



New Infinite Balun, Warped Half-Wavelength Dual Quadrifilar Helix Antennas with Better Gain & C/N (45 to 47), High Multipath Rejection, Broader Beamwidth (150 Deg), and Higher Front/Back Ratio (15dB) For Handheld, Mobile, UAV, Light Weight, and High Degree of Movement Applications


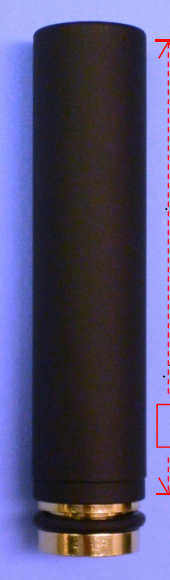
L1L2 GPS/Glonass + Iridium/Inmarsat Antennas

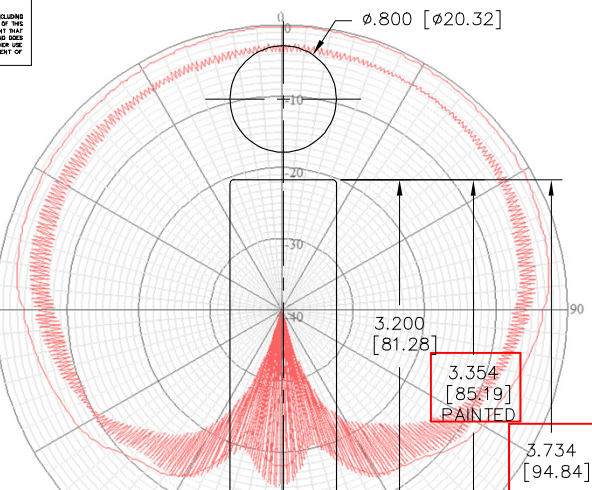
P/N: HL1L2IRALF-XSM-4-2OR (Active); P/N: HL1L2IRP-XSM-4-2-2OR (Passive)

FAA Approved Facility



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SPECIFICATIONS

ELECTRICAL:

	L2 GPS	L2 GLONASS	Orbitstar/L-Band Rx INMARSAT	L1 GPS	L1 GLONASS	IRIDIUM	Tx INMARSAT
FREQUENCY (MHz):	(1227.60 ±13)	(1242-1252)	(1542.50 ±17.5)	(1575.42 ±15)	(1598 - 1609)	(1610-1626)	(1642.50 ±17.5)
RADIATION PATTERN:	HEMISPHERICAL						
POLARIZATION:	RHCP						
VSWR:	< 1.5:1						
ANTENNA GAIN (dBic):							
@ 90° (Zenith):	-4.1	-3.8	-3.1	+0.3	+0.7	-0.1	-1.9
@ 10° Elevation:	-8.1	-8.0	-6.3	-2.7	-2.5	-3.3	-5.3
@ 20° Elevation:	-6.8	-6.6	-5.3	-1.8	-1.7	-2.5	-4.7
@ 30° Elevation:	-5.8	-5.6	-4.7	-1.2	-1.2	-2.0	-4.0
@ 45° Elevation:	-4.7	-4.6	-4.0	-0.5	-0.4	-1.2	-3.1
@ 70° Elevation:	-4.2	-4.1	-3.4	+0.1	+0.3	-0.5	-2.5
BEAM WIDTH (3dB):	145°	145°	155°	155°	155°	155°	155°
AXIAL RATIO:	1dB	2dB	1dB	1dB	1dB	1dB	1dB
DC GROUNDING:	YES (LIGHTNING PROTECTION)						
LNA GAIN:	27 dB (-A), 33 dB (-A3), 44 dB (-A4)						
LNA NOISE FIGURE:	2.0 dB						
LNA P 1dB Out:	+13 dBm						
LNA DC POWER:	(+2.4 TO +5) Volts DC / (15 TO 30) mA						
L1/L2 BAND PASS FILTER REJECTION:	30 dB @ L1 +/- 34 MHz, 30 dB @ L2 +/- 34 MHz						
OUT OF BAND REJECTION/ JAMMING IMMUNITY:	50 V/m FROM 2MHZ TO 18GHZ EXCLUDING L1±100 MHZ, AND L2±100 MHZ						
BURNOUT/ IN-BAND JAMMING PROTECTION:	200 V/m WITH 500 µs PULSE @ 1 KHz RATE FROM 2MHZ TO 18GHZ						
DC SHORT CIRCUIT PROTECTION:	YES						
DC VOLTAGE REFERENCE:	CENTER PIN OF RF CONNECTOR IS POSITIVE						
ESD PROTECTION:	YES						

MECHANICAL:

SIZE: DIAMETER: 0.80 in. [20.32 mm]
HEIGHT: 3.734 in. [94.84 mm]

WEIGHT: 0.705 oz (20 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE NICKEL-GOLD PLATED

MATERIAL: BRASS 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

IMMERSION: 20 METERS OF SALT WATER FOR 2 HRS. PER MIL-STD-810G, METHOD 512.5.. MATED AND UNMATED

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

ZONE	REV	DESCRIPTION	DATE	APPROVED
A	0	O-RING SLOT	02/17/17	S.H
B	1	NEW BASEPLATE	06/21/17	S.H
C	2	PAINTED	06/30/17	S.H

Mechanical Dimensions:

- Ø.800 [Ø20.32]
- 3.200 [81.28]
- 3.354 [85.19] PAINTED
- 3.734 [94.84]
- .600 [15.24] 3/32 O-RING P/N: MS28775-114
- .146 [3.70]
- .310 [7.87]
- .380 [9.65]
- .024 [0.61] 1/32 O-RING
- .675 [17.15]
- .748±.002 [19.00±0.05]
- .124±.003 [3.15±0.08] (D1)
- .249±.003 [6.32±0.08] (D2)
- .474±.003 [12.04±0.08] (D3)
- .559 [14.20]
- Ø.474 [Ø12.04]
- Ø.748 [Ø19.00]

FIXED SMA MALE CONNECTOR

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

QTY	DESCRIPTION	PART NO	SPECIFICATION	REV
1	O-RING, 3/32 DIA.	MS28775-114, McMaster P/N: 9557K475		1

REV	DATE	DESCRIPTION	BY	CHKD
1	02-17-17	ORIGINAL DRAWING	S. HUYNH	
2	06-21-17	ORIGINAL DESIGNED	S. HUYNH	
3	06-30-17	UPDATED	S. HUYNH	
4	06-30-17	UPDATE DRAWING	S. HUYNH	
5	06-30-17	APPROVED	S. HUYNH	

ANTCOM CORP. TORRANCE, CALIFORNIA

L1L2 GPS/GLONASS + IRIDIUM/INMARSAT ANTENNA

P/N: HL1L2IRP-XSM-4-2-2OR

SCALE 1/1 SHEET 1 OF 1

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