



# Antcom's **G3 Antenna**, Active **L1 Glonass + L1 GPS + OmniStar** Antenna, P/N: **G3Ant-52AT1** **Survey Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1 Glonass & L1 GPS & OmniStar)**

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**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED

**SPECIFICATIONS**

	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
<b>FREQUENCY:</b>	1542.50 ± 14.0 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	1609 ± 7.0 MHz
<b>RADIATION PATTERN:</b>	HEMISPHERICAL		
<b>POLARIZATION:</b>	RHCP	RHCP	RHCP
<b>VSWR:</b>	< 2.0:1	< 2.0:1	< 2.0:1
<b>IMPEDANCE:</b>	50 ohms	50 ohms	50 ohms
<b>ANTENNA GAIN (dBi):</b>			
@ 90° (ZENITH):	+ 2.8	+ 4.9	+ 4.7
@ 10° Elevation:	- 6.0	- 3.8	- 4.2
@ 20° Elevation:	- 4.2	- 2.1	- 2.3
@ 30° Elevation:	- 2.4	- 0.3	- 0.6
@ 60-90° Elevation:	> + 1.3	> + 3.4	> + 3.2
<b>BEAM WIDTH (3dB):</b>	80 Deg.	80 Deg.	82 Deg.
<b>AXIAL RATIO:</b>	3 dB	1 dB	4 dB
<b>LIGHTNING PROTECTION:</b>	DC GROUNDING		
<b>LNA GAIN:</b>	33 dB	33 dB	33 dB
<b>LNA NOISE FIGURE:</b>	3.0 dB	3.0 dB	3.0 dB
<b>LNA P1dB Out:</b>	+13 dBm	+13 dBm	+13 dBm
<b>LNA DC POWER:</b>	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA		
<b>POWER HANDLING:</b>	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)		

**ELECTRICAL:**

**MECHANICAL:**

**SIZE:** DIAMETER: 5.00 in. [127.00 mm]  
HEIGHT: 1.68in [42.7mm]; 0.457 in. [11.6 mm] Above G.P.

**WEIGHT:** 7oz. (199 g)

**FINISH:** SKYDROL RESISTANT POLYURETHANE ENAMEL  
BASE IRIDITE PER MIL-C-5541F CLASS 1A

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

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

**ENVIRONMENTAL:**

**TEMPERATURE:** -67 °F TO +185 °F [-55 °C TO +85 °C]  
70,000 ft.

**VIBRATION:** > 30 G's  
HERMETICALLY SEAL

**FEDERAL & MILITARY SPECIFICATIONS:**

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

**MECHANICAL:**

**ENVIRONMENTAL:**

**FEDERAL & MILITARY SPECIFICATIONS:**

**ACCEPTANCE TEST PROCEDURE:**

**MECHANICAL:**

**ENVIRONMENTAL:**

**FEDERAL & MILITARY SPECIFICATIONS:**

**ACCEPTANCE TEST PROCEDURE:**

**SIZE:**

1: 2" SQ.	42: ARINC 743	LNA:	CABLE LENGTH:	CONNECTOR:	COLOR:
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE	A: WITH LNA	X: NO CABLE	S: SMA; SMB; SMR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKE RING	P: WITHOUT LNA		M: MCX; MM; MMCX;MMR; MMCXR	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
3: 3.6" DIA.	5: Bare on 5in (126mm) Dia. Ground Plane			N: N; NB; N Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
4: MINI ARINC	X,X: Bare on X.Xin Dia. Ground Plane			T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B

**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED
1	5/8"-11 Mount	MTR-3B-G5	-	1

**QUANTITY REQD**

DESCRIPTION	PARTS LIST	PART NO	FINISH	QTY
5/8"-11 Mount	MTR-3B-G5	-	-	1

**UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .005 .015 .005 ± 1°**

**TOLERANCE ±IN PER ANSI Y14.5**

**REMOVE ALL BURRS BREAK EXTERNAL EDGES TO 0.015 RADIUS RISE TO 0.030**

**SCREW DRIVES PER MIL-S-8879 DAYS ON A COMMON 1.27.005**

**MACHINED SURFACES V**

**DO NOT SCALE DRAWING**

**ANTCOM CORP.** TORRANCE CALIFORNIA

SURVEY MOUNT,  
L1 Glonass/L1 GPS/OmniStar  
**G3 ANTENNA**

DRAWN: S. HUYNH  
APPROVED: Mar-24-09

Dwg No: **D13CVE1** Part No: **G3Ant-52AT1**

SCALE: 1/1 SHEET 1 OF 1