

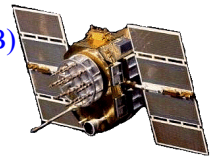


New Infinite Balun, Warped Half-Wavelength Dual Quadrifilar Helix Antennas with Better Gain & C/N (47to50), High Multipath Rejection, Broader Beamwidth (155Deg), & Higher Front/Back Ratio (>24dB) For Handheld, Mobile, UAV, Light Weight, and High Degree of Movement Applications

L1 GPS/Glonass + Iridium/Inmarsat Antennas

P/N: HL1IRA-XSM-4-3 (Active); P/N: HL1IRP-XSM-4-3 (Passive)

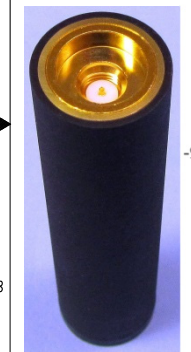
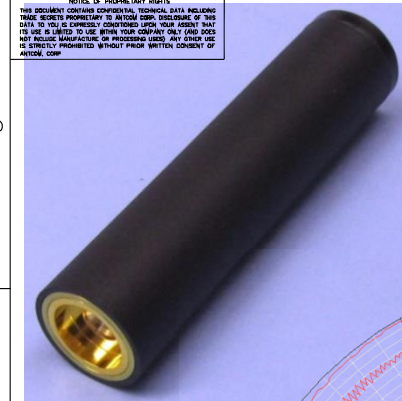
Antenna Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>



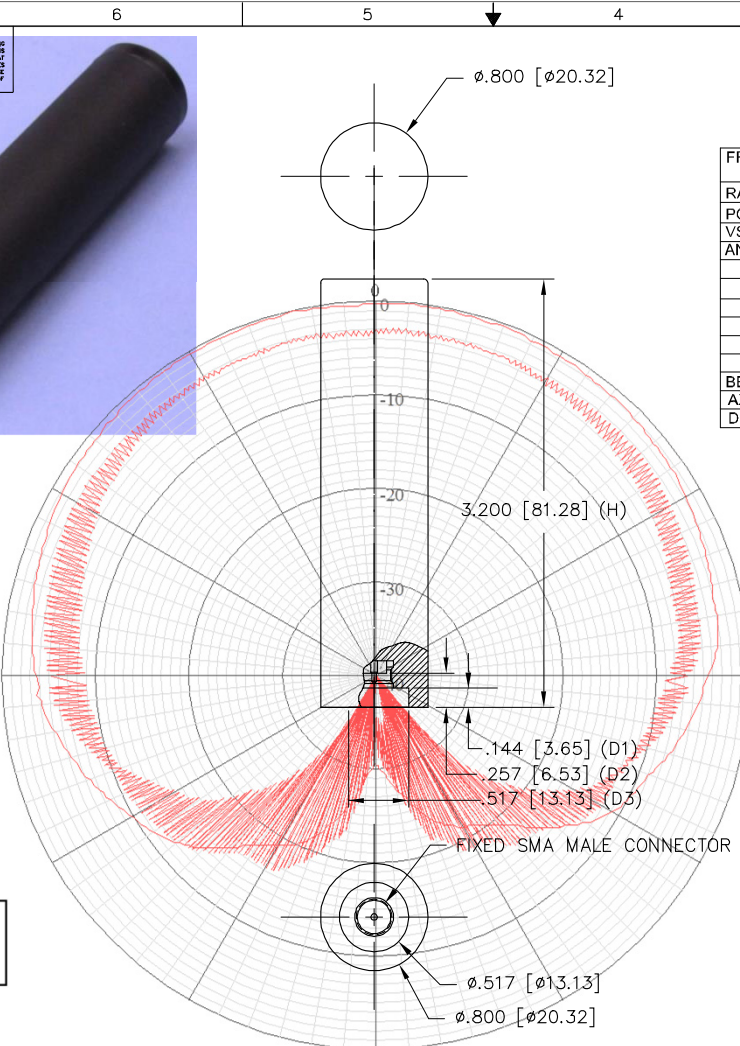
ISO 9001:2008/FAA Approved Facility

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D1, D2, D3, and H Dimensions can be Customized.



SPECIFICATIONS

ZONE	REV	REVISIONS			
		DESCRIPTION	DATE	APPROVED	
ELECTRICAL:					
FREQUENCY (MHz):	Omnistar/L-Band Rx INMARSAT (1542.50 ±17.5)	L1 GPS (1575.42 ±15)	L1 GLONASS (1598 - 1609)	IRIDIUM (1610-1626)	Tx INMARSAT (1642.50 ±17.5)
RADIATION PATTERN:	HEMISPHERICAL				
POLARIZATION:	RHCP				
VSWR:	< 1.5:1				
ANTENNA GAIN (dBic):					
@ 90° (Zenith):	+0.3	+1.1	+1.9	+2.3	+1.2
@ 10° Elevation:	-3.2	-2.1	-1.3	-0.8	-1.8
@ 20° Elevation:	-2.2	-1.1	-0.4	+0.1	-1.0
@ 30° Elevation:	-1.6	-0.4	+0.2	+0.6	-0.5
@ 45° Elevation:	-0.7	+0.4	+0.9	+1.3	+0.3
@ 70° Elevation:	+0.1	+1.1	+1.5	+1.9	+0.9
BEAM WIDTH (3dB):	155°	155°	155°	155°	155°
AXIAL RATIO:	1dB	1dB	1dB	1dB	1dB
DC GROUNDING:	YES (LIGHTNING PROTECTION)				

LNA OPTION:

LNA GAIN: 27 dB (-A), 33 dB (-A3), 44 dB (-A4)
 LNA NOISE FIGURE: 1.5 dB
 LNA P 1dB Out: +13 dBm
 VOLTAGE/CURRENT: (+2.4 TO +5) Volts DC / (15 TO 25) mA

MECHANICAL:

SIZE: DIAMETER: 0.80 in. [20.32 mm]
 HEIGHT: 3.20 in. [81.28 mm]
 WEIGHT: 0.705 oz (20 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: FIXED SMA MALE (OPTION: MCX, SMA, MCX, MMCX, QMA, BNC 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

FREQUENCY: L1: L1/Glonass L1L2: L1L2/Glonass IR: Iridium IN: Inmarsat/Iridium T: Thuraya L1IR: L1 GPS/Glonass/Iridium L1L2IR: L1L2 GPS/Glonass/Iridium L1IN: L1 GPS/Glonass/Inmarsat/Iridium L1L2IN: L1L2 GPS/Glonass/Inmarsat/Iridium SXR: S-BAND (RHCP) X = 1 (2.4 - 2.5)GHz, X = 2 (2.3 - 2.4)GHz SXL: S-BAND (LHCP) X = 3 (2.0 - 2.3)GHz	POLARIZATION: R: RHCP L: LHCP	LNA: A: WITH 27 dB Gain LNA A3: WITH 33 dB Gain LNA A4: WITH 44 dB Gain LNA P: WITHOUT LNA	CONNECTOR: S: SMA; SM: SMA MALE Q: QMA; P: PINS M: MCX; MM: MMCX N: N; NB: N-Bulkhead T: TNC; TB: TNC-Bulkhead	COLOR: -1: GLOSS WHITE #17925 PER FED-STD-595B -2: LUSTERLESS GRAY #38320 PER FED-STD-595B -3: OLIVE DRAB GREEN #34031 PER FED-STD-595B -4: NATURAL MOLDED BLACK WITH GLASS FILL -5: TAN #: FS 23446 or 33446, FED-STD-595 PAINT
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P/N: HL1IRA1-XSM-4-3

QUANTITY	RECD	DESCRIPTION	PART NO	MATERIAL	FINISH	1
1						

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS SHALL BE DECIMALS ANGLES ± 1/64 ° DECIMALS ± 1'		ANTCOM CORP. TORRANCE, CALIFORNIA	
ORIGINALLY DRAWN	S. HUYNH May-25-11	GPS/INMARSAT/GLONASS/IRIDIUM HELIX ANTENNA	
ORIGINALLY DESIGNED	S. HUYNH May-25-11		
UPDATED	S. HUYNH Feb-21-14		
UPDATE DRAWN	P. TRAN Feb-21-14		
APPROVED	S. HUYNH Feb-21-14	REV	DATE
		D3CVE1	HL1IRA1-XSM-4-3
DO NOT SCALE DRAWING	SCALE 1/1	SHEET 1 OF 1	

NMO Connector Option is Now Available for Some Antennas