

3-Element-5-Channel (1 RHCP, 2 RHCP/2 LHCP) CRPA L1/L2 GPS Antenna Array (4.5in Dia. x 1.29in Thick), P/N: 3NF-4.5CG1215P2-6S-4 (Passive)

“-PL-” or “-AL-” for Limiter Options for High Power Pulse Protection

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SPECIFICATIONS

ELECTRICAL:

		REVISIONS		
ZONE	REV	DESCRIPTION	DATE	APPROVED
		NEW		
FREQUENCY:		L1: (1575.42 ±15) MHz	L2: (1227.60 ±15) MHz	
RADIATION PATTERN:		HEMISPHERICAL		
POLARIZATION:		RHCP	RHCP	
VSWR :		< 1.5:1	< 1.5:1	
IMPEDANCE:		50 ohms	50 ohms	
ANTENNA ELEMENT GAIN (dBic)		RHCP (J1, J2, J3), LHCP (J4, J5)	RHCP (J1, J2, J3), LHCP (J4, J5)	
@ 90 ° (ZENITH) :		+ 5.4	+ 4.1	
@ 10 ° Elevation:		- 1.6	- 3.2	
@ 20 ° Elevation:		0.0	- 1.6	
@ 30 ° Elevation:		+ 1.3	- 0.3	
@ 60 - 90 ° Elevation:		> 4.2	> 2.7	
BEAM WIDTH (3dB):		102 Deg.	93 Deg.	
LIGHTNING PROTECTION:		DC GROUNDING		
POWER HANDLING:		200 Watt CW		

MECHANICAL:

SIZE	DIAMETER: 4.5 in [114.3 mm] HEIGHT: 1.290 in. [32.77 mm]
WEIGHT:	16oz. (453 g)
FINISH:	SKYDROLRESISTANTPOLYURETHANENAMEL BASE IRIDITE PER MIL-C-5441
MATERIAL:	6061-T6ALUMINUMALLOY BASE COMPOSITE RADOME,IMPACT,ABRASION,UV, SOLVENT, SKYDROLRESISTANCEAND FIRE RETARDANT
CONNECTOR:	1x 6in SMA FEMALE CABLE FOR REFERENCE CHANNEL 4x 6in SMA MALE CABLES FOR AUXILIARY CHANNELS (OPTION:TNC, N, MCX, MMCX, SMB, SSMB, SMC, SSMC)
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

QUANTITY	REQD	DESCRIPTION	PART NO	FINISH	ITEM NO
4	-				5
A/R	-				3
1	1				1
-2	-1				

CONFORMALITY:	SIZE (INCHES):	SHAPE	FREQ. BAND	LNA
CC: CONFORMAL/CURVED	C: CIRCULAR	C: CIRCULAR	1215; L1/L2	A: ACTIVE (with LNA), AL: ACTIVE WITH LIMITER
CF: CONFORMAL/FLAT	S: SQUARE	S: SQUARE	15; L1 ONLY	P: PASSIVE (without LNA)
NF: NOT CONFORMAL/FLAT	T: TRIANGULAR	T: TRIANGULAR		P2: PASSIVE WITH DUAL RHCP/LHCP POLARIZATION
NC: NOT CONFORMAL/CURVED	H: HEXAGON	H: HEXAGON		P2L: PASSIVE WITH DUAL LINEAR POLARIZATION AND with 1 RHCP for MORE THAN 1 ELEMENTARY ARRAY
	R: RECTANGULAR	R: RECTANGULAR		

P/N: 3NF-4.5CG1215P2-6S-4

DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS
± 1/64 .XXX ± .020

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

NUMBER OF ELEMENT:	CABLE LENGTH	CONNECTOR	COLOR
X: NO CABLE	S: 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	
#: 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	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
FRACTIONS DECIMALS ANGLES
TOLERANCE SIM PER ANSI Y14.5
REWORK ALL SURFACES
BRING TO DIMS. EDGES .005 TO .015
FILING TO .0015 IN RADIUS
SCREW THREADS PER MIL-STD-8879
DAYS ON A CONFORMAL COATING
MACHINED SURFACES
DO NOT SCALE DRAWING

DRWN
CHECKED
ENGINEER
APPROVED S. HUYNH
SHP-03-05
COP FILE NO

ANTCOM CORP. TORRANCE CALIFORNIA

3-ELEMENT
PASSIVE L1/L2 GPS
CRPA ANTENNA ARRAY
(1 RHCP, 2 RHCP, & 2 LHCP)

DR 3CVE1
P/N 3NF-4.5CG1215P2-6S-4
SCALE 1/1 SHEET 1 OF 1

Wide Band GNSS Option Is Available.
Compatibility to IGAS Receiver Options are Available.

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