



ISO 9001:2008/FAA Approved Facility

New **Thuraya** or **Inmarsat/IRIDIUM/GPS Antenna**,
P/N: 3GNSS16R-P-XX-X (Inmarsat/Iridium RHCP), **P/N: 3GNSS16L-P-XX-X (Thuraya LHCP)**
3.5" Diameter, Flat, Back Mount, Bottom Connector Configuration
2.6in Dia., Mini-Arinc, & Arinc-743 Versions are also available



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

ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501, USA . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: antennas@antcom.com . <http://www.antcom.com>

NOTICE OF PROPRIETARY RIGHTS

THIS DOCUMENT CONTAINS CONFIDENTIAL, TECHNICAL DATA INCLUDING TRADE SECRETS PROPRIETARY TO ANTCOM CORP. DISCLOSURE OF THIS DATA TO YOU IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT YOU WILL USE IT ONLY TO THE EXTENT SPECIFIED HEREIN AND THAT YOUR USE IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORP.

SPECIFICATIONS

REV	ZONE	REVISION DESCRIPTION	DATE	APPROVED
A		Correct Gain Table	April-02-10	S.H

		L1 GPS,		IRIDIUM,		Tx-Thuraya (LHCP)	
		E1, E2 Galileo, L1 IRNSS (RHCP)		L1 GLONASS (RHCP) or Tx-Globalstar (LHCP)		or Tx-Inmarsat (RHCP)	
FREQUENCY:	Rx-Thuraya (LHCP), or Rx Inmarsat OmniStar, L6 Galileo, B1 Compass (RHCP)	(1542.5 ± 17.5) MHz	(1575 ± 17) MHz	(1609 -1626) MHz	(1642.5 ± 17.5) MHz		
RADIATION PATTERN:	HEMISPHERICAL						
VSWR:	< 2.0:1		< 2.0:1		< 2.0:1		< 2.0:1
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.	Free Space
@ 90° (ZENITH):	+ 2.5	+ 1.6	+ 3.7	- 1.5	+ 3.0	- 0.5	+ 3.4
@ 10° Elevation:	- 4.7	- 2.4	- 3.5	- 3.5	- 4.5	- 4.0	- 3.8
@ 20° Elevation:	- 3.8	+ 0.7	- 2.6	- 0.9	- 3.3	- 1.2	- 2.7
@ 30° Elevation:	- 2.1	+ 2.3	- 0.9	+ 0.3	- 1.5	- 0.3	- 1.0
@ 60 - 90° Elevation:	> + 1.0	> + 2.1	> + 2.3	> 0	> + 1.8	> - 1.3	> + 2.2
BEAM WIDTH (3dB):	90 Deg.	140 Deg.	85 Deg.	140 Deg.	85 Deg.	140 Deg.	87 Deg.
AXIAL RATIO:	3 dB						
LIGHTNING PROTECTION:	DC GROUNDING						
LNA OPTION:	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:	100 Watts CW (WITHOUT LNA) , 1 Watt CW (WITH LNA)						

ELECTRICAL:

FREQUENCY: (1542.5 ± 17.5) MHz

RADIATION PATTERN: HEMISPHERICAL

VSWR: < 2.0:1

IMPEDANCE: 50 ohms

ANTENNA GAIN (dBic):

@ 90° (ZENITH): + 2.5

@ 10° Elevation: - 4.7

@ 20° Elevation: - 3.8

@ 30° Elevation: - 2.1

@ 60 - 90° Elevation: > + 1.0

BEAM WIDTH (3dB): 90 Deg.

AXIAL RATIO: 3 dB

LIGHTNING PROTECTION: DC GROUNDING

LNA OPTION:

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: 100 Watts CW (WITHOUT LNA) , 1 Watt CW (WITH LNA)

MECHANICAL:

SIZE: DIAMETER: 3.50 in. [88.9 mm]
HEIGHT: 0.660 in. [16.76 mm]

WEIGHT: 7.1oz. (201g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE IRIDITE PER MIL-C-5441

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

CONNECTOR: SMA FEMALE
(OPTION: TNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX, or Cable)

ENVIRONMENTAL:

TEMPERATURE: -67° F TO +185° F [-55° C TO +85° C]

ALTITUDE: 70,000 ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEALED

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

ACCEPTANCE TEST PROCEDURE: ATP-GPS-L1L2-100

SIZE: 4 - MOUNTING SCREWS: 10-32, 3/4"

1: 1 - GASKET

2: -1 - DESCRIPTION

QUANTITY REQD:

PARTS LIST

QTY	DESCRIPTION	PART NO	FINISH	REV
4	MOUNTING SCREWS: 10-32, 3/4"			
1	GASKET			
-1	DESCRIPTION			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS: DECIMALS: ANGLES: TOLERANCES: ± 1/64 .XXX ± .005 ± 1°

TOLERANCE SHIP PER ANSI Y14.5

REMOVE ALL BURRS

DRILL EXTERNAL HOLES .005 TO .015

FILE TO .005 TO .010

CHAMFER EDGES PER MIL-STD-8879

DRILL ON A COORDINATE

FINISH: MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

3.5" Dia., Bottom Connector
**THURAYA Or IRIDIUM/GPS
INMARSAT/GLONASS/ANTENNA**

DESIGNED BY: S. HUYNH
FEB-11-09

APPROVED BY: S. HUYNH
FEB-11-09

DRAWN BY: S. HUYNH
FEB-11-09

DATE: FEB-11-09

SCALE: 1/1

SHEET 1 OF 1

P/N: 3GNSS16X-P-XTB-3

2. MOUNTING SCREWS & ADHESIVE GASKET ARE SUPPLIED BY ANTCOM
1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
- NOTES: UNLESS OTHERWISE SPECIFIED:

CABLE'S LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
M: MAG. N: No Mag.	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
#: CABLE LENGTH (IN)	N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
R: RIGHT ANGLE CON.	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B

NMO Connector Option is Now Available for Some Antennas