



Iridium Core 9523

Satellite Transceiver Module



 **iridium**[®]
Everywhere



Connections that matter – across the entire planet, in ways never thought possible

Pushing the boundaries of global communications

The Iridium® Core 9523 advanced voice and data satellite transceiver module is small, light and powerful. Its compact footprint and simple connections offer our partners new opportunities to integrate Iridium directly on their printed circuit boards (PCB) and develop products that meet the needs of previously unreachable consumer and vertical markets like never before.

Powering new possibilities

From single or multi channel communication platforms for maritime, aviation and land mobile markets to highly capable feature enhanced handheld smart devices and unattended sensors, Iridium Core 9523 delivers cost effective satellite voice and data communications .

Enabling new capabilities

Small but powerful, Iridium Core 9523 supports all Iridium voice and data services. One tiny module delivers the capability needed to develop innovative communications devices, and the technology backbone for embedded applications such as GPS and location-based services (LBS), Wi-Fi and Bluetooth.

Simplifying integration

Iridium Core 9523 features standardized connectors, making integration into innovative new devices and solutions easier than ever. With simplified PCB integration and compact form factor, designers can mount Iridium Core 9523 directly onto their application board – enabling optimization through shared components and power sources.

Key Features

- Ultra compact form factor
- Single-board transceiver
- Voice and Circuit Switched Data capable
- Larger SBD message capability
- Iridium Push-to-Talk capable
- Direct PCB integration
- Pole-to-pole global coverage
- FCC, Industry Canada, and ITU approval
- SMS
- LBS

Enabling simplified global voice and data connectivity through the world's furthest reaching network.



Size matters



Incredibly compact and lightweight, the Iridium Core 9523 embedded module drives innovation and helps meet the needs of underserved markets around the globe.

Specifications

Capabilities

- Iridium Voice
- Iridium Push-to-Talk
- Circuit Switched Data
- SMS
- LBS
- SBD
 - Mobile originated SBD message size 1960
 - Mobile terminated SBD message size 1890

Mechanical

- Length 70.44 mm
- Width 36.04 mm
- Height (reservoir capacitors) 14.6 mm
- Height (screen can) 8.9 mm
- Weight 32 g

Environmental

- Operating Temp. -30°C to $+70^{\circ}\text{C}$
- Operating Humidity $\leq 75\%$ RH
- Storage Temp. -40°C to $+85^{\circ}\text{C}$
- Storage Humidity $\leq 93\%$ RH

RF Interface

- Frequency Range 1616 MHz to 1626.5 MHz
- Duplexing Method TDD (Time Domain Duplex)
- Input/Output Impedance 50 Ω
- Multiplexing Method TDMA/FDMA

VBAT Power Input Specifications

- Nominal Voltage +3.7 V
- Voltage Limits +3.2 V to +6 V
- Maximal Current 500 mA

VBAT Typical Current at Nominal +3.7 V

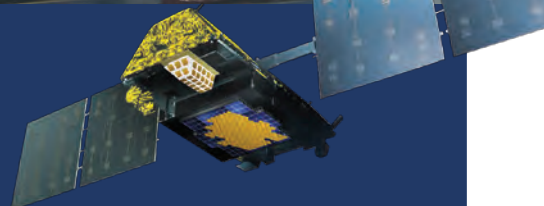
- Standby Current 70 mA
- Peak Current during Call 300 mA
- Average Current during Call 110 mA

VBBOOST Power Input

- Nominal Voltage +27 V
- Maximal Voltage +35 V
- Maximal Recommended Voltage +32 V
- Minimal Voltage during Call Transmit Burst +10.5 V
- Maximal Current 1 A

VBBOOST Power Consumption

- Typical Average Power during Call 2.3 W
- Maximal Average Power during Call 3.1 W



Connecting to the future

Iridium is forging ahead with its uncompromising vision for the future of global communications. Iridium NEXT, Iridium's ground-breaking next generation satellite constellation, will inspire exciting new innovations while ensuring continued high-level performance and reliability for all existing Iridium-connected solutions. With first launch scheduled for 2015, Iridium NEXT's backward compatibility will ensure Iridium 9523 applications continue to unlock new opportunities and push the limits of what's possible – for years to come.

Only one communications company connects the entire globe

Iridium commands the world's furthest reaching network, making it the only truly global communications company with solutions that span from pole-to-pole. Iridium voice and data products provide superior communications solutions that allow global companies, government agencies and individuals to stay connected everywhere. With a unique, global ecosystem of partners, Iridium continues to create new, high-value capabilities that are leading the world into a new era of communication.

www.iridium.com



RELIABLE • CRITICAL • LIFELINES