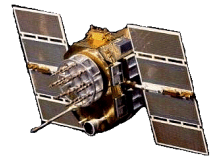


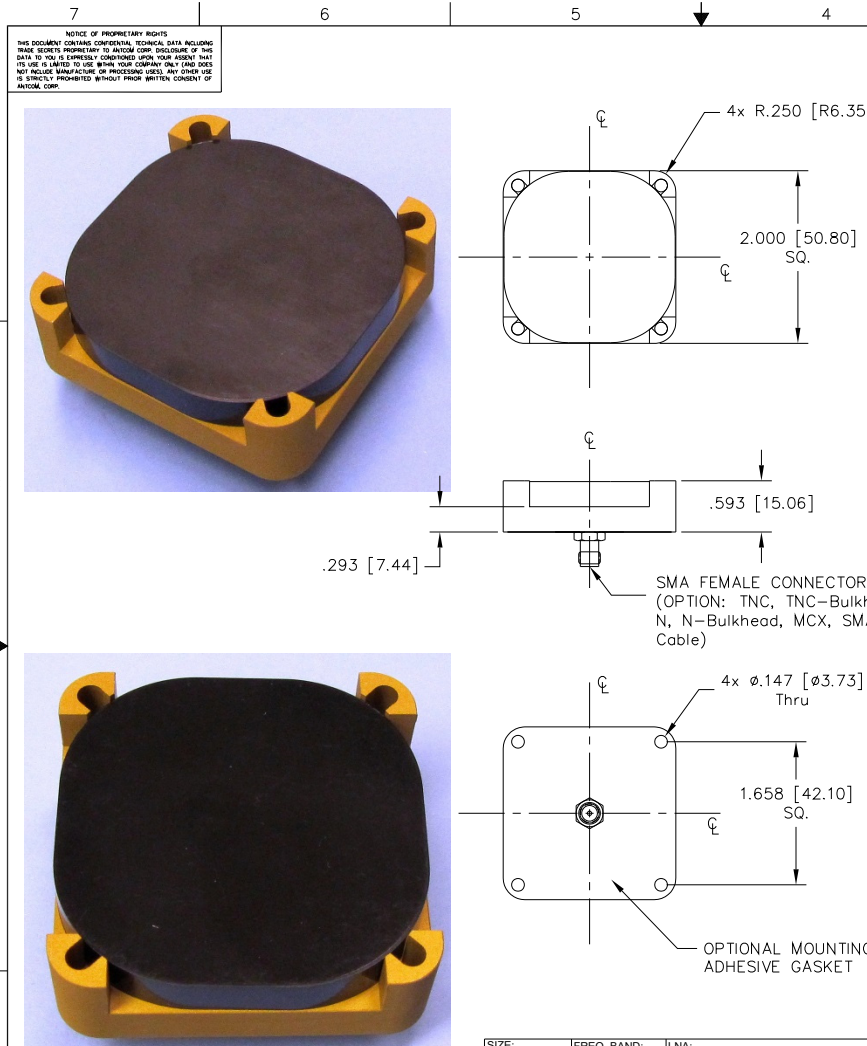


ISO 9001:2008/FAA Approved Facility

Active L1/L2 GPS Antennas with **Protection Radome**, P/N: 1.9G-1215A-XXC-X-R  
 P/N: 1.9G-1215A2F-XSC-1-R is Direct Replacement for P/N: 1.9G1215A2F-XSC-1  
 P/N: 1.9G-1215X-XRSC-3-R is Direct Replacement for P/N: 1.9G1215X-XRSC-3  
 P/N: 1.9G-1215X-XSC-3-R is Direct Replacement for P/N: 1.9G1215X-XSC-3  
 P/N: 1.9G-1215A-XTC-3-R-BP is Direct Replacement P/N: 1.9G1215A-XTC-3-BP  
 Antenna Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>



ANTCOM CORPORATION . 367 Van Ness Way, #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>



**SPECIFICATIONS**

**ELECTRICAL:**

ZONE	REVISIONS			
	REV	DESCRIPTION	DATE	APPROVED
<b>FREQUENCY:</b> L1: (1575.42 ±12) MHz L2: (1227.60 ±12) MHz				
<b>RADIATION PATTERN:</b> HEMISPHERICAL				
<b>POLARIZATION:</b> RHCP				
<b>VSWR:</b> < 1.5:1				
<b>IMPEDANCE:</b> 50 ohms				
<b>ANTENNA GAIN (dBic):</b> Free Space 3 in G.P. 4 ft G.P. Free Space 3 in G.P. 4 ft G.P.				
<b>@ 90° (ZENITH):</b> +3.7 +4.7 +3.1 -1.7 +3.3 +4.5				
<b>@ 10° Elevation:</b> -2.9 -1.8 -1.9 -7.3 -3.8 -3.5				
<b>@ 20° Elevation:</b> -1.3 -0.3 +0.6 -6.2 -2.0 -0.8				
<b>@ 30° Elevation:</b> 0.0 +1.4 +1.7 -5.2 -0.5 +1.4				
<b>@ 60 - 90° Elevation:</b> > 3.0 > 3.9 > 2.4 > -3.2 > 2.7 > 2.2				
<b>BEAM WIDTH (3dB):</b> 108 Deg. 114 Deg. 143 Deg. 100 Deg. 106 Deg. 74 Deg.				
<b>AXIAL RATIO:</b> 2 dB				
<b>LIGHTNING PROTECTION:</b> DC GROUNDING				
<b>LNA GAIN:</b> 33 dB (Option A), 20 dB (Option A2)				
<b>LNA NOISE FIGURE:</b> 3.0 dB (Option A), 2 dB (Option A2)				
<b>LNA P1dB Out:</b> +13 dBm				
<b>LNA DC POWER:</b> 2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA				
<b>REJECTION @ (-50/+50) MHz:</b> -41 dB / -59 dB				
<b>@ (-100/+100) MHz:</b> < -65 dB				
<b>POWER HANDLING:</b> 1 Watt CW, Optional: 10 Watts 1 microsec Pulse (-AL-)				

**MECHANICAL:**

**SIZE:** LENGTH = 2.00 in. [50.80 mm], WIDTH = 2.00 in. [50.80 mm]  
 HEIGHT = 0.593 in. [15.06 mm]  
**WEIGHT:** 2.7 oz. (76.5 g)  
**FINISH:** SKYDROL RESISTANT POLYURETHANE ENAMEL  
 BASE IRIDITE PER MIL-C-5441F  
**MATERIAL:** 6061-T6 ALUMINUM ALLOY BASE  
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,  
 SKYDROL RESISTANCE, AND FIRE RETARDANT  
**CONNECTOR:** SMA FEMALE CONNECTOR  
 (OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead,  
 MCX, SMA, 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-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	A: WITH 33 dB Gain LNA
1.9: 1.9" SQ.	15: L1 ONLY	A2: WITH 20 dB Gain LNA WITHOUT REJECTION FILTERS
2: 2.8" DIA.		A2F: WITH 20 dB Gain LNA WITH REJECTION FILTERS
3: 3.5" DIA.		A4: WITH 40 dB Gain LNA WITHOUT REJECTION FILTERS
4: MINI ARINC		P: WITHOUT LNA

**P/N: 1.9G-1215A2F-XSC-1-R**

CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	S: SMA, RS-R-SMA: P: PINS	-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
F: CABLE LENGTH (IN)	N: NB; N: N-Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	T, TB: TNC, TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS ARE DECIMAL ANGLES ± 1/64 .015 .010 ± .01
TOLERANCE ±.01 PER ANG 114.5
REMOVE ALL BURRS
BREAK EXTERNAL EDGES .006 TO .010
FILED 8.22.19.030
SCREW THREADS PER MIL-C-8879
DAYS ON A COMMON 1/27.000
MACHINED SURFACES 1/2
DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA

L1/L2 PASSIVE OR ACTIVE GPS ANTENNA

DATE	APP'D	REV	DESCRIPTION
Feb-19-04	S. HUYNH	1	ORIGINAL DESIGN
Feb-19-04	S. HUYNH	2	ORIGINAL DESIGNED
Feb-19-04	S. HUYNH	3	UPDATE
Sep-04-13	S. HUYNH	4	UPDATE DRAWN
Sep-04-13	S. HUYNH	5	APPROVED

2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION  
 1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]  
 NOTES: UNLESS OTHERWISE SPECIFIED:

NMO Connector Option is Now Available for Some Antennas