



FAA Approved Facility

# New High Performance

2-Port GPS/Inmarsat/Iridium Antenna, P/N: G8L-L1RxTxIN-3PS1-MTR; GPS/Thuraya Antenna, P/N: G8L-L1RxTxT-3PS1-MTR

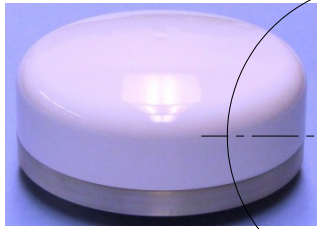

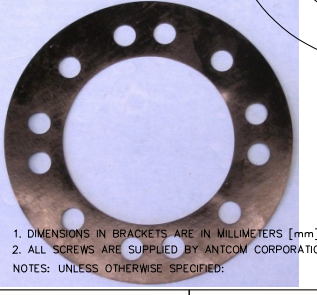
1-Port GPS/Inmarsat/Iridium Antenna, P/N: G8L-L1RxTxIN-3PS1-MTR; Thuraya Antenna, P/N: G8L-RxTxT-3PS1-MTR

3.7" Diameter, Pipe Mount/Bottom Connector Configuration (w/ Antenna Mount & Pipe)

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



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**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED

**ELECTRICAL:**

	IN PORT				GPS PORT	
	Rx Inmarsat (RHCP)	L1 GPS, E1, E2 Galileo, L1 IRNSS (RHCP)	IRIDIUM L1 GLONASS (RHCP) OR TX-GLOBALSTAR (LHCP)	Tx-Inmarsat (RHCP)	L1 GPS	
FREQUENCY:	(1542.5 ± 24.5) MHz	(1575 ± 17) MHz	(1609 -1626) MHz	(1642.5 ± 32.5) MHz	(1575.42 ± 12) MHz	
RADIATION PATTERN:	HEMISPHERICAL					
VSWR:	< 1.5:1		< 1.5:1	< 1.5:1		< 2.1:1
IMPEDANCE:	50 ohms		50 ohms	50 ohms		50 ohms
ANTENNA GAIN (dBic):	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.
@ 90° Above Elevation (Top):	+ 3.8	+ 2.9	+ 3.6	+ 3.6	+ 3.7	+ 3.3
@ 10° Above Elevation:	- 6.2	- 5.5	- 6.6	- 5.2	- 6.6	- 6.1
@ 15° Above Elevation:	- 5.1	- 3.8	- 5.5	- 3.6	- 5.5	- 4.4
@ 20° Above Elevation:	- 3.9	- 2.1	- 4.1	- 1.9	- 4.1	- 2.7
@ 25° Above Elevation:	- 2.9	- 1.3	- 3.1	- 1.2	- 3.2	- 1.9
@ 30° Above Elevation:	- 1.8	- 0.5	- 2.1	- 0.5	- 2.2	- 1.1
@ 70° Above Elevation:	+ 3.1	+ 2.5	+ 3.0	+ 2.5	+ 3.1	+ 2.4
BEAM WIDTH (3dB):	90 Deg.	110 Deg.	90 Deg.	95 Deg.	95 Deg.	100 Deg.
AXIAL RATIO:	1 dB	3 dB	1 dB	3 dB	1 dB	3 dB
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN (GPS ONLY):	33 dB Gain					
LNA NOISE FIGURE:	3.0 dB					
LNA P1dB Out:	+13 dBm					
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA					
REJECTION @ (-50/+50) MHz	-40 dB / -40 dB					
@ (-100/+100) MHz	< -65 dB					
POWER HANDLING:	50 Watts CW (WITHOUT LNA), 1 Watt CW (WITH LNA)					

**MECHANICAL:**

SIZE: DIAMETER: 3.68 in. [93.6mm]  
HEIGHT: 1.52 in [38.5mm]

WEIGHT: 13.6oz. (385.8 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, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

**ACCEPTANCE TEST PROCEDURE:** ATP-GPS-L1L2-100

QTY	DESCRIPTION	PART NO	FINISH
1	3/4" x 12" PVC PIPE MOUNT, Item 478-PVC	3/4" x 12" PVC	
1	1.3in DIA. PIPE MOUNT, Item 482	MTR-2 REV B	
4	MOUNTING SCREWS: 6-32, 3/4"	MS24693-C30	
4	MOUNTING SCREWS: 10-32, 3/4"	MS24693C274	
1	O-RING, Item 550	2-031/N766-76	

**UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES**

FRAC	TOL	ANGLE
± 1/64	± .005	± 1°

REMOVE ALL BURRS  
BREAK EXTERNAL EDGES .000 TO .015  
SOFTEN ALL EDGES TO .015  
DAYS ON A COMMON 1/2" DIA

DO NOT SCALE DRAWING

**ANTCOM CORP**  
3.7in. DIAMETER  
BOTTOM MOUNT  
INMARSAT & GPS ANTENNA

DATE: 15 SEP 2012  
DRAWING NO: D13CEV1  
SCALE: 1/1  
SHEET: 1 OF 1

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

GPS LNA OPTION:	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
LNA GAIN: 24.0 dB	N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34094 PER FED-STD-595B
LNA NOISE FIGURE: 1.8 dB	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
LNA P 1dB Out: +18 dBm	SMC, SSMC, SSMB, SSMA	-5: DESERT TAN #33446 PER FED-STD-595B
VOLTAGE/CURRENT: (2.8-28) VDCI / 25mA		

NMO Connector Option is Now Available for Some Antennas