



FAA Approved Facility

High Gain **Iridium/Inmarsat/GPS** Helix Antenna P/N: S63IR16RR-P-XT-1

(P/N: S63RxIN-P-XT-1 for Rx only)

High Gain **Thuraya** Helix Antenna P/N: S63IR16LL-P-XT-1 (P/N: S63RxT-P-XT-1 for Rx only)

3.5" Diameter x 6.6" Tall, Pipe/Flat Mount Configuration

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



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**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED

3X on 1.344 [34.12] Rad.

3X  $\phi$  0.20 [ $\phi$ 5.11]  
 $\checkmark$   $\phi$  0.385 [ $\phi$ 9.78] x 100"

6.550 [166.37]

0.57" [14.53] (TNC), 0.72" [18.29] (N, N-Bulkhead)  
0.46" [11.68] (SMA), 0.83" [21.00] (TNC-Bulkhead)

TNC BULKHEAD CONNECTOR  
(OPTION: TNC, SMA, N, N Bulkhead, MCX, MMCX, or Cable)

Back Mounting:  
3x 10-32 Screws  
0.250" Deep Equally Space  
on 1.375 [34.94] Radius

**ELECTRICAL:**

**SPECIFICATIONS**

FREQUENCY (MHz):	(1227.60 ±15)	(1542.50 ±17.5)	(1575.42 ±15)	(1602-1616)	(1610-1626)	(1642.50 ±17.5)
GAIN (dBic) 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)

**MECHANICAL:**

SIZE: BASE DIAMETER= 3.50 in. [88.90 mm],  
HEIGHT = 6.550 in. [166.37 mm]

WEIGHT: < 8.0 oz. (226.7g)

FINISH: SKYDROLRESISTANTPOLYURETHANEENAMEL  
BASE IRIDITE PER MIL-C-5441

COLOR: GLOSS WHITE #17925PER FED-STD-595B  
LUSTERLESSGRAY #36320PER FED-STD-595B  
OLIVE DRAB GREEN#34031PER FED-STD-595B  
LUSTERLESSBLACK#37038PER FED-STD-595B

MATERIAL: 6061-T6ALUMINUMALLOY BASE  
COMPOSITE RADOME,IMPACT,ABRASION,UV, SOLVENT,  
AND SKYDROLRESISTANCE,FIRE RETARDANT

CONNECTOR: TNC BULKHEADCONNECTOR  
(OPTION:TNC, SMA, N, N Bulkhead,MCX, MMCX, or Cable)

MOUNTING: FLAT, OR FIXED PIPE (3/4"-1.0"Dia.) MOUNT (PROVIDED)

**ENVIRONMENTAL:**

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

**FEDERAL & MILITARY SPECIFICATIONS**

**DESIGN TO:** FAA TSO-C144,DO-160D,DO-228,MIL-C-5541,  
MIL-E-5400,MIL-I-45208A,MIL-STD-810,AND SAE J1455

QUANTITY	DESCRIPTION	PART NO	FINISH	REF
4	MOUNTING SCREW: (10-32, 1")	MS24693C276	-	5
1				4
1	3G Neoprene-EPDM-Blend Gasket	3G15P1001-3G	-	3
1	VERTICAL/HORIZONTAL ANTENNA MOUNT	MTR-2		2
1	OPTIONAL VERTICAL ANTENNA MOUNT	MTR-1		1

**PARTS LIST**

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS	ANTCOM CORP.
FRACTIONS DECIMALS ANGLES	FRACTIONS DECIMALS ANGLES	TORRANCE CALIFORNIA
± 1/64 ± .001 ± 1°	± .001 ± .001 ± 1°	
TOLERANCE 51M PER ANSI Y14.5	TOLERANCE 51M PER ANSI Y14.5	
REF. TO THIS DRAWING	REF. TO THIS DRAWING	
DRIVER	CHECKED	
DESIGNER	APPROVED	
S. HUYNH	DEC-03-03	
DO NOT SCALE DRAWING	CAP FILE NO	
	SCALE 1/1	
	SHEET 1 OF 1	

CONFIGURATION:	POLARIZATION:	LNA:	CABLE 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: GLOSSWHITE#17925PER FED-STD-595B
1.9: 1.9" SQ. (FLAT)	LR: TX: LHCP, RX: RHCP		M: WITH MAG. MOUNT	M: MCX, MM: MMCX	-2: LUSTERLESSGRAY#36320PER 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: OLIVEDRAB GREEN#34031PER FED-STD-595B
3: 3.5" DIA. (FLAT)	RR: TX: RHCP, RX: RHCP		R: RIGHT ANGLE CON.	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESSBLACK#37038PER FED-STD-595B
4: MINI ARINC (FLAT)					
53: (HELIX ROD)					
5B: (HELIX BLADE)					
3D: (HELIX HANDHELD)					
71: (HIGH GAIN HANDHELD HELIX)					
73: (HIGH GAIN HELIX)					

P/N: S63IR16RR-P-XTB-1

NMO Connector Option is Now Available for Some Antennas