



FAA Approved Facility

Antcom's G3 Antenna

Active L1 Glonass + L1 GPS + OmniStar/TerraStar Antenna, P/N: G3Ant-42AT1

Avionics Arinc 743 Configuration

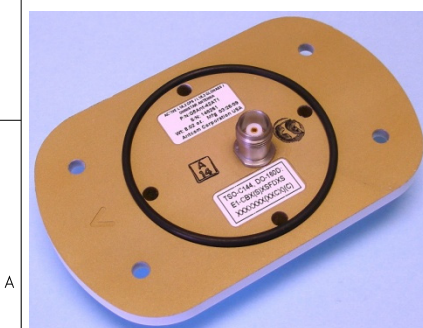
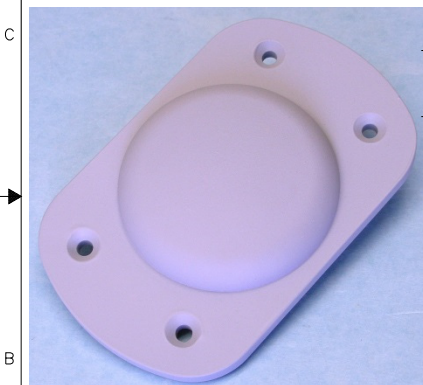
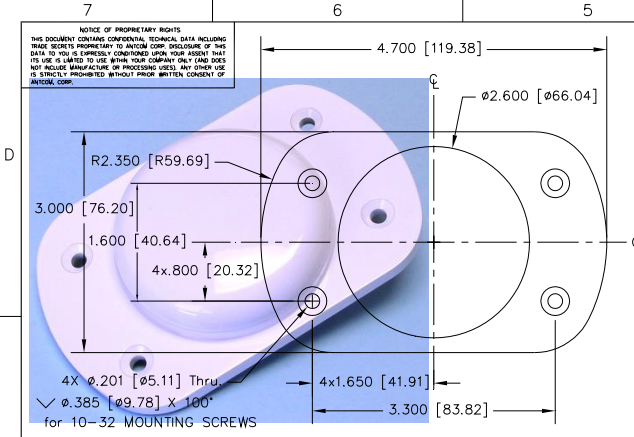
(with Filters, better RTK Performance, Optimized for L1 Glonass & L1 GPS & OmniStar/TerraStar)

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 . <http://www.antcom.com>

“-HF” for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: **-24dB@1616MHz, -34dB@1660MHz**
“-HFO” for Additional Omnistar Rejection: **-27dB@1545MHz**



2. MOUNTING SCREWS & ADHESIVE GASKET ARE SUPPLIED BY ANTCOM
1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
NOTES: UNLESS OTHERWISE SPECIFIED:

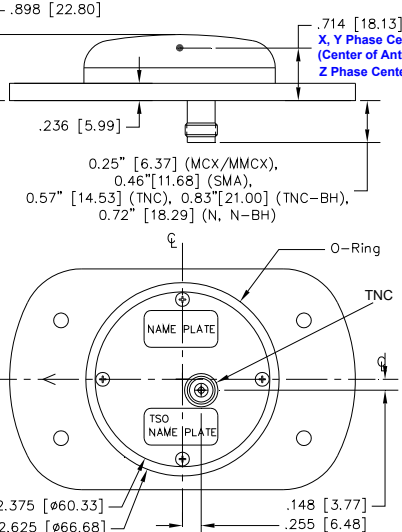
		REVISIONS																																																																																			
ZONE	REV	DESCRIPTION	DATE	APPROVED																																																																																	
<p>ELECTRICAL:</p> <table border="1"> <thead> <tr> <th></th> <th>OmniStar / L-Band L6 Galileo B1 Compass</th> <th>L1 GPS E1, E2 Galileo L1 IRNSS</th> <th>L1 GLONASS</th> </tr> </thead> <tbody> <tr> <td>FREQUENCY:</td> <td>1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz</td> <td>1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz</td> <td>1609 ± 7.0 MHz</td> </tr> <tr> <td>RADIATION PATTERN:</td> <td colspan="3">HEMISPHERICAL</td> </tr> <tr> <td>POLARIZATION:</td> <td>RHCP</td> <td>RHCP</td> <td>RHCP</td> </tr> <tr> <td>VSWR:</td> <td>< 2.0:1</td> <td>< 2.0:1</td> <td>< 2.0:1</td> </tr> <tr> <td>IMPEDANCE:</td> <td>50 ohms</td> <td>50 ohms</td> <td>50 ohms</td> </tr> <tr> <td>ANTENNA GAIN (dBi):</td> <td>Free Space 4 ft G.P.</td> <td>Free Space 4 ft G.P.</td> <td>Free Space 4 ft G.P.</td> </tr> <tr> <td>@ 90° Elevation:</td> <td>+1.0 -2.0</td> <td>+3.3 +2.0</td> <td>+2.7 +1.4</td> </tr> <tr> <td>@ 10° Elevation:</td> <td>-5.5 -5.1</td> <td>-3.0 -2.5</td> <td>-3.7 -3.4</td> </tr> <tr> <td>@ 20° Elevation:</td> <td>-3.9 -1.9</td> <td>-1.6 +0.4</td> <td>-2.5 -0.5</td> </tr> <tr> <td>@ 30° Elevation:</td> <td>-3.3 -0.5</td> <td>-0.8 +1.6</td> <td>-1.5 +0.5</td> </tr> <tr> <td>@ 60 - 90° Elevation:</td> <td>> +0.3 > -0.5</td> <td>> +2.6 > +1.6</td> <td>> +2.0 > -0.2</td> </tr> <tr> <td>BEAM WIDTH (3dB):</td> <td>95 Deg. 145 Deg.</td> <td>100 Deg. 150 Deg.</td> <td>100 Deg. 145 Deg.</td> </tr> <tr> <td>AXIAL RATIO:</td> <td>1 dB 2 dB</td> <td>1 dB 1 dB</td> <td>1.5 dB 3 dB</td> </tr> <tr> <td>LIGHTNING PROTECTION:</td> <td colspan="3">DC GROUNDING</td> </tr> <tr> <td>LNA GAIN:</td> <td>33 dB</td> <td>33 dB</td> <td>33 dB</td> </tr> <tr> <td>LNA NOISE FIGURE:</td> <td>3.0 dB</td> <td>3.0 dB</td> <td>3.0 dB</td> </tr> <tr> <td>LNA P1dB Out:</td> <td>+13 dBm</td> <td>+13 dBm</td> <td>+13 dBm</td> </tr> <tr> <td>LNA DC POWER:</td> <td colspan="3">2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA</td> </tr> <tr> <td>POWER HANDLING:</td> <td colspan="3">1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)</td> </tr> </tbody> </table>							OmniStar / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS	FREQUENCY:	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	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 (dBi):	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	@ 90° Elevation:	+1.0 -2.0	+3.3 +2.0	+2.7 +1.4	@ 10° Elevation:	-5.5 -5.1	-3.0 -2.5	-3.7 -3.4	@ 20° Elevation:	-3.9 -1.9	-1.6 +0.4	-2.5 -0.5	@ 30° Elevation:	-3.3 -0.5	-0.8 +1.6	-1.5 +0.5	@ 60 - 90° Elevation:	> +0.3 > -0.5	> +2.6 > +1.6	> +2.0 > -0.2	BEAM WIDTH (3dB):	95 Deg. 145 Deg.	100 Deg. 150 Deg.	100 Deg. 145 Deg.	AXIAL RATIO:	1 dB 2 dB	1 dB 1 dB	1.5 dB 3 dB	LIGHTNING PROTECTION:	DC GROUNDING			LNA GAIN:	33 dB	33 dB	33 dB	LNA NOISE FIGURE:	3.0 dB	3.0 dB	3.0 dB	LNA P1dB Out:	+13 dBm	+13 dBm	+13 dBm	LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA			POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)		
	OmniStar / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS																																																																																		
FREQUENCY:	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																																																																																		
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 (dBi):	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.																																																																																		
@ 90° Elevation:	+1.0 -2.0	+3.3 +2.0	+2.7 +1.4																																																																																		
@ 10° Elevation:	-5.5 -5.1	-3.0 -2.5	-3.7 -3.4																																																																																		
@ 20° Elevation:	-3.9 -1.9	-1.6 +0.4	-2.5 -0.5																																																																																		
@ 30° Elevation:	-3.3 -0.5	-0.8 +1.6	-1.5 +0.5																																																																																		
@ 60 - 90° Elevation:	> +0.3 > -0.5	> +2.6 > +1.6	> +2.0 > -0.2																																																																																		
BEAM WIDTH (3dB):	95 Deg. 145 Deg.	100 Deg. 150 Deg.	100 Deg. 145 Deg.																																																																																		
AXIAL RATIO:	1 dB 2 dB	1 dB 1 dB	1.5 dB 3 dB																																																																																		
LIGHTNING PROTECTION:	DC GROUNDING																																																																																				
LNA GAIN:	33 dB	33 dB	33 dB																																																																																		
LNA NOISE FIGURE:	3.0 dB	3.0 dB	3.0 dB																																																																																		
LNA P1dB Out:	+13 dBm	+13 dBm	+13 dBm																																																																																		
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA																																																																																				
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)																																																																																				

		REVISIONS			
ZONE	REV	DESCRIPTION	DATE	APPROVED	
<p>MECHANICAL:</p> <p>SIZE: WIDTH: 3.00 in. [76.20 mm], LENGTH 4.700 in. [119.38 mm], HEIGHT: 0.898 in. [22.80 mm]</p> <p>WEIGHT: 8.02 oz. (227 g)</p> <p>FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5541F CLASS 1A</p> <p>MATERIAL: 6061-T6 ALUMINUM ALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT</p> <p>CONNECTOR: TNC TYPE FEMALE (OPTION: SMA, BNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX)</p>					

		REVISIONS			
ZONE	REV	DESCRIPTION	DATE	APPROVED	
<p>ENVIRONMENTAL:</p> <p>TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]</p> <p>ALTITUDE: 70,000 ft.</p> <p>VIBRATION: > 30 G's</p> <p>LEAKAGE: HERMETICALLY SEAL</p>					

		REVISIONS			
ZONE	REV	DESCRIPTION	DATE	APPROVED	
<p>FEDERAL & MILITARY SPECIFICATIONS:</p> <p>DESIGN TO: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455</p>					

		REVISIONS			
ZONE	REV	DESCRIPTION	DATE	APPROVED	
<p>ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100</p>					



SIZE:	LNA:
1: 2" SQ.	A: WITH LNA
1.9: 1.9" SQ.	P: WITHOUT LNA
2: 2.6" DIA.	
3: 3.5" DIA.	
4: MINI ARINC: 42: 743 ARINC.	
5: 2.6" DIA. ON 5" GROUND PLANE	
7: 7" DIA. CHOKER RING	

CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	S: SMA; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
	N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B

QUANTITY REQD	DESCRIPTION	PART NO	FINISH	ITEM NO
4	Mounting Screw: 10-32, 1"	MS24693C276		5
1	O-Ring or Gasket	2-142/N756-75		1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANTCOM CORP. TORRANCE, CALIFORNIA	
FRACTIONS: DECIMALS: ANGLES: ± 1/64 .XXX .005 ± 1°	TOLERANCES ARE:	743 ARINC, ACTIVE L1 Glonass/L1 GPS/Omnistar G3 ANTENNA	
TOLERANCE SURF PER ANSI Y14.5	RESURF ALL SURF.	DRAWN: S. HUYNH	
BREAK EXTERNAL EDGES .005 TO .010	FILED R .005 TO R .020	CHECKED: Mor-23-09	
SCREW THREADS PER MIL-S-8879	DRS IN A COLUMN & OF 009	APPROVED: S. HUYNH	
MACHINED SURFACES 125°	DO NOT SCALE DRAWING	DATE: Mar-23-09	
		CAB FILE NO: D:\3CVE1	
		SCALE: 1/1	
		SHEET 1 OF 1	

NMO Connector Option is Now Available for Some Antennas