



New High Performance
2-Port GPS/Inmarsat/Iridium Antenna, P/N: G8L-L1RxTxIN-3PSS1; GPS/Thuraya Antenna, P/N: G8L-L1RxTxT-3PSS1
1-Port GPS/Inmarsat/Iridium Antenna, P/N: G8L-L1RxTxIN-3PS1; Thuraya Antenna, P/N: G8L-RxTxT-3PS1
3.7" Diameter, Bottom Mount/ Bottom Connector Configuration

FAA Approved Facility

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



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Ø3.685 [Ø93.60]

R6.000 [R152.40]

1.517 [38.54]

2X .400 [10.16]

O-RING P/N: 2-031/N766-76

1.900 [48.25] SQ.
 2.305 [58.56] SQ.
 2.687 [68.24] SQ.

X, Y Phase Center = 0.0
 (Center of Antenna)
 Z Phase Center = 1.318 [33.48]

SMA FEMALE CONNECTOR
 (OPTION: TNC, QMA, SMB, SMC, SSMA, SSMB, SSMC, MCX, MMCX)
 - ALL FEMALE CONNECTORS -

4X 10-32 UNF EQUALLY SPACED ON 1.343 RAD. - .30 DEEP
 4X 6-32 UNG EQUALLY SPACED ON 1.153 RAD. - .250 DEEP
 4X 6-32 UNG EQUALLY SPACED ON 1.343 RAD. - .250 DEED

P/N: G8L-L1RxTxIN-3PS1

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: +16 dBm	SMC; SSMC; SSMB; SSMA	-5: DESERT TAN #33446 PER FED-STD-595B
VOLTAGE/CURRENT (2.5-28) VDCI <55mA		

SPECIFICATIONS

ELECTRICAL:

	IN PORT		GPS PORT		
	Rx Inmarsat (RHCP)	L1 GPS, E1, E2 Galileo, L1 IRNSS (RHCP)	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		< 2.1:1
IMPEDANCE:	50 ohms		50 ohms		50 ohms
ANTENNA GAIN (dBic):	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space
@ 90° Above Elevation (Top):	+ 3.8	+ 2.9	+ 3.6	+ 3.6	+ 3.7
@ 10° Above Elevation:	- 6.2	- 5.5	- 6.6	- 5.2	- 6.6
@ 15° Above Elevation:	- 5.1	- 3.8	- 5.5	- 3.6	- 5.5
@ 20° Above Elevation:	- 3.9	- 2.1	- 4.1	- 1.9	- 4.1
@ 25° Above Elevation:	- 2.9	- 1.3	- 3.1	- 1.2	- 3.2
@ 30° Above Elevation:	- 1.8	- 0.5	- 2.1	- 0.5	- 2.2
@ 70° Above Elevation:	+ 3.1	+ 2.5	+ 3.0	+ 2.5	+ 3.1
BEAM WIDTH (3dB):	90 Deg.	110 Deg.	90 Deg.	95 Deg.	90 Deg.
AXIAL RATIO:	1 dB	3 dB	1 dB	3 dB	1 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 IRIDIUM 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

QUANTITY REQD	DESCRIPTION	PART NO	FINISH	REV
4	MOUNTING SCREWS: 6-32, 3/4"	MS24693-C50		3
4	MOUNTING SCREWS: 10-32, 3/4"	MS24693C274		2
1	O-RING, Item 550	2-031/N766-76		

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 FRACTIONS AND DECIMALS
 ± 1/64 .015 ± .01

ORIGINAL DRAWN S. HUYNH
 Mor-24-09

ORIGINAL DESIGNED S. HUYNH
 Mar-24-09

UPDATED S. HUYNH
 Sept-20-12

UPDATE DRAWN P. TRAY
 Sept-20-12

APPROVED S. HUYNH
 Sept-20-12

DO NOT SCALE DRAWING

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

SCALE 1/1 SHEET 1 OF 1

NMO Connector is Now Available for Some Antennas