



# Iridium-GPS-Glonass-Inmarsat Helix Antenna

P/N: S52IR16RR-P-XNN-1-TB

2.6" Diameter x 4.5" Tall, Magnetic Mount Antenna Configurations



ISO 9001:2008/FAA Approved Facility

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

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Technical drawing showing top, side, and connector views of the antenna. Dimensions include diameter (2.653 in), height (4.936 in), and mounting hole spacing (4x.800 in). A yellow circle highlights the top mounting area.

### SPECIFICATIONS

**ELECTRICAL:**

FREQUENCY (MHz):	(1575.42 ±15)	(1542.50 ±17.5)	(1642.50 ±17.5)	(1602-1616)	(1610-1626)	(1227.60 ±15)
<b>GAIN (dBic) in FS/4ft GP</b>	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
<b>BEAM WIDTH (3dB)</b>	173/155 Deg.	173/155 Deg.	180/162 Deg.	180/162 Deg.	180/162 Deg.	(107 to 170) Deg.
<b>AXIAL RATIO (dB)</b>	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 5
<b>RADIATION PATTERN:</b>	HEMISPHERICAL					
<b>POLARIZATION:</b>	RHCP					
<b>VSWR:</b>	< 1.5:1					
<b>DC GROUNDING:</b>	YES (LIGHTNING PROTECTION)					

**MECHANICAL:**

SIZE: DIAMETER = 2.653 in. [ 67.38 mm]  
HEIGHT = 4.936 in. [125.38 mm]

WEIGHT: 5.75 oz. (163 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: N FEMALE  
(OPTION: SMA, TNC, N Bulkhead, MCX, MMCX, or Cable)

MOUNTING: MAGNETIC, FLAT, FIXED, OR PIPE MOUNT

**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

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
1.9: 1.9" 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	-30: OLIVE DRAB GREEN #34088 PER FED-STD-595B
3: 3.5" DIA. (FLAT)	RR: TX: RHCP, RX: RHCP		R: RIGHT ANGLE CONN.	T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC (FLAT)			N: NO MAG. MOUNT		-5: DESERT TAN #33446 PER FED-STD-595B
52 OR 53: (HELIX ROD)					
5B: (HELIX BLADE)					
3D: (HELIX HANDHELD)					

QUANTITY	DESCRIPTION	PART NO	FINISH	REV
1				
4	MOUNTING SCREW: (10-32, 1")	MS24693C276	-	1
-1				

**ANTCOM CORP.** TORRANCE CALIFORNIA

MAGNETIC MOUNT  
IRIDIUM/GPS/GLONASS/  
INMARSAT HELIX ANTENNA

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SCALE 1/1 | SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas