

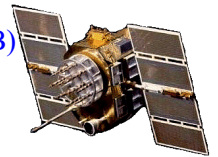


New Infinite Balun, Warped Half-Wavelength Dual Quadrifilar Helix Antennas with Better Gain & C/N (47to50), High Multipath Rejection, Broader Beamwidth (155Deg), & Higher Front/Back Ratio (>24dB) For Handheld, Mobile, UAV, Light Weight, and High Degree of Movement Applications

L1 GPS/Glonass + Iridium/Inmarsat Antennas

P/N: HL1IRA-XSM-4-2 (Active); P/N: HL1IRP-XSM-4-2 (Passive)

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



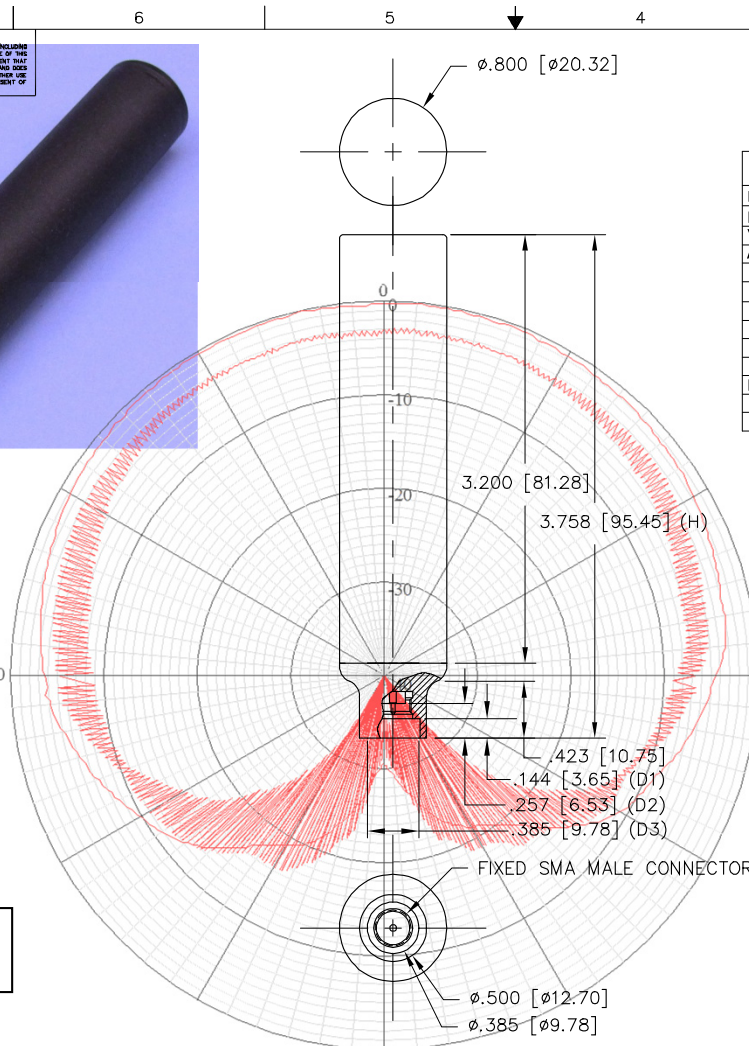
ISO 9001:2008/FAA Approved Facility

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



SPECIFICATIONS

ZONE	REVISIONS				
	REV	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: 3.758 in. [95.45 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 STAINLESS 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	POLARIZATION:	R: RHCP	LNA:	A: WITH 27 dB Gain LNA	CONNECTOR:	S: SMA; SM: SMA MALE	COLOR:	-1: GLOSS WHITE #17925 PER FED-STD-595B
L1L2: L1L2/Glonass	L: LHCP	A3: WITH 33 dB Gain LNA	Q: QMA; P: PINS	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B					
IR: Iridium	A4: WITH 44 dB Gain LNA	M: MCX; MM: MMCX	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B						
IR: Inmarsat/Iridium	P: WITHOUT LNA	N: N; NB: N-Bulkhead	-4: NATURAL MOLDED BLACK WITH GLASS FILL						
T: Thruway	T: TNC; TB: TNC- Bulkhead	-5: TAN #; FS 23448 or 33446, FED-STD-595 PAINT							

P/N: HL1IRA1-XSM-4-2

NOTES: UNLESS OTHERWISE SPECIFIED:
 1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

QUANTITY	DESCRIPTION	PART NO	MATERIAL	FINISH	ITEM NO
1					

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 ±.005 ± .1°	ORIGINALLY DRAWN S. HUYNH Mar-25-11	ANTCOM CORP. TORRANCE, CALIFORNIA GPS/INMARSAT/GLONASS/ IRIDIUM HELIX ANTENNA D3CVE1 HL1IRA1-XSM-4-2 SCALE 1/1	REV
TOLERANCE 5M PER ASH Y14.5 REMOVE ALL SURFES BREAK EXTERNAL EDGES .005 TO 0.015 SHEET HEADS PER MIL-E-8879 20% ON A COLUMN & 20% ON MACHINED SURFACES 12°	ORIGINALLY DESIGNED S. HUYNH Mar-25-11		DATE
	UPDATED S. HUYNH Feb-21-14		DRAWN BY
	UPDATE DRAWN P. TRAN Feb-21-14		APPROVED
DO NOT SCALE DRAWING	APPROVED S. HUYNH Feb-21-14		SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas