



FAA Approved Facility

GPS/RHCP-Inmarsat/Iridium Antenna P/N: S53IR16RR-P-M14TB-X

(P/N: S53RxIN-P-M14TB-X for Rx only)

LHCP-Thuraya Antenna P/N: S53IR16LL-P-M14TB-X (P/N: S53RxT-P-M14TB-X for Rx only)

3.5" Diameter x 4.5" Tall, 1"-14 Pipe Mount Configuration

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



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REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

SPECIFICATIONS

ELECTRICAL:

FREQUENCY (MHz):	(1575.42±15)	(1542.50±17.5)	(1642.50±17.5)	(1602-1616)	(1610-1626)	(1227.60±15)
GAIN (dBic) in FS/4ft GP	L1 GPS	Rx INMARSAT	Tx INMARSAT	GLONASS	IRIDIUM	L2 GPS
@ 90° (Zenith):	+1.1/+3.7	+0.7/+1.5	-0.3/0.0	+0.5/+2.9	+0.1/+1.1	-5.0
@ 10° Elevation:	-0.9/+0.0	-1.6/-1.3	-1.9/-1.0	-1.3/+0.2	-1.6/-0.8	-6.5 to -11.5
@ 20° Elevation:	-0.2/+2.0	-0.8/+1.0	-1.1/+1.2	-0.5/+2.4	-0.8/+1.2	-6.2 to -9.2
@ 30° Elevation:	+0.3/+2.0	-0.2/+1.0	-0.8/+0.4	+0.1/+2.1	-0.7/+1.1	-5.7 to -7.7
@ 45° Elevation:	+0.6/+1.5	+0.3/+0.6	-0.7/-0.8	-0.1/+1.0	-0.3/-0.3	-4.6 to -6.0
@ 70° Elevation:	+0.3/+1.3	+0.3/+0.4	-1.6/0.0	-0.3/+1.1	-0.7/0.0	-4.0
BEAM WIDTH (3dB)	173/155 Deg.	173/155 Deg.	180/162 Deg.	180/162 Deg.	180/162 Deg.	(107 to 170) Deg.
AXIAL RATIO (dB)	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 5
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.5:1					
DC GROUNDING	YES (LIGHTNING PROTECTION)					

MECHANICAL:

SIZE: DIAMETER = 3.50 in. [88.90 mm]
HEIGHT = 4.690 in. [119.13 mm]

WEIGHT: 11 oz. (314 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: TNC BULKHEAD CONNECTOR,
(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: 70,000 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

QUANTITY REQD

DESCRIPTION	PART NO	FINISH	REQD NO
4 MOUNTING SCREW: (10-32, 1")	MS24693C276	-	5
1			4
1 ADHESIVE GASKET	12345G-3M-3G	-	3
1 VERTICAL/HORIZONTAL ANTENNA MOUNT	MTR-2		2
1 OPTIONAL VERTICAL ANTENNA MOUNT	MTR-1	-	1
-1			

PARTS LIST

DESCRIPTION	PART NO	FINISH	REQD NO
4 MOUNTING SCREW: (10-32, 1")	MS24693C276	-	5
1			4
1 ADHESIVE GASKET	12345G-3M-3G	-	3
1 VERTICAL/HORIZONTAL ANTENNA MOUNT	MTR-2		2
1 OPTIONAL VERTICAL ANTENNA MOUNT	MTR-1	-	1
-1			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS: TOLERANCES AND ANGLES
± 1/64 DEC. DIM. ± 1°

TOLERANCES DIM PER ANSI Y14.5
BREAK ALL EDGES
BREAK EXTERNAL EDGES JOBS TO .015
FILES & SMOOTH TO R.000
SOCKET HEADS PER MIL-C-8879
DATE ON A COMMON 6 OF JOBS
MACHINED SURFACES 1/2

DRAWN: _____ CHECKED: _____
OWNER: _____ APPROVED: S. HUYNH DEC-03-03
Dwg File No: _____

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE, CALIFORNIA

1-14 PIPE MOUNT, IRIIDIUM/GPS/GLONASS/INMARSAT HELIX ANTENNA

REV: D 3CVE1 S53IR16RR-P-M14TB-X 1

SCALE: 1/1 SHEET 1 OF 1

CONFIGURATION: POLARIZATION: LNA: CABLE'S LENGTH: CONNECTOR: COLOR:

1: 2" SQ. (FLAT)	LL: TX: LHCP, RX: LHC P	AT: WITH +34 dB LNA	M14: 1.14" Thread Mount	S: SMA P PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ. (FLAT)	LR: TX: LHCP, RX: RHC P	P: WITHOUT LNA	X: NO CABLE	M: MCX, MM, MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA. (FLAT)	RL: TX: RHCP, RX: LHC P		M: WITH MAG. MOUNT T	N: N, NB: N-Bulkhead	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
3: 3.5" DIA. (FLAT)	RR: TX: RHCP, RX: RHC P		#: CABLE LENGTH (IN)	T: TNC, TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC (FLAT)			R: RIGHT ANGLE CON.		
5S: (HELIX ROD)					
5B: (HELIX BLADE)					
5D: (HELIX HANDHELD)					

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

1"-14 Thread x 0.5" Deep

4x 10-32 Thread x 0.5" Deep Equally Spaced on 1.344 [34.12] Radius for Optional Mounting.

3X on 1.344 [34.12] Rad.

φ3.500 [88.90]

3X φ.20 [5.11] ✓ φ.385 [9.78] X 100°

4.550 [115.57]

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

NAMEPLATE

NOTES: UNLESS OTHERWISE SPECIFIED:
1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]
2. ALL SCREWS ARE SUPPLIED BY ANTCOM CORPORATION

P/N: S53IR16RR-P-M14TB-1

NMO Connector is Now Available for Some Antennas