



FAA Approved Facility

New High Performance 2-Ports (L1-GPS) & Rx/Tx-Inmarsat/Iridium Antenna, P/N: G8L-L1RxTxIN-743PTT1 (L1-GPS) & Rx/Tx-Thuraya Antenna, P/N: G8L-L1RxTxI-743PTT1

Avionic Arinc 743 Configuration

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 | | < 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 | 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. | 90 Deg. | 95 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 | | | | | |
| REJECTION @ (-100/+100) MHz | < -65 dB | | | | | |
| POWER HANDLING: | 50 Watts CW (WITHOUT LNA), 1 Watt CW (WITH LNA) | | | | | |

MECHANICAL:

SIZE: 4.70 in. [119.4mm] X 3.00 in. [76.2 mm]
HEIGHT: 1.34 in [34.0mm]

WEIGHT: 14.6 oz. (414.8 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: TNC Female
(OPTION: SMA, 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

PHASE CENTERS:
X, Y Phase Center = 0.0 (Center of Antenna)
Z Phase Center = 1.228 [31.20]

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

O-RING P/N: 2-142/N756-75

PHASE CENTER: 1.600 [40.64]

O-RING P/N: 2-142/N756-75

PHASE CENTER: 3.300 [83.82]

PHASE CENTER: 2X .413 [10.49]

PHASE CENTER: 4X ø.201 [ø5.11] THRU ø.383 X 100'

PHASE CENTER: 1.339 [34.02]

PHASE CENTER: 1.228 [31.20]

PHASE CENTER: 3.000 [76.20]

PHASE CENTER: 4.700 [119.38]

GPS LNA OPTION:

| A: WITH LNA | CONNECTOR: | COLOR: |
|--------------------------------------|-------------------------------|--|
| S: SMA, Q: QMA, SMB: SMB, B: BNC | N: N: NB: NB-Bulkhead | -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 | | -3: OLIVE DRAB GREEN #34094 PER FED-STD-595B |
| LNA NOISE FIGURE: 1.8 dB | | -4: LUSTERLESS BLACK #37038 PER FED-STD-595B |
| LNA P 1dB Out: +16 dBm | | -5: DESERT TAN #33446 PER FED-STD-595B |
| VOLTAGE/CURRENT: (2.8-28) VDCI <25mA | | |

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

| QUANTITY REQD | DESCRIPTION | PART NO | FINISH | UOM |
|---------------|------------------------------------|---------------|--------|-----|
| 4 | Mounting Screw: 10-32, 2.0" | MS24693C284 | | 2 |
| 1 | O-Ring or Gasket, O-RING item 551t | 2-142/N756-75 | | 1 |

ANTCOM CORP. TORRANCE, CALIFORNIA

743 ARINC
INMARSAT & GPS ANTENNA

DATE: 05/05/16
DRAWN: S. HUYNH
CHECKED: S. HUYNH
APPROVED: S. HUYNH

SCALE: 1/1

SHEET 1 OF 1

NMO Connector is Now Available for Some Antennas