









2.000 [50.80] SQ.
1.912 [48.56] SQ.

4x ϕ .147 [ϕ 3.73] Thru.
4xR.250 [R6.35]
4xR.716 [R18.19]

< 0.533 [13.54]
.293 [7.44]

< 0.25" [6.37] (MCX/MMCX),
0.46" [11.68] (SMA/R-SMA),
0.57" [14.53] (TNC), 0.83" [21.00] (TNC-BH),
0.72" [18.29] (N, N-BH)

1.658 [42.10]

SMA FEMALE CONNECTOR
(OPTION: TNC, TNC Bulkhead, N, N-Bulkhead, MCX, MMCX, or Cable)
Clearance Hole: 0.4" Dia.
0.52" Dia. for TNC Con.
0.63" Dia. for N Con.

.813 [20.64]
.200 [5.08]

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 GAIN (dBic):	Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90° (ZENITH):	+3.7	+4.7	+3.1	-1.7	+3.3	+4.5
@ 10° Elevation:	-2.9	-1.8	-1.9	-7.3	-3.8	-3.5
@ 20° Elevation:	-1.3	-0.3	+0.6	-6.2	-2.0	-0.8
@ 30° Elevation:	0.0	+1.4	+1.7	-5.2	-0.5	+1.4
@ 60 - 90° Elevation:	> 3.0	> 3.9	> 2.4	> -3.2	> 2.7	> 2.2
BEAMWIDTH(3dB):	108 Deg.	114 Deg.	143 Deg.	100 Deg.	106 Deg.	74 Deg.
AXIAL RATIO:	2 dB			2 dB		
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN (OPTIONAL):	33 dB (Option A), 20 dB (Option A2)					
LNA NOISE FIGURE:	3.0 dB (Option A), 2 dB (Option A2)					
LNA P1dB Out:	+13 dBm					
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA					
REJECTION@ (-50/+50)MHz:	-41 dB / -59 dB			-40 dB / -40 dB		
@ (-100/+100)MHz:	< -65 dB			< -65 dB		
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 microsec Pulse (-AL-)					

MECHANICAL:

SIZE: LENGTH = 2.00 in. [50.80 mm], WIDTH = 2.00 in. [50.80 mm]
HEIGHT = < 0.533 in. [13.54 mm]

WEIGHT: 2.4 oz. (68 g)

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

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

CONNECTOR: SMA FEMALE CONNECTOR
(OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead, MCX, SMA, 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

SIZE	FREQ BAND	LNA:	QUANTITY REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	REV
1: 2" SQ.	1215: L1/L2	A: WITH 33 dB Gain LNA	1						5
1.9: 1.9" SQ.	15: L1 ONLY	A2: WITH 20 dB Gain LNA WITHOUT REJECTION FILTERS	1						3
2: 2.6" DIA.		P: WITHOUT LNA	1						2
3: 3.5" DIA.		A4: WITH 40 dB Gain LNA WITHOUT REJECTION FILTERS	-2	-1					1
4: MINI ARINC									

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS: DECIMALS: ANGLES: TOLERANCES: ± 1/64 ± .015 ± 1° ± .005 ± .005

REMOVE BURRS FROM ALL EDGES .005 TO .015

FILED IN JOB # 1000

SCREW THREADS FOR MIL-C-8879 DIA'S ON A COARSE 2.000

MACHINED SURFACES

TOLERANCE 51M PER ANSI Y14.5

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

L1/L2 PASSIVE OR ACTIVE GPS ANTENNA

DESIGNER: S. HUYNH May-07-09

DRW: DJ3CVE1

1.9G1215P-XSO-2

SCALE 1/1

SHEET 1 OF 1

2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

CABLE LENGTH	CONNECTOR	COLOR
X: NO CABLE	S: SMA, RS-R-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
#: CABLE LENGTH (IN)	N: NB, N: N-Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	T: TB, TNC, TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B

P/N: 1.9G1215P-XSO-2

NMO Connector Option is Now Available for Some Antennas