



ISO 9001:2008/FAA Approved Facility

IRIDIUM/Inmarsat/GPS Antennas, P/N: 3D1216P-XQ-X

1" Diameter x 4.2" Tall, Quick Connect SMA, Swivel, Side Mount Configurations



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>

Technical drawing showing side and top views of the antenna. Dimensions include: 1.316 [33.43] (height), 4.200 [106.68] (total height), .996 [25.31] (height to base), .816 [20.73] (width), .966 [24.54] (width to base), .034 [0.86] (thickness), .316 [8.03] (width to SMA), 4.835 [122.81] (height to SMA), .735 [18.67] (diameter), .034 [0.86] (thickness), and 3x.650 [16.51] (length of SMA).

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	+0.1/-0.3	+1.0/+0.5	+0.5/+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					

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

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: QMA MALE (Quick Connect SMA), 360° SWIVELS
 (OPTION: MCX, SMA, 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:

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
1.9: 1.9" SQ. (FLAT)	1215: L1/L2	P: WITHOUT LNA	M: WITH MAG. MOUN 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: RHC P		R: RIGHT ANGLE CON.	Q: Quick Connect SMA	-4: LUSTERLESS BLACK #31231 PER FED-STD-595B
4: MINI ARINC (FLAT)					
53: (HELIX ROD)					
5B: (HELIX BLADE)					
3D: (HELIX HANDHELD)					

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

P/N: 3D1216P-XQ-3

QUANTITY	DESCRIPTION	PART NO.	MATERIAL	FINISH	NEW
1					1
-2					

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS DECIMALS ANGLES

± 1/64 .005 .010 ± 1°

TOLERANCE .500 PER ANSI Y14.5

REMOVE ALL BURRS

BREAK EXTERNAL EDGES .005 TO .010

FILE TO .005 TO .010

REMOVE BURRS FROM ALL SURFACES

WORK THERMAL PER MIL-STD-883C

TEST ON A COMMON SENSE

MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA

Quick Connect Handheld
GPS/INMARSAT/GLONASS/
IRIDIUM HELIX ANTENNA

DRAWN: _____

CHECKED: _____

ENGINEER: _____

APPROVED: S. HLYNKH Mar-11-05

CAD FILE NO: _____

SCALE 1/1

SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas