



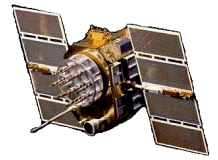
ISO 9001:2008/FAA Approved Facility

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

L1/L2 GPS Antenna, P/N: 91G1215A-XB-X Rev C

1.36" Diameter x 8.6" Tall, C130/Sextant Port with Lock-Pin Configuration

with BNC, TNC, SMA or N Connector Options



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Dimensions (mm):
 Top diameter: $\phi 2.499$ [63.47]
 Middle diameter: $\phi 2.081$ [52.85]
 Bottom diameter: $\phi 1.360$ [34.54]
 Flange diameter: $\phi 1.000$ [25.39]
 Flange thickness: .050 [1.27]
 Flange hole diameter: .250 [6.35]
 Total height: 8.614 [218.79]
 Section C height: 2.690 [68.33]
 Section B height: 6.914 [175.63]
 Section A height: 1.360 [34.54]
 Section A diameter: .250 [6.35]
 Section A hole diameter: .250 [6.35]
 Section A total width: 2.499 [63.47]
 Section A hole offset: .756 [19.20]
 Section A hole diameter: 4x4-40 Threads x 0.155in Deep

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

SPECIFICATIONS

ELECTRICAL:

FREQUENCY:	INMARSAT Rx: (1542.50 ±17.5) MHz	INMARSAT Tx: (1642.50 ±17.5) MHz	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= 1in [25mm], 1.36in [35mm], 2.6in [64mm]
 HEIGHT = 8.614 in. [218.79 mm]

WEIGHT: 7.8 oz (220 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
 BASE IRIDIUM 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, 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, DO-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	LOCKING PIN		NOV-24-08	S.H

MECHANICAL:

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)	

QUANTITY

QTY	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	ITEM NO
1	1					1
-2	-1					

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 DECIMALS: .005, .010, .015, .020, .025, .030, .035, .040, .045, .050, .055, .060, .065, .070, .075, .080, .085, .090, .095, .100
 FRACTIONS: 1/64, 3/32, 1/8, 3/16, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1
 ANGLES: ± 1°
 TOLERANCE SURF PER ANSI Y14.5
 FINISH: ALL SURF PER MIL-STD-883C METHOD 2000.1
 BREAK EDGES: .005 TO .015
 HOLE: .002 TO .005
 SCREW THREADS: PER MIL-STD-883C METHOD 2000.1
 DIMS ON A CIRCLE: ± .006
 MACHINED SURFACES: 32

ANTCOM CORP. TORRANCE, CALIFORNIA

C130/Sextant Port
 ACTIVE L1/L2
 GPS HELIX ANTENNA

DR: DJ3CVE1
 DATE: 91G1215A-XB-4
 DESIGNED BY: S. HUYNH
 DATE: May-20-08
 CAP FILE NO: []
 SCALE: 1/1
 SHEET: 1 OF 1

DO NOT SCALE DRAWING

P/N: 91G1216A-XB-4

CABLE 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

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
 NOTES: UNLESS OTHERWISE SPECIFIED:

NMO Connector Option is Now Available for Some Antennas