



FAA Approved Facility

# 3-Element CRPA L1/L2 GPS Antenna Array (5.2"x5.2"x0.8"), P/N: 3CC-5SG1215P-XS-X

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



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

Wide Band GNSS Option Is Available

5.156 [130.96] SQ.

ANTENNA NORTH DIRECTION INDICATION

8x 4.195 [44.95] THRU  
√ 0.385 [9.78] X 100°

4xR1.280 [R32.51]

R48.750 [R1238.25]

.806 [20.48]

.090 [2.29]

.498 [12.65]

.400 [10.16]

R10.000 [R254.00]

8x2.328 [59.13]

8x1.298 [32.97]

2x.751 [19.08]

1.048 [26.62]

4.156 [105.58] SQ.

3X SMA FEMALE CONNECTORS

3X 0.375 [9.53]

NAMEPLATE APPROXIMATE LOCATION

R.780 [R19.81]

1.294 [32.87]

.784 [19.91]

.255 [6.48]

### SPECIFICATIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

**ELECTRICAL:**

	L1: (1575.42 ±12) MHz	L2: (1227.60 ±12) MHz
FREQUENCY:		
RADIATION PATTERN:	HEMISPHERICAL	
POLARIZATION:	RHCP	RHCP
VSWR:	< 1.5:1	< 1.5:1
IMPEDANCE:	50 ohms	
ANTENNA ELEMENT GAIN (dBic):	Free Space	4 ft G.P.
@ 90° (ZENITH):	+ 4.5 + 5.4 + 2.4 + 2.5 + 4.1 + 5.6	
@ 10° Elevation:	- 1.5 - 1.6 - 1.7 - 4.3 - 3.2 - 2.8	
@ 20° Elevation:	0.0 0.0 + 0.9 - 3.0 - 1.6 + 0.5	
@ 30° Elevation:	+ 1.1 + 1.3 + 2.0 - 1.5 - 0.3 + 2.4	
@ 60 - 90° Elevation:	> 3.0 > 4.2 > 2.5 > 1.7 > 2.7 > 3.6	
BEAM WIDTH (3dB):	112 Deg. 102 Deg. 145 Deg.	104 Deg. 93 Deg. 80 Deg.
AXIAL RATIO:	2 dB	
NULL DEPTH:	>30 dB (Analog), 55-60 dB (Digital)	
LIGHTNING PROTECTION:	DC GROUNDING	
POWER HANDLING:	200 Watt CW	

**MECHANICAL:**

SIZE: 5.156 in [130.96 mm] SQUARE  
HEIGHT= 0.806 in [20.48mm]

WEIGHT: XX oz. (XX Kg)

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, TNC Bulkhead, N, 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

**ACCEPTANCE TEST PROCEDURE:** ATP-GPS-L1L2-100

QUANTITY	REQD	DESCRIPTION	PART NO	FINISH	REF
4	-	MOUNTING SCREWS: 10-32, 3/4"	MS24693C274	-	5
A/R	-			-	3
1	1			-	1
-2	-1				

CONFORMALITY:	SIZE (INCHES):	SHAPE:	FREQ. BAND:	LNA:
CC: CONFORMAL CURVED		C: CIRCULAR	1215: L1,L2	A: WITH LNA
CF: CONFORMAL FLAT		S: SQUARE	15: L1 ONLY	AL: WITH LNA/LIMITER
NF: NOT CONFORMAL FLAT		T: TRIANGULAR		P: WITHOUT LNA
NC: NOT CONFORMAL CURVED		H: HEXAGON		
		R: RECTANGULAR		

P/N: 3CC-5SG1215P-XS-4

NUMBER OF ELEMENT:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B	
M: MAG. N: NO MAG.	M: MMCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B	
#: CABLE LENGTH (IN.)	N: NB; N: N-Bulkhead	-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	

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
FRACTIONS: DECIMALS: ANGLES  
± 1/64 ± .005 ± .1°  
TOLERANCE 3/16 PER ANSI Y14.5  
REMOVE ALL BURRS  
BREAK EXTERNAL EDGES .000 TO .015  
FLATS & .002 TO .005  
SHOW THEORETICAL DIMENSIONS  
BASED ON A COORDINATE SYSTEM  
MACHINED SURFACES  
DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA

OUTLINE DRAWING:  
3 ELEMENT L1L2 GPS ARRAY  
CONFORMAL ANTENNA ARRAY

3CC-5SG1215P-XS-X

SCALE 1/1

SHEET 1 OF 1

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