



# 7-Element CRPA L1/L2 GPS Antenna Array with Standard FRPA Mounting Foot Print

## P/N: 7NF-7CG1215P-16S-X

Other Mounting Hole Patterns, Cables, Connectors and Output Locations can be Customized

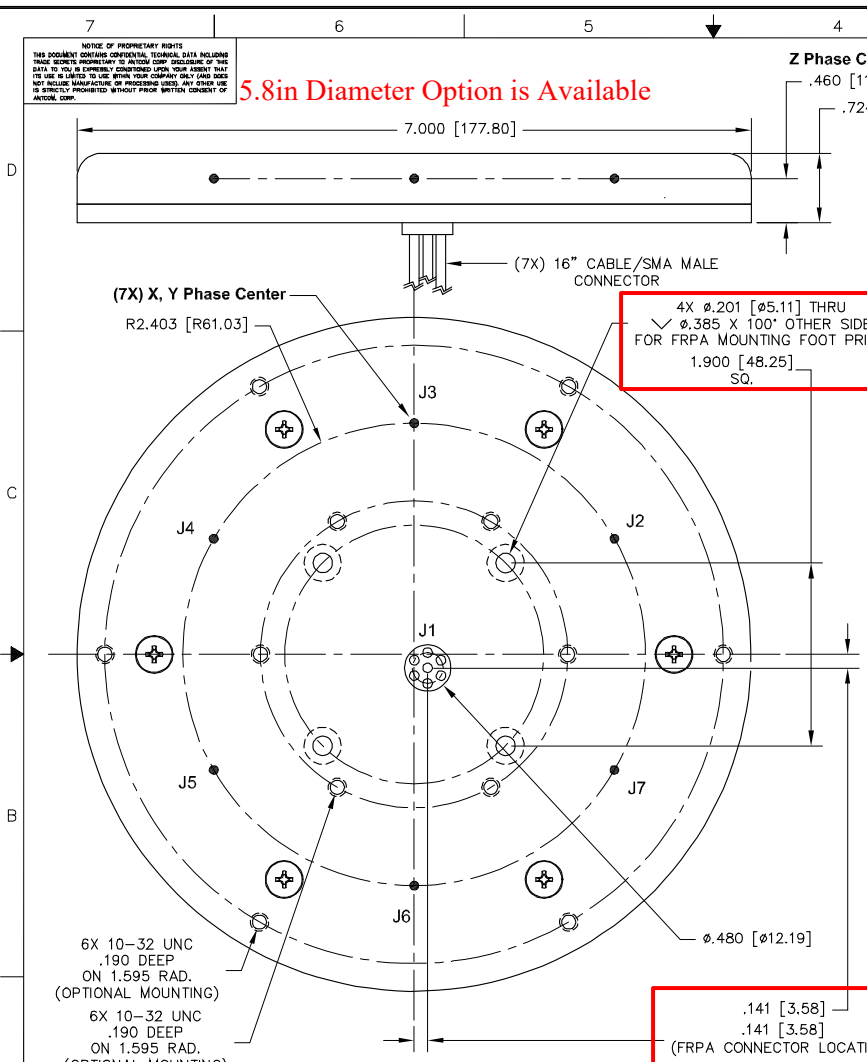
FAA Approved Facility

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



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Wide Band GNSS Option Is Available



### SPECIFICATIONS

ELECTRICAL:		REVISIONS					
		ZONE	REV	DESCRIPTION	DATE	APPROVED	
FREQUENCY:	L1: (1575.42 ±12) MHz L2: (1227.60 ±12) MHz						
RADIATION PATTERN:	HEMISPHERICAL						
POLARIZATION:	RHCP						
VSWR:	< 1.5:1						
IMPEDANCE:	50 ohms						
ANTENNA ELEMENT GAIN (dBic):	Free Space 3.5 In Dia. 4 ft G.P.	Free Space	3.5 In Dia.	4 ft G.P.	Free Space	3.5 In Dia. 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: DIAMETER: 7.000 in. [177.8 mm]  
HEIGHT: 0.724 in. [18.39 mm]

WEIGHT: 1.5 lbs. (.68 Kg)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
BASE IRIDITE PER MIL-C-5441F

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

CONNECTOR: (7X) 16" CABLE/SMA MALE  
(OPTION: TNC, TNC Bulkhead, N, N Bulkhead,  
MCX, MMCX)

### 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	REV
4	MOUNTING SCREWS: 10-32, 1.25"	MS24693C27B, Item 579GN	-	1
-2	-1			

P/N: 7NF-7CG1215P-16S-3

FREQ. BAND:	LNA:	MALE CONNECTOR:	COLOR:
1215: L1/L2	A: WITH LNA	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
15: L1 ONLY	AL: WITH LNA/LIMITER	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
	P: WITHOUT LNA	N: NB; N: N-Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
		T: TB; TNC; TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
			-5: DESERT TAN #33446 PER FED-STD-595B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS AND ANGLES ± 1/64 .004 .005 ± 1°

TOLERANCE .5M PER ANSI Y14.5 REMOVE ALL SHARP BREAK EXTERNAL EDGES .005 TO .015 FILED TO .005 TO R .005 .005 ON A COMMON ± .0005 MACHINED SURFACES .125

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA

7in Diameter, 7 ELEMENT L1L2 GPS SMALL CIRCULAR ANTENNA ARRAY

D 3CVE1 7NF-7CG1215P-16S-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