



# IRIDIUM/Inmarsat/L1 GPS Antennas, P/N: 3D16P-10MM-X-3

## 1" Diameter x 4.2" Tall, Threaded Bottom Mount Configuration



ISO 9001:2008/FAA Approved Facility

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](mailto: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 CONTRACTED UPON YOUR ACCEPTANCE OF THIS USE AS LIMITED TO USE WITH YOUR COMPANY. ANY OTHER USE, INCLUDING REPRODUCTION OR PROCESSING OF THIS DATA, IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORP.

### SPECIFICATIONS

ZONE	REVISIONS				
	REV	DESCRIPTION	DATE	APPROVED	

**ELECTRICAL:**

FREQUENCY (MHz):	(1575.42 ±15)	(1542.50 ±17.5)	(1642.50 ±17.5)	(1602-1616)	(1610-1626)
GAIN in FS/3in GP (dBic)	L1 GPS	Rx INMARSAT	Tx INMARSAT	GLONASS	IRIDIUM
@ 90° (Zenith):	+1.4/+1.1	+1.1/+0.7	+0.1/-0.3	+1.0/+0.5	+0.5/+0.1
@ 10° Elevation:	-1.5/-0.9	-2.0/-1.6	-2.1/-1.9	-1.7/-1.3	-2.0/-1.6
@ 20° Elevation:	-0.5/-0.2	-1.0/-0.8	-1.1/-1.1	-0.6/+0.5	-0.9/-0.8
@ 30° Elevation:	+0.2/+0.3	-0.2/-0.2	-0.7/-0.8	0.0/+0.1	-0.3/-0.7
@ 45° Elevation:	+0.7/+0.6	+0.5/+0.3	-0.2/-0.7	+0.5/-0.1	+0.3/-0.3
@ 70° Elevation:	+1.2/+0.3	+1.0/+0.3	-0.4/-1.6	+0.7/-0.3	+0.2/-0.7
BEAM WIDTH (3dB)	152/173 Deg.	150/173 Deg.	170/180 Deg.	160/180 Deg.	160/182 Deg.
AXIAL RATIO (dB)	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3
LIGHTNING PROTECTION:	DC GROUNDING				
RADIATION PATTERN:	HEMISPHERICAL				
POLARIZATION:	RHCP				
VSWR:	< 1.5:1				

**LNA OPTION:**

LNA GAIN: (22.0±2.0) dB  
LNA NOISE FIGURE: 2.0 dB  
LNA P 1dB Out: +13 dBm  
VOLTAGE/CURRENT: (+2.4 TO +5) Volts DC / (15 TO 30) mA

**MECHANICAL:**

SIZE: DIAMETER: 1.00 in. [25.40 mm]  
HEIGHT: 4.4 in. [111.76 mm]  
WEIGHT: 3.3 oz (93.55 g)  
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: CABLE/MMCX RIGHT ANGLE MALE  
(OPTION: MCX, SMA, TNC, TNC Bulkhead, N, N Bulkhead,  
MCX, MMCX, QMA, 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:**

DESIGN TO: 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

CONFIGURATION:	FREQUENCY:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ. (FLAT)	1216: L1/L2/Inmarsat	A1: WITH LNA	X: NO CABLE	S: SMA; Q: QMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.8: 1.9" SQ. (FLAT)	1215: L1/L2	P: WITHOUT LNA	M: WITH MAG. MOUNT	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA. (FLAT)	15: L1		#: CABLE LENGTH (IN)	N: N; NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
3: 3.5" DIA. (FLAT)	RR: TX: RHCP; RX: RHCP		R: RIGHT ANGLE CON.	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINIFRING (FLAT)					
5: HELIX ROD					
5B: (HELIX BLADE)					
3D: (HELIX HANDHELD)					

P/N: 3D16P-10MM-3-3

QUANTITY	DESCRIPTION	PART NO	MATERIAL	FINISH	REQ
1	1	-	-	-	1
-2	-1	DESCRIPTION	PART NO	MATERIAL	FINISH

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS TO DECIMALS ANGLES ± 1/64 .002 .005 ± 1°

TOLERANCE S/M PER ANSI Y14.5 REMOVE ALL SHARP BREAKS EXTEND EDGES .005 TO .015 SCREW HEADS PER MIL-C-8879 DIA'S ON A COMMON 2.0000 MACHINED SURFACES 125/

DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA

0.5-28 Threaded Base Helix  
L1 GPS/INMARSAT/GLONASS/  
IRIDIUM ANTENNA

D|3CVE1| 3D16P-10MM-3-3 | RT  
SCALE 1/1 | SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas