



FAA Approved Facility

High Gain **Iridium/Inmarsat/GPS** Helix Antenna P/N: S61IR16RR-P-4RS-1

(P/N: S61RxIN-P-4RS-1 for Rx only)

High Gain **Thuraya** Helix Antenna P/N: S61IR16LL-P-4RS-1 (P/N: S61RxT-P-4RS-1 for Rx only)

1" Diameter x 6.6" Tall, Bulkhead/Pipe Mount Configuration

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



ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: antennas@antcom.com . <http://www.antcom.com>

NOTICE OF PROPRIETARY RIGHTS
THIS DOCUMENT CONTAINS CONFIDENTIAL, TRADE SECRET, AND/OR UNPUBLISHED DATA. SUCH RIGHTS ARE RESERVED BY ANTCOM CORPORATION. REPRODUCTION OF THIS DATA IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF ANTCOM CORPORATION IS STRICTLY PROHIBITED. WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORPORATION.

REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	

SPECIFICATIONS

FREQUENCY (MHz):	(1227.80 ±15)	(1542.50 ±17.5)	(1575.42 ±15)	(1602-1616)	(1610-1626)	(1642.50 ±17.5)
GAIN (dBc) in FS	L2 GPS	Rx L-Band	L1 GPS	GLONASS	IRIDIUM	Tx INMARSAT
@ 90° (Zenith):	- 10.5	+ 0.6	+ 2.3	+ 2.1	+ 2.0	+ 0.4
@ 10° Elevation:	- 10.6	- 5.3	- 3.0	- 2.5	- 2.5	- 3.9
@ 20° Elevation:	- 9.3	- 3.1	- 0.8	- 0.6	- 0.6	- 2.0
@ 30° Elevation:	- 8.6	- 1.4	+ 0.7	+ 0.8	+ 0.7	- 0.7
@ 45° Elevation:	- 8.6	- 0.1	+ 1.8	+ 1.7	+ 1.6	+ 0.1
@ 70° Elevation:	- 9.9	+ 0.5	+ 2.2	+ 1.9	+ 1.7	0.0

AXIAL RATIO (dB): 1 to 2
 RADIATION PATTERN: HEMISPHERICAL
 POLARIZATION: RHCP
 VSWR: < 1.5:1
 DC GROUNDING: YES (LIGHTNING PROTECTION)

ELECTRICAL:

FREQUENCY (MHz):	(1227.80 ±15)	(1542.50 ±17.5)	(1575.42 ±15)	(1602-1616)	(1610-1626)	(1642.50 ±17.5)
GAIN (dBc) in FS	L2 GPS	Rx L-Band	L1 GPS	GLONASS	IRIDIUM	Tx INMARSAT
@ 90° (Zenith):	- 10.5	+ 0.6	+ 2.3	+ 2.1	+ 2.0	+ 0.4
@ 10° Elevation:	- 10.6	- 5.3	- 3.0	- 2.5	- 2.5	- 3.9
@ 20° Elevation:	- 9.3	- 3.1	- 0.8	- 0.6	- 0.6	- 2.0
@ 30° Elevation:	- 8.6	- 1.4	+ 0.7	+ 0.8	+ 0.7	- 0.7
@ 45° Elevation:	- 8.6	- 0.1	+ 1.8	+ 1.7	+ 1.6	+ 0.1
@ 70° Elevation:	- 9.9	+ 0.5	+ 2.2	+ 1.9	+ 1.7	0.0

MECHANICAL:

SIZE: DIAMETER = 1 in. [25.40 mm]
 HEIGHT = 6.570 in. [166.88 mm]
 WEIGHT: 1.5 oz. (42.5 g)
 FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
 BASE IRIDITE PER MIL-C-5441
 COLOR: GLOSS WHITE #17925 PER FED-STD-595B
 LUSTERLESS GRAY #36320 PER FED-STD-595B
 OLIVE DRAB GREEN #34031 PER FED-STD-595B
 LUSTERLESS BLACK #37038 PER FED-STD-595B
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE
 COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT,
 AND SKYDROL RESISTANCE, FIRE RETARDANT
 CONNECTOR: SMA RIGHT ANGLE
 (OPTION: TNC, SMA, N, N Bulkhead, MCX, MMCX, or Cable)
 MOUNTING: 1/2-28 BULKHEAD

ENVIRONMENTAL:

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]
 ALTITUDE: 70,000 ft.
 VIBRATION: > 30 G's
 WIND SPED: > 135 Miles/hr
 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

QUANTITY	DESCRIPTION	PART NO	FINISH	REV
1	3M Adhesive Gasket (Item 543b)	123450-3M-1.0G	-	1

CONFIGURATION:	POLARIZATION:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ. (FLAT)	LL: TX: LHCP, RX: LHCP	A1: WITH +34 dB LNA	X: NO CABLE	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.8: 1.8" SQ. (FLAT)	LR: TX: LHCP, RX: RHCP		M: WITH MAG. MOUNT	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA. (FLAT)	RL: TX: RHCP, RX: LHCP	P: WITHOUT LNA	#: 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: RHCP		R: RIGHT ANGLE CON.	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC (FLAT)				RS: RIGHT ANGLE SMA	
53: (HELIX ROD)					
5B: (HELIX BLADE)					
5D: (HELIX HANDLE)					
71: (HIGH GAIN HANDHELD HELIX)					
73: (HIGH GAIN HELIX)					

P/N: S61IR16RR-P-4RS-1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 FRACTIONS SHALL BE IN 16ths
 DECIMALS SHALL BE TO 3 PLACES
 TOLERANCE SHIP PER AMS 1145
 REMOVE ALL SHARP EDGES
 BREAK EXTERNAL EDGES .005 TO .010
 FILED & POL TO 150
 SREW THREADS PER UN-3-8879
 DIMS ON A COMMON 1/2" DIA
 MACHINED SURFACES .75/

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA

HIGH GAIN PIPE/FLAT MOUNT,
 IRIDIUM/GPS/GLONASS/
 INMARSAT HELIX ANTENNA

DESIGNED BY: S. HUYNH
 ENGINEER: S. HUYNH
 APPROVED: S. HUYNH
 DATE: DEC-03-03

SCALE: 1/1
 SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas