



FAA Approved Facility

The BUOY II

New High Performance Ruggedized Corrosion Resistant Pipe Mount GNSS + S-Band Antenna

P/N: G8SAnt-3A4Q1-B2 Rev A

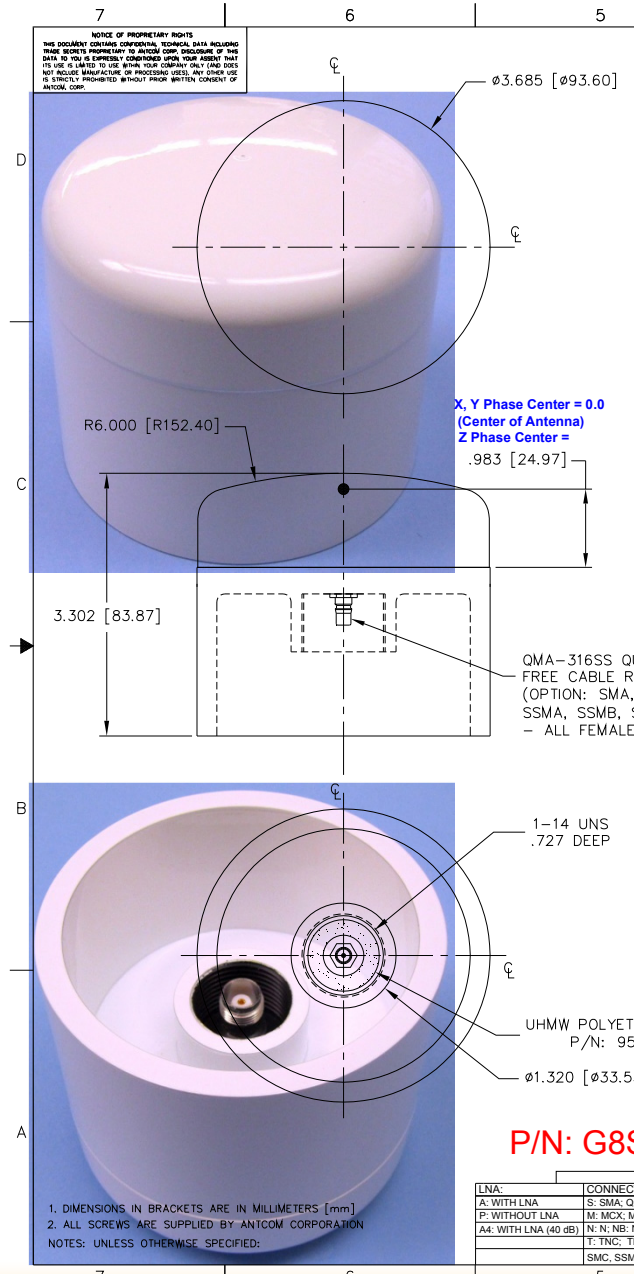
For Marine and Ground Applications

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



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“-HF” for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: **-22dB@1616MHz, -34dB@1660MHz**
“-HFO” for Additional Omnistar Rejection: **-27dB@1545MHz**



ZONE	REV	REVISIONS		
		DESCRIPTION	DATE	APPROVED

ELECTRICAL:	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	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 (dBi):							
@ 90° Above Horizon (Top):	+ 0.2	+ 1.3	+ 1.4	+ 4.1	+ 4.9	+ 5.0	+ 4.1
@ 15° Above Horizon:	- 4.5	- 3.8	- 3.9	- 3.9	- 3.3	- 3.1	- 3.0
@ 20° Above Horizon:	- 3.5	- 2.9	- 3.0	- 3.1	- 2.5	- 2.3	- 2.1
@ 25° Above Horizon:	- 2.5	- 2.0	- 2.1	- 2.3	- 1.6	- 1.5	- 1.4
@ 30° Above Horizon:	- 2.2	- 1.7	- 1.8	- 1.5	- 0.8	- 0.7	- 0.7
@ 70° Above Horizon:	- 0.2	+ 0.8	+ 0.9	+ 3.4	+ 4.2	+ 4.4	+ 3.5
BEAM WIDTH (3dB):	124 Deg.	120 Deg.	120 Deg.	80 Deg.	80 Deg.	80 Deg.	90 Deg.
AXIAL RATIO:	1 dB	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:	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:	(3.3-24V) < 50mA						
POWER HANDLING:	3 Watt CW (With Limiter)						

MECHANICAL:

SIZE: DIAMETER: 3.68 in. [93.6mm]
HEIGHT: 3.3 in [83.9mm]

WEIGHT: 1.3lbs (.59Kg)

FINISH: HARD BLACK ANODIZE PER MIL-A-8625F, TYPE III, CLASS 2 BASE WITH EPOXY PAINT OVER ENTIRE ANTENNA PER FED-STD-595B

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

CONNECTOR: QMA-316SS QUICK CONNECT, FREE CABLE ROTATION CONNECTOR (OPTION: SMA, TNC, 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, 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: G8SAnt-3A4Q1-B2

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
AA: WITH LNA (40 dB)	N: N; NB: N Bulkhead	-3: OLIVE DRAB GREEN #4084 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

QUANTITY	DESCRIPTION	PART NO	FINISH	ITEM NO
3	UHMW POLYETHYLENE GASKET, Item 553-TPM1	95649A244		1
				2

UNLESS OTHERWISE SPECIFIED	ANTCOM CORP.
TOLERANCES ARE:	TORRANCE CALIFORNIA
FRACTIONS: 1/8, 1/16, 1/32, 1/64	3.7in. DIAMETER SURVEY MOUNT 3 GNSS + S-BAND ANTENNA
DECIMALS: .015, .030, .060, .125	DATE: Mar-24-09
ANGLES: 1/2, 1/4, 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2, 2, 3, 4, 6, 8, 12, 15, 20, 30, 45, 60, 90, 120, 150, 180	DESIGNED BY: S. HUYNH
THREADS: PER ANSI B1.13-2	DATE: Mar-24-09
PLACES: PER ANSI Z39.18-2	UPDATED BY: S. HUYNH
SPRINGS: PER ANSI Z39.18-2	DATE: Sept-20-12
KEYS: PER ANSI Z39.18-2	APPROVED BY: S. HUYNH
KEYWAYS: PER ANSI Z39.18-2	DATE: Sept-20-12
KEYS: PER ANSI Z39.18-2	
DO NOT SCALE DRAWING	

NMO Connector Option is Now Available for Some Antennas