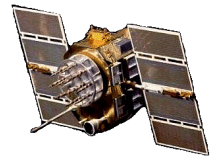




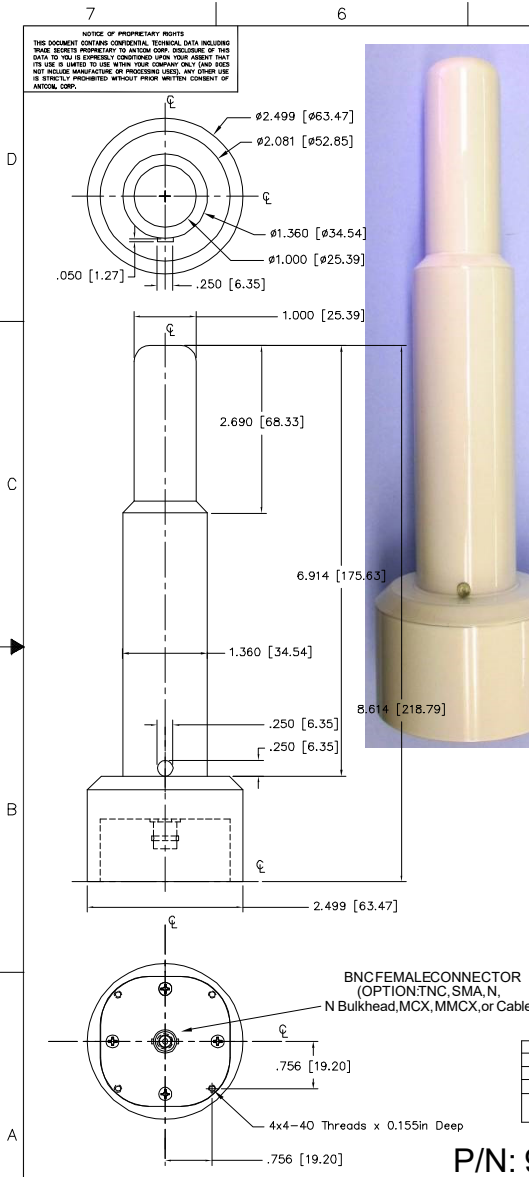
ISO 9001:2008/FAA Approved Facility

# 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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### SPECIFICATIONS

ELECTRICAL:		REVISIONS				
FREQUENCY:	INMARSAT Rx: (1542.50 ±17.5) MHz INMARSAT Tx: (1642.50 ±17.5) MHz GPS L1: (1575.42 ±13) MHz	ZONE	REV	DESCRIPTION	DATE	APPROVED
RADIATION PATTERN:	HEMISPHERICAL	B	ADD on BNC Connector Option		OCT-20-08	S.H
POLARIZATION:	RHCP	C	LOCKING PIN		NOV-24-08	S.H
VSWR:	< 1.5:1					
GAIN (dBic):	GPS L1: (1575.42 ±13) MHz	GPS L2: (1227.60 ±13) MHz				
@ 90° (Zenith):	+2.6	-0.7				
@ 10° Elevation:	0.0	-2.4 to -6.3				
@ 20° Elevation:	+1.2	-1.8 to -4.8				
@ 30° Elevation:	+1.7	-1.3 to -3.4				
@ 45° Elevation:	+2.4	-0.5 to -1.5				
@ 70° Elevation:	+2.3	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)  
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

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: 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:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .001 .005 ± 1°		TOLERANCE SURF PER ANSI Y14.5	
REWORK ALL SURF PER EXTERNAL EDGES .005 TO .015 MAX ON A .005 R MAX		MACHINED SURFACES	
DO NOT SCALE DRAWING	DATE: 05/20/08	ANTCOM CORP. TORRANCE, CALIFORNIA	
C130/Sextant Port ACTIVE L1/L2 GPS HELIX ANTENNA		DRAWN: [Signature]	
DESIGNER: [Signature]		CHECKED: [Signature]	
APPROVED: S. HUYNH May-20-08		CAP FILE NO: [Blank]	
DWG NO: 033CVE1		ITEM NO: [Blank]	
SCALE 1/1		SHEET 1 OF 1	

NMO Connector Option is Now Available for Some Antennas