Active L1/L2 GPS Antenna, P/N: 42G1215A-XTA-1
(4.7” x 3.0”) 743 Arinc Configuration
TSO Cert P/N: 42G1215A-XT-1-4

ISO 9001:2008/FAA Approved Facility

Antenna Mounts: http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf

FAA Approved TSO Antennas

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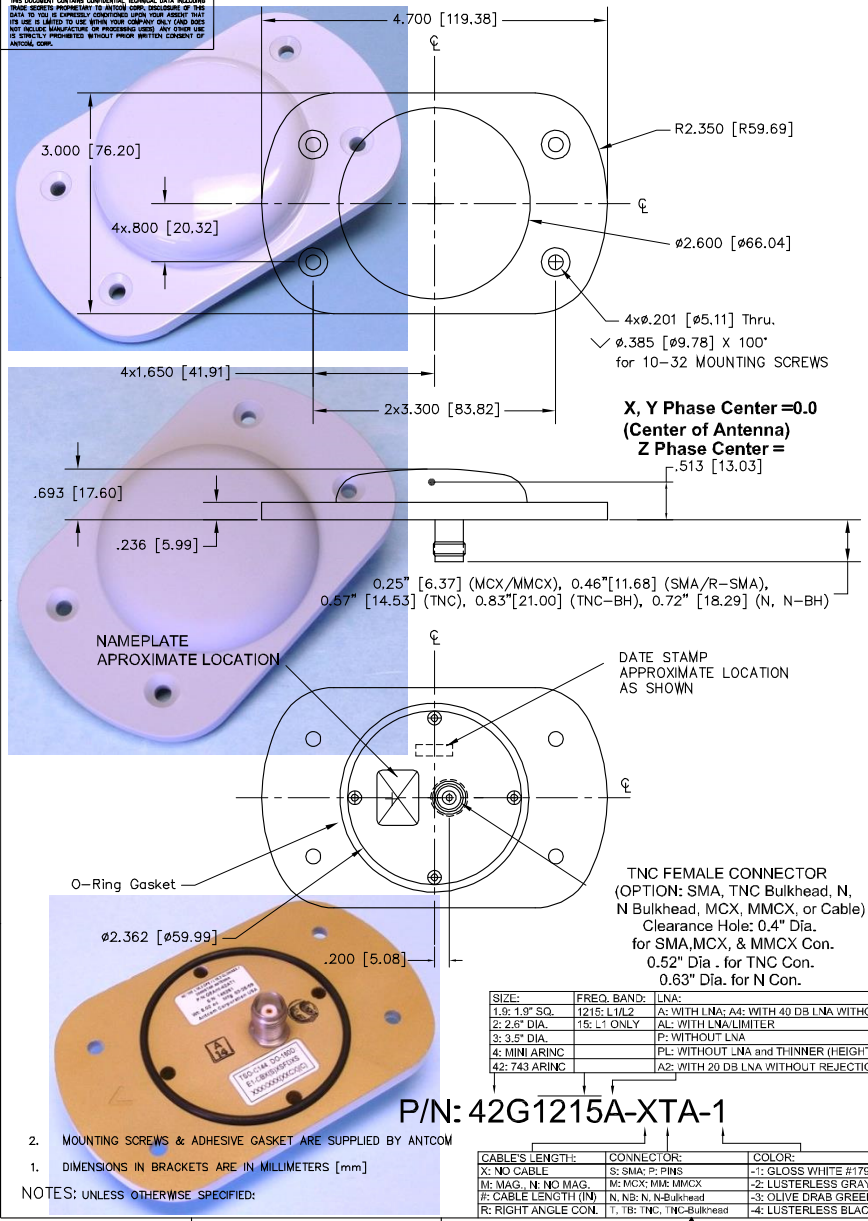

SPECIFICATIONS

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	4 ft G.P.	Free Space	4 ft G.P.
@ 90 ° (ZENITH):	+ 4.7	+ 3.5	+ 3.3	+ 4.9
@ 10 ° Elevation:	- 1.8	- 2.0	- 3.8	- 3.6
@ 20 ° Elevation:	- 0.3	+ 0.8	- 2.0	- 0.1
@ 30 ° Elevation:	+ 1.4	+ 1.8	- 0.5	- 1.8
@ 60 - 90 ° Elevation:	> 3.9	> 2.8	> 2.7	> 3.0
BEAM WIDTH (3dB):	114 Deg.	139 Deg.	106 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:	WIDTH: 3.00 in. [76.20 mm], LENGTH 4.700 in. [119.38 mm], HEIGHT: 0.6930 in. [17.60 mm]
WEIGHT:	6.8 oz. (191 g)
FINISH:	SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5541
MATERIAL:	6061-T6 ALUMINUM ALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT
CONNECTOR:	TNC FEMALE (OPTION: SMA, 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:

QUALIFIED TO: FAA TSO-C144, DO-160D: E1-CBX(S)XSFDXSXXXXXXX(XXCX)(C)

ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100

QUANTITY REQD	DESCRIPTION	PART NO	FINISH	ITEM NO
	PARTS LIST			
			–	5
4	MOUNTING SCREW: (10-32, 1")	MS24693C276		4
			–	3
1	O-RING	2-036/N756-75	–	1

SIZE:	FREQ. BAND:	LNA:
1.9: 1.9" SQ.	1215: L1/L2	A: WITH LNA; A4: WITH 40 DB LNA WITHOUT REJECTION FILTERS
2: 2.6" DIA.	15: L1 ONLY	AL: WITH LNA/LIMITER
3: 3.5" DIA.		P: WITHOUT LNA
4: MINI ARINC		PL: WITHOUT LNA and THINNER (HEIGHT = 0.58")
42: 743 ARINC		A2: WITH 20 DB LNA WITHOUT REJECTION FILTERS

P/N: 42G1215A-XTA-1

CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	S: SMA; P: 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: N, N-Bulkhead	-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

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

NOTES: UNLESS OTHERWISE SPECIFIED:

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. DATA ON A COMMON ± .25° .005. MACHINED SURFACES 125. DO NOT SCALE DRAWING.

DRAWN | CHECKED | ENGINEER | APPROVED S. HUYNH July-02-10 | CAD FILE NO

ANTCOM CORP. TORRANCE CALIFORNIA

743 Arinc, L1/L2 ACTIVE, OR PASSIVE GPS ANTENNA

SIZE D | CAGE NO 3CVE1 | DRAWING NO 42G1215X-XXA-X | REV –

SCALE 1/1 | SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas