



FAA Approved Facility

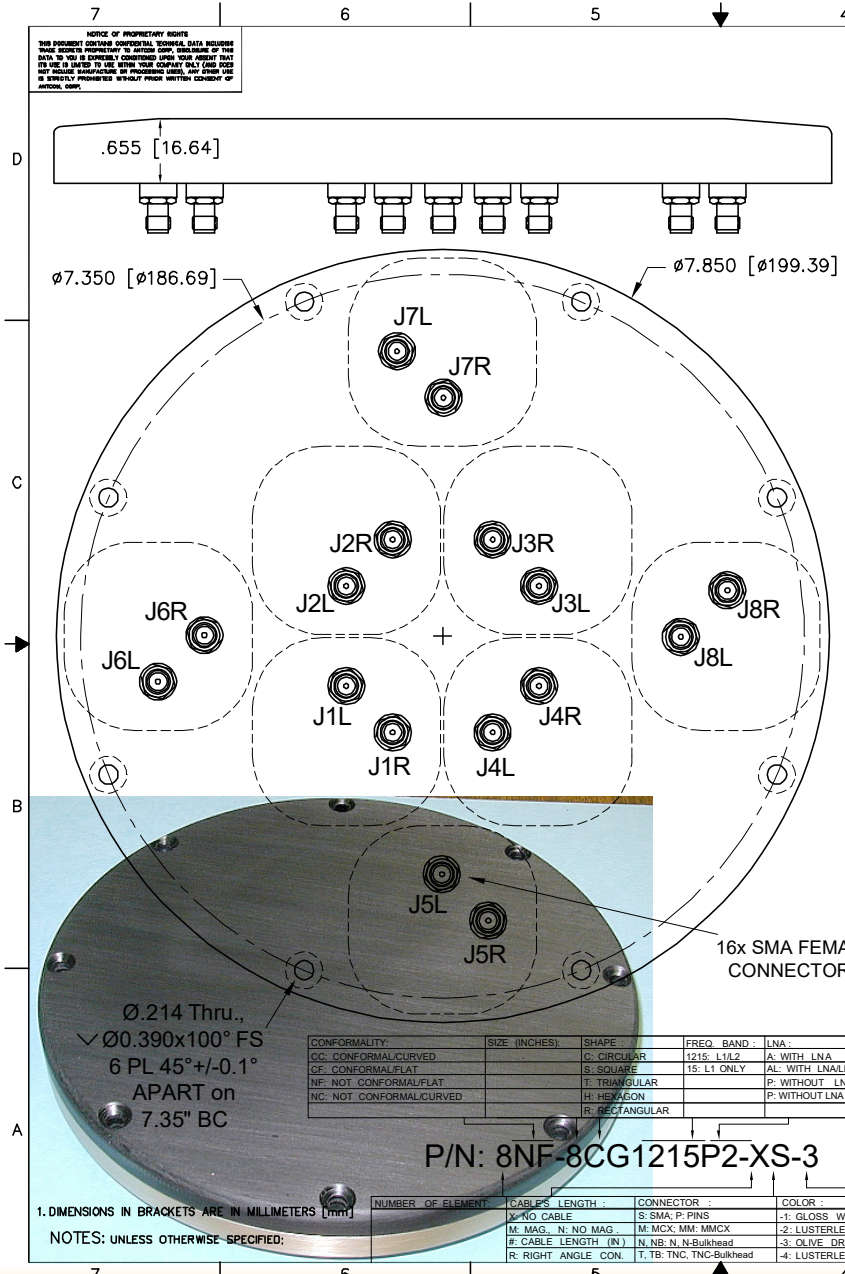
# 8-Element-16-Channel (RHCP/LHCP) L1/L2 GPS Antenna Array (7.8" Dia. x 0.7" Thick), P/N: 8NF-8CG1215P2-XS-X

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



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Wide Band GNSS Option Is Available



### SPECIFICATIONS

ELECTRICAL:	
FREQUENCY:	L1: (1575.42 ±12) MHz      L2: (1227.60 ±12) MHz
RADIATION PATTERN:	HEMISPHERICAL
POLARIZATION:	RHCP      RHCP
VSWR:	< 1.5:1      < 1.5:1
IMPEDANCE:	50 ohms      50 ohms
ANTENNA ELEMENT GAIN (dBic):	Free Space      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      2 dB
NULL DEPTH:	> 30 dB (Analog), 55-60 dB (Digital)
LIGHTNING PROTECTION:	DC GROUNDING
POWER HANDLING:	200 Watt CW

### MECHANICAL:

**SIZE:** DIAMETER: 7.85 in. [199.39 mm]  
HEIGHT: 0.655 in. [16.64 mm]

**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,  
MMCX, 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-L112-100

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

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	P: WITHOUT LNA WITH DUAL POLARIZATIONS		
	R: RECTANGULAR			

**P/N: 8NF-8CG1215P2-XS-3**

NUMBER OF ELEMENT	CABLES 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 #26320 PER FED-STD-595B	
#: CABLE LENGTH (IN.)	N: N.B. N: N-Bulkhead	-3: OLYVE DRAB GREEN: #34931 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 TO DECIMALS AND ANGLES ± 1/64 DECIMALS ± 1° TOLERANCE SHOWN PER ANSI Y14.5 REMOVE ALL BURRS BREAK SHARP EDGES TO .015 RADIUS TO .005 TO .010 RADIUS ON A CORNER ± .005 ± .005 MACHINED SURFACES

DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE CALIFORNIA

7.8 in Diameter,  
8 ELEMENT, DUAL POLARIZATION  
L1/L2 GPS ANTENNA ARRAY

DESIGNED: M. BOAS  
MAY-29-01

DRAWN: S. HUYNH  
MAY-29-01

APPROVED: S. HUYNH  
MAY-29-01

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