Mini Arinc GNSS Antenna

For Global Navigation Satellite Systems (GNSS) Applications

P/N: 4GNSSA-XTC-1

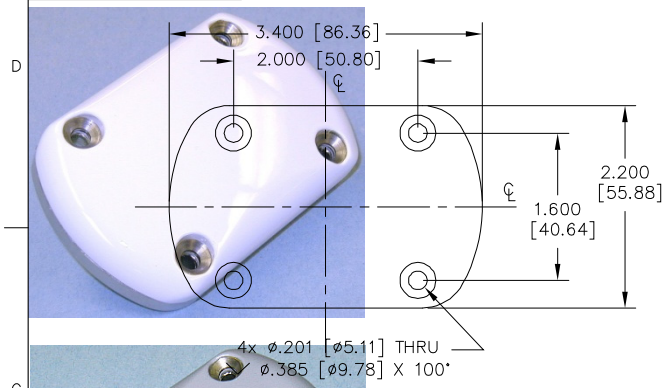
Other Connector, Color and Mounting Options are Also Available

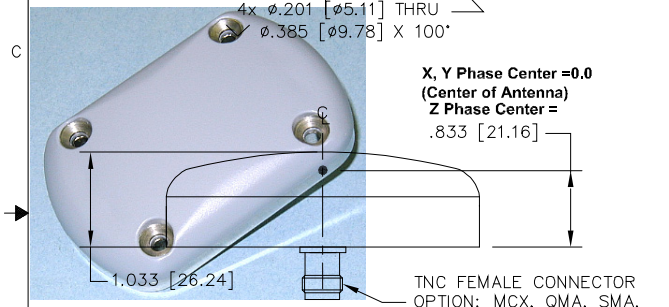
Antenna Mounts: http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf

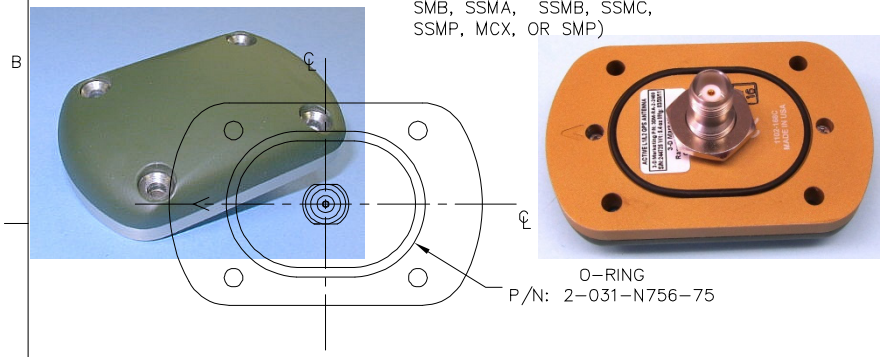
ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: antennas@antcom.com . http://www.antcom.com

"-HF" for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: -22dB@1616MHz, -34dB@(1625-1660)MHz

"-HFO" for Additional Omnistar Rejection: -27dB@1545MHz







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 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):	5in G.P.	4 ft G.P.	5in G.P.	4 ft G.P.	5in G.P.	4 ft G.P.	5in G.P.	4 ft G.P.	5in G.P.	4 ft G.P.	5in G.P.	4 ft G.P.
@ 90 ° (ZENITH):	- 0.6	+ 2.4	+ 3.5	+ 3.6	+ 3.0	+ 2.3	+ 0.2	- 2.5	+ 3.6	+ 3.5	+ 0.1	- 2.1
@ 10 ° Elevation:	- 7.2	- 4.5	- 3.0	- 3.6	- 3.6	- 5.4	- 8.6	- 7.1	- 5.0	- 1.2	- 8.9	- 7.7
@ 20 ° Elevation:	- 5.8	- 1.6	- 1.6	- 0.4	- 2.5	- 1.9	- 7.0	- 4.0	- 3.3	+ 1.6	- 7.0	- 4.9
@ 30 ° Elevation:	- 4.8	+ 0.1	- 0.8	+ 1.5	- 1.6	- 0.1	- 5.2	- 2.8	- 1.7	+ 2.1	- 5.5	- 4.5
@ 60 - 90 ° Elevation:	> - 1.7	> - 0.7	> 2.6	> 0.6	> 1.9	> 0.1	> - 1.3	> -5.0	> 2.3	> -1.5	> -1.4	> -8.6
BEAM WIDTH (3dB):	102 Deg.	128 Deg.	102 Deg.	130 Deg.	98 Deg.	120 Deg.	90 Deg.	125 Deg.	94 Deg.	135 Deg.	92 Deg.	130 Deg.
AXIAL RATIO:	0.5 dB		0.5 dB		1.5 dB		1.0 dB		5.0 dB		6.0 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: 2.20 in. [55.88 mm], LENGTH 3.40 in. [86.36 mm], HEIGHT: 1.033 in. [26.24 mm]
WEIGHT:	9 oz. (256 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: MCX, QMA, SMA, SMB, SSMA, SSMB, SSMC, SSMP, MCX, OR SMP)

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	ITEM NO
		PARTS LIST		
4		Mounting Screws: 10-32, 1.25"	J507C1032R20 (93085A835)	3
4		Washer, Custom C'Sink	3G15P1001-70	2
1		O-Ring	2-031-N756-75	1

P/N: 4GNSSA-XTC-1

SIZE:		LNA:	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: 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.			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

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES: FRACTIONS ± 1/64 DECIMALS .XX± .015 .XXX± .005 ANGLES ± 1°
TOLERANCE SYM PER ANSI Y14.5
REMOVE ALL BURRS BREAK EXTERNAL EDGES .005 TO .015 FILLETS R .005 TO R .030 SCREW THREADS PER MIL-S-8879 DIA'S ON A COMMON Ø .004 .005
MACHINED SURFACES 125

ORIGINALLY DRAWN	S. HUYNH	April-17-14
ORIGINALLY DESIGNED	S. HUYNH	April-17-14
UPDATED	S. HUYNH	Mar-09-17
UPDATE DRAWN	P. TRAN	Mar-09-17
APPROVED	S. HUYNH	Mar-09-17

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

MINI ARINC GNSS ANTENNA

SIZE D | CAGE NO 3CVE1 | DRAWING NO 4GNSSA-XTC-1 | REV -

SCALE 1/1 | SHEET 1 OF 1