

Iridium Edge® Solar*

Part #: 9640

Data Sheet

The Iridium Edge® Solar is a standalone and programmable, solar-powered Short Burst Data (SBD®) device that offers real-time GPS tracking and local wireless sensor and communication capabilities over Bluetooth. The product's self charging, low maintenance, long field life and over-the-air configuration allow Iridium Value-Added Resellers to create distinct tracking applications that can also be implemented to create even more complex solutions.

BENEFITS

Highly Mobile - The Iridium® satellite network provides communications and connectivity for mobile applications like oil and gas, transportation, agriculture and surface mining anywhere on the planet allowing tracking and monitoring of vehicles and assets operating in remote areas.

Reliable Coverage - Devices using the Iridium satellite network are enabled by a constellation of 66 Low-Earth Orbit (LEO) mobile satellites that provide service anywhere on the planet.

Low Latency - The Iridium satellites in Low-Earth Orbit (~800 km), enable signals to travel in 1/40 the time compared to geostationary satellites (36,000 km), resulting in low-latency, always-on connections ideal for Internet of Things (IoT) deployments.

FEATURES

- ▶ Bluetooth capability for wireless sensor integration and local device connectivity
- ▶ Over-the-Air Configuration Changes
- ▶ Interval and Scheduled Reporting Modes
- ▶ Start/Stop Reporting/In Motion Reporting
- ▶ Fully Encapsulated, No External Connectors, Water Ingress Protected
- ▶ Accelerometer and Magnetometer
- ▶ LED Status Indicator

POWER MANAGEMENT

- ▶ Photovoltaic Solar Cells, Rechargeable and Primary Batteries
- ▶ Smart Power Management System
- ▶ Up to 3-year Shelf Life
- ▶ Up to 10-Year Operational Service Life
- ▶ Back-up battery capacity provides 2x per day reporting for up to 5 years with no solar availability



MECHANICAL SPECIFICATIONS

Dimensions	164.2 mm x 71.2 mm x 32.9 mm (L x W x H)
Weight	~ 470 grams

ENVIRONMENTAL SPECIFICATIONS

• Operating Temperature	-40°F to 185°F (-40°C to 85°C)
• High Temperature Resistance	MIL-STD-810G:501.5, IEC60068-2-2 to 185°F (85°C)
• Low Temperature Resistance	MIL-STD-810G:502.5, IEC60068-2-1 to -58°F (-50°C)
• Recommended Storage Temperature	Store below 90°F (32°C) for best results
• Combined Thermal and Humidity Exposure	MIL-STD-810G:507.5, 20-95%RH up to 140°F (60°C)
• Solar Radiation Exposure	UL746C F1, ASTM-G154 to 1.0yr
• Salt Fog Exposure	MIL-STD-810G:509.5 IEC60068-2-11 to 1000 hrs
• Combined Operational Temperature and Altitude	MIL-STD-810G:500.6 to 15000 ft
• Thermal Shock	MIL-STD-810G:503.5, 20 cycles between -40°F to 185°F (-40°C to 85°C) < 1min transition
• Impact Resistance	ASTM D3763
• Operational Vibration	MIL-STD-810G:514.7, IEC60068-2-80 to 7.5Grms Random (5Hz-2000Hz)
• HALT	Qualmark HALT testing guideline 993-0336, Rev 4 to 50Grms (5Hz – 10000Hz, -40°F to 185°F [-40°C to 85°C])
• Mechanical Shock	MIL-STD-810G:516.7 to 300Gpk
• Reliability	IPC9592a
• Ingress Protection	IP68

INITIAL RELEASE CERTIFICATIONS

FCC	Part 15, Part 25
Industry Canada (IC)	RSS-210, 247, ICES-003 Class B
EU	R&TTE Directive 1999/5/EC
CB Ordinary Locations Classification	IEC/EN 60950-1, EIC/EN 60950-22, CAN / CSA C22.2 N° 60950-1-03, N°. 60950-22-03
OSHA Ordinary Locations Safety	ANSI / UL 60950-1, 60950-22

CERTIFICATIONS

Brazil	ANATEL Resolucao N° 506 e Resolucao N° 442
Australia/New Zealand	RCM - CISPR22
Mexico	IFITEL, NOM121

