



FAA Approved Facility

5-Element-5-Channel (5 RHCP) CRPA L1/L2 GPS/Glonass Antenna Array

P/N: 5NF-4.7CG1215P-XS-4 *Rev B*

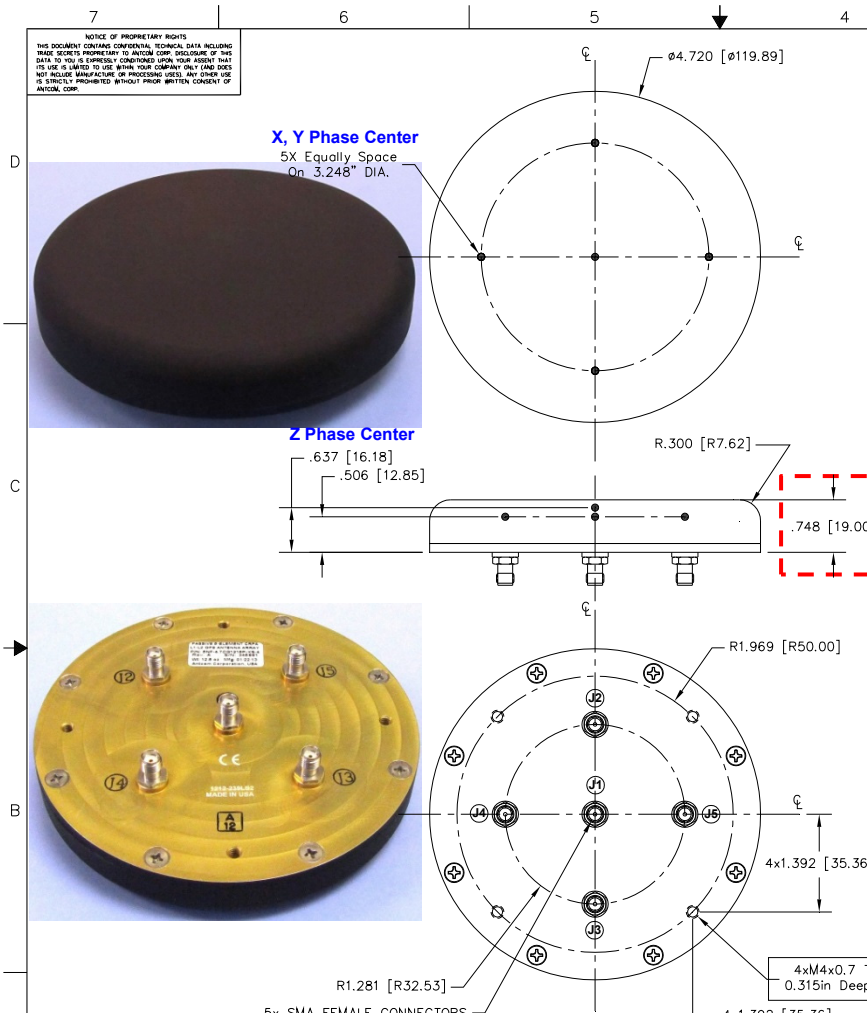
(Improved Gain) (4.72" Dia. x 0.748" (19mm) Thick)

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



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Wide Band GNSS Option Is Available



SPECIFICATIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A		IMPROVED GAIN	SEP-21-06	S.H
B		REVISED HEIGHT PER RAYTHEON SPECS	JAN-08-13	S.H

ELECTRICAL:

FREQUENCY:	L1: (1575.42 ± 12) MHz		L2: (1227.60 ± 12) MHz	
RADIATION PATTERN:	HEMISPHERICAL			
POLARIZATION:	RHCP	RHCP	RHCP	RHCP
VSWR:	< 1.5:1	< 2.0:1	< 1.5:1	< 2.0:1
IMPEDANCE:	50 ohms		50 ohms	
FRPA ELEMENT GAIN (dBic):	Reference	Auxiliary	Reference	Auxiliary
	4 ft G.P.	4 ft G.P.	4 ft G.P.	4 ft G.P.
	In ARRAY	In ARRAY	In ARRAY	In ARRAY
@ 90 ° (ZENITH):	+ 3.5	+ 3.8	+ 4.9	+ 2.7
@ 10 ° Elevation:	- 2.0	- 4.3	- 3.6	- 6.3
@ 20 ° Elevation:	+ 0.8	- 2.2	- 0.1	- 4.2
@ 30 ° Elevation:	+ 1.8	- 0.7	- 1.8	- 2.4
@ 60 - 90 ° Elevation:	> 2.8	> 2.5	> 3.0	> 1.3
BEAM WIDTH (3dB):	139 Deg.	120 Deg.	75 Deg.	90 Deg.
LIGHTNING PROTECTION:	DC GROUNDING			

MECHANICAL:

SIZE: HEIGHT: 0.748in. [19.00 mm]
DIAMETER: 4.72 in [119.89 mm]

WEIGHT: 12.9 oz (366 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE IRIDITE PER MIL-C-5541F TYPE I CLASS 1A

MATERIAL: 6061-T6 ALUMINUM ALLOY BASE
COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,
SKYDROL RESISTANCE, AND FIRE RETARDANT

CONNECTOR: SMA FEMALE

ENVIRONMENTAL:

TEMPERATURE: -71 °F TO +203 °F [-57 °C TO +95 °C]

ALTITUDE: 70,000 ft.

VIBRATION: 40 G's

LEAKAGE: HERMETICALLY SEAL

FEDERAL & MILITARY SPECIFICATIONS:

DESIGN TO: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541, MIL-STD-81F
MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100

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

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	ITEM NO
5	MOUNTING SCREWS: 10-32, 3/4"		MS24693C274	1

DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS
± 1/64 .XXX± .007

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

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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: MCK; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B	
#F: 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
± 1/64 .XXX± .007

TOLERANCE \pm MM PER ANSI Y14.5

REMOVE ALL BURRS
BREAK EXTERNAL EDGES .005 TO .015
FILTS 2 TO 14 P
SIDE W/ THREADS PER MIL-S-8879
DAYS ON A CLEAN Q. 2000

MACHINED SURFACES \sqrt{R}

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA

4.72in Dia. 5-ELEMENT
5 CHANNEL L1L2 GPS
CRPA ANTENNA ARRAY
(5 RHCP)

REV: D 3CVE1 5NF-4.7CG1215P-XS-4

SCALE 1/1 SHEET 1 OF 1

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