

The MANPACK

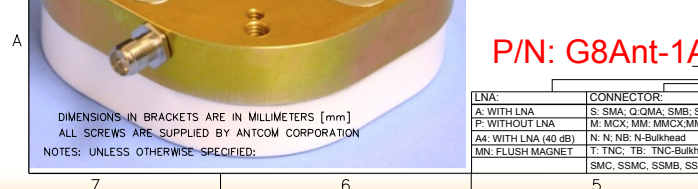
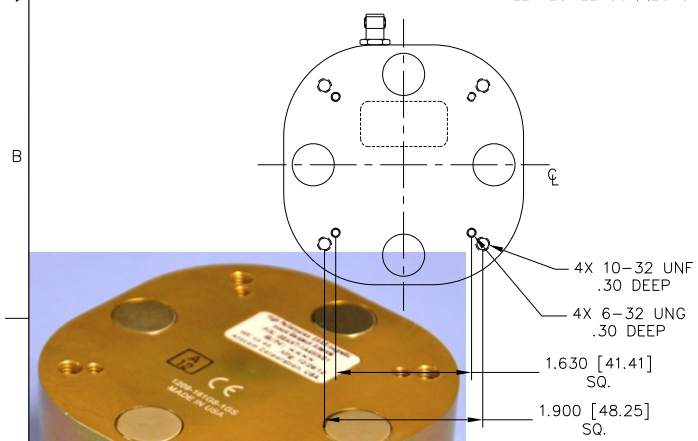
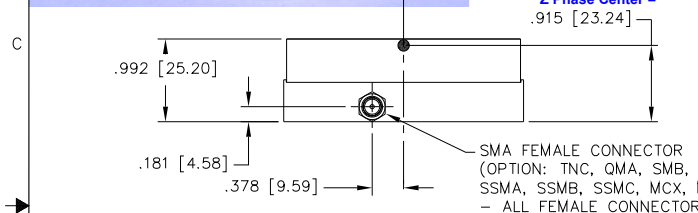
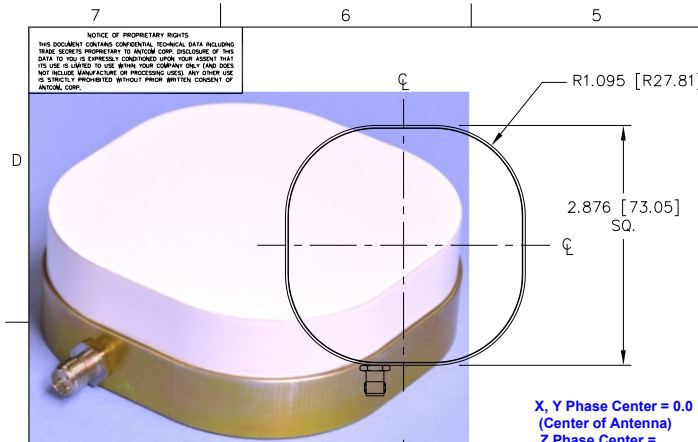
New High Performance Magnetic Mount Man Pack GNSS Antenna

P/N: G8Ant-1A4MNS1 Rev A
(2.9" Sq. X 0.99" 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: **-22dB@1616MHz**, **-34dB@1625-1660MHz**,
 "-HFO" for Additional Omnistar Rejection: **-27dB@1545MHz**



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

P/N: G8Ant-1A4MNS1

LNA:	CONNECTOR:	COLOR:
A: WITH LNA	S: SMA, Q: QMA, SMB, SMC, B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
P: WITHOUT LNA	M: MCX, MM: MMCX/MRM: MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
A4: WITH LNA (40 dB)	N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34084 PER FED-STD-595B
MM: FLUSH MAGNET	T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
	SMC, SSMC, SSMB, SSMA	-5: DESERT TAN #33446 PER FED-STD-595B

ELECTRICAL: SPECIFICATIONS

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
		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
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):	ON 5° GP F.S	ON 5° GP F.S	ON 5° GP F.S	ON 5° GP F.S	ON 5° GP F.S	ON 5° GP F.S
@ 90° Above Horizon (Top):	+ 1.9 - 2.6	+ 3.7 - 1.8	+ 4.1 - 1.6	+ 4.4 + 3.8	+ 5.6 + 4.4	+ 6.2 + 4.9
@ 15° Above Horizon:	- 4.5 - 8.7	- 3.3 - 7.3	- 3.0 - 6.9	- 4.5 - 4.4	- 3.5 - 4.0	- 3.0 - 3.5
@ 20° Above Horizon:	- 3.6 - 7.2	- 2.5 - 5.8	- 2.2 - 5.4	- 3.6 - 3.7	- 2.6 - 3.3	- 2.1 - 2.8
@ 25° Above Horizon:	- 2.7 - 5.6	- 1.6 - 4.2	- 1.3 - 3.8	- 2.7 - 3.0	- 1.6 - 2.5	- 1.1 - 2.0
@ 30° Above Horizon:	- 2.3 - 3.2	- 1.1 - 3.7	- 0.8 - 3.4	- 1.8 - 2.2	- 0.7 - 1.7	- 0.2 - 1.2
@ 70° Above Horizon:	+ 1.2 - 2.7	+ 2.9 - 1.9	+ 2.9 + 3.4	+ 3.6 + 2.9	+ 4.8 + 3.5	+ 5.4 + 4.1
BEAM WIDTH (3dB):	95 Deg. 130 Deg.	80 Deg. 135 Deg.	80 Deg. 134 Deg.	80 Deg. 77 Deg.	80 Deg. 76 Deg.	80 Deg. 77 Deg.
AXIAL RATIO:	1 dB 1 dB	1 dB 1 dB	1 dB 1 dB	1 dB 1 dB	1 dB 1 dB	1 dB 1 dB
MULTIPATH REJECTION (RHCP/LHCP):						
@ 90° Above Horizon (Top):	23 dB 20 dB	23 dB 23 dB	22 dB 21 dB	31 dB 34 dB	32 dB 34 dB	32 dB 32 dB
@ 0° Above Horizon:	19 dB -3 dB	19 dB -3 dB	16 dB -4 dB	10 dB 15 dB	9 dB 14 dB	8 dB 19 dB
@ 15° Above Horizon:	19 dB 8 dB	16 dB 8 dB	14 dB 8 dB	14 dB 18 dB	13 dB 17 dB	11 dB 14 dB
@ 25° Above Horizon:	17 dB 15 dB	16 dB 18 dB	15 dB 16 dB	16 dB 19 dB	16 dB 17 dB	14 dB 16 dB
LIGHTNING PROTECTION:	DC GROUNDING					
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: 2.90 in. SQ. [73.7 mm]
HEIGHT: 0.99 in [25.2mm]
- WEIGHT: 7.7oz. (218.3 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, 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

4	MOUNTING SCREWS: 6-32, 3/4"	MS24693-C30	2
4	MOUNTING SCREWS: 10-32, 3/4"	MS24693C274	1
QUANTITY REQD PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .015 ± .1° .002 ± .1°			
TOLERANCE .5M PER ANSI Y14.5 REMOVE ALL BURRS BREAK EXTERNAL EDGES .005 TO .015 SIZES IN PARENTHESIS PER MIL-C-8879 DATS ON A COMMON L2 OF .005 MACHINED SURFACES .25			
DO NOT SCALE DRAWING			
ORIGINALLY DRAWN	S. HUYNH	ANTCOM CORP. TORRANCE CALIFORNIA	
ORIGINALLY DESIGNED	S. HUYNH	2.8in. PORTABLE Magnetic Mount/ Man Pack GNSS ANTENNA	
UPDATED	S. HUYNH	Dwg No. G8Ant-1A4MNS1	
UPDATE DRAWN	P. TRAIN	Scale 1/1	
APPROVED	S. HUYNH	SHEET 1 OF 1	