



FAA Approved Facility

Passive L1/L2 GPS Antenna, P/N: 1.9G1215X-XRS-4 **Rev B**

Low Profile 1.9" Square, Flat/Back Mount Configuration

Suitable for Forming Multiple Element CRPA

"-PL-" or "-AL-" for Limiter Options for High Power Pulse Protection



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REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	

ELECTRICAL:

	L1: (1575.42±12) MHz		L2: (1227.60±12) MHz			
FREQUENCY:						
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.5:1		< 1.5:1			
IMPEDANCE:	50 ohms		50 ohms			
ANTENNA GAIN (dBi):	Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90° (ZENITH):	+2.7	+4.7	+3.1	+1.5	+3.3	+4.5
@ 10° Elevation:	-4.4	-1.8	-1.9	-6.7	-3.8	-3.5
@ 20° Elevation:	-2.3	-0.3	+0.6	-5.6	-2.0	-0.8
@ 30° Elevation:	-0.8	+1.4	+1.7	-4.5	-0.5	+1.4
@ 60 - 90° Elevation:	>2.0	>3.9	>2.4	> 0.0	> 2.7	> 2.2
BEAM WIDTH (3dB):	113 Deg.	114 Deg.	143 Deg.	85 Deg.	106 Deg.	74 Deg.
AXIAL RATIO:	2 dB				2 dB	
LIGHTNING PROTECTION:	DC GROUNDING					

LNA OPTION:

LNA GAIN: (21.0±2.0) dB
 LNA NOISE FIGURE: 1.8 dB
 LNA P 1dB Out: +16 dBm
 VOLTAGE/CURRENT: (+2.8 TO +28) Volts DC / (15 TO 25) mA

MECHANICAL:

SIZE: 1.912in,[48.56mm] SQ.
 HEIGHT: 0.36 in.[9.02 mm]
 WEIGHT: 2.0 oz.(56.7 g)
 FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL BASE IRIDIPTER MIL-C-5441
 MATERIAL: 6061-T6ALUMINUMALLOYBASE THERMOSETPLASTICRADOME,UV, ABRASIONAND SKYDROL RESISTANCE
 CONNECTOR: 0.030" DIA. PIN,0.100" LONG (OPTION:SMA, TNC, TNC-Bulkhead,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: HERMETICALLYSEAL

FEDERAL & MILITARY SPECIFICATIONS

DESIGN TO: FAA TSO-C144,DO-160D,DO-228, MIL-C-5541, MIL-E-5400,MIL-I-45208A AND MIL-STD-810

1	ADHESIVE GASKET	12345C-3M-1G	-	-	-	1
QUANTITY REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	ITEM NO

P/N: 1.9G1215P-XRS-4

SIZE	FREQ. BAND	LNA:
1: 2" SQ	1215: L1/L2	A2: WITH 20 dB LNA
1.9: 1.9" SQ	15: L1 ONLY	A4: WITH 40 dB LNA
2: 2.6" DIA.		P: WITHOUT LNA
3: 3.5" DIA.		P2: WITHOUT LNA, WITH RHCP/LHCP POLARIZATION
4: MINI ARINC		P2L: WITHOUT LNA, WITH DUAL LINEAR POLARIZATION

CABLES LENGTH:	CONNECTOR:	COLOR:
K: NO CABLE	S: SMA; P: P2 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
#: CABLE LENGTH (IN)	N: NB; RS: R-SMA	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

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 FRACTIONS TOLERANCES ARE: DECIMALS ANGLES
 ± 1/64 .XXX .020 ± 1°
 .XXX .010

TOLERANCE SYM PER ANSI Y14.5
 REMOVE ALL BURRS
 BREAK EXTERNAL EDGES .005 TO .015
 FILLETS R .005 TO R .030
 SCREW THREADS PER MIL-S-8879
 DIA'S ON A COMMON & .0005
 MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA	
1.9" SQUARE, L1/L2 PASSIVE GPS ANTENNA	DRAWN
1.9G1215P-XRS-4 B	CHECKED
SCALE 1/1	ENGINEER
SHEET 1 OF 1	APPROVED S. HUYNH Sep-19-01
CAD FILE NO	SIZE CASE NO DRAWING NO
D 3CVE1	REV

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
 2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION

Wide Band GNSS Option Is Available

Antenna Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>
 Amplifiers/Power Divider/Combiner/Filter: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts1.pdf>