



FAA Approved Facility

Handheld GNSS Helix Antenna

P/N: 3DG8A-XTM-1


1" Dia. x 4.2" Tall, Swivel, Side Mount Configuration

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



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7
6
5
4
3
2
1

Ø1.000 [Ø25.40]

4.200 [106.68]

4.865 [123.57]

.984 [24.99]

TNC-M CONNECTOR

P/N: 3DG8A-XTM-1

FREQ. BAND:	LNA:	CONNECTOR:	COLOR:
1215: L1/L2	A: WITH LNA	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
15: L1 ONLY	P: WITHOUT LNA	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
1216: L1/L2/INMARSAT/GLONASS/IRIDIUM		N, NB; N, N-Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
G5: L1/L2/GPS/GLONASS/INMARSAT/IRIDIUM		T, TB: TNC, TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
G8: L1/L2/L5/GPS/GLONASS/INMARSAT/IRIDIUM			-5: DESERT TAN #33446 PER FED-STD-595B

SPECIFICATIONS

	REVISIONS					
	ZONE	REV	DESCRIPTION	DATE	APPROVED	
ELECTRICAL:						
	L1 GPS	Rx INMARSAT	Tx INMARSAT	L1 GLONASS	IRIDIUM	B3 Compass E8 Galileo L2 GLONASS/ L2 GPS
FREQUENCY (MHz):	1575.42 ±13	1542.50 ±17.5	1642.50 ±17.5	1602-1616	1616-1626	B2 Compass L5 GPS E5b Galileo
GAIN (dBic):						
@ 90° (Zenith):	+2.9	+0.7	-1.6	+0.3	-1.2	-1.0
@ 10° Elevation:	-0.4	-2.8	-4.9	-3.1	-4.3	-3.4 to -7.3
@ 20° Elevation:	+0.5	-1.7	-3.5	-1.7	-3.0	-2.8 to -5.8
@ 30° Elevation:	+1.7	-0.7	-2.4	-0.7	-1.9	-2.3 to -4.4
@ 45° Elevation:	+2.4	+0.2	-2.3	-0.1	-1.8	-1.5 to -2.5
@ 70° Elevation:	+2.3	+0.6	-2.1	+0.2	-1.6	-1.0 to -1.5
BEAM WIDTH (3dB)	142 Deg.	140 Deg.	146 Deg.	144 Deg.	145 Deg.	(120 to 165) Deg.
AXIAL RATIO (dB)	1 to 3	1 to 4	1 to 3	1 to 4	1 to 3	1 to 5
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.5:1					
LIGHTNING PROTECTION:	DC GROUNDING					

LNA OPTION:

LNA GAIN: (22.0±2.0) dB
 LNA NOISE FIGURE: 2.8 dB (Filter loss Is Included)
 LNA P 1dB Out: +13 dBm
 VOLTAGE/CURRENT: (+2.4 TO +5) Volts DC / (15 TO 30) mA
 REJECTION: 2 2-POLE FILTERS FOR EACH BAND

MECHANICAL:

SIZE: DIAMETER: 1.00 In. [25.40 mm]
 HEIGHT: 4.2 In. [106.68 mm]

WEIGHT: 1.715 oz (48.62 g)

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

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

CONNECTOR: TNC MALE
 (OPTION: MCX, SMA, TNC, 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

1	1	-	-	-	-	1
QUANTITY	REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE IN INCHES

FRACTIONS: DECIMALS: ANGLES: ± 1/64 .002 .005 ± 1°

TOLERANCE SURF PER ANSI Y14.5

REMOVE ALL SURF BREAKS EXCEPT THOSE TO BE SPECIFIED BY SURF BREAK SYMBOLS

SIZE IS BASED ON A STANDARD SIZE UNLESS OTHERWISE SPECIFIED

MACHINED SURFACES

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

HANDHELD GNSS HELIX ANTENNA

REV: 3C
 DATE: 3/18/2016
 DESIGNED BY: S. HUYNH
 CHECKED BY: S. HUYNH
 DATE: 3/18/2016

SCALE: 1/1

SHEET 1 OF 1