Active or Passive L1/L2 GPS Antennas, P/N: 3G1215X-XX-X:

3.5” Diameter Configurations, Front/back Mount

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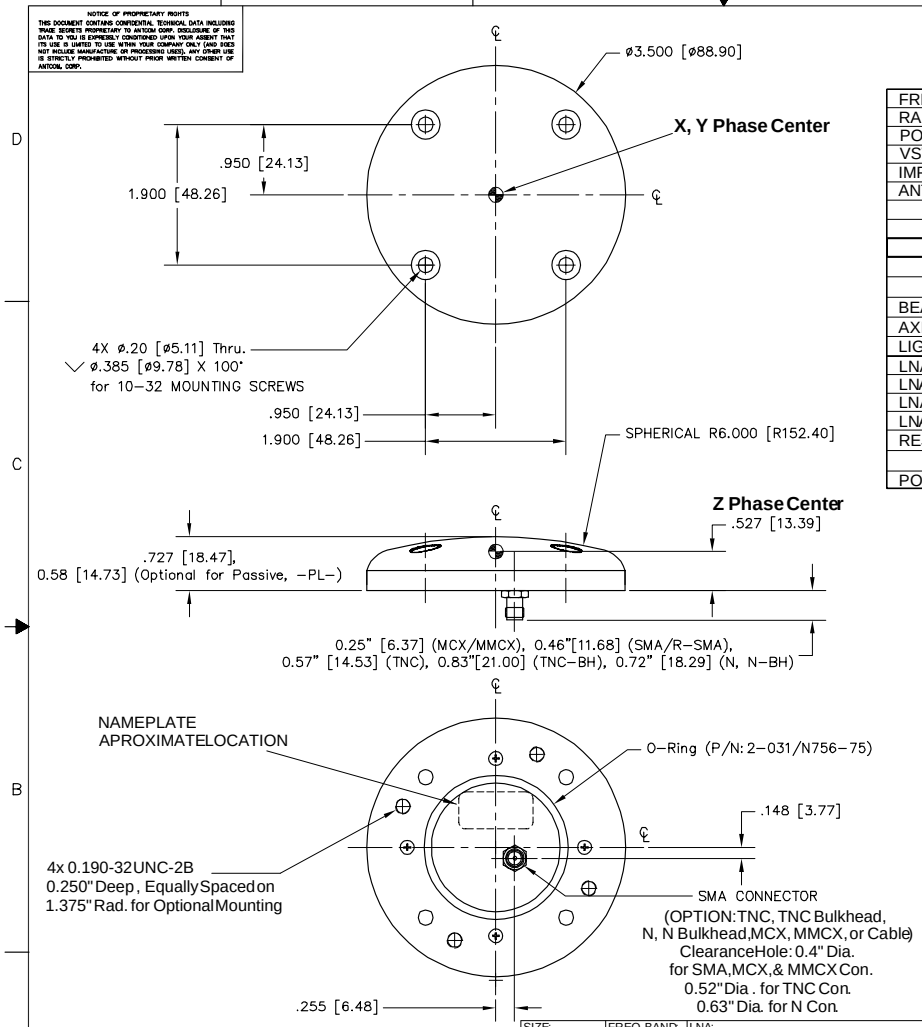

SPECIFICATIONS

ELECTRICAL:

FREQUENCY:	L1: (1575.42 ±15) MHz			L2: (1227.60 ±15) MHz		
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP			RHCP		
VSWR:	< 1.5:1			< 1.5:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBic):	Free Space	16 in G.P.	4 ft G.P.	Free Space	16 in G.P.	4 ft G.P.
@ 90 ° (ZENITH):	+ 4.7	+ 0.4	+ 3.5	+ 3.3	+ 1.5	+ 4.9
@ 10 ° Elevation	- 1.8	- 3.2	- 2.0	- 3.8	- 4.0	- 3.6
@ 20 ° Elevation	- 0.3	- 1.0	+ 0.8	- 2.0	- 2.0	- 0.1
@ 30 ° Elevation	+ 1.4	+ 0.9	+ 1.8	- 0.5	0.0	- 1.8
@ 60 - 90 ° Elevation:	> 3.9	+3.4/+04	> 2.8	> 2.7	+2.4/+15	> 3.0
BEAM WIDTH (3dB):	114 Deg.	118 Deg.	139 Deg.	106 Deg.	111 Deg.	75 Deg.
AXIAL RATIO:	2 dB			2 dB		
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	33 dB			35 dB		
LNA NOISE FIGURE:	3.0 dB			3.0 dB		
LNA P1dB Out:	+13 dBm			+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:	DIAMETER: 3.50 in. [88.90 mm] HEIGHT: 0.727 in. [18.47 mm], 0.58" [14.73] (Optional for Passive)
WEIGHT:	6.8 oz. (191 g)
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, 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

2–031/N756–75, or 12345G–3M–3G

SIZE:	FREQ. BAND:	LNA:
1: 2" SQ.	1215: L1/L2	A: WITH LNA; A4 WITH 40 DB LNA WITHOUT REJECTION FILTERS
1.9: 1.9" SQ.	15: L1 ONLY	AL: WITH LNA/LIMITER
2: 2.6" DIA.		P: WITHOUT LNA
3: 3.5" DIA.		PL: WITHOUT LNA and THINNER (HEIGHT= 0.58")
4: MINI ARINC		A2: WITH 20 DB LNA WITHOUT REJECTION FILTERS

P/N: 3G1215P-XT-1

CABLE'S LENGTH	CONNECTOR	COLOR
X: NO CABLE	S: SMA; RD: R-SMA; P: PINS	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
M: MAG.; N: NO MAG.	M: MCX; MM: MMCX	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
#: CABLE LENGTH (IN)	N, NB: N, N-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
R: RIGHT ANGLE CON.	T, TB: TNC, TNC-Bulkhead	-5: TAN #: FS 23446 or 33446, FED-STD-595

NOTES: UNLESS OTHERWISE SPECIFIED:

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
2. MOUNTING SCREWS & ADHESIVE GASKET ARE SUPPLIED BY ANTCOM

QUANTITY REQD		DESCRIPTION	PART NO		ITEM NO
4	–	MOUNTING SCREWS: 10–32, 3/4"	MS24693C274	–	5
A/R	–	WASHER, CUSTOM C'SINK	3G15P1001–6	–	3
1	1	O–Ring, or GASKET	2–031/N756–75, OR 3G15P1001–3G		1
–2	–1				

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± 1/64, DECIMALS .XX ± .015, .XXX ± .005, ANGLES ± 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
DIA'S ON A COMMON ℄ ⌖ .005
MACHINED SURFACES 125
DO NOT SCALE DRAWING

DRAWN
CHECKED M. BOAS 01–05–29
ENGINEER
APPROVED S. HUYNH 01–05–29
CAD FILE NO

ANTCOM CORP. TORRANCE, CALIFORNIA

OUTLINE DRAWING
L1/L2 ACTIVE, OR PASSIVE
GPS ANTENNA

SIZE D | CAGE NO 3CVE1 | DRAWING NO 3G1215X–XX–X | REV –
SCALE 1/1 | SHEET 1 OF 1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED