



Antcom New G5 Antennas:
L1/L2 Glonass + L1/L2 GPS + OmniStar Antenna,
(with Filters, better RTK Performance,
Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar):
Pictures, Outline Drawings, and Specifications



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-2AMNS1 **Magnetic Mount Configuration** (with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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

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REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	
		ECOY 0018, RELEASE	Mar-24-09 S. HUYTH

SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.60 ± 12.0 MHz 1207.14 ± 10.0 MHz	1252.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 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 @ 90° Elevation: -7 @ 20° Elevation: -11 @ 30° Elevation: -10 @ 60-90° Elevation: > -8	Sin G.P. -3 -10 -9 -5	Free Space @ 90° Elevation: -7 @ 20° Elevation: -11 @ 30° Elevation: -10 @ 60-90° Elevation: > -1	Sin G.P. +3 -4.1 -3.9 1.8	Free Space @ 90° Elevation: -7 @ 20° Elevation: -11 @ 30° Elevation: -10 @ 60-90° Elevation: > -1	Sin G.P. +1.9 -5.0 -3.9 1.5
BEAM WIDTH (3dB):	105 Deg.		105 Deg.		100 Deg.	
AXIAL RATIO:	1.5 dB		1 dB		2 dB	
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	35 dB		33 dB		31 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, (2.5-24V)/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: DIAMETER: 2.71 in. [68.81 mm]
HEIGHT: 0.864 in. [21.96 mm]

WEIGHT: 5.7 oz. (162 g)

FINISH: SKYDROLRESISTANTPOLYURETHANEENAMEL
BASE IRIDIUM PER MIL-C-5541 Class 1A

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

CONNECTOR: SMA FEMALE CONNECTOR

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, DO-228, MIL-C-5541,
MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

ACCEPTANCE TEST PROCEDURE ATP-GPS-L1L2-100

P/N: G5Ant-2AMNS1 Connector Color

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1.2" SQ.	42: ARINC743	X: NO CABLE	S: SMA;	-1: GLOSSWHITE#17925PER FED-STD-595B
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUNDPLANE		M: MMCX; MM: MMCX	-2: LUSTERLESSGRAY#36320PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKERING		T: TNC; N: N	-3: OLIVE DRAB GREEN#34094PER FED-STD-595B
3: 3.5" DIA.				-4: LUSTERLESSBLACK#37038PER FED-STD-595B
4: MINIARINC				-5: TAN #R: FS 23446 or 33446, FED-STD-595

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	1ST HD
1	ADHESIVE GASKET		Magnet-Cover-2	-	3
1					2
1					1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .001 .015 ± 1°		TOLERANCE SYSTEM PER ANSI Y14.5	
FRONT VIEW	DRIVER	DATE	APPROVED
TOP VIEW	K. Lee	Mar-19-09	S. HUYTH
RIGHT SIDE VIEW			
LEFT SIDE VIEW			
ISOMETRIC VIEW			
BACK VIEW			
DO NOT SCALE DRAWING			

ANTCOM CORP. TORRANCE, CALIFORNIA

2.6in Dia. FLUSH MAG MOUNT
L1/L2 Glonass + L1/L2 GPS
+ OmniStar G5 ANTENNA

D13CVE1 G5Ant-2AMNS1

SCALE 1/1 SHEET 1 OF 1

Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-2AT1 **2.6in Dia. Top/Bottom Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**

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A
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D

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MECHANICAL:
 SIZE: DIAMETER: 2.63 in. [66.8 mm]
 HEIGHT: 0.833 in. [21.15 mm]
 WEIGHT: 5.5 oz. (156 g)
 FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
 BASE IRIDIUM PER MIL-C-5541 CLASS 1A
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE AND FIRE RETARDANT
 CONNECTOR: TNC FEMALE BULKHEAD CONNECTOR (OPTION: SMA, BNC, N, N Bulkhead, MCX, MMCX)
 ENVIRONMENTAL:
 TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]
 VIBRATION: > 30 G's
 HERMETICALLY SEAL
 FEDERAL & MILITARY SPECIFICATIONS
 FAA TSO-C144, DO-160D, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455
 ACCEPTANCE TEST PROCEDURE ATP-GPS-L1L2-100

ELECTRICAL:

	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.60 ± 12.0 MHz 1207.14 ± 10.0 MHz	1252.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1288.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz	1609 ± 7.0 MHz
RADIATION PATTERN:	RHCP			RHCP		
POLARIZATION:	RHCP			RHCP		
VSWR:	< 2.0:1			< 2.0:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBi):	Free Space	5in G.P	Free Space	5in G.P	Free Space	5in G.P
@ 90° (ZENITH):	-7	-3	+0.5	+3	+1.9	+1.0
@ 10° Elevation:	-13	-10	-5.6	-4.1	-7.1	-5.0
@ 20° Elevation:	-11	-9	-3.9	-2.7	-5.4	-3.3
@ 30° Elevation:	-10	-8	-2.8	-0.8	-4.3	-1.5
@ 60 - 90° Elevation:	> -8	> -5	> -1	> 1.8	> -2.4	> 1.2
BEAM WIDTH (3dB):	105 Deg.	100 Deg.	105 Deg.	105 Deg.	95 Deg.	95 Deg.
AXIAL RATIO:	1.5 dB	3 dB	1 dB	1 dB	1 dB	1 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	35 dB	35 dB	35 dB	33 dB	32 dB	31 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: 2.63 in. [66.8 mm]
 HEIGHT: 0.833 in. [21.15 mm]
 WEIGHT: 5.5 oz. (156 g)
 FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
 BASE IRIDIUM PER MIL-C-5541 CLASS 1A
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE AND FIRE RETARDANT
 CONNECTOR: TNC FEMALE BULKHEAD CONNECTOR (OPTION: SMA, BNC, N, N Bulkhead, MCX, MMCX)
 ENVIRONMENTAL:
 TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]
 VIBRATION: > 30 G's
 HERMETICALLY SEAL
 FEDERAL & MILITARY SPECIFICATIONS
 FAA TSO-C144, DO-160D, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455
 ACCEPTANCE TEST PROCEDURE ATP-GPS-L1L2-100

P/N: G5Ant-2ATB1 **Connector Color**

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1: 2" SQ.	42: ARINC743	I: NA	S: SMA, B: BNC	-1: GLOSSWHITE#17925PER FED-STD-595B
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUNDPLANE	X: NO CABLE	M: MCX, MM: MMCX	-2: LUSTERLESS GRAY#36320PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKERING		N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN#34094PER FED-STD-595B
3: 3.5" DIA.			T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK#37038PER FED-STD-595B
4: MINIARINC				-5: TAN #: FS 23446 or 33446, FED-STD-595

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Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-3AT1** **3.5in Dia. Top/Bottom Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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4x ϕ .20 [5.11] Thru.
 \surd ϕ .385 [9.78] X 100
for 10-32 MOUNTING SCREWS

0.25" [6.37] (MCX/MMCX),
0.46" [11.68] (SMA),
0.57" [14.53] (TNC), 0.83" [21.00] (TNC-BH),
0.72" [18.29] (N, N-BH)

4x.56 [14.12]
4x 1.258 [31.95]
0.250" Deep
1.15 [3.77]
 ϕ 1.95 [49.50]
 ϕ 1.74 [44.22]
0-Ring (2-031/N756-75)
.26 [6.48]

SPECIFICATIONS

ELECTRICAL:	L5 GPS E5, E5a, E5b Galileo L5 IRNSS		L2 GPS B2 Compass		L2 GLONASS E6 Galileo B3 Compass		OmniSTAR / L-Band L6 Galileo B1 Compass		L1 GPS E1, E2 Galileo L1 IRNSS		L1 GLONASS	
	FREQUENCY:	1176.45 \pm 12 MHz 1164.45 - 1219.14 MHz 1176.45 \pm 15 MHz		1227.60 \pm 12 MHz 1207.14 \pm 10 MHz		1262.50 \pm 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 \pm 10 MHz		1542.50 \pm 14.0 MHz 1542.50 \pm 5.0 MHz 1561.098 \pm 10 MHz		1575.42 \pm 15.0 MHz 1575.42 \pm 17.0 MHz 1575.42 \pm 12.0 MHz		1609 \pm 7.0 MHz
RADIATION PATTERN:	HEMISPHERICAL											
POLARIZATION:	RHCP		RHCP		RHCP		RHCP		RHCP		RHCP	
VSWR:	< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1	
IMPEDANCE:	50 ohms		50 ohms		50 ohms		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.	Free Space	4 ft. G.P.	Free Space	4 ft. G.P.	Free Space	4 ft. G.P.
@ 90° Elevation:	-3	-3	+2.6	+4.8	+0.0	+2.4	+2.1	-2.0	+4.0	+2.0	+3.0	+1.4
@ 10° Elevation:	-9	-10	-3.5	-3.5	-6.5	-6.3	-4.7	-5.1	-2.7	-2.5	-3.9	-3.4
@ 20° Elevation:	-8	-7	-2.0	-0.3	-4.7	-3.2	-3.5	-1.9	-1.7	+0.4	-2.9	-0.5
@ 30° Elevation:	-6	-5	-0.4	+1.8	-3.4	-1.2	-2.5	-0.5	-0.5	+1.6	-1.6	+0.5
@ 60 - 90° Elevation:	> -4	> -4	> 1.3	> 2.6	> -1.5	> -0.1	> +1.1	> -0.5	> +2.9	> +1.6	> +2.0	> -0.2
BEAM WIDTH (3dB):	110 Deg.	120 Deg.	110 Deg.	115 Deg.	105 Deg.	110 Deg.	95 Deg.	145 Deg.	95 Deg.	150 Deg.	95 Deg.	145 Deg.
AXIAL RATIO:	1.5 dB	2 dB	1 dB	1 dB	1 dB	2 dB	1 dB	2 dB	1 dB	1 dB	2 dB	3 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, (2.5-24)V/<50mA											
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)											

MECHANICAL:

SIZE: DIAMETER: 3.50 in. [88.90 mm]
HEIGHT: 0.86 in. [21.89 mm]
9 oz. (256 g)

WEIGHT:

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
BASE IRIDITEPER MIL-C-5541CLASS1A
GLOSS WHITE #17925PER FED-STD-595B

COLOR:

MATERIAL: 6061-T6ALUMINUMALLOY BASE
COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,
SKYDROLRESISTANCE 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: 70,000ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEAL

HAILSTONES: < 0.5" Dia.

FEDERAL & MILITARY SPECIFICATIONS

DESIGN TO: FAA TSO-C144, DO-160D, DO-228, MIL-C-5541,
MIL-E-5400, MIL-I-45208A, MIL-STD-810 AND SAE J1455

QUANTITY REQD	DESCRIPTION	PART NO	ITEM NO
4	Mounting Screws: 10-32, 1.25" J507C1032R20 (93085A835)		5
4	Washer, Custom C'Sink	3G15P1001-70	3
1	O-Ring or Gasket	2-031/N756-75 or 3G15P1001-3G	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS TOLERANCES ARE ANGLES \pm 1/64 .001 .015 .002 \pm 1°

TOLERANCE SIM PER ANS Y14.5
REMOVE ALL BURRS
BREAK EXTERNAL EDGES .005 TO .015
FILLS IN .015 TO .030
SREW THREADS PER MIL-E-8879
DAYS ON A CORNER 1/24 .005
MACHINED SURFACES

DO NOT SCALE DRAWING

P/N: **G5Ant-3AT1** **Connector Color**

SIZE	I/NA	CABLE LENGTH	CONNECTOR	COLOR
1: 2" SQ.	42: ARINC743	A: WITH LNA X: NO CABLE	S: SMA; B: BNC M: MCX; MM: MMCX	-1: GLOSS WHITE #17925PER FED-STD-595B -2: LUSTERLESS GRAY #36320PER FED-STD-595B -3: OLIVE DRAB GREEN #34094PER FED-STD-595B -4: LUSTERLESS BLACK #37038PER FED-STD-595B -5: TAN # FS 23446 or 33446, FED-STD-595
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUNDPLANE			
2: 2.6" DIA.	72: 7" DIA. CHOKERING			
3: 3.5" DIA.				
4: MINIARINC				



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-3AMT1** **3.5in Dia. Top/Magnetic Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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4x ϕ .020 [0.511] Thru.
 \surd ϕ .385 [0.978] X 100"
for 10-32 MOUNTING SCREWS

P/N: G5Ant-3AMT1

SIZE:	LNA:	Mount:	CONNECTOR:	COLOR:
1: 2" SQ.	42: ARINC 743	A: WITH LNA	S: SMA; B: BNC	1: GLOSS WHITE #17925 PER FED-STD-595B
1.8: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE	P: WITHOUT LNA	M: MCX; MM: MMCX	2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKE RING	N: No Magnet	N: N, NB: N-Bulkhead	3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.			T: TNC, TB: TNC-Bulkhead	4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC				5: TAN #F: FS 23446 or 33446, FED-STD-595

SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B4 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	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 ± 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					
VSWR:	< 2.0:1					
IMPEDANCE:	50 ohms					
ANTENNA GAIN (dBi):	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.
@ 90° (ZENITH):	- 3	- 3	+ 2.6	+ 4.8	+ 2.4	+ 2.0
@ 10° Elevation:	- 9	- 10	- 3.5	- 3.5	- 6.5	- 6.3
@ 20° Elevation:	- 8	- 7	- 2.0	- 0.3	- 4.7	- 3.2
@ 30° Elevation:	- 6	- 5	- 0.4	+ 1.8	- 3.4	- 1.2
@ 60 - 90° Elevation:	> -4	> -4	> 1.3	> 2.6	> -1.5	> -0.1
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, (2.5-24)V/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: DIAMETER: 3.50 in. [88.90 mm]
HEIGHT: 0.97in. [24.66 mm]
13 oz. (368 g)

WEIGHT:

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE IRIDITE PER MIL-C-5541F CLASS 1A
GLOSS WHITE #17925 PER FED-STD-595B

COLOR:

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:
FAA TSO-C144, DO-160D, D0-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

DESIGN TO:

QUANTITY REQD	DESCRIPTION	PART NO	TEST NO
4	Mounting Screws: 10-32, 1.25"	J507C1032R20 (93085A835)	5
4	Washer, Custom C'Sink	3G15P1001-70	3
1	ADHESIVE Rubber Cover (Item 541G3)	Magnet-Cover-3i	1

ANTCOM CORP. TORRANCE, CALIFORNIA

3.5in Dia.
L1/L2Glonass/L1/L2GPS/OmniStar
G5 ANTENNA

D 3CVE1 G5Ant-3AMT1

SCALE 1/1 SHEET 1 OF 1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-3AMNT1** **3.5in Dia. Top/Flush Magnetic Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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>

NOTICE OF PROPRIETARY RIGHTS
THIS DOCUMENT CONTAINS CONFIDENTIAL TECHNICAL DATA INCLUDING TRADE SECRETS PROPRIETARY TO ANTCOM CORP. DISCLOSURE OF THIS DATA TO YOU IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY (AND DOES NOT INCLUDE MANUFACTURE OR PROCESSING UNITS). ANY OTHER USE IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORP.

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
	ECO# 0019	RELEASE	Mar-24-09	S. HUYNH

4x.20 [ø5.11] Thru.
∇ ø.385 [ø9.78] X 100°
for 10-32 MOUNTING SCREWS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1178.45 ± 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 ± 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			
VSWR:	< 2.0:1		< 2.0:1			
IMPEDANCE:	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° (ZENITH):	- 3	- 3	+ 2.6	+ 4.8	+ 0.0	+ 2.4
@ 10° Elevation:	- 9	- 10	- 3.5	- 3.5	- 6.5	- 6.3
@ 20° Elevation:	- 8	- 7	- 2.0	- 0.3	- 4.7	- 3.2
@ 30° Elevation:	- 6	- 5	- 0.4	+ 1.8	- 3.4	- 1.2
@ 60 - 90° Elevation:	> - 4	> - 4	> 1.3	> 2.6	> - 1.1	> - 0.5
BEAM WIDTH (3dB):	110 Deg.	120 Deg.	110 Deg.	115 Deg.	105 Deg.	110 Deg.
AXIAL RATIO:	1.5 dB	2 dB	1 dB	1 dB	2 dB	1 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)/<60mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

X, Y Phase Center = 0.0
(Center of Antenna)
Z Phase Center =

MECHANICAL:

SIZE: DIAMETER: 3.50 in. [88.90 mm]
HEIGHT: 0.97in. [24.66 mm]

WEIGHT: 9 oz. (255 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE IRIDITE PER MIL-C-5541F CLASS 1A
GLOSS WHITE #17925 PER FED-STD-595B

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

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

4x 0.190-32 UNC-2B
0.250" Deep, Equally Spaced on
1.375" Rad. for Optional Mounting

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.

4x Flush Magnets
TNC CONNECTOR
(OPTION: TNC, TNC Bulkhead,
N, N Bulkhead, MCX, MMCX, or Cable)

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

SIZE:

1: 2" SQ.	42: ARINC 743
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE
2: 2.6" DIA.	72: 7" DIA. CHOKE RING
3: 3.5" DIA.	
4: MINI ARINC	

LNA:

A: WITH LNA	M: Magnetic Mount
P: WITHOUT LNA	MIN: Flush Magnetic Mount
N: No Magnet	

CONNECTOR:

S: SMA; B: BNC	M: MCX; MM: MMCX
N: N, NB: N-Bulkhead	T: TNC; TB: TNC-Bulkhead

COLOR:

-1: GLOSS WHITE #17925 PER FED-STD-595B
-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
-5: TAN #; FS 23446 or 33446, FED-STD-595

QUANTITY REQD

4	Mounting Screws: 10-32, 1.25"	J507C1032R20 (93085A835)	5
4	Washer, Custom C'Sink	3G15P1001-70	3
1	EPDM NON-ADHESIVE GASKET	3G15P1001-3G	
1	or ADHESIVE GASKET	12345G-3M-3G	1

ANTCOM CORP. TORRANCE, CALIFORNIA

3.5in Dia.
L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA

3CVE1 G5Ant-3AMNT1

SCALE 1/1

SHEET 1 OF 1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-743AT1-A2** **Avionics Arinc 743 Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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SPECIFICATIONS

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS		L2 GPS B2 Compass		L2 GLONASS E6 Galileo B3 Compass		OmniSTAR / L-Band L6 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 ± 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	
FREQUENCY:												
RADIATION PATTERN:	RHCP				RHCP				RHCP			
POLARIZATION:	HEMISPHERICAL											
VSWR:	< 2.0:1											
IMPEDANCE:	50 ohms											
ANTENNA GAIN (dBic):	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.
@ 90° (ZENITH):	- 3	- 3	+ 3.1	+ 4.8	+ 1.5	+ 2.4	+ 1.0	+ 2.0	+ 3.3	+ 2.0	+ 2.7	+ 1.4
@ 10° Elevation:	- 10	- 10	- 3.9	- 3.5	- 5.8	- 6.3	- 5.5	- 5.1	- 3.0	- 2.5	- 3.7	- 3.4
@ 20° Elevation:	- 9	- 7	- 2.3	- 0.3	- 3.9	- 3.2	- 3.9	- 1.9	- 1.6	+ 0.4	- 2.5	- 0.5
@ 30° Elevation:	- 7	- 6	- 0.4	+ 1.0	- 2.1	- 1.2	- 3.3	- 0.5	- 0.8	+ 1.6	- 1.5	+ 0.5
@ 60-90° Elevation:	> -4	> -4	> 2.0	> 2.6	> 0.3	> 0.1	> 0.3	> 0.5	> +2.6	> +1.6	> +2.0	> -0.2
BEAM WIDTH (3dB):	100 Deg.	120 Deg.	105 Deg.	115 Deg.	100 Deg.	110 Deg.	95 Deg.	145 Deg.	100 Deg.	150 Deg.	100 Deg.	145 Deg.
AXIAL RATIO:	3 dB	2 dB	1 dB	1 dB	1 dB	2 dB	1 dB	2 dB	1 dB	1 dB	1.5 dB	3 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: WIDTH: 3.00 in. [76.20 mm], LENGTH 4.700 in. [119.38 mm], HEIGHT: 0.898 in. [22.80 mm]

WEIGHT: 9.36 oz. (265 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 TYPE FEMALE (OPTION: SMA, BNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX)

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:

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 DETAILS:

SIZE: 1: 2" SQ, 1.9: 1.9" SQ, 2: 2.8" DIA, 3: 3.5" DIA, 4: MINI ARINC: 42, 743, 743 ARINC, 52: 2.6" DIA. ON 5" GROUND PLANE, 72: 7" DIA. CHOKE RING

LNA: A: WITH LNA, P: WITHOUT LNA

CONNECTOR: S: SMA, B: BNC, M: MCX, MM: MMCX, N: N, NB: N-Bulkhead, T: TNC, TB: TNC-Bulkhead

COLOR: -1: GLOSS WHITE #17925 PER FED-STD-595B, -2: LUSTERLESS GRAY #36320 PER FED-STD-595B, -3: OLIVE DRAB GREEN #34094 PER FED-STD-595B, -4: LUSTERLESS BLACK #37038 PER FED-STD-595B

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

P/N: G5Ant-743AT1-A2

ANTCOM CORP. TORRANCE, CALIFORNIA

743 ARINC, ACTIVE L1L2Glonass/L1L2GPS/OmniStar G5 ANTENNA

DRAWN: S. HUYNH, MOJ-23-09, CHECKED: D. SCVE1, DESIGNED: S. HUYNH, MOJ-23-09, APPROVED: D. SCVE1, DATE: 9/6/2009

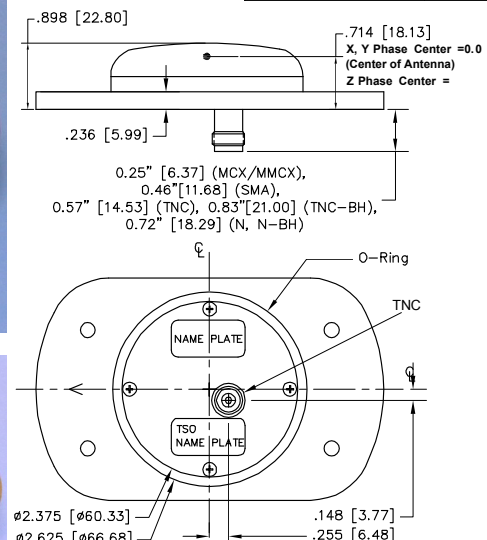
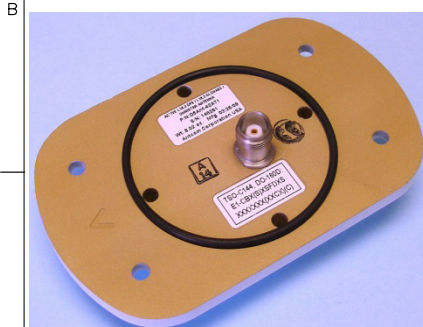
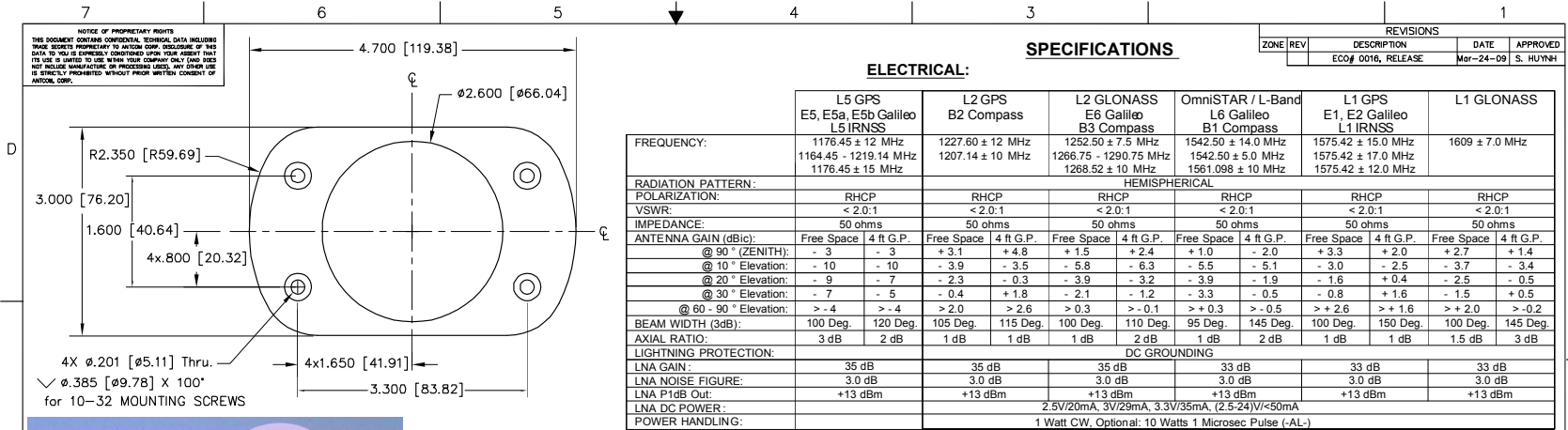
SCALE: 1/1, SHEET 1 OF 1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-42AT1 **Avionics Arinc 743 Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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FEDERAL & MILITARY SPECIFICATIONS

DESIGN TO: FAA TSO-C144, DO-160D, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810 AND SAE J1455

ACCEPTANCE TEST PROCEDURE ATP-GPS-L1L2-100

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

CABLE'S LENGTH	CONNECTOR	COLOR
X: NO CABLE	S: SMA; B: BNC	-1: GLOSSWHITE#17925PER FED-STD-595B
	M: MCX; MM: MMCX	-2: LUSTERLESSGRAY#36320PER FED-STD-595B
	N: N; NB: N-Bulkhead	-3: OLIVE DRABGREEN#34094PER FED-STD-595B
	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESSBLACK#37038PER FED-STD-595B

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

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

FRACTIONS DECIMALS ANGLES ± 1/64 .005 .015 ± 1°

TOLERANCE SIM PER ANSI Y14.5

REWORK ALL SURFACES EXCEPT INTERNAL EDGES .005 TO .015 PER MIL-STD-208

DRILLING TO BE IN ACCORDANCE WITH MIL-STD-120

MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

743 ARINC, ACTIVE
L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA

D|3CVE1 G5Ant-42AT1

SCALE 1/1 SHEET 1 OF 1



Antcom's G5 Antenna, Active L1/L2 Glonass + L1/L2 GPS + OmniStar Antenna, P/N: G5Ant-42AT1-A2 Avionics Arinc 743 Configuration (with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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4x ϕ .201 [ϕ 5.11] Thru.
 $\sqrt{\phi}$.385 [ϕ 9.78] X 100°
for 10-32 MOUNTING SCREWS

SPECIFICATIONS

ZONE	REV		DESCRIPTION		DATE	APPROVED	
ELECTRICAL:							
FREQUENCY:		L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E5 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
		1176.45 \pm 12 MHz 1164.45 - 1219.14 MHz 1176.45 \pm 15 MHz	1227.60 \pm 12 MHz 1207.14 \pm 10 MHz	1252.50 \pm 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 \pm 10 MHz	1542.50 \pm 14.0 MHz 1542.50 \pm 5.0 MHz 1561.098 \pm 10 MHz	1575.42 \pm 15.0 MHz 1575.42 \pm 17.0 MHz 1575.42 \pm 12.0 MHz	1609 \pm 7.0 MHz
RADIATION PATTERN:		HEMISPHERICAL					
POLARIZATION:		RHCP	RHCP	RHCP	RHCP	RHCP	RHCP
VSWR:		< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:		50 ohms	50 ohms	50 ohms	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.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.
@ 30° (ZENITH):		-3	+3	+1.5	+2.4	+1.0	+2.0
@ 10° Elevation:		-10	-10	-3.9	-5.8	-5.1	-3.0
@ 20° Elevation:		-9	-7	-2.3	-3.9	-3.9	-1.9
@ 30° Elevation:		-7	-5	-0.4	+1.8	-2.1	-1.2
@ 60 - 90° Elevation:		> -4	> -4	> 2.0	> 2.6	> 0.3	> -0.1
BEAM WIDTH (3dB):		100 Deg.	120 Deg.	105 Deg.	115 Deg.	100 Deg.	95 Deg.
AXIAL RATIO:		3 dB	2 dB	1 dB	2 dB	1 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-)					

NAME PLATE
TSC NAME PLATE

MECHANICAL:

SIZE: WIDTH: 3.00 in. [76.20 mm], LENGTH 4.700 in. [119.38 mm], HEIGHT: 0.898 in. [22.80 mm]

WEIGHT: 8.02 oz. (227 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 TYPE FEMALE
(OPTION: SMA, BNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX)

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:

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

0.236 [5.99]
0.25 [6.37] (MCX/MMCX),
0.46 [11.68] (SMA),
0.57 [14.53] (TNC), 0.83 [21.00] (TNC-BH),
0.72 [18.29] (N, N-BH)

0.2375 [60.33]
0.2625 [66.68]
.200 [5.08]

SIZE:	LNA:	QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	REV
1: 2" SQ.	A- WITH LNA	4	Mounting Screw: 10-32, 1"	MS24693C276			5
1: 1.9" SQ.	P- WITHOUT LNA						4
2: 2.6" DIA.							3
3: 3.5" DIA.							2
4: MINI ARINC: 42-743 ARINC.		1	O-Ring or Gasket	2-142/N756-75			1
52: 2.6" DIA. ON 5" GROUND PLANE							
72: 7" DIA. CHOKER RING							

P/N: G5Ant-42AT1-A2

2. MOUNTING SCREWS & ADHESIVE GASKET ARE SUPPLIED BY ANTCOM

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

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

ANTCOM CORP. TORRANCE, CALIFORNIA

743 ARINC, ACTIVE
L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA

DATE: 30VE1
SCALE: 1/1

SHEET 1 OF 1



Antcom's G5 Antenna, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-42AT1-A Avionics Arinc 743 Configuration (with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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SPECIFICATIONS

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS		L2 GPS B2 Compass		L2 GLONASS E6 Galileo B3 Compass		OmniSTAR / L-Band L6 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		1262.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10 MHz		1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz		1675.42 ± 15.0 MHz 1675.42 ± 17.0 MHz 1675.42 ± 12.0 MHz		1609 ± 7.0 MHz	
FREQUENCY:												
RADIATION PATTERN:	HEMISPHERICAL											
POLARIZATION:	RHCP		RHCP		RHCP		RHCP		RHCP		RHCP	
VSWR:	< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1	
IMPEDANCE:	50 ohms		50 ohms		50 ohms		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.	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.
@ 90° (ZENITH):	-3	-3	+3.1	+4.8	+1.5	+2.4	+1.0	-2.0	+3.3	+2.0	+2.7	+1.4
@ 10° Elevation:	-10	-10	-3.9	-3.5	-5.8	-6.3	-5.5	-5.1	-3.0	-2.5	-3.7	-3.4
@ 20° Elevation:	-9	-7	-2.3	-0.3	-3.9	-3.2	-3.9	-1.9	-1.6	+0.4	-2.5	-0.5
@ 30° Elevation:	-7	-5	-0.4	+1.8	-2.1	-1.2	-3.3	-0.5	-0.8	+1.6	-1.5	+0.5
@ 60 - 90° Elevation:	> -4	> -4	> 2.0	> 2.6	> 0.3	> -0.1	> +0.3	> -0.5	> +2.6	> +1.6	> +2.0	> -0.2
BEAM WIDTH (3dB):	100 Deg.	120 Deg.	105 Deg.	115 Deg.	100 Deg.	110 Deg.	95 Deg.	145 Deg.	100 Deg.	150 Deg.	100 Deg.	145 Deg.
AXIAL RATIO:	3 dB	2 dB	1 dB	1 dB	1 dB	2 dB	1 dB	2 dB	1 dB	1 dB	1.5 dB	3 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, (2.5-24)V/<50mA											
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: 0.898 in. [22.80 mm]

WEIGHT: 8.02 oz. (227 g)

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL BASE IRIDITE PER MIL-C-5541FCLASS 1A

MATERIAL: 6061-T6ALUMINUMALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROLRESISTANCE AND FIRE RETARDANT

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

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, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810 AND SAE J1455

ACCEPTANCE TEST PROCEDURE

ATP-GPS-L1L2-100

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

P/N: G5Ant-42AT1-A

CABLE LENGTH	CONNECTOR	COLOR
X: NO CABLE	S: SMA; B: BNC	-1: GLOSSWHITE#17925PER FED-STD-595B
	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY#36320PER FED-STD-595B
	N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN#34094PER FED-STD-595B
	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK#37038PER FED-STD-595B

2. MOUNTING SCREWS & ADHESIVE GASKET ARE SUPPLIED BY ANTCOM

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

ANTCOM CORP. TORRANCE, CALIFORNIA

743 ARINC, ACTIVE
L1L2GLONASS/L1L2GPS/OmniStar
G5 ANTENNA

D| 3CVE1 | G5Ant-42AT1-A

SCALE 1/1 | SHEET 1 OF 1



Antcom's Active L1/L2 GPS Antenna,

P/N: 743G1115A-XT-1

Avionics Arinc 743 Configuration Also available in 1G, 2G, 3G Configurations



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4.700 [119.38]
3.000 [76.20]
1.600 [40.64]
4xR1.000 [R25.40]
4X 0.22 Thru.
for 10-32 MOUNTING SCREWS

ELECTRICAL:

FREQUENCY:	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	OmniSTAR / L-Band L6 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	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	RHCP
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA Ave. GAIN (dBic):	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.
@ 90° (ZENITH):	+5.0 +6.0	+2.0 0.0	+2.0 0.0	+1.3 -0.5
@ 10° Elevation:	-1.8 -1.6	-3.7 -3.5	-3.9 -3.5	-4.4 -3.8
@ 20° Elevation:	0.0 +1.4	-2.4 -0.8	-2.5 -0.5	-3.1 -0.9
@ 30° Elevation:	+1.6 +3.7	-1.7 +0.9	-1.7 +0.7	-2.3 -0.0
@ 60° Elevation:	+4.0 +4.5	+1.2 +0.3	+1.2 +0.1	+0.6 -1.1
BEAM WIDTH (3dB):	110 Deg. 120 Deg.	110 Deg. 145 Deg.	110 Deg. 150 Deg.	110 Deg. 150 Deg.
AXIAL RATIO:	1 dB 1 dB	1 dB 2 dB	1 dB 3 dB	3 dB 5 dB
LIGHTNING PROTECTION:	DC GROUNDING			
LNA GAIN:	35 dB			
LNA NOISE FIGURE:	2 dB			
LNA P1dB Out:	+13 dBm			
LNA DC POWER:	(2.5 to 24V) / < 50 mA			
POWER HANDLING:	10 Watt with Limiter			

MECHANICAL:

SIZE: WIDTH: 3.00 in. [76.20 mm], LENGTH 4.700 in. [119.38 mm], HEIGHT: 0.898 in. [22.80 mm]

WEIGHT: 9.36 oz. (265 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 TYPE FEMALE
(OPTION: SMA, BNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX)

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: 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

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
	1			

SIZE:

SIZE	LNA
1: 2" SQ.	A: WITH LNA
1.9: 1.9" SQ.	P: WITHOUT LNA
2: 2.8" DIA.	
3: 3.5" DIA.	
4: MINI ARINC: 42, 743, 743 ARINC.	
52: 2.6" DIA. ON 5" GROUND PLANE	
72: 7" DIA. CHOKE RING	

QUANTITY REQD

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

UNLESS OTHERWISE SPECIFIED

ALL DIMENSIONS ARE IN INCHES
FRACTIONS: DECIMALS: ANGLES
± 1/64 ± .005 ± .010

TOLERANCE SURF PER ANSI Y14.5
REMOVE ALL BURRS
BREAK EXTERNAL EDGES .000 TO .010
FILES TO .005 TO .010
20° ± 0.1° ± .005
MACHINED SURFACES 12°

APPROVED: S. HUYNH July-03-10
CAD FILE NO: D:\3CVE1

ANTCOM CORP. TORRANCE, CALIFORNIA

743 ARINC, ACTIVE L1/L5 GPS ANTENNA

SCALE 1/1

SHEET 1 OF 1

P/N: 743G1115A-XT-1

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

NOTES: UNLESS OTHERWISE SPECIFIED:



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-4AT1 **Mini Arinc Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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3.40 [86.36]
2.00 [50.80]
2.20 [55.88]
1.60 [40.64]
R1.75 [R44.45]
R6.00 [R152.40]
R.38 [R9.53]
4X ø.20 [ø5.11] Thru.
✓ ø.385 [ø9.78] X 100"
FOR 10-32 MOUNTING SCREWS.

0.86 [21.89]
.38 [9.58]
Spherical R6.00 [R152.40]
.66 [16.81]
X, Y Phase Center = 0.0
(Center of Antenna)
Z Phase Center =

0.25" [6.37] (MCX/MMCX),
0.46" [11.68] (SMA/R-SMA),
0.57" [14.53] (TNC), 0.83" [21.00] (TNC-BH),
0.72" [18.29] (N, N-BH)

0-Ring Gasket
.15 [3.77]
TNC FEMALE CONNECTOR
(OPTION: SMA, TNC Bulkhead, N, N Bulkhead, MCX, MMCX, or Cable)
Clearance Hole: 0.4" Dia.
for SMA, MCX, & MMCX Con.
0.52" Dia. for TNC Con.
0.63" Dia. for N Con.

2.55 [6.48]

SPECIFICATIONS

ZONE	REV		DESCRIPTION		DATE	APPROVED
	1	2	1	2		
ELECTRICAL:						
FREQUENCY:		L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS
		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 ± 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
RADIATION PATTERN:		HEMISPHERICAL				
POLARIZATION:		RHCP				
VSWR:		< 2.0:1				
IMPEDANCE:		50 ohms				
ANTENNA GAIN (dBi):		Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space
@ 90° (ZENITH):		-3	-3	+2.6	+4.8	+0.0
@ 10° Elevation:		-9	-10	-3.5	-3.5	-6.3
@ 20° Elevation:		-8	-7	-2.0	-0.3	-4.7
@ 30° Elevation:		-6	-5	-0.4	+1.8	-3.4
@ 60 - 90° Elevation:		> -4	> -4	> 1.3	> 2.6	> -1.5
BEAM WIDTH (3dB):		110 Deg.	120 Deg.	110 Deg.	115 Deg.	105 Deg.
AXIAL RATIO:		1.5 dB	2 dB	1 dB	1 dB	2 dB
LIGHTNING PROTECTION:		DC GROUNDING				
LNA GAIN:		35 dB	35 dB	35 dB	33 dB	33 dB
LNA NOISE FIGURE:		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
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-)				

MECHANICAL:

SIZE: WIDTH: 2.20 in. [55.88 mm], LENGTH: 3.40 in. [86.36 mm], HEIGHT: 0.86 in. [21.89 mm]

WEIGHT: 9 oz. (256 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL

COLOR: BASE IRIDIUM PER MIL-C-5541 CLASS 1A
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: 70,000ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEAL

HAILSTONES: < 0.5" Dia.

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

QUANTITY REQD	DESCRIPTION	PART NO	REV
4	Mounting Screws: 10-32, 1.25" J507C1032R20 (93085A835)		5
4	Washer, Custom C'Sink	3G15P1001-70	3
1	O-Ring or Gasket	2-031/N756-75	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 ± .015 ± .001 ± 1°

DRIVER: S. HUYNH Mar-24-09

CHECKED: [Signature]

DESIGNED: [Signature]

APPROVED: S. HUYNH Mar-24-09

CAP FILE NO: [Blank]

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

Mini Arinc
L1/L2 Glonass/L1/L2 GPS/OmniStar
G5 ANTENNA

REV: 1
D | 3CVE1 | G5Ant-4AT1

SCALE: 1/1 | SHEET 1 OF 1

P/N: G5Ant-4AT1

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1: 2" SQ.	A: WITH LNA	X: NO CABLE	S: SMA; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	P: WITHOUT LNA		M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.			N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.			T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC				-5: TAN #1: FS 23446 or 33446, FED-STD-595



Antcom's **G5 Antenna**, **Active L1/L2 Glonass + L1/L2 GPS + OmniStar Antenna, P/N: G5Ant-4AT1 Rev B** **Mini Arinc/DAGR-RA2 Configuration** *(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)*



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REVISIONS	
ZONE	DESCRIPTION
B	DAGR-RA2 Foot Print

DATE	APPROVED
Mar-24-09	S.H.

4xø.14 [ø3.56] Thru.
 ✓ ø0.31 [7.9] X 82"
 for 6-32 Mounting Screws

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS	
FREQUENCY:	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 ± 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						
VSWR:	< 2.0:1						
IMPEDANCE:	50 ohms						
ANTENNA GAIN (dBi):	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	Free Space 4 ft G.P.	
@ 90° (ZENITH):	-3 -3 +2.6 +4.8 +0.0 +2.4 +2.1 -2.0 +4.0 +2.0 +3.0 +1.4	-9 -10 -3.5 -3.5 -6.5 -4.7 -5.1 -2.7 -2.5 -3.9 -3.4	-8 -7 -2.0 -0.3 -4.7 -3.2 -3.5 -1.9 -1.7 +0.4 -2.9 -0.5	-6 -5 -0.4 +1.8 -3.4 -1.2 -2.5 -0.5 -0.5 +1.6 -1.6 +0.5	> -4 > -4 > 1.3 > 2.6 > 1.5 > 0.1 > +1.1 > 0.5 > +2.9 > +1.6 > +2.0 > -0.2	110 Deg. 120 Deg. 110 Deg. 115 Deg. 105 Deg. 110 Deg. 95 Deg. 145 Deg. 95 Deg. 150 Deg. 95 Deg. 145 Deg.	1.5 dB 2 dB 1 dB 1 dB 1 dB 2 dB 2 dB 1 dB 1 dB 2 dB 3 dB
AXIAL RATIO:	1 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/25mA, 3.3V/35mA, (2.5-24)V/<50mA						
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)						

MECHANICAL:

SIZE: WIDTH: 2.20 in. [55.88 mm], LENGTH: 3.40 in. [86.36 mm], HEIGHT: 0.86 in. [21.89 mm]

WEIGHT: 9 oz. (256 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL

COLOR: BASE IRIDIUM PER MIL-C-5541 CLASS 1A 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: 70,000ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEAL

HAILSTONES: < 0.5" Dia.

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

P/N: G5Ant-4AT1

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1.2" SQ.	42: ARINC 743	A: WITH LNA	S: SMA, B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9" 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE	P: WITHOUT LNA	M: MCX, MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2.6" DIA.	72: 7" DIA. CHOKERING		N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3.3" DIA.			T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC				-5: TAN # FS 23446 or 33446, FED-STD-595

QUANTITY REQD	DESCRIPTION	PART NO	ITEM NO
4	Mounting Screws: 10-32, 1.25" J507C1032R20 (93085A835)		5
4	Washer, Custom C'Sink	3G15P1001-70	3
1	O-Ring or Gasket	2-031/N756-75	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .001 .015 300± .009

TOLERANCE SIM PER ANSI Y14.5

REWORK ALL SURFACES PER MIL-STD-883C METHOD 2000 TO 2016

REWORK INTERNAL EDGES .005 TO .015

REWORK SURFACES FOR MIL-STD-883C METHOD 2000 TO 2016

MACHINED SURFACES

DO NOT SCALE DRAWING

DATE	DESCRIPTION	DATE	APPROVED
Mar-24-09	DAGR-RA2 Foot Print	Mar-24-09	S.H.

ANTCOM CORP. TORRANCE, CALIFORNIA

Mini Arinc/DAGR-RA-2
 L1/L2 Glonass/L1/L2 GPS/OmniStar
G5 ANTENNA

DRAWN BY: S. HUYNH
 Mar-24-09

CHECKED BY: S. HUYNH
 Mar-24-09

APPROVED BY: S. HUYNH
 Mar-24-09

CAP FILE NO: D:\3CVE1

SCALE: 1/1

SHEET 1 OF 1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-1AT1 **2in Square Bottom Mount Configuration** (with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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7 6 5 4 3 1

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2.078 [52.78] SQ.

4xR.780 [R19.81]

.805 [20.45]

R6.000 [R152.40]

.410 [10.41]

Max. Dim: 0.25" [6.37] (MCX/MMCX),
0.46" [11.68] (SMA/R-SMA),
0.57" [14.53] (TNC), 0.83" [21.00] (TNC-BH),
0.72" [18.29] (N, N-BH)

4x.756 [19.20]

MOUNTING:
4X 4-40 THREAD
X 0.155 Deep,
& ADHESIVE GASEKET

4x.756 [19.20]

NAMEPLATE

SMA FEMALE CONNECTOR
(OPTION: TNC, TNC Bulkhead, N, N-Bulkhead, MCX, MMCX, or Cable)
Clearance Holes: 0.4" Dia. for SMA, MCX, & MMCX;
0.52" Dia. for TNC; 0.63" Dia. for N

P/N: G5Ant-1AS1 **Connector Color**

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1. 2" SQ.	42: ARINC743	X: NO CABLE	S: SMA; B: BNC	-1: GLOSSWHITE#17925PER FED-STD-595B
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUNDPLANE	P: WITHOUT LNA	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY#36320PER FED-STD-595B
2. 2.6" DIA.	72: 7" DIA. CHOKERING		N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN#34094PER FED-STD-595B
3. 3.5" DIA.			T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK#37038PER FED-STD-595B
4. MINI ARINC				-5: TAN #1: FS 23446 or 33446, FED-STD-595

SPECIFICATIONS

ZONE	REVISIONS		DATE	APPROVED
	REV	DESCRIPTION		
	ECOJ	0024, RELEASE	Mar-24-09	S. HUYNH

ELECTRICAL:

	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	1176.45 ± 12.0 MHz 1164.45- 1219.14 MHz 1176.45 ± 15.0 MHz	1227.60 ± 12.0 MHz 1207.14 ± 10.0 MHz	1252.50 ± 7.5 MHz 1266.75- 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 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					
VSWR	< 2.0:1					
IMPEDANCE:	50 ohms					
ANTENNA GAIN (dBic)	Free Space	sin G.P	Free Space	sin G.P	Free Space	sin G.P
@ 0° (ZENITH):	- 7	- 3	+ 0.5	+ 3	- 0.8	+ 2.3
@ 10° Elevation:	- 13	- 10	- 5.6	- 4.1	- 7.1	- 5.0
@ 20° Elevation:	- 11	- 9	- 3.9	- 2.7	- 5.4	- 3.3
@ 30° Elevation:	- 10	- 8	- 2.6	- 0.8	- 4.3	- 1.5
@ 60 - 90° Elevation:	> - 8	> - 5	> - 1	> 1.8	> - 2.4	> 1.2
BEAMWIDTH (3dB)	105 Deg.	100 Deg.	105 Deg.	105 Deg.	95 Deg.	97 Deg.
AXIAL RATIO	1.5 dB	3 dB	1 dB	1 dB	1 dB	1 dB
LIGHTNING PROTECTION	DC GROUNDING					
LNA GAIN	35 dB	35 dB	35 dB	33 dB	32 dB	31 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, (2.5-24)V/<50mA					
POWER HANDLING	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: LENGTH: 2.078 in. [52.78 mm] SQUARE
HEIGHT: 0.805 in. [20.45 mm]

WEIGHT: 3.7 oz. (105 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: SMA FEMALE
(OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead, MCX, MMCX)

ENVIRONMENTAL:

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

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

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	REV
1	ADHESIVE GASKET		123456-3M-1G	-	1

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

DRIVER: K. Lee
Mar-19-09

INSPECTOR: S. HUYNH
Mar-19-09

ANTCOM CORP. TORRANCE, CALIFORNIA

2in Square,
L1/L2 Glonass + L1/L2 GPS
+ OmniStar G5 ANTENNA

3CVE1 G5Ant-1AS1

DO NOT SCALE DRAWING

SCALE 1/1

SHEET 1 OF 1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: G5Ant-52AT1 **Survey Mount Configuration** (with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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SPECIFICATIONS

		REVISIONS					
ZONE	REV	DESCRIPTION	DATE	APPROVED			
		ECO# 0020, RELEASE	Mar-24-09	S. HUYNH			

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	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 ± 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:	RHCP		RHCP		RHCP	
POLARIZATION:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
VSWR:	50 ohms					
IMPEDANCE:	50 ohms					
ANTENNA GAIN (dBi):	HEMISPHERICAL					
@ 90° (ZENITH):	- 1	+ 5.3	+ 2.8	+ 2.8	+ 4.9	+ 4.7
@ 10° Elevation:	- 9	- 2.7	- 5.2	- 6.0	- 3.8	- 4.2
@ 20° Elevation:	- 7	- 0.9	- 3.6	- 4.2	- 2.1	- 2.3
@ 30° Elevation:	- 6	+ 0.4	- 2.4	- 2.4	- 0.3	- 0.6
@ 60 - 90° Elevation:	> - 3	> 4.2	> 1.6	> + 1.3	> + 3.4	> + 3.2
BEAM WIDTH (3dB):	85 Deg.	90 Deg.	90 Deg.	80 Deg.	80 Deg.	82 Deg.
AXIAL RATIO:	1.5 dB	1 dB	1 dB	3 dB	1 dB	4 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, (2.5-24)V/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					



MECHANICAL:

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

WEIGHT: 7oz. (199 g)

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
BASE IRIDITE PER MIL-C-5541FCLASS 1A

MATERIAL: 6061-T6ALUMINUMALLOYBASE
COMPOSITE RADOME,IMPACT, ABRASION,UV, SOLVENT,
SKYDROLRESISTANCE 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]
70,000ft.

VIBRATION: > 30 G's
HERMETICALLYSEAL

FEDERAL & MILITARY SPECIFICATIONS

FAA TSO-C144,DO-160D,DO-228,MIL-C-5541,
MIL-E-5400,MIL-I-45208A,MIL-STD-810,AND SAE J1455

ACCEPTANCE TEST PROCEDURE ATP-GPS-L1L2-100

P/N: G5Ant-52AT1

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1. 2" SQ.	42: ARINC743	A: WITH LNA	S: SMA; SMB; SMBR; B: BNC	-1: GLOSSWHITE#17925PER FED-STD-595B
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUNDPLANE	X: NO CABLE	M: MCX; MMB; MMCX; MMR; MMCX-R	-2: LUSTERLESS GRAY#36320PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKERING		N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN#34094PER FED-STD-595B
3: 3.5" DIA.	5: Bare on 5in [127mm] Dia. GroundPlane		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK#37038PER FED-STD-595B
4: MINI ARINC	X.X: Bare on X.XinDia. GroundPlane		SMC, SSMC, SMB, SSMMA	



Antcom's **G5 Antenna**, **Active L1/L2 Glonass + L1/L2/L5 GPS + OmniStar Antenna, P/N: G5Ant-62AT1** **Flat/Survey Mount Configuration** *(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)*



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8x.0213 [0.541] Thru.
82° C-Sink x 0.365
Equally Space
on 5.04in Dia.

SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	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 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz	1609 ± 7.0 MHz
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBi):						
@ 90° (ZENITH):	+ 2	+ 7.3	+ 5.8	+ 3.0	+ 4.9	+ 4.7
@ 10° Elevation:	- 6	- 2.7	- 5.2	- 6.0	- 3.8	- 4.2
@ 20° Elevation:	- 4	- 0.9	- 3.6	- 4.2	- 2.1	- 2.3
@ 30° Elevation:	- 3	+ 0.4	- 2.4	- 2.4	- 0.3	- 0.6
@ 60 - 90° Elevation:	> 0	> 4.2	> 1.6	> + 1.3	> + 3.4	> + 3.2
BEAM WIDTH (3dB):	85 Deg.	90 Deg.	90 Deg.	80 Deg.	80 Deg.	82 Deg.
AXIAL RATIO:	2 dB	1 dB	1 dB	3 dB	1 dB	3 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	35 dB	35 dB	35 dB	33 dB	33 dB	33 dB
LNA NOISE FIGURE:	2.8 dB	2.8 dB	2.8 dB	2.8 dB	2.8 dB	2.8 dB
LNA P1dB Out:	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm
LNA DC POWER:	(2.5-24)V/ < 50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

R6.000 [R152.40]
.749 [19.03]
X, Y Phase Center = 0.0
(Center of Antenna)
Z Phase Center =

MECHANICAL:

SIZE: DIAMETER: 5.755 in. [146.18mm]
HEIGHT: 0.930in [23.6mm]
11.8 oz. (335 g)

WEIGHT:

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, SMB, SMC, 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-145208A, MIL-STD-810, AND SAE J1455

ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100

Optional Mounting:
10-32 UNF-2B
X 0.175 Deep
for 5/8-11 Mount

Optional Mounting:
3x.0107 [0.271]
6-32 UNG-2B
x 0.250 Deep

P/N: G5Ant-62AT1

SIZE:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ.	42: ARINC 743	A: WITH LNA	S: SMA; SMB; SMBR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE	X: NO CABLE	M: MCX; SMB; MMCX; MMR; MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKE RING		N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.	5: Bare on 5in [126mm] Dia. Ground Plane		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC	X.X: Bare on X.Xin Dia. Ground Plane		SMC, SSMC, SSMB, SSSMA	

ZONE	REV	DESCRIPTION	DATE	APPROVED

QUANTITY	DESCRIPTION	PART NO	FINISH	TELE NO
1	O_RING, #2-156, A5568A-156	94115K156		
1	5/8"-11 Mount (Optional)	MTR-SB-G5		

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

TOLERANCE SUR PER ANSI Y14.5
REMOVE ALL BURRS
BREAK TO FINAL EDGES .005 TO .015
FILE TO .005 TO # 300
SMOEN SURFACES PER MIL-S-8879
D11 ON A CHAMFER Q.25 ± .005
WASHED SURFACES 1/2

DO NOT SCALE DRAWING

ANTCOM CORP.

L1L2Glonass/L1L2L5GPS/OmniStar
G5 ANTENNA

DATE: 3/20/11
DRAWN: D 3CVE1
ENGINEER: S. HUYNH
Supt-09-10

PART NO: G5Ant-62AT1

SCALE: 1/1

SHEET 1 OF 1



Antcom's G5 Antenna,
Active L1/L2 Glonass + L1/L2/L5 GPS + OmniStar Antenna,
P/N: G5Ant-DMCPS2 (for Passive Version, with SMA Connector, Gray)
P/N: G5Ant-DMCPT2 (for Passive Version, with TNC Connector, Gray)
Available in Different Colors, Connector, and and LNA



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SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	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 ± 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:	RHCP		HEMISPHERICAL			
POLARIZATION:	RHCP		RHCP			
VSWR:	< 2.0:1		< 2.0:1			
IMPEDANCE:	50 ohms		50 ohms			
ANTENNA GAIN (dBic):						
@ 90° (ZENITH):	+ 2	+ 7.3	+ 5.8	+ 3.0	+ 4.9	+ 4.7
@ 10° Elevation:	- 6	- 2.7	- 5.2	- 6.0	- 3.8	- 4.2
@ 20° Elevation:	- 4	- 0.9	- 3.6	- 4.2	- 2.1	- 2.3
@ 30° Elevation:	- 3	+ 0.4	- 2.4	- 2.4	- 0.3	- 0.6
@ 60 - 90° Elevation:	> 0	> 4.2	> 1.6	> +1.3	> +3.4	> + 3.2
BEAM WIDTH (3dB):	85 Deg.	90 Deg.	90 Deg.	80 Deg.	80 Deg.	82 Deg.
AXIAL RATIO:	2 dB	1 dB	1 dB	3 dB	1 dB	3 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN (OPTION):	35 dB	35 dB	35 dB	33 dB	33 dB	33 dB
LNA NOISE FIGURE:	2.8 dB	2.8 dB	2.8 dB	2.8 dB	2.8 dB	2.8 dB
LNA P1dB Out:	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm
LNA DC POWER:	(2.5-24)V/≤50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL)					

MECHANICAL:

SIZE: DIAMETER: 5.00 in. [127.00 mm]
 HEIGHT: 0.930in [23.6mm]

WEIGHT: 11.8 oz. (335 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: SMA FEMALE CONNECTOR
 (OPTION: TNC, BNC, TNC Bulkhead, N, N Bulkhead, SMB, SMC, 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

P/N: G5Ant-DMCPS2

SIZE:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ	42: ARINC 743	A: WITH LNA	S: SMA; SMB; SMR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ	52: 2.6" DIA. ON 5" GROUND PLANE	X: NO CABLE	M: MCX; MM; MMCX; MMR; MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKE RING		N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.6" DIA.	5: Bare on Sin [126mm] Dia. Ground Plane		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC	X.X: Bare on X.Xin Dia. Ground Plane		SMC; SMC; SSMB; SSMA	

QUANTITY	RECD	DESCRIPTION	PART NO	FINISH	ITEM NO

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS AND ± 1/64 .XXX ± .005		TOLERANCE SW PER ANG Y14.5		MACHINED SURFACES 1/2"	

ANTCOM CORP. TORRANCE CALIFORNIA

L1L2Glonass/L1L2L5GPS/OmniStar
G5 ANTENNA

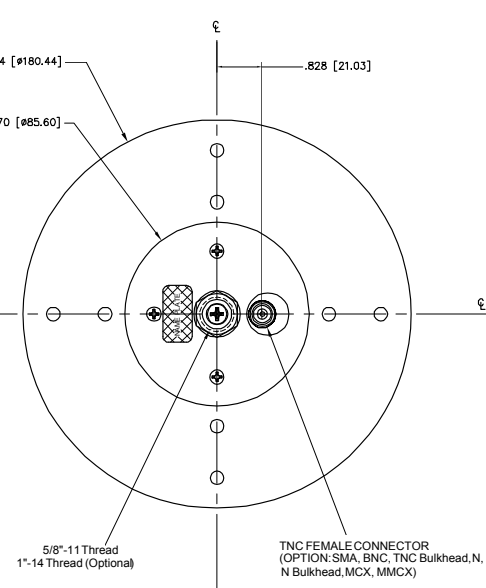
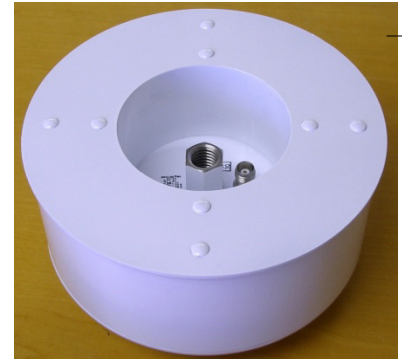
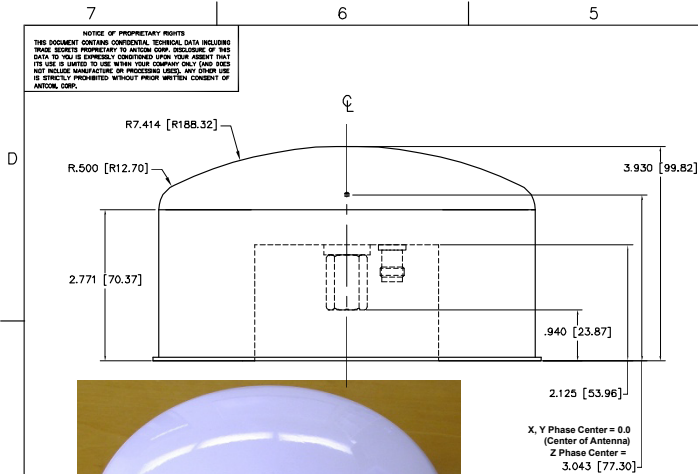
S. HUYTH
 Sept-09-10
 D 3CVE1 G5Ant-DMCPS2
 SCALE 1/1 SHEET 1 OF 1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-72AT1** **Choke Ring, Survey Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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



A
B
C
D

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
		ECO# 0021, RELEASE	Mar-24-09	S. HUYNH

SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	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 ± 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:	RHCP		RHCP		RHCP	
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBi):	HEMISPHERICAL					
@ 90° (ZENITH):	- 3	+ 4.9	+ 1.4	+ 4.7	+ 6.9	+ 6.0
@ 10° Elevation:	- 13	- 4.7	- 8.2	- 6.5	- 4.1	- 5.4
@ 20° Elevation:	- 12	- 3.1	- 6.9	- 4.3	- 2.0	- 3.1
@ 30° Elevation:	- 10	- 1.6	- 5.3	- 2.3	- 0.1	- 1.2
@ 60 - 90° Elevation:	> - 5	> + 3.3	> - 0.3	> + 2.7	> + 5.0	> + 4.0
BEAM WIDTH (3dB):	70 Deg.	80 Deg.	75 Deg.	70 Deg.	70 Deg.	70 Deg.
AXIAL RATIO:	1.5 dB	1 dB	1 dB	2 dB	1 dB	4 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, (2.5-24)V/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: DIAMETER: 7.10 in. [180.44 mm]
HEIGHT: 3.93 in. [99.82 mm]

WEIGHT: 1.82 lbs. (825g)

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
BASE IRIDIUM PER MIL-C-5541CLASS1A

MATERIAL: 6061-T6ALUMINUMALLOY BASE
COMPOSITE RADOME, IMPACT, ABRASION, UV,
SOLVENT, SKYDROLRESISTANCE

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]

ALTITUDE: 70,000ft

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

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	ITEM NO
	Rodome		72GNSS2-A-XR	5
1	1\"/>			

P/N: G5Ant-72AT1 Connector Color

SIZE	ILNA	CABLE LENGTH	CONNECTOR	COLOR
1: 2\"/>				

ANTCOM CORP. TORRANCE, CALIFORNIA

SURVEY MOUNT,
L1L2Glonass/L1L2GPS/OmniStar
G5 Choke Ring Antenna

3CVE1 G5Ant-72AT1

SCALE 1/1 SHEET 1 OF 1



Antcom's **G5 Antenna**, Active (40dB) L1/L2 Glonass + L1/L2 GPS + OmniStar Antenna, P/N: G5Ant-72A4T1 Choke Ring, Survey Mount Configuration, **SCIGN Radome Compatible** (with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15 MHz	1227.60 ± 12 MHz 1207.14 ± 10 MHz	1262.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10 MHz	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	RHCP	RHCP	RHCP
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBc):						
@ 90° (ZENITH):	- 3	+ 4.9	+ 1.4	+ 4.7	+ 6.9	+ 6.0
@ 10° Elevation:	- 13	- 4.7	- 8.2	- 6.5	- 4.1	- 6.4
@ 20° Elevation:	- 12	- 3.1	- 6.9	- 4.3	- 2.0	- 3.1
@ 30° Elevation:	- 10	- 1.6	- 5.3	- 2.3	- 0.1	- 1.2
@ 80 - 90° Elevation:	> - 5	> + 3.3	> -0.3	> + 2.7	> + 5.0	> + 4.0
BEAM WIDTH (3dB):	70 Deg.	80 Deg.	75 Deg.	70 Deg.	70 Deg.	70 Deg.
AXIAL RATIO:	1.5 dB	1 dB	1 dB	2 dB	1 dB	4 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	40 dB	40 dB	40 dB	40 dB	40 dB	40 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:	(2.5 to 24V / < 60mA)					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: DIAMETER: 7.10 in. [180.44 mm]
HEIGHT: 3.93 in. [99.82 mm]

WEIGHT: 1.82 lbs. (825 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

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]

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

QTY	DESCRIPTION	PART NO	REV
1	Radome	72GNSS2-A-XT-R	5
1	1"-14 Mount (Optional)	MTR-3B2	4
1	5/8"-11 Mount	MTR-3B	3
1	Choke Ring	7G1215PD01-B3 Rev G	2
1			1

P/N: G5Ant-72A4T1 Connector Color

SIZE:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ.	42: ARINC 743	A: WITH 33 dB LNA	S: SMA; SMB; SMBR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.8: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE	A4: WITH 40 dB LNA	M: MCX; MM; MMCX; MMR; MMCXR	-2: 1. US T FRI ESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKER RING	P: WITHOUT LNA	N: N; NB; NBulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.6" DIA.	5: Bare on 126mm Dia. Ground Plane		T: TNC; TB: TNC Bulkhead	-4: LUST'ERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC	X.X: Bare on X.X Dia. Ground Plane		S.M.C, S.S.M.C, S.S.M.B, S.S.M.A	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS ARE TO DECIMALS ± 1/64 DECIMALS ± .015 ± .005 MACHINED SURFACES ONLY

TOLERANCE 90° PER ANSI Y14.5

REWORK ALL SURFACES EXCEPT INTERNAL EDGES 200 TO .015

FINISH: 90° PER MIL-C-8839

FINISH: 90° PER MIL-C-8839

APPROVED: S. HUYNH Apr-20-10

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

SURVEY MOUNT,
L1/L2Glonass/L1/L2GPS/OmniStar
G5 Choke Ring Antenna

DATE: 04/20/10
DRAWN BY: DJ3CVE11
CHECKED BY: S. HUYNH
SCALE: 1/1

SHEET 1 OF 1

CC: 3CVE1, NAICS: 334511, S.H, 9/6/2009

19 of 30



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-72CAT1** **Conical Choke Ring, Survey Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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REVISIONS			
ZONE	REV	DESCRIPTION	DATE
		ECO# 0022, RELEASE	Mar-24-09 S. HUYNH

X, Y Phase Center = 0.0
(Center of Antenna)
Z Phase Center = 3.043 [77.30]

SPECIFICATIONS

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
	FREQUENCY:	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 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz
RADIATION PATTERN:	RHCP		RHCP		RHCP	
POLARIZATION:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBic):						
@ 90° (ZENITH):	- 3	+ 4.9	+ 1.4	+ 4.7	+ 6.9	+ 6.0
@ 10° Elevation:	- 13	- 4.7	- 8.2	- 6.5	- 4.1	- 5.4
@ 20° Elevation:	- 12	- 3.1	- 6.9	- 4.3	- 2.0	- 3.1
@ 30° Elevation:	- 10	- 1.6	- 5.3	- 2.3	- 0.1	- 1.2
@ 60 - 90° Elevation:	> - 5	> + 3.3	> - 0.3	> + 2.7	> + 5.0	> + 4.0
BEAM WIDTH (3dB):	70 Deg.	80 Deg.	75 Deg.	70 Deg.	70 Deg.	70 Deg.
AXIAL RATIO:	1.5 dB	1 dB	1 dB	2 dB	1 dB	4 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, (2.5-24)V/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-A-)					

MECHANICAL:

SIZE: DIAMETER: 7.01in. [178 mm]
HEIGHT: 6.279 in. [159.48mm]

WEIGHT: 1.82 lbs. (825g)

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
BASE IRIDITE PER MIL-C-5541CLASS 1A

MATERIAL: 6061-T6ALUMINUMALLOY BASE
COMPOSITE RADOME, IMPACT, ABRASION, UV,
SOLVENT, SKYDROLRESISTANCE

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]

ALTITUDE: 70,000ft

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

5/8"-11 Thread
1"-14 Thread (Optional)

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

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	ITEM NO
	Rodome	72GNSS2-A-XT-R2		5
1	1"-14 Mount (Optional)	MTR-3B2		4
1	5/8"-11 Mount	MTR-3B-G5		3
1	Choke Ring	7G1215P001-B3-S Rev H		2
				1

SIZE:

1: 2" SQ	42: ARINC743
1.9: 1.9" SQ	52: 2.6" DIA. ON 5" GROUNDPLANE
2: 2.6" DIA.	72: 7" DIA. CHOKERING
3: 3.6" DIA.	72C: 7" DIA. CONICAL CHOKERING
4: MINI ARINC	X.X: Bare on X.Xin Dia. Ground Plane

LNA:

A: WITH LNA	P: WITHOUT LNA
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CABLE'S LENGTH:

X: NO CABLE

CONNECTOR:

S: SMA; SMB; SMBR; B: BNC	M: MCX; MM; MMCX; MMR; MMCX-R	N: N; NB: N-Bulkhead	T: TNC; TB: TNC-Bulkhead	SMC, SSMC, SSMB, SSMMA
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COLOR:

-1: GLOSSWHITE#17925PERFED-STD-595B	-2: LUSTERLESSGRAY#36320PERFED-STD-595B	-3: OLIVEDRABGREEN#34094PERFED-STD-595B	-4: LUSTERLESSBLACK#37038PERFED-STD-595B
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
FRACTIONS DECIMALS ANGLES
± 1/64 ± .015 ± 1°

REWORK: ALL DIMENSIONS SHALL BE TO THE CENTER UNLESS OTHERWISE SPECIFIED
SOLDER SHALL BE 60/40
SOLDER SHALL BE 60/40
MACHINED SURFACES

TOLERANCE 51M PER ANSI Y14.5

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

SURVEY MOUNT,
L1L2Glonass/L1L2GPS/OmniStar
G5 Conical Choke Ring Antenna

DRAWN: K. LEE
Mar-24-09

CHECKED:

DESIGNED: S. HUYNH
Mar-24-09

COP FILE NO:

SCALE 1/1

SHEET 1 OF 1



Antcom's G5 Antenna, Active (40dB) L1/L2 Glonass + L1/L2 GPS + OmniStar Antenna, P/N: G5Ant-72CA4T1

Conical Choke Ring, Survey Mount Configuration, SCIGN Radome Compatible
(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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X, Y Phase Center = 0.0
(Center of Antenna)
Z Phase Center = 3.043 [77.30]

SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	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 ± 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	RHCP	RHCP	RHCP
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBic):	@ 90° (ZENITH):					
	-3	+4.9	+1.4	+4.7	+6.9	+6.0
	@ 10° Elevation:					
	-13	-4.7	-8.2	-6.5	-4.1	-5.4
	@ 20° Elevation:					
	-12	-3.1	-6.9	-4.3	-2.0	-3.1
	@ 30° Elevation:					
	-10	-1.6	-5.3	-2.3	-0.1	-1.2
	@ 60 - 90° Elevation:					
	> -5	> +3.3	> -0.3	> +2.7	> +5.0	> +4.0
BEAM WIDTH (3dB):	70 Deg.	80 Deg.	75 Deg.	70 Deg.	70 Deg.	70 Deg.
AXIAL RATIO:	1.5 dB	1 dB	1 dB	2 dB	1 dB	4 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	40 dB	40 dB	40 dB	40 dB	40 dB	40 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:	(2.5 to 24) V / < 60mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: DIAMETER: 7.01in. [178 mm]
HEIGHT: 6.279 in. [159.48 mm]

WEIGHT: 1.82 lbs. (825 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

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]
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

CONNECTOR COLOR

SIZE:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ	42: ARINC 743	X: NO CABLE	S: SMA, SMB, SMBR, B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.6 - 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE		M: MCX, MM: MMCX, MMCR, MMCX-R	-2: LUSTERLESS GRAY #38320 PER FED-STD-595B
2: 2.5" DIA.	72: 7" DIA. CHOKER RING		N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34204 PER FED-STD-595B
3: 3.5" DIA.	72C: 7" DIA. CONICAL CHOKER RING		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC	X.X: Bare on X.Xin Dia. Ground Plane		SMC, SSMC, SSMB, SSMA	

P/N: G5Ant-72CA4T1

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

QUANTITY REQD	DESCRIPTION	PART NO	ITEM NO
	Radome	72GNSS-A-XT-R2	5
1	1"-14 Mount (Optional)	MTR-3B2	4
1	5/8"-11 Mount	MTR-3B-C5	3
1	Choke Ring	7G1215P001-B3-S Rev H	2
			1

QUANTITY REQD **PARTS LIST**

ANTCOM CORP. TORRANCE, CALIFORNIA

SURVEY MOUNT,
L1L2GLonass/L1L2GPS/OmniStar
G5 Conical Choke Ring Antenna

DRAWN: _____
CHECKED: _____
ENGINEER: _____
APPROVED: **S. HUYNH** April-20-10
CIR FILE NO: _____

DO NOT SCALE DRAWING

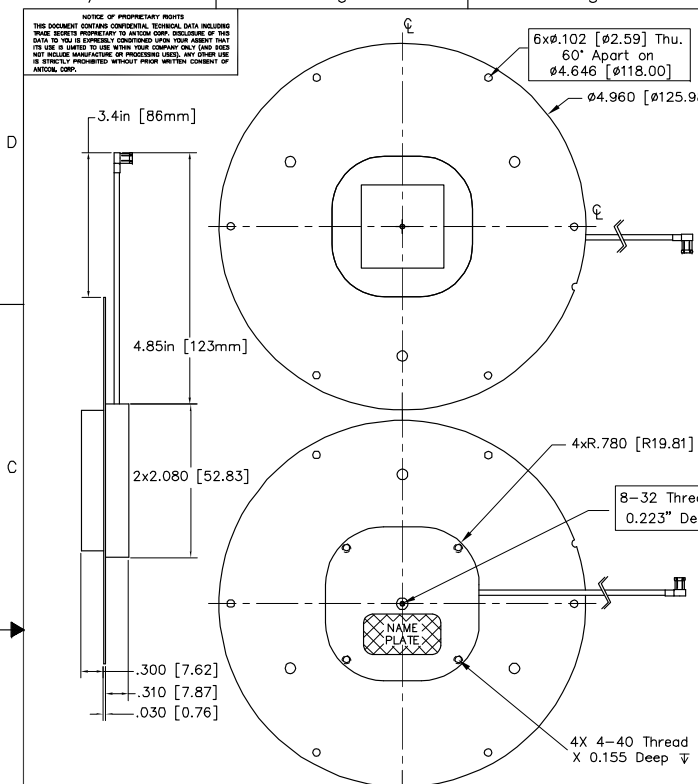
7
6
5
4
3
2
1



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-5A5MMRX** **OEM Version on 5in Dia. Ground Plane** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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SPECIFICATIONS								
ELECTRICAL:		L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS	
FREQUENCY:		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 ± 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	RHCP	RHCP	RHCP	
VSWR:		< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	
IMPEDANCE:		50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	
ANTENNA GAIN (dBic):								
@ 90° (ZENITH):		- 4	+ 3.2	+ 2.1	+ 1.2	+ 4.1	+ 3.0	
@ 10° Elevation:		- 10	- 3.3	- 4.5	- 7.4	- 4.5	- 5.8	
@ 20° Elevation:		- 9	- 1.7	- 3.2	- 5.8	- 2.9	- 4.1	
@ 30° Elevation:		- 8	- 0.8	- 2.4	- 4.1	- 1.2	- 2.4	
@ 60 - 90° Elevation:		> - 5	> 2.3	> 0.9	> - 0.3	> + 2.6	> + 1.6	
BEAM WIDTH (3dB):		90 Deg.	95 Deg.	90 Deg.	75 Deg.	80 Deg.	80 Deg.	
AXIAL RATIO:		3 dB	1 dB	1 dB	1 dB	1 dB	1 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, (2.5-24)V/<50mA						
POWER HANDLING:		1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)						

MECHANICAL:

SIZE: DIAMETER: 4.96 in. [126 mm]
HEIGHT: 0.3in [7.62mm] Above Ground Plane

WEIGHT: 3.9 oz. (111g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE IRIDIUM PER MIL-C-5541 CLASS 1A

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

CONNECTOR: 5in CABLE WITH MMCX RIGHT ANGLE MALE
(OPTION: SMA, SMB, TNC, BNC, N, MCX, MMCX)

ENVIRONMENTAL:

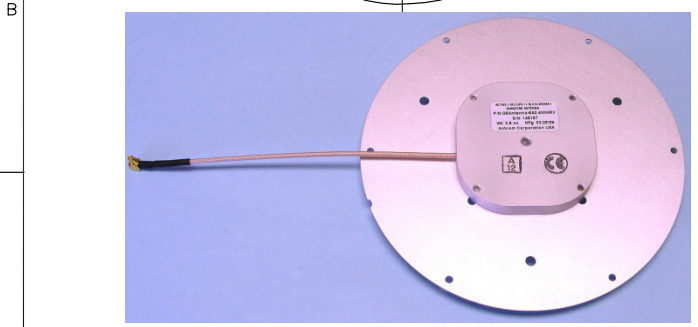
TEMPERATURE: -67°F TO +185°F [-55°C TO +85°C]
70,000ft.

VIBRATION: > 30 G's
HERMETICALLY SEAL

FEDERAL & MILITARY SPECIFICATIONS

FAA TSO-C144, D0-160D, D0-228, MIL-C-5541,
MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

ACCEPTANCE TEST PROCEDURE ATP-GPS-L1L2-100



P/N: G5Ant-5A5MMRX Connector/Cable

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1: 2" SQ.	42: ARINC 743	X: NO CABLE	S: SMA; SMB; SMBR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	52: 2.6" DIA. ON 5" GROUND PLANE		M: MCX; MM: MMCX; MMR: MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	72: 7" DIA. CHOKERING		N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.	5: Bare on 5in [126mm] Dia. Ground Plane		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC	X: Bare on X.in Dia. Ground Plane		SMC, SSMC, SMB, SSM	

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	ITEM NO
1	5.0" DIA. GROUND PLANE		12G1215P001-B2Gb	-	3
1	5/8"-11 Mount (Optional)		MTR-3B-G5	-	1

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

DRIVER: K. Lee Mar-24-09

CHECKED: S. HUYNH Mar-24-09

DESIGNED: S. HUYNH Mar-24-09

SCALE 1/1

SHEET 1 OF 1

ANTCOM CORP. TORRANCE, CALIFORNIA

OEM Version on 5in Ground Plane,
L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA (RoHS)

3CVE1 G5Ant-5A5MMRX



Antcom's **G5 Antenna**, Active **L1/L2 Glonass + L1/L2 GPS + OmniStar** Antenna, P/N: **G5Ant-5A5MMRX-E650** **OEM Version on E650 Ground Plane** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
		ECO# 0017, RELEASE	Mar-24-09	S. HUYNH

SPECIFICATIONS

ELECTRICAL:

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
FREQUENCY:	1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15 MHz	1227.60 ± 12 MHz 1207.14 ± 10 MHz	1266.75 - 1290.75 MHz 1266.52 ± 10 MHz	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	RHCP	RHCP	RHCP
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBic):						
@ 90° (ZENITH):	- 4	+ 3.2	+ 2.1	+ 1.2	+ 4.1	+ 3.0
@ 10° Elevation:	- 10	- 3.3	- 4.5	- 7.4	- 4.5	- 5.8
@ 20° Elevation:	- 9	- 1.7	- 3.2	- 5.8	- 2.9	- 4.1
@ 30° Elevation:	- 8	- 0.8	- 2.4	- 4.1	- 1.2	- 2.4
@ 60 - 90° Elevation:	> - 5	> 2.3	> 0.9	> - 0.3	> + 2.6	> + 1.6
BEAM WIDTH (3dB):	90 Deg.	95 Deg.	90 Deg.	75 Deg.	80 Deg.	80 Deg.
AXIAL RATIO:	3 dB	1 dB	1 dB	1 dB	1 dB	1 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: 3.963in [100.68mm] Square

HEIGHT: 0.3in [7.62mm] Above Ground Plane

WEIGHT: 3.9 oz. (111g)

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: 5in CABLE WITH MMCX RIGHT ANGLE MALE
(OPTION: SMA, SMB, TNC, BNC, N, MCX, MMCX)

ENVIRONMENTAL:

TEMPERATURE: -67 °F to +185 °F [-55 °C to +85 °C]

VIBRATION: 70,000 ft
> 30 G's
HERMETICALLY SEAL

FEDERAL & MILITARY SPECIFICATIONS:

FAA TSO-C144, DO-160D, DO-228, MIL-C-5541,
MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

ACCEPTANCE TEST PROCEDURE:

 ATP-GPS-L1L2-100

P/N: G5Ant-5A5MMRX-E650

SIZE:	LNA:	CABLE LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ.	A: WITH LNA	X: NO CABLE	S: SMA; SMB; SMBR; B; BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	P: WITHOUT LNA		M: MCX; MM; MMCX; MMR; MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.8" DIA.			N: N; NB; N-Splithead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.			T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC			SMC; SSMC; SSMB; SSMA	

QUANTITY REQD	DESCRIPTION	PART NO	FINISH	REV
1	5.0" DIA. GROUND PLANE	12G1216P001-B2Gb	-	3
1	5/8"-11 Mount (Optional)	MTR-3B-G5	-	1

UNLESS OTHERWISE SPECIFIED	ANTCOM CORP.
1: 2" SQ.	1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.8" DIA.	3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.	4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC	

ANTCOM CORP. TORRANCE CALIFORNIA

OEM Version on E650 Ground Plane,
L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA (RoHS)

DRAWN: S. HUYNH Mar-19-10
CHECKED: S. HUYNH Mar-19-10
APPROVED: S. HUYNH Mar-19-10

CAGE FILE NO: **D13CVE1** G5Ant-5A5MMRX-E650

SCALE: 1/1 SHEET 1 OF 1



Antcom's **G5 Antenna + WiFi**, Active **L1/L2 Glonass+L1/L2 GPS+OmniStar+WiFi** Antenna, P/N: **G5Ant-3AT1-W** **3.5in Dia. Top/Bottom Mount Configuration** **(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)**



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SPECIFICATIONS

	L5 GPS E5, E5a, E5b Galileo L5 IRNSS		L2 GPS B2 Compass		L2 GLONASS E6 Galileo B3 Compass		OmniSTAR / L-Band L6 Galileo B1 Compass		L1 GPS E1, E2 Galileo L1 IRNSS		L1 GLONASS		WiFi	
	FREQUENCY:	1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15 MHz	1227.60 ± 12 MHz 1207.14 ± 10 MHz	1266.75 - 1290.75 MHz 1268.52 ± 10 MHz	1542.50 ± 7.5 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz	1575.42 ± 14.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609 ± 7.0 MHz	(2.4-2.5) GHz						
RADIATION PATTERN:	HEMISPHERICAL													
POLARIZATION:	RHCP		RHCP		RHCP		RHCP		RHCP		RHCP		VERTICAL	
VSWR:	< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1			
IMPEDANCE:	50 ohms		50 ohms		50 ohms		50 ohms		50 ohms		50 ohms		50 ohms	
ANTENNA GAIN (dBic):	Free Space	Sin G.P	Free Space	Sin G.P	Free Space	Sin G.P	Free Space	Sin G.P	Free Space	Sin G.P	Free Space	Sin G.P	Free Space	Sin G.P
@ 90° (ZENITH):	-4	-3	+2.6	+3.2	+1.8	+1.6	+1.2	+0.8	+4.0	+3.0	+3.7	+2.2		
@ 10° Elevation:	-11	-11	-3.7	-3.6	-4.9	-5.4	-6.3	-5.4	-3.5	-3.0	-4.0	-4.1		
@ 20° Elevation:	-10	-10	-2.8	-2.2	-4.1	-3.7	-4.6	-3.8	-1.9	-1.5	-2.5	-2.6		
@ 30° Elevation:	-9	-8	-1.4	-0.2	-2.4	-1.8	-3.5	-2.9	-0.6	-0.5	-1.1	-1.6		
@ 60 - 90° Elevation:	> -6	> -5	> +1.4	> +2.2	> +0.5	> +0.6	> -0.2	> +0.2	> +2.6	> +2.4	> +2.2	> +1.5		
BEAM WIDTH (3dB):	95 Deg.		100 Deg.		95 Deg.		105 Deg.		90 Deg.		100 Deg.		100 Deg.	
AXIAL RATIO:	3 dB		3 dB		1.5 dB		1.5 dB		1 dB		1 dB		5 dB	
DC GROUNDING:	DC GROUNDING													
LNA GAIN:	35 dB		35 dB		35 dB		33 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		3.0 dB	
LNA P1dB Out:	+13 dBm		+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: 3.50 in. [88.90mm]
HEIGHT: 1.09 in. [27.81 mm]
11.3 oz. (320 g)

WEIGHT:

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
BASE IRIDITEPER MIL-C-5541FCCLASS1A
GLOSS WHITE #17925PER FED-STD-595B

COLOR:

MATERIAL: 6061-T6ALUMINUMALLOY BASE
COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,
SKYDROLRESISTANCE 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: 70,000ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEAL

FAILSTONES: < 0.5" Dia.

FAA & 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

QUANTITY REQD	DESCRIPTION	PART NO	ITEM NO
4	Mounting Screws: 10-32, 1.25" J507C1032R20 (93085A835)		5
4	Washer, Custom C'Sink	3G15P1001-70	3
1	O-Ring or Gasket	2-031/N756-75 or 3G15P1001-3G	1

nt-3AT1-W **Connector Color**

SIZE	LNA	CABLE LENGTH	CONNECTOR	COLOR
1.2" SQ.	42: ARINC743	A: WITH LNA	S: SMA, B: BNC	-1: GLOSS WHITE #17925PER FED-STD-595B
1.9" 1.9" SQ.	52: 2.6" DIA. ON 5" GROUNDPLANE	P: WITHOUT LNA	M: MCX, MM: MMCX	-2: LUSTERLESS GRAY #36320PER FED-STD-595B
2.6" DIA.	72: 7" DIA. CHOKERING		N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094PER FED-STD-595B
3.5" DIA.			T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038PER FED-STD-595B
4: MINIARINC				-5: TAN #: FS 23446 or 33446, FED-STD-595

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

ANTCOM CORP. TORRANCE, CALIFORNIA

3.5in Dia.
L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA + WiFi

DWG NO: **3CVE1 G5Ant-3AT1-W**

SCALE 1/1 SHEET 1 OF 1



Antcom's **G5 Antenna + GSM,**

Active **L1/L2 Glonass+L1/L2 GPS+OmniStar+GSM** Antenna, P/N: G5Ant-3ASRPSF1-GSM

3.5in Dia. Top/Bottom Mount Configuration

(with Filters, better RTK Performance, Optimized for L1/L2 Glonass & L1/L2 GPS & OmniStar)



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4x ϕ .20 [ϕ 5.11] Thru.
 \checkmark ϕ .385 [ϕ 9.78] x 100°
 for 10-32 MOUNTING SCREWS

RPSMA for GSM

ELECTRICAL:

FREQUENCY:	L5 GPS E5, E5a, E5b Galileo L5 IRNSS		L2 GPS B2 Compass		L2 GLONASS E6 Galileo B3 Compass		OmniSTAR / L-Band L6 Galileo B1 Compass		L1 GPS E1, E2 Galileo L1 IRNSS		L1 GLONASS	GSM
		1176.45 \pm 12 MHz 1164.45 - 1219.14 MHz 1176.45 \pm 15 MHz		1227.60 \pm 12 MHz 1207.14 \pm 10 MHz		1262.50 \pm 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 \pm 10 MHz		1542.50 \pm 14.0 MHz 1542.50 \pm 5.0 MHz 1561.098 \pm 10 MHz		1575.42 \pm 15.0 MHz 1575.42 \pm 17.0 MHz 1575.42 \pm 12.0 MHz		1609 \pm 7.0 MHz

RADIATION PATTERN: HEMISPHERICAL

POLARIZATION:	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP	OMNI	
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	VERTICAL	
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	
ANTENNA GAIN (dBi):	Free Space	5in G.P	Free Space	5in G.P	Free Space	5in G.P	Free Space	5in G.P	Free Space	5in G.P	Free Space	5in G.P
@ 90° (ZENITH):	- 4	- 3	+ 2.6	+ 3.2	+ 1.8	+ 1.6	+ 1.2	+ 0.8	+ 3.0	+ 3.7	+ 2.2	
@ 10° Elevation:	- 11	- 11	- 3.7	- 3.6	- 4.9	- 5.4	- 6.3	- 5.4	- 3.5	- 3.0	- 4.0	- 4.1
@ 20° Elevation:	- 10	- 10	- 2.8	- 2.2	- 4.1	- 3.7	- 4.6	- 3.8	- 1.9	- 1.5	- 2.5	- 2.6
@ 30° Elevation:	- 9	- 8	- 1.4	- 0.2	- 2.4	- 1.8	- 3.5	- 2.9	- 0.6	- 0.5	- 1.1	- 1.6
@ 60 - 90° Elevation:	> - 6	> - 5	> + 1.4	> + 2.2	> + 0.5	> + 0.6	> - 0.2	> + 0.2	> + 2.6	> + 2.4	> + 2.2	> + 1.5
BEAM WIDTH (3dB):	95 Deg.	100 Deg.	100 Deg.	107 Deg.	95 Deg.	105 Deg.	90 Deg.	100 Deg.	90 Deg.	105 Deg.	85 Deg.	100 Deg.
AXIAL RATIO:	3 dB	3 dB	1.5 dB	1.5 dB	1 dB	1 dB	3 dB	1 dB	1 dB	1 dB	5 dB	2.5 dB

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, (2.5-24)V/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL-)					

MECHANICAL:

SIZE: DIAMETER: 3.5 in. [88.90 mm]
 HEIGHT: 0.86 in. [21.89 mm]

WEIGHT: 9.2 oz. (261 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
 BASE IRIDITE PER MIL-C-5541F CLASS 1A
 GLOSS WHITE #17925 PER FED-STD-595B

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

CONNECTOR: SMA FEMALE / RP SMA 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: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541,
 MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

QUANTITY REQD

DESCRIPTION	PART NO	QUANTITY
Mounting Screws: 10-32, 1.25"	J507C1032R20 (93085A835)	5
Washer, Custom C'Sink	3G15P1001-70	3

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS	DECIMALS	ANGLES
\pm 1/64	.005	\pm 1°
.xxx	.005	

REMOVE ALL BURRS
 BREAK EDGES .005 TO .015
 FILE TO .005 TO .010
 25% MINIMUM RADIUS
 MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

3.5in Dia.
 L1L2Glonass/L1L2GPS/OmniStar
G5 ANTENNA + GSM

DATE: 10-29-10
 DRAWN: K. LEE
 ENGINEER: S. HUYNH
 APPROVED: S. HUYNH
 PART NO: D13CVE1
 SCALE: 1/1

SHEET 1 OF 1

P/N: G5Ant-3ASRPSF1-GSM Connector Color

SIZE:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ.	A: WITH LNA	X: NO CABLE	S: SMA; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	P: WITHOUT LNA		M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.			N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.			T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC				-5: TAN #. FS 23446 or 33446, FED-STD-595



Iridium/Inmarsat/L1/L2 GPS/Glonass/L-Band (1-2 GHz) Helix Antenna,
P/N: 18x2.5H1215R-P-XS-1
2.5" Diameter x 18" Tall, Front/Back Mount Configuration, *for Space Applications*
with SMA, TNC, N, or BNC Connector Options



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

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REVISIONS	
ZONE	DESCRIPTION

ELECTRICAL:

FREQUENCY (MHz):	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	Omnistar / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.80 ± 12.0 MHz 1207.14 ± 10.0 MHz	1262.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609.0 ± 7.0 MHz

GAIN (dBic) in FS: + 11.5 dBic

AXIAL RATIO (dB): 1 to 2

RADIATION PATTERN: HEMISPHERICAL

POLARIZATION: RHCP

VSWR: < 1.7 : 1

POWER HANDLING: 200 watts

MECHANICAL:

SIZE: TOP DIA = 2.50 in [63.50mm], BASEDIA = 3.50 in[88.90mm]
 HEIGHT = 18 in. [457 mm]

WEIGHT: 16.2oz. (460 +/-10)grams

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
 BASE IRIDITE PER MIL-C-5541F TYPE II CLASS 1A

COLOR: GLOSS WHITE #17925PER FED-STD-595B
 LUSTERLESSGRAY #36320PER FED-STD-595B
 OLIVE DRAB GREEN#34031PER FED-STD-595B
 LUSTERLESSBLACK#37038PER FED-STD-595B

MATERIAL: 6061-T6ALUMINUMALLOY BASE
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,
 AND SKYDROLRESISTANCE, FIRE RETARDANT

CONNECTOR: SMA-Female
 (OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead, BNC)

ENVIRONMENTAL:

TEMPERATURE: -166 °F TO +248 °F [-110 °C TO +120 °C]

ALTITUDE: 70,000ft.

VIBRATION: > 30 G's

FEDERAL & MILITARY SPECIFICATIONS

DESIGN TO: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541F, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

HIGH (in):	POLARIZATION:	LNA:	CABLE LENGTH	CONNECTOR	COLOR
	LL: TX: LHCP, RX: RHCP	A1: WITH +34 dB LNA	X: NO CABLE	S: SMA, P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
	LR: TX: LHCP, RX: RHCP		M: WITH MAG. MOUNT	M: MMCX, MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
	RL: TX: RHCP, RX: LHCP	P: WITHOUT LNA	#: CABLE LENGTH (IN)	N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
	RR: TX: RHCP, RX: RHCP		R: RIGHT ANGLE CON.	T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
	R: RHCP				
	L: LHCP				

QUANTITY	DESCRIPTION	PARTS LIST	PART NO	FINISH	NEW
4	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/2")	MS51958-63	-	-	5
4	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/4")	MS51958-59	-	-	4
1			-	-	3
1			-	-	2
1			-	-	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS DECIMALS ANGLES

± 1/64 ± .015 ± 1°

± .001 ± .005 ± .005

TOLERANCE 51M PER ANSI Y14.5

REPOF ALL SURFES

BEING INTERNAL EDGES .006 TO .016

BEING .001 TO .004

SOEW TOLERANCES PER MIL-S-8879

SA'S ON A COARSE Q.25 .006

MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

HIGH GAIN
GPS/GLONASS/IRIDIUM/
INMARSAT HELIX ANTENNA

DATE: 3CVE1
 DRAWN BY: S. HUYNH
 DEC-07-09

CAP FILE NO: 18x2.5H1215R-P-XS-1

SCALE: 1/1

SHEET 1 OF 1


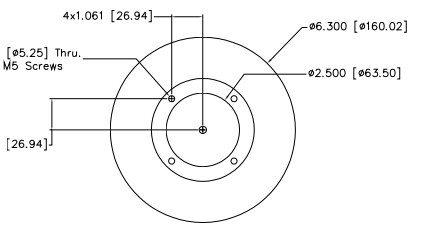
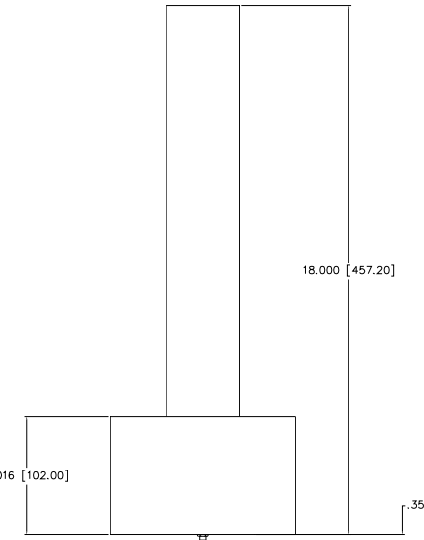
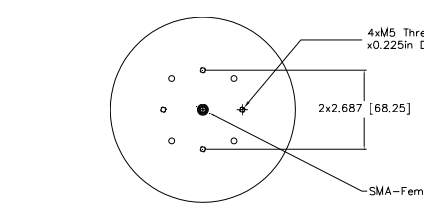
P/N: 18x2.5H1215R-P-XS-1

L1/L2 GPS/L-Band (1-2 GHz) Helix Antenna, P/N: 18x6.3H1215R-P-XS-1

2.5" Diameter x 18" Tall, Front/Back Mount Configuration, *for Space Applications*

with SMA, TNC, N, or BNC Connector Options

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SPECIFICATIONS

ELECTRICAL:

FREQUENCY (MHz):	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	OmniSTAR / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.60 ± 12.0 MHz 1207.14 ± 10.0 MHz	1252.95 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609.0 ± 7.0 MHz

GAIN (dBic) in FS: + 11.5 dBic

AXIAL RATIO (dB): 1 to 2

RADIATION PATTERN: HEMISPHERICAL

POLARIZATION: RHCP

VSWR: < 1.7 : 1

POWER HANDLING: 200 watts

MECHANICAL:

SIZE: TOP DIA = 2.50 in [63.50 mm], BASE DIA = 6.30 in [160.02 mm]
HEIGHT = 18 in. [457 mm]

WEIGHT: 16.75 oz. (475 +/-10) grams

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

COLOR: GLOSS WHITE #17925 PER FED-STD-595B
 LUSTERLESS GRAY #36320 PER FED-STD-595B
 OLIVE DRAB GREEN #34031 PER FED-STD-595B
 LUSTERLESS BLACK #37038 PER FED-STD-595B

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

CONNECTOR: SMA-Female
 (OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead, BNC)

ENVIRONMENTAL:

TEMPERATURE: -166 °F TO +248 °F [-110 °C TO +120 °C]

ALTITUDE: 70,000 ft.

VIBRATION: > 30 G's

FEDERAL & MILITARY SPECIFICATIONS:

DESIGN TO: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541F, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

QUANTITY	DESCRIPTION	PART NO	FINISH	ITEM NO
4	MOUNTING SCREW: (M5 Pan Head Phillips, 10mm)	90116A250	-	5
4	MOUNTING SCREW: (M5 Pan Head Phillips, 20mm)	90116A260	-	4
1				3
1				2
1				1

ANTCOM CORP. TORRANCE, CALIFORNIA

**HIGH GAIN
GPS/GLONASS/IRIDIUM/
INMARSAT HELIX ANTENNA**

DATE: 3CVE1 DRAWING NO: 18x6.3H1215R-P-XS-1 REV: 01

APPROVED: S. HUYNH DEC-07-09 SCALE: 1/1 SHEET 1 OF 1

DO NOT SCALE DRAWING

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REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

PROPERTY: HIGH

DATE: 12/07/09

BY: S. HUYNH

APP'D: S. HUYNH

DATE: 12/07/09

SCALE: 1/1

SHEET: 1 OF 1

P/N: 18x6.3H1215R-P-XS-1



Iridium/Inmarsat/L1/L2 GPS/Glonass/L-Band (1-2 GHz) Helix Antenna,
P/N: 18x2.5H1215R-P-XN-1
2.5" Diameter x 18" Tall, Front/Back Mount Configuration, 500 watts
with N, SMA, TNC, or BNC Connector Options



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REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	

SPECIFICATIONS

FREQUENCY (MHz):	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	Omnistar / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.80 ± 12.0 MHz 1207.14 ± 10.0 MHz	1262.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609.0 ± 7.0 MHz
GAIN (dBic) in FS	+ 11.5 dBic					
AXIAL RATIO (dB)	1 to 2					
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.7 : 1					
POWER HANDLING	500 watts					

ELECTRICAL:

MECHANICAL:

SIZE: TOP DIA = 2.50 in [63.50mm], BASEDIA = 3.50 in [88.90mm]
 HEIGHT = 18 in. [457 mm]

WEIGHT: 17.6oz. (500 g)

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
 BASE IRIDITE PER MIL-C-5541F TYPE II CLASS 1A

COLOR: GLOSS WHITE #17925PER FED-STD-595B
 LUSTERLESSGRAY #36320PER FED-STD-595B
 OLIVE DRAB GREEN #34031PER FED-STD-595B
 LUSTERLESSBLACK #37038PER FED-STD-595B

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

CONNECTOR: N-Female
 (OPTION: TNC, SMA, N-Bulkhead, BNC)

ENVIRONMENTAL:

TEMPERATURE: -67 °F to +185 °F [-55 °C to +85 °C]
 ALTITUDE: 70,000ft.
 VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEALED

FEDERAL & MILITARY SPECIFICATIONS

DESIGN TO: FAA TSO-C144, DO-160D, D0-228, MIL-C-5541F, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	REV
4	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/2")		MS51958-63	-	5
4	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/4")		MS51958-59	-	4
1	Pipe Mount (Item 482m, without Thread insert)		MTR-2-mod	-	3
1					2
1					1
-1	DESCRIPTION				

HIGH (in):	POLARIZATION:	LNA:	CABLE LENGTH	CONNECTOR	COLOR
	LL: TX: LHCP, RX: LHCP	A1: WITH +34 dB LNA	X: NO CABLE	S: SMA, P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
	LR: TX: LHCP, RX: RHCP	P: WITHOUT LNA	M: WITH MAG. MOUNT	M: MMCX, MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
	RL: TX: RHCP, RX: LHCP		#: CABLE LENGTH (IN)	N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
	RR: TX: RHCP, RX: RHCP		R: RIGHT ANGLE CON.	T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
	R: RHCP				
	L: LHCP				

P/N: 18x2.5H1215R-P-XN-1

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 FRACTIONS DECIMALS ANGLES
 ± 1/64 ± .015 ± 1°
 2008 ± .005

TOLERANCE 51M PER ANSI Y14.5
 REPOF ALL SURFES
 BEING 0.0015 EDGES .006 TO .016
 HOLE TO HOLE .0015
 S. HUYNH
 DEC 07 09
 MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

HIGH GAIN
 IRIDIUM/GPS/GLONASS/
 INMARSAT HELIX ANTENNA

DESIGNED BY: S. HUYNH
 APPROVED: DEC-07-09

REV: D
 3CWE1
 18x2.5H1215R-P-XN-1

SCALE: 1/1
 SHEET 1 OF 1




Iridium/Inmarsat/L1/L2 GPS/Glonass/L-Band (1-2 GHz) Helix Antenna,
P/N: 18x2.5H1215R-P-XN-1-J, 2.5" Diameter x 18" Tall, Front/Back Mount Configuration,
500 watts, Low side/Back Lobes for Jamming Applications
with N, SMA, TNC, or BNC Connector Options

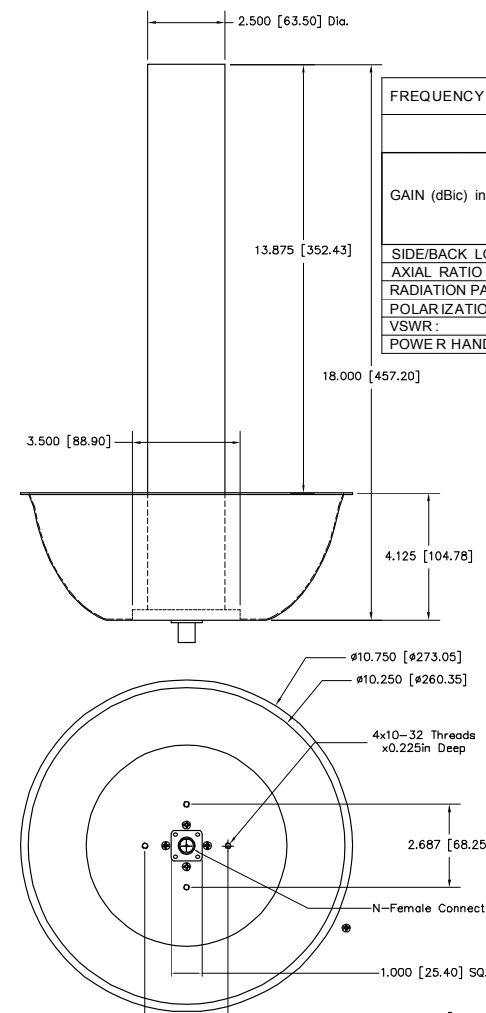


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REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	





2.500 [63.50] Dia.
13.875 [352.43]
18.000 [457.20]
3.500 [88.90]
4.125 [104.78]
2.687 [68.25]
2.687 [68.25]
1.000 [25.40] SQ.
2.687 [68.25]

SPECIFICATIONS

ELECTRICAL:

FREQUENCY (MHz):	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	Omnistar / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.80 ± 12.0 MHz 1207.14 ± 10.0 MHz	1262.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609.0 ± 7.0 MHz
GAIN (dBic) in FS	> + 10.5 dBic					
SIDE/BACK LOBES:	< -20 dB					
AXIAL RATIO (dB)	1 to 2					
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.7 : 1					
POWER HANDLING	500 watts					

MECHANICAL:

SIZE: TOP DIA = 2.50 in [63.50mm], BASEDIA = 3.50 in[88.90mm]
HEIGHT= 18 in. [457 mm]

WEIGHT: 33.5oz. (950 g)

FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL
 BASE IRIDITE PER MIL-C-5541F TYPE II CLASS 1A

COLOR: GLOSS WHITE #17925PER FED-STD-595B
 LUSTERLESSGRAY #36320PER FED-STD-595B
 OLIVE DRAB GREEN#34031PER FED-STD-595B
 LUSTERLESSBLACK#37038PER FED-STD-595B

MATERIAL: 6061-T6ALUMINUMALLOY BASE
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,
 AND SKYDROLRESISTANCE, FIRE RETARDANT

CONNECTOR: N-Female
 (OPTION: TNC, SMA, N-Bulkhead, BNC)

ENVIRONMENTAL:

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]
ALTITUDE: 70,000ft.
VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEALED

FEDERAL & MILITARY SPECIFICATIONS

DESIGN TO: FAA TSO-C144, DO-160D, DO-228, MIL-C-5541F,
 MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

QTY	DESCRIPTION	PART NO	ITEM NO
8	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/4")	MS51958-59	5
1	Pipe Mount (Item 482m, without Thread insert)	MTR-2-mod	4
1			3
1			2
1			1

HIGH (in):	POLARIZATION:	LNA:	CABLE LENGTH	CONNECTOR	COLOR
	LL: TX: LHCP, RX: RHCP	A1: WITH +34 dB LNA	X: NO CABLE	S: SMA, P: PINS	-1: GLOSS WHITE #17925PER FED-STD-595B
	LR: TX: LHCP, RX: RHCP	P: WITHOUT LNA	M: WITH MAG. MOUNT	M: MMCX, MM: MMCX	-2: LUSTERLESS GRAY #36320PER FED-STD-595B
	RL: TX: RHCP, RX: LHCP		#: CABLE LENGTH (IN)	N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34031PER FED-STD-595B
	RR: TX: RHCP, RX: RHCP		R: RIGHT ANGLE CON.	T: TNC; TB: TNC- Bulkhead	-4: LUSTERLESS BLACK #37038PER FED-STD-595B
	R: RHCP				
	L: LHCP				

P/N: 18x2.5H1215R-P-XN-1-J

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .005 .015 ± 1° .001 ± .005	CHECKED: _____ DRAWN: _____	ANTCOM CORP. TORRANCE, CALIFORNIA HIGH GAIN IRIDIUM/GPS/GLONASS/ INMARSAT HELIX ANTENNA	TITLE: D 3CVE1 PART NO: 18x2.5H1215R-P-XN-1-J SCALE: 1/1 SHEET 1 OF 1	
	TOLERANCE 51M PER ANSI Y14.5 REPAIR: ALL SURFACES PREPARE: EXTERNAL EDGES .005 TO .015 FILED: .001 TO .004 SCREW THREADS PER MIL-S-8879 DIA'S ON A COPLANAR Q.22 ± .006 MACHINED SURFACES: ✓			APPROVED: S. HUYNH DEC-07-09
	DO NOT SCALE DRAWING			
	CAP FILE NO: _____			



11. Links to Pdf Catalogs:

L1/L2/L5 GPS, L1/L2 Glonass, Omnistar, Galileo, Compass, GSM, Iridium, Inmarsat, Globalstar, Thuraya, XM/Sirius, UHF, L, S, C, X-band Antennas, Power Divider/combiner, Amplifiers, and RF Cables.



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