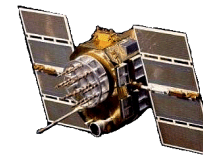




# L1 or L1L2 GPS & Inmarsat/Iridium/Glonass Antennas, P/N: 3D1216P-10MM-X-X



## 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>

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**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED

**SPECIFICATIONS**

**ELECTRICAL:**

FREQUENCY (MHz):	(1575.42 ±15)	(1542.50 ±17.5)	(1642.50 ±17.5)	(1602-1616)	(1610-1626)	(1227.60 ±15)
GAIN in FS/3in GP (dBic)	L1 GPS	Rx INMARSAT	Tx INMARSAT	GLONASS	IRIDIUM	L2 GPS
@ 90° (Zenith):	+1.4/+1.1	+1.1/+0.7	+1.0/-0.3	+1.0/+0.5	+2.5/+0.1	-5.0
@ 10° Elevation:	-1.5/-0.9	-2.0/-1.6	-2.1/-1.9	-1.7/-1.3	-2.0/-1.6	-6.5 to -11.5
@ 20° Elevation:	-0.5/-0.2	-1.0/-0.8	-1.1/-1.1	-0.6/-0.5	-0.9/-0.8	-6.2 to -9.2
@ 30° Elevation:	+0.2/+0.3	-0.2/-0.2	-0.7/-0.8	0.0/+0.1	-0.3/-0.7	-5.7 to -7.7
@ 45° Elevation:	+0.7/+0.6	+0.5/+0.3	-0.2/-0.7	+0.5/-0.1	+0.3/-0.3	-4.6 to -6.0
@ 70° Elevation:	+1.2/+0.3	+1.0/+0.3	-0.4/-1.6	+0.7/-0.3	+0.2/-0.7	-4.0
BEAM WIDTH (3dB)	152/173 Deg.	150/173 Deg.	170/180 Deg.	160/180 Deg.	160/182 Deg.	(107 to 170) Deg.
AXIAL RATIO (dB)	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 5
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.5:1					

**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

COLOR: OLIVE DRAB GREEN #34031 PER FED-STD-595B

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

CONNECTOR: MMCX RIGHT ANGLE MALE WITH 10" LONG CABLE  
(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

**DC GROUNDING:** YES (LIGHTNING PROTECTION)

**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

**MATERIALS:**

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
1.9: 1.9" SQ. (FLAT)	1215: L1/L2	P: WITHOUT LNA	M: WITH MAG. MOUNT T	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA. (FLAT)	15: L1		F: 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: MINI ARINC (FLAT)					
53: (HELIX ROD)					
5B: (HELIX BLADE)					
3D: (HELIX HANDHELD)					

**QUANTITY REQUIRED**

QTY	DESCRIPTION	PART NO.	MATERIAL	FINISH	REV
1	5in SMA Bulkhead Jack to MMCX Right Angle Plug RF Cable	RG316-MMCX-RM-5.00-SMA-F-B			1

**PARTS LIST**

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	FRACCTIONS DECIMALS ANGLES	DO NOT SCALE DRAWING
TOLERANCE SMD PER ANSI Y14.5		
BREAK ALL BURRS		
BREAK EXTERNAL EDGES .005 TO .015		
FALLS IN CLASS 2 OF ISO 15000		
DATE ON A COMMON 4 25,000		
MACHINED SURFACES		

**ANTCOM CORP.** TORRANCE, CALIFORNIA

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

DESIGNED: S. HUYNH  
ENGINEER: S. HUYNH  
APPROVED: S. HUYNH  
DATE: Feb-23-04

DWG NO: 3CEV1  
SCALE: 1/1

SHEET 1 OF 1

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

**P/N: 3D1216P-10MM-3-3**

NMO Connector Option is Now Available for Some Antennas