



FAA Approved Facility

# Active GPS/Glonass and Rx Inmarsat/Iridium Antenna

## P/N: 1.3G1216A2-118NS-X-SO1 (118in (3m) Cable/SMA Male Connector)

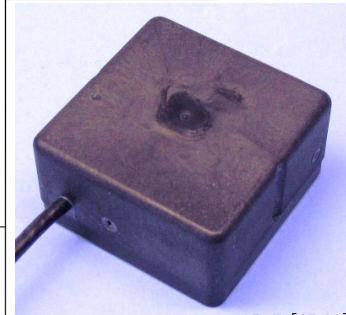
Back Mount Configuration, Other Frequency Bands, Connectors and Colors are also Available



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

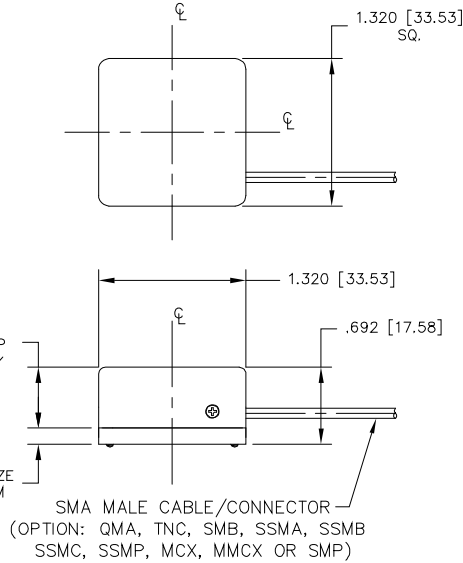
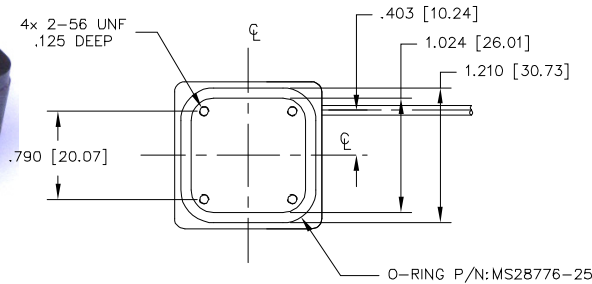
ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: [antennas@antcom.com](mailto:antennas@antcom.com) . <http://www.antcom.com>

**NOTICE OF PROPRIETARY RIGHTS**  
THIS DOCUMENT CONTAINS CONFIDENTIAL, PROPRIETARY DATA INCLUDING TRADE SECRETS PROPRIETARY TO ANTCOM CORP. DISCLOSURE OF THIS DATA TO YOU IS EXPRESSLY CONDITIONED UPON YOUR AGREEING THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY AND DOES NOT INCLUDE REPRODUCTION OR REVERSE ENGINEERING. ANY OTHER USE IS EXPRESSLY PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORP.



.547 [13.89]  
1 PIECE RADOME FROM TOP TO BOTTOM, HERMATICALLY SEALED WITH NO AIR GAP

.145 [3.68]  
HARD BLACK ANODIZE 6061-T6 ALUMINUM ALLOY BASE



### SPECIFICATIONS

ZONE	REV	REVISIONS	
		DESCRIPTION	DATE
<b>ELECTRICAL:</b>			
FREQUENCY:		L1 GPS: 1575.42 ± 15.0 MHz	L2 GPS: 1227.60 ± 12 MHz
		L1 GLONASS: 1598 - 1609 MHz	L2 GLONASS: 1242 - 1252 MHz
		Rx INMARSAT: 1542±17 MHz	
		Rx IRIDIUM: 1610-1626 MHz	
RADIATION PATTERN:		HEMISPHERICAL	
POLARIZATION:		RHCP	
VSWR:		< 2.0:1	< 2.0:1
IMPEDANCE:		50 ohms	50 ohms
ANTENNA GAIN (dBi):		Free Space	3 in G.P.
@ 90 ° (ZENITH):		+ 0.4	- 2.2
@ 10 ° Elevation:		- 4.6	- 4.1
@ 15 ° Elevation:		- 4.5	- 3.8
@ 20 ° Elevation:		- 4.5	- 3.5
@ 30 ° Elevation:		- 3.3	- 1.8
@ 40 ° Elevation:		- 2.5	- 0.6
@ 50 ° Elevation:		- 2.0	+ 0.5
@ 60 ° Elevation:		- 1.5	+ 1.5
@ 70 ° Elevation:		- 0.7	+ 2.4
@ 80 ° Elevation:		+ 0.1	+ 3.0
BEAM WIDTH (3dB):		100 Deg.	80 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 dBm  
VOLTAGE/CURRENT: (+2.8 TO +28) Volts DC / (15 TO 25) mA

### MECHANICAL:

SIZE: 1.320 in.[33.53 mm] SQ.  
HEIGHT: .692 in [17.58 mm]  
WEIGHT: 1.9 oz. (53.9 g)  
FINISH: BASE: HARD BLACK ANODIZE PER MIL-A-8625F, TYPE II, 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: SMA MALE CABLE/ CONNECTOR (OPTION: QMA, SMA, TNC, SMB, SSMA, SSMB, SSMC, SSMP, MCX, OR SMP)

### 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

ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100

SIZE:	FREQ. BAND:	LNA:
1: 2" SQ.	1215: L1/L2	A2: WITH 20 dB LNA
1.8: 1.9" SQ.	15: L1 ONLY	A4: WITH 43 dB LNA
2: 2.6" DIA.		P: WITHOUT LNA
3: 3.5" DIA.		
4: MINI ARINC		

P/N: 1.3G1216A2-118NS-X-SO1

CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	G: QMA, S: SMA, RS: R-SMA	+1: GLOSS WHITE #17925 PER FED-STD-595B
M: MAG. NO MAG.	MM: MMCX, SVB, SSMA, SSMB, SSMC, SSMP	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
IF: CABLE LENGTH (IN)	I: TNC, P: PINS, M: MCX, SMP, SPM PLUG	-3: CAMO GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	L-RM: Right Angle Male Lemo	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
		-5: DESERT TAN #33446 PER FED-STD-595B

1	O-RING	MS28776-25	-	-	-	1
-2	-1	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH
QUANTITY REQD PARTS LIST						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES						
TOLERANCE SIN PER ANSI Y14.5						
REMOVE ALL BURRS						
FILET & B. TO 5.00						
DAYS ON A COMMON 2.00						
MACHINED SURFACES						
DO NOT SCALE DRAWING						
ANTCOM CORP. TORRANCE CALIFORNIA		HERMETICALLY SEALED ACTIVE L1/L2 GPS/GLONASS ANTENNA		REV		
D 3CVE1		1.3G1216A2-118NS-X-SO1		SCALE 1/1 SHEET 1 OF 1		

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