



FAA Approved Facility

RHCP/LHCP L1/L2 GPS Antenna, P/N: 1.9G1215P2-20SSMC-3

Low Profile 1.9" Square, Flat/Back Mount Epoxy On Configuration

Suitable for Forming Multiple Element CRPA

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



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SPECIFICATION S

		REVISIONS					
ZONE	REV	DESCRIPTION	DATE	APPROVED			

ELECTRICAL:

	L1: (1575.42±12) MHz			L2: (1227.60±12) MHz		
FREQUENCY:						
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP/LHCP					
VSWR:	< 1.5:1			< 1.5:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBi):	Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90° (ZENITH):	+2.7	+4.7	+3.1	+1.5	+3.3	+4.5
@ 10° Elevation:	-4.4	-1.8	-1.9	-6.7	-3.8	-3.5
@ 20° Elevation:	-2.3	-0.3	+0.6	-5.6	-2.0	-0.8
@ 30° Elevation:	-0.8	+1.4	+1.7	-4.5	-0.5	+1.4
@ 60 - 90° Elevation:	>2.0	>3.9	>2.4	> 0.0	>2.7	>2.2
BEAM WIDTH (3dB):	113 Deg.	114 Deg.	143 Deg.	85 Deg.	106 Deg.	74 Deg.
AXIAL RATIO:	2 dB			2 dB		
LIGHTNING PROTECTION:	DC GROUNDING					

LNA OPTION:

LNA GAIN: (21.0+/-2.0) dB
 LNA NOISE FIGURE: 1.8 dB
 LNA P 1dB Out: +16 dBm
 VOLTAGE/CURRENT: (+2.8 TO +28) Volts DC / (15 TO 25) mA

MECHANICAL:

SIZE: 1.912in.[48.56mm] SQ.
 HEIGHT: 0.36 in. [9.02 mm]
 WEIGHT: 2.4 oz. (68 g)
 FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
 BASE IRIDIPEPER MIL-C-5441
 MATERIAL: 6061-T6ALUMINUMALLOY BASE
 THERMOSETPLASTICRADOME,UV, ABRASIONAND SKYDROL RESISTANCE
 CONNECTOR: 20 IN SSMC MALE CABLES
 (OPTION: SMC, SMB, SSMB, SMA, PIN, TNC, TNC-Bulkhead, N, N-Bulkhead, MCX, MMCX, or Cable)

ENVIRONMENTAL:

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]
 ALTITUDE: 70,000ft.
 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, AND MIL-STD-810

1	ADHESIVE GASKET	12345G-3M-1G	-	-	-	1
QUANTITY REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	ITEM NO
	PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES						
TOLERANCES ARE:						
FRACTIONS DECIMALS ANGLES						
± 1/64 .XXX .020 ± 1°						
TOLERANCE SYM PER ANSI Y14.5						
REMOVE ALL BURRS						
BREAK EXTERNAL EDGES .005 TO .015						
FILLETS R .005 TO R .030						
SCREW THREADS PER MIL-S-8879						
DIAS ON A COMMON & 2X.005						
MACHINED SURFACES 12.5						
DO NOT SCALE DRAWING						

SIZE: 1.2" SQ, 1.9" SQ, 2.3" SQ, 2.6" DIA, 3.5" DIA

FREQ. BAND: 1215: L1/L2, 15: L1 ONLY

POLARIZATION/LNA OPTIONS: A2: WITH 20 dB LNA, A4: WITH 40 dB LNA, P: WITHOUT LNA, P2: WITHOUT LNA, WITH RHCP/LHCP POLARIZATION, P2L: WITHOUT LNA, WITH DUAL LINEAR POLARIZATION

P/N: 1.9G1215P2-20SSMC-3

CABLE LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	S: SMA, P: P2: 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: RS, R-SMA	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

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

Wide Band GNSS Option Is Available

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

ANTCOM CORP. TORRANCE CALIFORNIA

1.9" SQUARE, L1/L2 PASSIVE RHCP/LHCP GPS ANTENNA

SIZE	CAGE NO	DRAWING NO	REV
D	3CVE1	1.9G1215P2-20SSMC-3	
SCALE 1/1		SHEET 1 OF 1	

(ORIGINAL DOCUMENT WHEN STAMP IS RED)

CC: 3CVE1, NAICS: 334511, S.Huynh, May 20, 2016

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