



# Active L1/L2 GPS/Glonass + OmniStar/TerraStar Antenna for Train/Rail Road/Truck Applications

## P/N: G5Ant-3AT1-RoHS-EN50155

### 3.5in Dia. Top/Bottom Mount Configuration

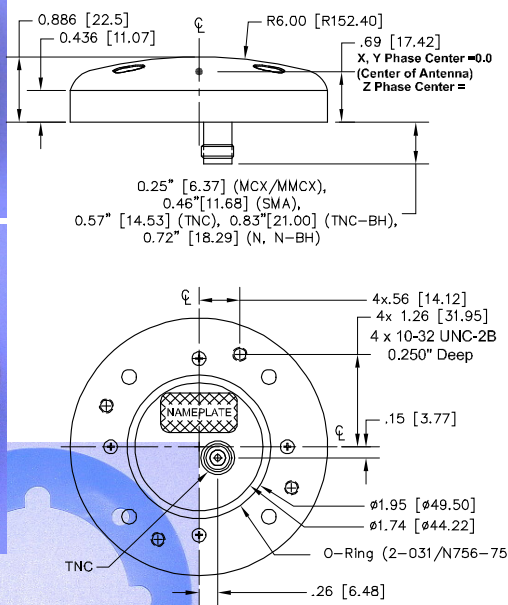
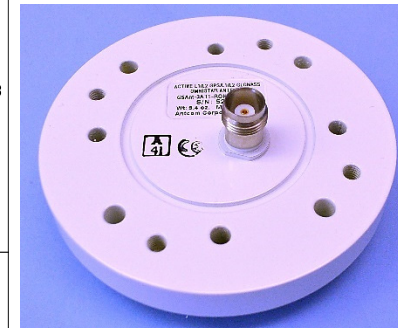
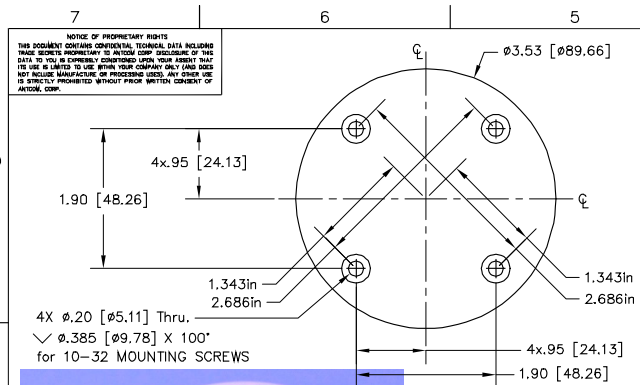


FAA Approved Facility

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

ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: [antennas@antcom.com](mailto:antennas@antcom.com) . <http://www.antcom.com>

“-HF” for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: **-22dB@1616MHz, -34dB@1625-1660MHz**  
“-HFO” for Additional OmniStar/TerraStar Rejection: **-27dB@1545MHz**



<b>SIZE:</b>		<b>LNA:</b>		<b>CABLE LENGTH:</b>		<b>CONNECTOR:</b>		<b>COLOR:</b>	
1: 2" SQ.	4: ARINC 743	A: WITH LNA	X: NO CABLE	S: SMA; B: BNC	S: SMA; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B	-2: LUSTERLESS GRAY #30320 PER FED-STD-595B	-3: OLIVE DRAB GREEN #34099 PER FED-STD-595B	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
1.8; 1.9" SQ.	5: 2.6" DIA. ON 5" GROUND PLANE	P: WITHOUT LNA		M: MCX; MM: MMCX					
2: 2.6" DIA.	7: 7" DIA. CHOKE RING			N: N; NR: N-Bulkhead					
3: 3.5" DIA.				T: TNC; TB: TNC-Bulkhead					
4: MINI ARINC						-5: TAN FR; RS 23446 or 33446, FED-STD-595			

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#### ELECTRICAL:

FREQUENCY:	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L1 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
		1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15 MHz	1227.60 ± 12 MHz 1207.14 ± 10 MHz	1252.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10 MHz	1542.50 ± 5.0 MHz 1561.098 ± 10 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP		RHCP		RHCP	
VSWR:	< 2.0:1		< 2.0:1		< 2.0:1	
IMPEDANCE:	50 ohms		50 ohms		50 ohms	
ANTENNA GAIN (dBic):	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.
@ 90° Elevation:	-3	+2.6	+4.8	+2.4	+2.0	+1.4
@ 10° Elevation:	-9	-10	-3.5	-6.5	-4.7	-5.1
@ 20° Elevation:	-8	-7	-2.0	-4.7	-3.5	-1.9
@ 30° Elevation:	-6	-5	-0.4	+1.8	-1.2	-0.5
@ 60-90° Elevation:	> -4	> -4	> 1.3	> 2.6	> -1.5	> +1.1
BEAM WIDTH (3dB):	110 Deg.	120 Deg.	110 Deg.	115 Deg.	105 Deg.	95 Deg.
AXIAL RATIO:	1.5 dB	2 dB	1 dB	1 dB	2 dB	2 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	35 dB	35 dB	35 dB	33 dB	33 dB	33 dB
LNA NOISE FIGURE:	3.0 dB	3.0 dB	3.0 dB	3.0 dB	3.0 dB	3.0 dB
LNA P1dB Out:	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24V)/<50mA					
POWER HANDLING:	1 Watt CW, Optional 10 Watts 1 Microsec Pulse (-AL-)					

#### MECHANICAL:

**SIZE:** DIAMETER: 3.53 in. [ 89.66 mm]  
HEIGHT: 0.886 in. [22.5 mm]

**WEIGHT:** 9 oz. (256 g)

**FINISH:** SKYDROL RESISTANT POLYURETHANE ENAMEL

**COLOR:** GLOSS WHITE #17925 PER FED-STD-595B

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

**CONNECTOR:** TNC FEMALE  
(OPTION: SMA, BNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX)

#### ENVIRONMENTAL:

**TEMPERATURE:** -67 °F TO +185 °F [-55 °C TO +85 °C] (Operational)  
-85 °F TO +302 °F [-65 °C TO +150 °C] (Storage)

**ALTITUDE:** 70,000 ft.

**VIBRATION:** > 30 G's

**LEAKAGE:** HERMETICALLY SEAL

**HAILSTONES:** < 0.5" Dia.

#### FEDERAL & MILITARY SPECIFICATIONS:

**DESIGN TO:** EN 50155, EN 50121-3-2, DO-160D, D0-228, MIL-C-5514, MIL-STD-461E/F, SAE J1455, MIL-E-5400, MIL-I-45208A, MIL-STD-810, MIL-S-901D, MIL-STD-167-1A

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	REV
4	Mounting Screws: 10-32, 1.25"	J507C1032R20 (93085A835), Item 579-GN		3
4	Washer, Custom C'Sink	3G15P1001-70, Item 519		2
1	Silicone Mounting Gasket	3G15P1001-2-3G, Item 539		1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMAL FRACTIONS 1/64 3/32 1/16 1/8 ANGLES ± 1/64 30x .015 45x .020 60x .030

TOLERANCE .010 PER ANSI Y14.5

REMOVE ALL BURRS BREAK EXTERNAL EDGES .005 TO .015 SIZE IN THIS DRAWING PER MIL-STD-887B PARTS ON A COMMON 1:2 SCALE MACHINED SURFACES

DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA

3.5in Dia.  
L1L2Glonass/L1L2GPS/OmniStar  
G5 ANTENNA

DATE: 30 MAR 2016 DRAWN BY: S. HUYNH REV: 1

SCALE: 1/1 SHEET: 1 OF 1