

HC600E

HC600E Embedded Passive Iridium Helical Antenna

Frequency Coverage: Iridium

The HC600E embedded passive helical antenna is designed to enhance the signal-to-noise ratio of communications over voice and data modems on the Iridium[®] frequency band (1616.0 - 1626.5 MHz).

Weighing only 10 g, the light and compact HC600E features a precision-tuned helix element that provides excellent axial ratios and operates without the requirement of a ground plane, making it ideal for a wide variety of applications, including unmanned aerial vehicles (UAVs) and Iridium[®] voice and data applications.

Tallysman provides an optional embedded helical mounting ring (P/N 23-0219-0), which traps the outer edge of the antenna circuit board to the host circuit board or to any flat surface. Tallysman also provides support for installation and integration of embedded helical antennas to enable the integrator to achieve a successful installation and obtain optimum antenna performance.

For mounting instructions, visit:

https://www.tallysman.com/downloads/Helical_Mounting_Instruction.pdf



Applications

- Iridium[®] voice and data applications
- Sea and land container tracking
- Fleet management and asset tracking
- Marine and avionics systems
- Law enforcement and public safety

Features

- Gain over full bandwidth (3.7 dBic)
- Excellent axial ratio (≤ 0.5 dB at zenith)
- ESD circuit protection (15 kV)
- REACH and RoHS compliant

Benefits

- Extremely lightweight (10 g)
- Excellent RH circular polarized signal reception
- Increased system accuracy
- Excellent signal-to-noise ratio
- Industrial temperature range
- Remote SBD antenna

About Tallysman: With global headquarters and manufacturing in Ottawa, Canada, Tallysman is a leading manufacturer of high-precision antennas and components for Global Navigation Satellite System (GNSS) applications. Tallysman's mission is to support the needs of a new generation of positioning systems by delivering unprecedented antenna precision at competitive prices. Learn more at www.tallysman.com

Revision: 1.0

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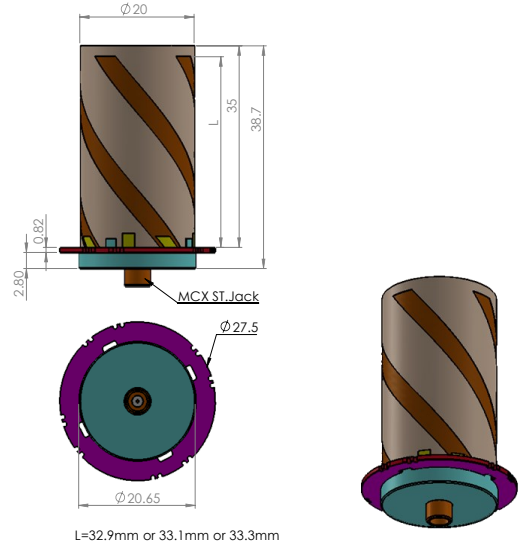
Frequency Coverage: Iridium

Low Noise Amplifier (LNA) - Measured at 3.0 VDC and 25°C

Frequency Bandwidth	Out-of-Band Rejection
Lower Band	-
Upper Band	1616.0 - 1626.5 MHz

Architecture	Passive
Gain	-
Noise Figure	-
VSWR	< 1.5:1 typ. 1.8:1 max.
Supply Voltage Range	-
Supply Current	-
ESD Circuit Protection	15 kV air discharge
P 1dB Output	-
Group Delay Variation	-

Mechanical Diagram



Ordering Information

Part Number **33-HC600E**

Please refer to our **Ordering Guide** to review available radomes and connectors at: <https://www.tallysman.com/resource/tallysman-ordering-guide/>

Technology	Single-frequency, RHCP quadrifilar helix	
	Gain dBic typ. at Zenith	Axial Ratio dB at Zenith
GNSS		
GPS / QZSS	L1	-
	L2	-
	L5	-
GLONASS	G1	-
	G2	-
	G3	-
Galileo	E1	-
	E5a	-
	E5b	-
	E6	-
BeiDou	B1	-
	B2	-
	B2a	-
	B3	-
IRNSS / NavIC	L5	-
QZSS	L6	-
L-band correction services	-	-
Satellite Communications		
Iridium	3.7	≤ 0.5
Globalstar	-	-
Phase Centre		
Phase Centre Variation (PCV)	-	-
Phase Centre Offset (PCO)	-	-

Mechanicals	
Mechanical Size	27.5 mm (dia.) x 38.7 mm (h.)
Weight	10 g
Available Connectors	MCX (female)
Radome / Enclosure	-
Mount	Helical mounting ring P/N 23-0219-0

Environmental	
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-50 °C to +95 °C
Random Vibration	-
Shock and Drop	-
Salt Fog	-
IP Rating (housing)	n/a
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

Warranty:	
Parts and Labour	1-year standard warranty