



FAA Approved Facility

The OEM III

New High Performance OEM on 3.7 in Ground Plane GNSS Antenna

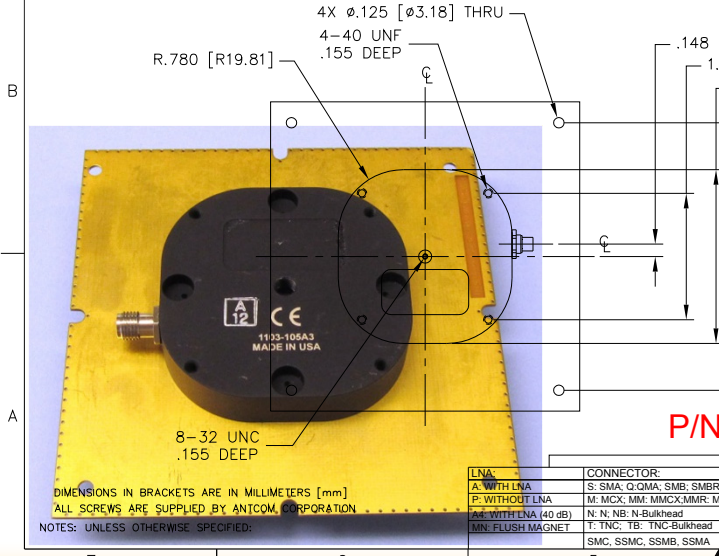
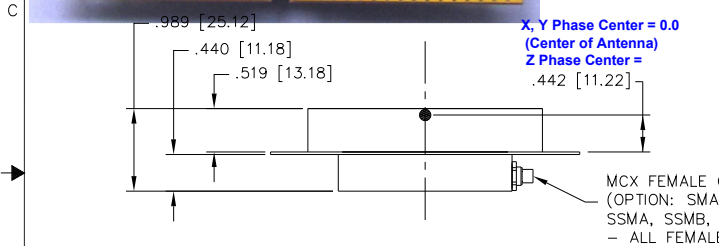
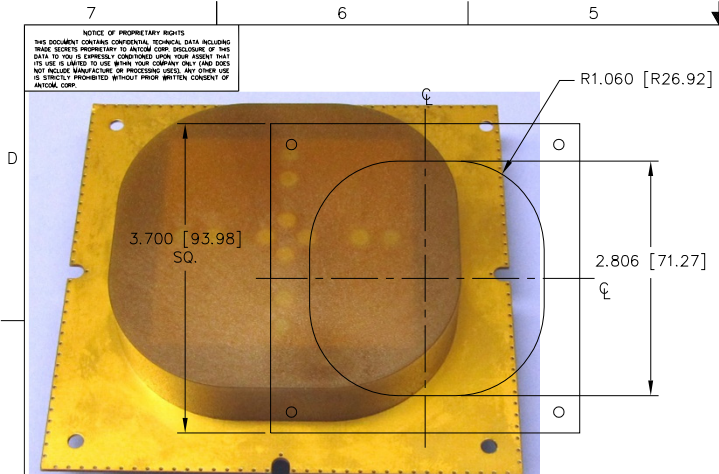
P/N: G8Ant-3.7A4MX Rev A - (MCX Female), P/N: G8Ant-3.7A4SX Rev A - (SMA Female)
(3.7" SQ. X 0.86" Thick)

Antenna Mounts/Adapters: <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: $-22\text{dB}@1616\text{MHz}$, $-34\text{dB}@1625\text{--}1660\text{MHz}$
“-HFO” for Additional Omnistar Rejection: $-27\text{dB}@1545\text{MHz}$



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; SMR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
P: WITHOUT LNA	M: MCX; MM: MMCX; MMR: MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
AK: WITH LNA (40 dB)	N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
AN: FLUSH MAGNET	T: TNC; TB: TNC-Bulkhead	-4: LUS TERLESS BLACK #37038 PER FED-STD-595B
	SMC; SSMC; SSMB; SSMA	-5: DESERT TAN #33446 PER FED-STD-595B

ELECTRICAL:		SPECIFICATIONS					
		REVISIONS					
		ZONE	REV	DESCRIPTION	DATE	APPROVED	
FREQUENCY:	L5 GPS E5, E5a, E5b Galileo L5 IRNSS 1176.45 ± 12 MHz 1164.45 - 1219.14 MHz 1176.45 ± 12 MHz	L2 GPS B2 Compass 1227.60 ± 12 MHz 1207.14 ± 10 MHz	L2 GLONASS E6 Galileo B3 Compass 1242 - 1252 MHz 1266.75 - 1290.75 MHz 1268.82 ± 10 MHz	OmniSTAR / L-Band L6 Galileo B1 Compass 1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz	L1 GPS E1, E2 Galileo L1 IRNSS 1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	L1 GLONASS 1598 - 1609 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° Above Horizon (Top):	+ 0.2	+ 1.3	+ 1.4	+ 4.1	+ 4.9	+ 5.0	
@ 15° Above Horizon:	- 4.5	- 3.8	- 3.9	- 3.9	- 3.3	- 3.1	
@ 20° Above Horizon:	- 3.5	- 2.9	- 3.0	- 3.1	- 2.5	- 2.3	
@ 25° Above Horizon:	- 2.5	- 2.0	- 2.1	- 2.3	- 1.6	- 1.5	
@ 30° Above Horizon:	- 2.2	- 1.7	- 1.8	- 1.5	- 0.8	- 0.7	
@ 70° Above Horizon:	- 0.2	+ 0.8	+ 0.9	+ 3.4	+ 4.2	+ 4.4	
BEAM WIDTH (3dB):	124 Deg.	120 Deg.	120 Deg.	80 Deg.	80 Deg.	80 Deg.	
AXIAL RATIO:	1 dB	1 dB	1 dB	1 dB	1 dB	1 dB	
MULTIPATH REJECTION (RHCP/LHCP):							
@ 90° Above Horizon (Top):	34 dB	32 dB	30 dB	26 dB	28 dB	29 dB	
@ 0° Above Horizon:	8 dB	7 dB	8 dB	18 dB	12 dB	11 dB	
@ 15° Above Horizon:	14 dB	15 dB	14 dB	16 dB	14 dB	12 dB	
@ 25° Above Horizon:	19 dB	19 dB	17 dB	17 dB	15 dB	15 dB	
LIGHTNING PROTECTION:							
LNA GAIN:	42 dB	42 dB	42 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	
LNA P1dB Out:	+10 dBm	+10 dBm	+10 dBm	+10 dBm	+10 dBm	+10 dBm	
LNA DC POWER:	(3.3-24V) < 50mA						
POWER HANDLING:	3 Watt CW (With Limiter)						

MECHANICAL:

SIZE: 3.70 in. SQ. [94 mm]
HEIGHT: 0.86 in [21.8mm]
WEIGHT: 8.31oz. (235.6 g)
FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
MATERIAL: BASE IRIDITE PER MIL-C-5541F CLASS 1A
6061-T6 ALUMINUM ALLOY BASE
CONNECTOR: COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT
MCX FEMALE
(OPTION: SMA, TNC, QMA, SMB, SMC, SSMA, SSMB, SSMC)

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: G8Ant-3.7A4MX

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	ITEM NO
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS: DECIMALS: ANGLES: ± 1/64 .015 ± 1°				
		ORIGINAL DRAWN: S. HUYNH Mar-24-09	ANTCOM CORP. TORRANCE, CALIFORNIA		
		ORIGINAL DESIGNED: S. HUYNH Mar-24-09			
		UPDATED: S. HUYNH Sept-20-12	2.8in. OEM VERSION ON 3.7in. GROUND PLANE GNSS ANTENNA		
		UPDATE DRAWN: P. TRAM Sept-20-12			
		APPROVED: S. HUYNH Sept-20-12	REV: D	USE NO: 3CVE1	ISSUE NO: G8Ant-3.7A4MX
		DO NOT SCALE DRAWING	SCALE: 1/1		SHEET 1 OF 1