



FAA Approved Facility

4-Element CRPA L1/L2 GPS Antenna Array With Standard FRPA Mounting Holes

P/N: 4NF-4SG1215P-XS-X-C-FRPA (Passive)

P/N: 4NF-4SG1215A-XS-X-C-FRPA (Active)

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

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



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

4.220 [107.19] (Overall width)
R.780 [R19.81] (Corner radius)
2.686 [68.22] (FRPA mounting hole offset)
4X 1.900 [48.26] (FRPA mounting hole diameter)
0.836 [21.24] (SMA connector height)
0.417 [10.60] (Connector offset)
4X Ø.201 [Ø5.11] THRU ON 1.343 RAD. (FRPA mounting hole)

SPECIFICATIONS

ELECTRICAL:

FREQUENCY:	L1: (1575.42 ±15) MHz	L2: (1227.60 ±15) 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.
@ 90 ° (ZENITH):	+ 4.5	+ 2.4
@ 10 ° Elevation:	- 1.5	- 1.7
@ 20 ° Elevation:	0.0	+ 0.9
@ 30 ° Elevation:	+ 1.1	+ 2.0
@ 60 - 90 ° Elevation:	> 3.0	> 2.5
BEAM WIDTH (3dB):	112 Deg.	104 Deg.
AXIAL RATIO:	2 dB	
NULL DEPTH:	> 30 dB (Analog), 55-60 dB (Digital)	
LIGHTNING PROTECTION:	DC GROUNDING	
POWER HANDLING:	200 Watt CW	

LNA OPTION:

LNA NOISE FIGURE:	33 dB Gain
LNA P1dB Out:	3.0 dBm
LNA DC POWER:	+13 dBm
REJECTION @ (-50/+50) MHz:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/-50mA
@ (-100/+100) MHz:	-40 dB / -40 dB
POWER HANDLING:	< -65 dB

MECHANICAL:

SIZE: 4.220 in [107.19 mm] SQUARE
HEIGHT: 0.836 in [21.24 mm]
WEIGHT: 6.18 oz. (175.2 g)
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: SMA FEMALE (OPTION: TNC, N, BNC, 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

CONFORMALITY:	SHAPE:	FREQ. BAND:	LNA:
CC: CONFORMAL/CURVED	C: CIRCULAR	1215: L1/L2	A: WITH LNA
CF: CONFORMAL/FLAT	S: SQUARE	1S: 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: 4NF-4SG1215P-XS-4-C-FRPA

NUMBER OF ELEMENT:	CABLE LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	O: OMA, S: SMA	-1: GLOSS WHITE #17925 PER FED-STD-595B	
M: MAG, N: NO MAG,	SMB: SMB, SMP: SMP	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B	
#: CABLE LENGTH (IN)	SSMA, SSMB, SSMC, SSMC	-3: CAMO GREEN #34094 PER FED-STD-595B	
R: RIGHT ANGLE CON.	SSMP	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B	
		-5: DESERT TAN #33446 PER FED-STD-595B	

NOTES: UNLESS OTHERWISE SPECIFIED:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		ANTCOM CORP. TORRANCE, CALIFORNIA	
1/64	.005	0.005	
TOLERANCE 5M PER ANS Y14.5		ORIGINAL DRAWN: S. HUYNH Mar-22-13	
MACHINED SURFACES 1/2		ORIGINAL DESIGNED: S. HUYNH Mar-22-13	
DO NOT SCALE DRAWING		UPDATED: S. HUYNH Mar-21-17	
		UPDATE DRAWN: P. TRAN Mar-21-17	
		APPROVED: S. HUYNH Mar-21-17	

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