



Hermetically Sealed, Ruggedized and High Vibration/Shock Resistant Active GPS/Glonass Antenna

P/N: 1.3G1215A2-XSM-4-FC (L1/L2), P/N: 1.3G15A2-XSM-4-FC (L1)

L1/Inmarsat/Iridium: P/N: 1.3GL1RxINA2-XSM-4-FC (Active Rx only), P/N: 1.3GL1RxINP-XSM-4-FC (Passive Tx/Rx)

Other Frequency Bands are also Available. **Top Mount Configuration with O-Ring. Fully Sealed and Potted with No Air Cavity Inside**

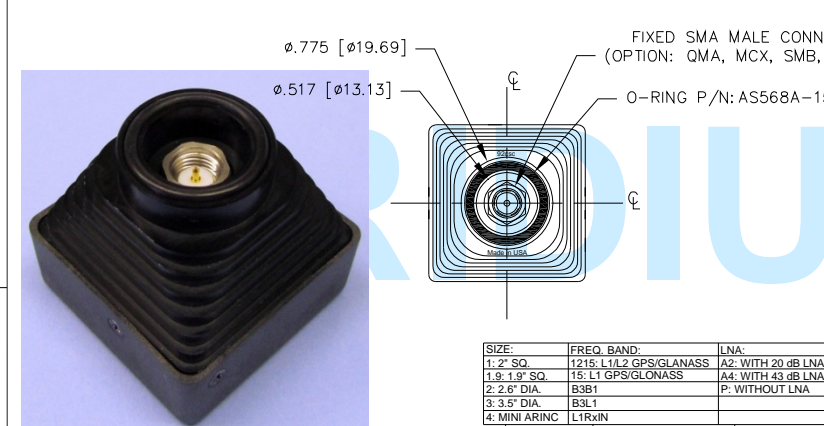
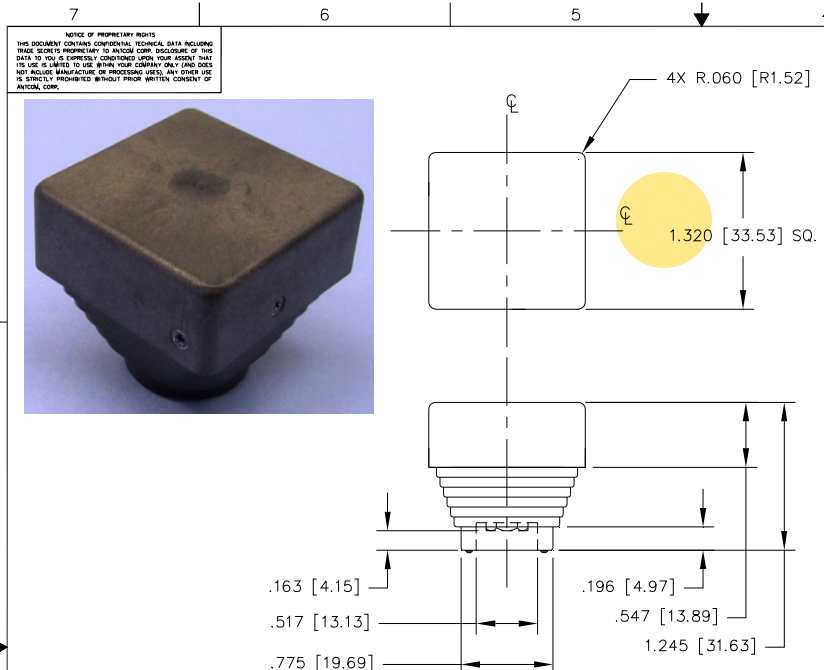
Gooseneck and Other Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>

ISO 9001:2008/FAA Approved Facility

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



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**SPECIFICATIONS**

**ELECTRICAL:**

		REVISIONS			
ZONE	REV	DESCRIPTION	DATE	REVISED	APPROVED
-	-	-	-	-	-

	L1 GPS: 1575.42 ± 15.0 MHz	L2 GPS: 1227.60 ± 12 MHz	L1 GLONASS: 1598 - 1609 MHz	L2 GLONASS: 1242 - 1252 MHz
FREQUENCY:				
RADIATION PATTERN:	HEMISPHERICAL			
POLARIZATION:	RHCP			
VSWR:	< 2.0:1		< 2.0:1	
IMPEDANCE:	50 ohms		50 ohms	
ANTENNA GAIN (dBic):	Free Space	3 in G.P.	Free Space	3 in G.P.
@ 90 ° (ZENITH):	+ 0.4	+ 3.2	- 2.2	+ 0.0
@ 10 ° Elevation:	- 4.6	- 4.1	- 10.6	- 4.4
@ 15 ° Elevation:	- 4.5	- 3.8	- 8.5	- 3.5
@ 20 ° Elevation:	- 4.5	- 3.5	- 6.3	- 2.5
@ 30 ° Elevation:	- 3.3	- 1.8	- 4.0	- 1.7
@ 40 ° Elevation:	- 2.5	- 0.6	- 3.3	- 1.6
@ 50 ° Elevation:	- 2.0	+ 0.5	- 3.3	- 1.5
@ 60 ° Elevation:	- 1.5	+ 1.5	- 3.3	- 0.9
@ 70 ° Elevation:	- 0.7	+ 2.4	- 3.2	- 0.4
@ 80 ° Elevation:	+ 0.1	+ 3.0	- 3.2	- 0.1
BEAM WIDTH (3dB):	100 Deg.	80 Deg.	100 Deg.	140 Deg.
AXIAL RATIO:	1.0 dB		3.0 dB	
LIGHTNING PROTECTION:	DC GROUNDING			

**LNA OPTION:**  
 LNA GAIN: 24.0 dB (Option: 43 dB)  
 LNA NOISE FIGURE: 1.8 dB  
 LNA P 1dB Out: +10 dB  
 VOLTAGE/CURRENT: (+2.8 TO +28) Volts DC / (15 TO 25) mA

**MECHANICAL:**  
 SIZE: 1.320 in [33.53 mm] SQ.  
 HEIGHT: 1.245 in. [31.63 mm]  
 WEIGHT: 1.82 oz. (51.6 g)  
 FINISH: BASE: HARD BLACK ANODIZE PER MIL-A-8625F, TYPE III, CLASS 2  
 RADOME: SKYDROL RESISTANT POLYURETHANE ENAMEL PER FED-STD-595B  
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE  
 COMPOSITE RADOME, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT  
 CONNECTOR: FIXED SMA MALE  
 (OPTION: QMA, MCX, SMB, OR SMP)

**ENVIRONMENTAL:**  
 TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]  
 ALTITUDE: 70,000 ft.  
 VIBRATION: - 20K 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

SIZE:	FREQ. BAND:	LNA:
1: 2" SQ.	1215: L1/L2 GPS/GLANASS	A2: WITH 20 dB LNA
1.9: 1.9" SQ.	15: L1 GPS/GLONASS	A4: WITH 43 dB LNA
2: 2.6" DIA.	B3B1	P: WITHOUT LNA
3: 3.5" DIA.	B3L1	
4: MINI ARINC	L1RxIN	

**P/N: 1.3G1215A2-XSM-X-FC**

CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	SM: SMA Male; QF: QMA Female	-1: GLOSS WHITE #17925 PER FED-STD-595B
M: MAG. N; NO MAG.	M: MCX Male	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
Y: CABLE LENGTH (IN)	SMPM: SMP MALE; SMPF: SMP FEMALE	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	SMBP: SMB Plug	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
		-5: TAN #33446 PER FED-STD-595B

1	0-RING	AS568A-15	-	-	-	1
-2	-1	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH
QUANTITY REQD						ITEM NO

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES TOLERANCE SURF PER ANS1 #14.5 REMOVE ALL BURRS BREAK IN SHARP EDGES .005 TO .015 SIZE W/ FINISHES PER MIL-S-8879 DYES ON A CONFORM TO AS5000 MACHINED SURFACES 2/2 DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA  
 GPS/Satcom ANTENNA

DATE: 30 DEC 11  
 DRAWN BY: S. HUYNH  
 CHECKED BY: P. TROMP  
 APPROVED BY: S. HUYNH

SCALE 1/1 SHEET 1 OF 1

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

NMO Connector Option is Now Available for Some Antennas