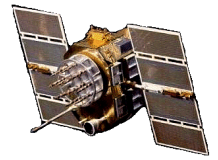




# L1 GPS Antennas, P/N: 1.5G15X-MNX-X

## 1.5" Square, Flushed Magnetic/Back Mount Configuration



ISO 9001:2008/FAA Approved Facility

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

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

**NOTICE OF TRADE SECRETS PROTECTED**  
THIS DRAWING CONTAINS TRADE SECRETS PROPRIETARY TO ANTCOM CORPORATION. ITS USE IS LIMITED TO THE MANUFACTURE OF ANTENNAS BY ANTCOM CORPORATION.

**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED

**SPECIFICATIONS**

**ELECTRICAL:**

FREQUENCY:	L1: (1575.42 ±12) MHz
RADIATION PATTERN:	HEMISPHERICAL
POLARIZATION:	RHCP
VSWR:	< 1.5:1
IMPEDANCE:	50 ohms
ANTENNA GAIN (dBic):	Free Space 16 in G.P. 4 ft G.P.
@ 90 ° (ZENITH):	+ 4.6 + 0.3 + 2.9
@ 10 ° Elevation:	- 2.5 - 3.1 - 1.8
@ 20 ° Elevation:	- 1.1 - 1.1 + 0.7
@ 30 ° Elevation:	+ 0.5 + 0.9 + 1.7
@ 60 - 90 ° Elevation:	> 3.6 +3.1/+0.3 > 2.1
BEAM WIDTH (3dB):	103 Deg. 120 Deg. 146 Deg.
AXIAL RATIO:	2 dB
LIGHTNING PROTECTION:	DC GROUNDING

**LNA (OPTION):**

LNA GAIN:	22 dB (-A2-), 40dB (-A4-)
LNA NOISE FIGURE:	1.4 dB
LNA P1dB Out:	+13 dBm
LNA DC POWER:	(3-10) Volts/ 20mA
POWER HANDLING:	1 Watt CW

**MECHANICAL:**

SIZE: LENGTH=1.54 in. [39.12 mm], WIDTH=1.54 in. [39.12 mm]  
 HEIGHT= 0.631 in. [16.03 mm]

WEIGHT: 1.3 oz. (36.8 g)

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

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

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

CONNECTOR: FEMALE SMA CONNECTOR WITH 36" CABLE  
 (OPTIONAL: MCX, MMCX, TNC, N , OR OTHER CONNECTOR)

**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

**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: 2.6" DIA. P: WITHOUT LNA  
 3: 3.5" DIA.  
 4: MINI ARINC

**OPTIONAL MOUNTING:**  
 2-56 SCREWS, ADHESIVE GASKET, HYSOL, OR RTV  
 FLUSH MAGNET

**MOUNTING:**  
 4X 2-56 UNF-2A  
 X 0.118 Deep

**MECHANICAL DIMENSIONS:**  
 4xR.407 [R10.34]  
 1.562 [39.67] SQ.  
 .631 [16.03]  
 .180 [4.57]  
 .593 [15.06]  
 4x.593 [15.06]

**CABLE'S LENGTH:** MN: FLUSH MAG. N: NO MAG. R: RIGHT ANGLE CON.  
**CONNECTOR:** SM: SMA-M, S: SMA, RS: R-SMA, P: PINS. M: MCX, MM: MMCX, SMB, SSMA, SSMB. SSMC, SSMIP, T, TB: TNC, TNC-Bulkhead. L-RM: Right Angle Male Lemo

**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

**UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES**  
 FRACTIONS 1/16" TO 1/8" DECIMALS .005 TO .015 ANGLES ± 1/64 ± .015 ± .1°  
 TOLERANCE .5/16 PER ANG 174.0  
 REMOVE ALL BURRS  
 BREAK EXTERNAL EDGES .005 TO .015  
 FILE TO .005 TO .015  
 SCREW THREADS PER UNF-8879  
 DATA ON A COMMON 1:27-000  
 MACHINED SURFACES .25  
 DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA  
 1.5" SQ. FLUSHED MAGNETIC MOUNT L1 GPS ANTENNA

APPROVED: S. HUYNH Aug-27-03  
 DRAWN: [ ]  
 CHECKED: [ ]  
 ENGINEER: [ ]  
 CAP FILE NO: [ ]

SCALE 1/1 SHEET 1 OF 1

**P/N: 1.5G15A2-MNSM-4**

NMO Connector Option is Now Available for Some Antennas