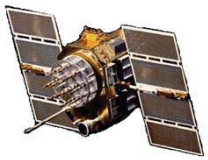
Active or Passive L1 GPS Antenna, P/N: 42G15X-XX-X
(4.7” x 3.0”) 743 Arinc Configuration



ISO 9001:2008/FAA Approved Facility

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

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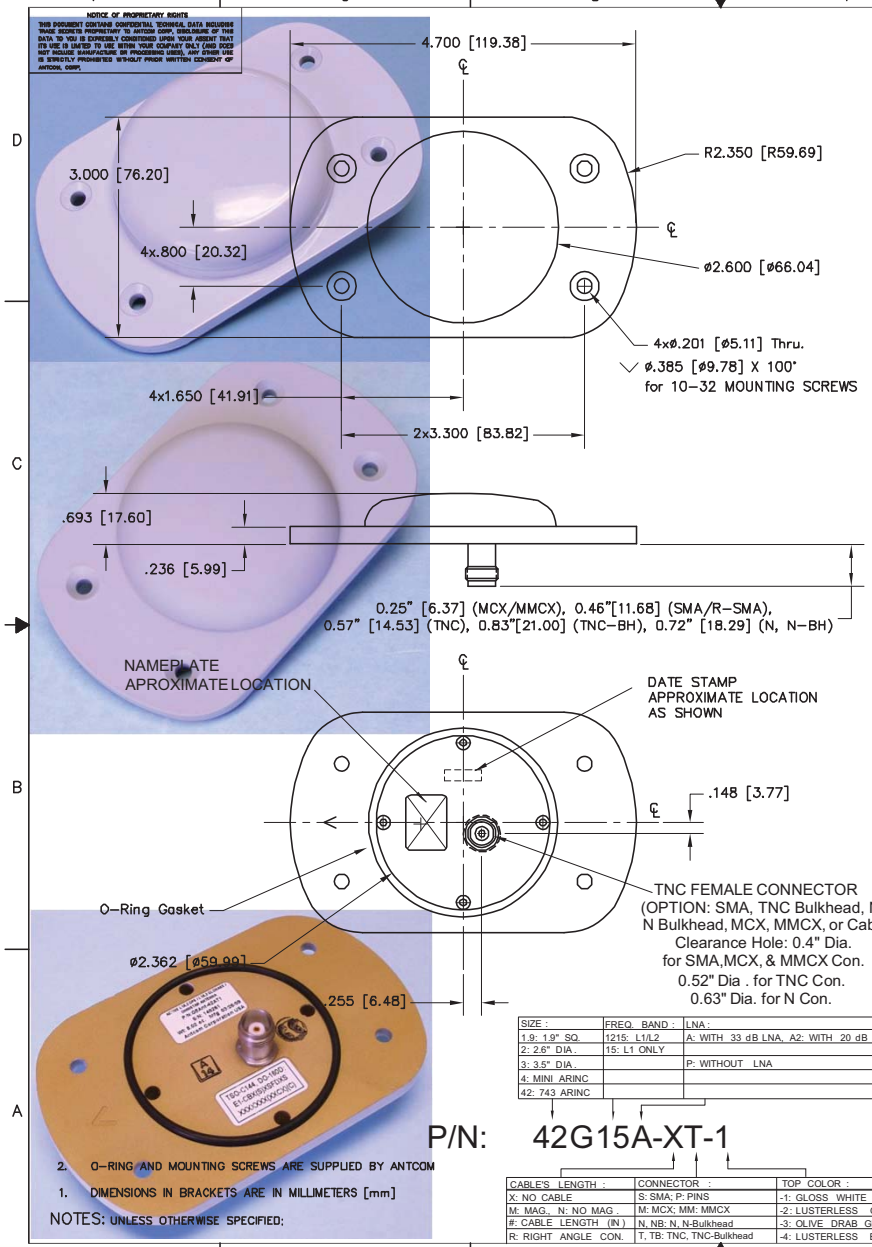

2. O–RING AND MOUNTING SCREWS ARE SUPPLIED BY ANTCOM
1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

SIZE :	FREQ. BAND :	LNA :
1.9: 1.9" SQ.	1215: L1/L2	A: WITH 33 dB LNA, A2: WITH 20 dB LNA, A4: WITH 40 dB LNA
2: 2.6" DIA.	15: L1 ONLY	
3: 3.5" DIA.		P: WITHOUT LNA
4: MINI ARINC		
42: 743 ARINC		

P/N: 42G15A-XT-1

CABLE'S LENGTH :	CONNECTOR :	TOP 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

SPECIFICATIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	WEIGHT, P/N	JUNE–26–04	S.H

ELECTRICAL:

FREQUENCY:	L1: (1575.42 ±12) MHz		
RADIATION PATTERN:	HEMISPHERICAL		
POLARIZATION:	RHCP		
VSWR:	< 1.5:1		
IMPEDANCE:	50 ohms		
ANTENNA GAIN (dBic):	Free Space	16 in G.P.	4 ft G.P.
@ 90 ° (ZENITH):	+ 4.6	+ 0.3	+ 2.9
@ 10 ° Elevation:	- 2.5	- 3.1	- 1.8
@ 20 ° Elevation:	- 1.1	- 1.1	+ 0.7
@ 30 ° Elevation:	+ 0.5	+ 0.9	+ 1.7
@ 60 - 90° Elevation:	> 3.6	+3.1/+0.3	> 2.1
BEAM WIDTH (3dB):	103 Deg.	120 Deg.	146 Deg.
AXIAL RATIO:	2 dB		
LIGHTNING PROTECTION:	DC GROUNDING		
LNA GAIN:	33 dB		
LNA NOISE FIGURE:	2.2 dB		
LNA P1dB Out:	+13 dBm		
LNA DC POWER:	2.5V/20mA, 3V/20mA, 3.3V/20mA, (2.5-24)V/<30mA		
REJECTION @ (-50/+50) MHz	-45 dB / -70 dB		
@ (-100/+100) MHz	< -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:	7.0 oz. (198 g)
FINISH:	SKYDROL RESISTANT POLYURETHANE ENAMEL WITH NICKEL PLATED BASE
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:

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

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

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± 1/64 DECIMALS .XX± .03 .XXX± .015 .XXXX± .009 ANGLES ± 1°
TOLERANCE SYM PER ANSI Y14.5
REMOVE ALL BURRS
BREAK EXTERNAL EDGES .005 TO .015
FILLETS R .030 TO R .032
SCREW THREADS PER MIL–S–8879
DIA'S ON A COMMON ℄ ø".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

743 Arinc,
L1 ACTIVE GPS ANTENNA

SIZE D | CAGE NO 3CVE1 | DRAWING NO 42G15A–XT–1 | REV A
SCALE 1/1 | SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas