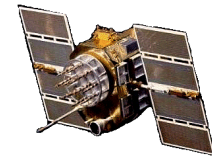




# Conformal L1/L2 GPS FRPA Antenna Element

## Can be Used to Form Multiple Element CRPA

### 2.6" Diameter, P/N: 2CG1215X-XS-2-X Rev A



ISO 9001:2008/FAA Approved Facility 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>

Without Radome Option

6.655 [16.63]

.460 [11.68] (without Radome Option)

(-3): R3.000 [R76.20]  
 (-3.5N): R3.500 [R88.90]  
 (-4P): R4.000 [R101.60]  
 (-6M): R6.000 [R152.40]  
 (-7.5E): R7.500 [R190.50]  
 (-5): R5.00in  
 (-X): RX.XXX

4x.800 [20.32]  
 4x.800 [20.32]

1.600 [40.64]

**SPECIFICATIONS**

**ELECTRICAL:**

FREQUENCY:	L1: (1575.42 ±12) MHz	L2: (1227.60 ±12) MHz
RADIATION PATTERN:	HEMISPHERICAL	
POLARIZATION:	RHCP	
VSWR:	< 1.5:1	
IMPEDANCE:	50 ohms	
ANTENNA GAIN (dBic):	Free Space	3 in G.P. 4 ft G.P.
@ 90° (ZENITH):	+5.0 +4.7 +3.1	+0.7 +3.3 +4.5
@ 10° Elevation:	-2.1 -1.8 -1.9	-5.8 -3.8 -3.5
@ 20° Elevation:	-0.6 -0.3 +0.6	-4.3 -2.0 -0.8
@ 30° Elevation:	+0.9 +1.4 +1.7	-3.4 -0.5 +1.4
@ 60 - 90° Elevation:	> 4.0 > 3.9 > 2.4	> -0.9 > 2.7 > 2.2
BEAM WIDTH (3dB):	103 Deg. 114 Deg. 143 Deg.	94 Deg. 106 Deg. 74 Deg.
AXIAL RATIO:	2 dB	
LIGHTNING PROTECTION:	DC GROUNDING	

**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: DIAMETER: 2.60 in. [66.04 mm]  
 HEIGHT: 0.655 in. [16.63 mm], 0.460in. [11.68mm] (without Radome)  
 WEIGHT: 5.5 oz. (156 g)  
 FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
 BASE IRIDITE PER MIL-C-5441  
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE  
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,  
 SKYDROL RESISTANCE, AND FIRE RETARDANT  
 CONNECTOR: SMA FEMALE  
 (OPTION: TNC, N, TNC- & N-Bulkhead, MCX, MMCX, 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, D0-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED
A		ADAPTING PLATE, 90° ROTATION	Aug/10/07	S.H

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**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED
A		ADAPTING PLATE, 90° ROTATION	Aug/10/07	S.H

**SIZE OPTION:**

SIZE OPTION	FREQ. BAND	LNA OPTION:	CONFORMAL RADIUS OPTION:
1: 2" SQ.	1215: L1/L2	A: WITH LNA	-3: 3.000" RADIUS (SDBII)
1.9: 1.9" SQ.	15: L1 ONLY	AL: WITH LNA/LIMITER	-3.5N: 3.500" RADIUS (NETFIRE, GMLRS)
2: 2.6" DIA.		P: WITHOUT LNA	-4P: 4.000" RADIUS (PAVEWAY)
3: 3.5" DIA.			-6M: 6.000" RADIUS (MAVERICK)
4: MINI ARINC			-7.5E: 7.500" RADIUS (EGBU, MALD)
			-14A: 14.00" RADIUS (ACM)
			-X: X" RADIUS (0: Flat, No Radius)

**CABLE'S LENGTH:** X: NO CABLE  
**CONNECTOR OPTION:** S: SMA; RS: Right Angle SMA  
**COLOR OPTION:** -1: GLOSS WHITE #17925 PER FED-STD-595B  
 -2: LUSTERLESS GRAY #36320 PER FED-STD-595B  
 -3: OLIVE DRAB GREEN #34031 PER FED-STD-595B  
 -4: LUSTERLESS BLACK #37038 PER FED-STD-595B

**UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES**  
 FRACTIONS TO THIRDS ANGLES ± 1/64 . . . . . ± 1/32  
 DECIMALS TO THIRDS ANGLES ± .005 . . . . . ± .01  
 TOLERANCE SURF PER ANG Y14.6  
 REMOVE ALL BURRS  
 BREAK EXTERNAL EDGES .005 TO .015  
 SCREEN HEADS PER MIL-S-8879  
 DIA'S ON A COMMON ± .0005  
 MACHINED SURFACES ± .005  
 DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA  
 2.6" DIA.  
 X" RADIUS CONFORMAL  
 L1/L2 GPS ANTENNA  
 D13CVE1 2CG1215A-XS-2-X A  
 SCALE 1/1 SHEET 1 OF 1

4X 6-32 UNC-2B X .15" ±

(-3): 15.5"  
 (-3.5N): 13.2"  
 (-4P): 11.5"  
 (-6M): 7.7"  
 (-7.5E): 6.1"  
 (-5): 9.2"  
 (-X): [ASIN(0.8/RX.XXX)]

R6.000 [R152.40]  
 R.375 [R9.53]

< .400 [10.16]

SMA FEMALE CONNECTOR  
 (OPTION: TNC, TNC Bulkhead, N, N-Bulkhead, MCX, MMCX, or Cable)

.068 [1.72]  
 .257 [6.52]

**P/N: 2CG1215A-XS-2-X**

2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

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NMO Connector Option is Now Available for Some Antennas