



FAA Approved Facility

The AVIONIC I

New High Performance Arinc 743 Avionic GNSS +S-Band Antenna

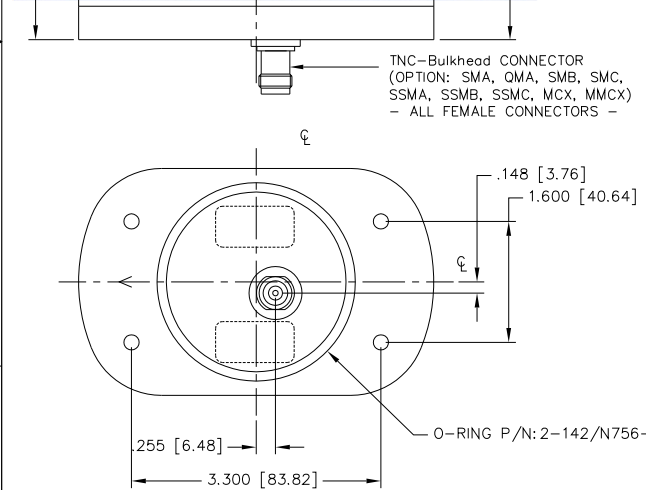
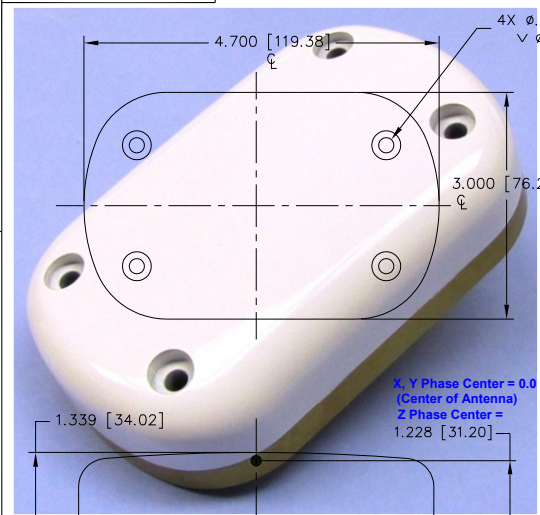
P/N: G8SAnt-743A4T1 Rev A

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



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SPECIFICATIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

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	S-Band
FREQUENCY:	1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1176.45 ± 12 MHz	1227.60 ± 12 MHz 1207.14 ± 10 MHz	1242 - 1252 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	1598 - 1609 MHz	2493 ± 12 MHz
RADIATION PATTERN:	HEMISPHERICAL						
POLARIZATION:	RHCP	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	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBic):							
@ 90° Above Horizon (Top):	+ 3.4	+ 4.4	+ 4.6	+ 0.3	+ 2.1	+ 3.3	+ 4.1
@ 15° Above Horizon:	- 6.1	- 5.6	- 5.7	- 4.3	- 3.5	- 3.1	- 3.0
@ 20° Above Horizon:	- 4.6	- 4.0	- 3.9	- 2.9	- 2.2	- 1.9	- 2.1
@ 25° Above Horizon:	- 3.0	- 2.3	- 2.1	- 1.5	- 0.9	- 0.6	- 1.4
@ 30° Above Horizon:	- 2.3	- 1.5	- 1.3	- 1.2	- 0.5	- 0.2	- 0.7
@ 70° Above Horizon:	+ 1.7	+ 3.8	+ 3.9	+ 1.1	+ 2.0	+ 2.5	+ 3.5
BEAM WIDTH (3dB):	70 Deg.	80 Deg.	77 Deg.	127 Deg.	120 Deg.	109 Deg.	90 Deg.
LIGHTNING PROTECTION:	DC GROUNDING						
LNA GAIN:	42 dB	42 dB	42 dB	43 dB	43 dB	43 dB	43 dB
LNA NOISE FIGURE (With Filter):	2.6 dB	2.6 dB	2.6 dB	2.9 dB	2.9 dB	2.9 dB	2.9 dB
LNA P1dB Out:	+10 dBm	+10 dBm	+10 dBm	+10 dBm	+10 dBm	+10 dBm	+10 dBm
LNA DC POWER:	(3-24)V/<50mA						
POWER HANDLING:	3 Watt CW (With Limiter)						

MECHANICAL:

SIZE: 4.70 in. [119.4mm] X 3.00 in. [76.2 mm]
HEIGHT: 1.34 in [34.0mm]

WEIGHT: 14.6 oz. (413.9 g)

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

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

CONNECTOR: TNC Female
(OPTION: SMA, QMA, SMB, SMC, SSMA, SSMB, SSMC, 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

QUANTITY	DESCRIPTION	PART NO	FINISH	ITEM NO.
4	Mounting Screw: 10-32, 2.0"	MS24693C284		2
1	O-Ring or Gasket; O-Ring Item 551t	2-142/N756-75		1

P/N: G8SAnt-743A4T1

- DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
 - ALL SCREWS ARE SUPPLIED BY ANTCOM CORPORATION
- NOTES: UNLESS OTHERWISE SPECIFIED:

LNA:	CONNECTOR:	COLOR:
A: WITH LNA	S: SMA; Q: QMA; SMB; SMBR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
P: WITHOUT LNA	M: MCX; MM: MMCX; NMR: MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
AM: WITH LNA (40 dB)	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
	SMC; SSMC; SSMB; SSMA	-5: DESERT TAN #33448 PER FED-STD-595B

UNLESS OTHERWISE SPECIFIED	ANTCOM CORP.
TOLERANCES UNLESS SPECIFIED	TORRANCE CALIFORNIA
FRACTIONS: DECIMALS: ANGLES: ± 1/64 .015 .006 ± 1°	Arinc 743 Avionic GNSS + S-BAND ANTENNA
TOLERANCE SURF PER ANSI Y14.5	DATE: 08-14-14
REMOVE ALL SHARP EDGES PER MIL-STD-883C	DESIGNED BY: S. HUYNH
BREAK EXTERNAL EDGES .005 TO .015	DATE: Mar-24-09
FILED IN: 005 TO 1.0	DESIGNED BY: S. HUYNH
SCREEN THREADS PER UNF-C-887	DATE: Mar-24-09
ENDS ON A COMMON & 27.000	DESIGNED BY: S. HUYNH
MACHINED SURFACES 12/	DATE: Sept-20-12
DO NOT SCALE DRAWING	DATE: Sept-20-12

REV	DATE	DESCRIPTION	SCALE	SHEET
D	03/20/12	G8SAnt-743A4T1	SCALE 1/1	1 OF 1

“-HF” for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: -24dB@1616MHz, -34dB@1625-1660MHz
“-HFO” for Additional Omnistar Rejection: -27dB@1545MHz