

HC600E



When precision matters.®

HC600E Embedded Iridium Antenna

Frequency Coverage: Iridium

Overview

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

Weighing only 5 g, the lightweight HC600 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).

Tallysman's provides an embedded helical antenna mounting ring that traps the outer edge of the circuit board to another circuit board or to any flat surface. To facilitate a successful installation and optimum antenna performance, Tallysman also provides an Embedded Helical Antenna Installation Guide.



Applications

- Iridium™ voice and data applications
- Sea & land container tracking
- Safety & security
- Fleet management & asset tracking
- Marine & avionics Systems
- Law enforcement & public safety

Features

- 3.7 dBic gain over full bandwidth
- Axial ratio: ≤ 0.5 dB at zenith
- 15 kV ESD circuit protection
- REACH and RoHS compliant

Benefits

- Extremely lightweight (5 g)
- Excellent circular polarized signal reception
- 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

Antenna

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 Services (1525 MHz - 1559 MHz)		-	-
Satellite Communications			
Iridium		3.7	≤ 0.5
Globalstar		-	-
Other			
Axial Ratio at 10°	-	Efficiency	-
PC Variation	-		

Mechanicals

Size 27.5 mm (dia.) x 38.7 mm (h.)
 Weight (including O-Ring) 5 g
 Available connectors MCX
 Radome -
 Mount Tallysman compression ring

Environmental

Operating Temperature -40 °C to +85 °C
 Storage Temperature -50 °C to +95 °C
 Vibration MIL STD 810D - 2 hr per axis (X,Y,Z)
 Shock -
 Salt Fog -
 IP Rating -
 Compliance IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

Warranty:

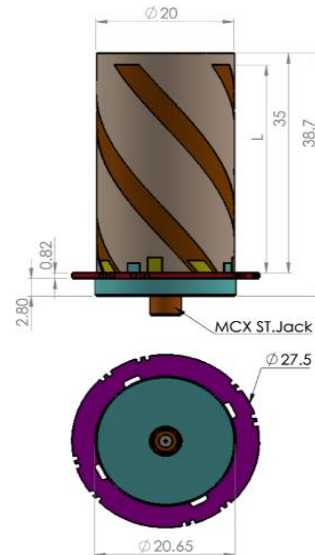
Parts and Labour One year (extended warranty available)

Low Noise Amplifier (LNA) - Measured at 3V and 25°C

Frequency Bandwidth		Out of Band Rejection	
		Upper Band	Lower 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 -

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/>