 1 | | | | | | 2 |
| 1 | | | | | | 1 |

| | |
|---|--|
| <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .005 .015 .0008 .005 ± 1°</p> <p>TOLERANCE 51M PER ANSI Y14.5</p> <p>SEW ALL SURFACES UNLESS OTHERWISE SPECIFIED</p> <p>DRILL ALL HOLES UNLESS OTHERWISE SPECIFIED</p> <p>USE 1/8" DIA. SCREW THREADS FOR MIL-8-8879 DIA'S ON A COARSE 0.25 PITCH MACHINED SURFACES</p> <p>DO NOT SCALE DRAWING</p> | <p>ANTCOM CORP. TORRANCE, CALIFORNIA</p> <p>DUAL LINEAR (V/H) L1/L2 ACTIVE or PASSIVE GPS ANTENNA</p> <p>DESIGNED BY: S. HUYNH MAY-11-05</p> <p>DRW NO: 3CVE11.2G1215P2L-8NSSF-4 SCALE: 1/1</p> |
|---|--|

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

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