

# L1/L2 GPS / L-Band Antenna

## P/N: 1G01215X-XX-X

### 2.0" Square, Back Mount Configurations

Noise Figure is Now Improved to 1.9 dB for L1 GPS/OmniStar/Glonass and 2.3 dB for L1/L2 GPS/OmniStar/Glonass as of June-01-14  
 Antenna Mounts/Adapters: <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>

"-HF" for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: -22dB@1616MHz, -34dB@1660MHz

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4X R.780 [R19.81]

2.078 [52.78] SQ.

SPHERICAL R6.000 [R152.40]

657 [16.69]

0.25" [6.37] (MCX/MMCX), 0.46" [11.68] (SMA/R-SMA), 0.57" [14.53] (TNC), 0.83" [21.00] (TNC-BH), 0.72" [18.29] (N, N-BH)

R.125 [R3.18]

MOUNTING:  
 4X 4-40 UNF-2A  
 X 0.155 Deep,  
 & ADHESIVE GASKET

4X .756 [19.20]  
 4X .756 [19.20]

.149 [3.78]

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

.255 [6.48]

P/N: 1G01215A4-XS-1

SIZE	FREQ. BAND	LNA	CABLE'S LENGTH	CONNECTOR	COLOR
1: 2" SQ.	42: ARINC 743	A2: WITH 20 dB LNA	X: NO CABLE	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	G01215: L1/L2/OmniStar	A4: WITH 40 dB LNA	M: MAG; N: NO MAG	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.5" DIA.	G1215: L1/L2	P: WITHOUT LNA	R: CABLE LENGTH (IN)	N: NB; N: N-Bulkhead	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
3: 3.5" DIA.	G15: L1		R: RIGHT ANGLE CON.	T: TB; TNC; TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC					

**SPECIFICATIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED

**ELECTRICAL:**

	L1: (1575.42 ±13) MHz	O: (1542.5 ±17.5) MHz	L2: (1227.60 ±13) MHz
FREQUENCY:			
RADIATION PATTERN:	HEMISPHERICAL		
POLARIZATION:	RHCP		
VSWR:	< 1.5:1		
IMPEDANCE:	50 ohms		
ANTENNA GAIN (dBic):	3.5" Dia. G.P	4 ft G.P.	3.5" Dia. G.P
@ 90° (ZENITH):	+4.1	+2.5	+3.9
@ 10° Elevation:	-3.5	-1.8	-3.8
@ 20° Elevation:	-2.1	-0.4	-2.3
@ 30° Elevation:	-0.8	+0.9	-0.7
@ 60 - 90° Elevation:	> 2.5	> 1.8	> 3.0
BEAM WIDTH (3dB):	87 Deg.	139 Deg.	89 Deg.
AXIAL RATIO:	2 dB	2 dB	2 dB
LIGHTNING PROTECTION:	DC GROUNDING		
LNA GAIN:	20 dB (...A2-...), 40 dB (...A4-...)		
LNA NOISE FIGURE:	1.9 dB		
LNA P1dB Out:	+13 dBm		
LNA DC POWER:	(2.5-24) V / < 35 mA		
POWER HANDLING:	1 Watt CW		

**MECHANICAL:**

SIZE: LENGTH: 2.080 in. [52.78 mm], WIDTH: 2.080 in. [52.78 mm]  
 HEIGHT: 0.657 in. [16.69 mm]

WEIGHT: 2.88 oz. (82 g)

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

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

CONNECTOR: SMA FEMALE  
 (OPTION: 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, DO-228, MIL-STD-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, and SAE J1455

**ACCEPTANCE TEST PROCEDURE:** ATP-GPS-L1L2-100

QUANTITY REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	REV
1	ADHESIVE GASKET	123456-3M-1G				5
1						3
1						2
1						1
-2	-1					

ANTCOM CORP. TORRANCE, CALIFORNIA

2.0" SQ. Active L1/L2 GPS/OmniStar ANTENNA

D3CVE1 1G01215X-XX-X

SCALE 1/1 SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas