

The Iridium 9603 is the world's smallest commercially available two-way satellite data transceiver, designed for applications where space is at a premium—and communication is critical.



# Iridium 9603

A Revolution In Scale





# Unprecedented form factor

## Small transceiver. Huge potential.

With the smallest form factor of any commercial satellite transceiver available today, the Iridium 9603 is ideal for space-constrained applications including monitoring, tracking and alarm systems.

One-fourth the volume and half the footprint of its predecessor, the Iridium 9602, the Iridium 9603 combines the global coverage of the Iridium satellite constellation with the low latency of the Iridium Short Burst Data service to provide highly reliable satellite communications from pole to pole.

## Why push boundaries when you can erase them instead?

The Iridium 9603 redefines the spatial possibilities of satellite communications devices, delivering significant data capabilities and good value. Bringing more opportunities to expand the Iridium

connected user base, the Iridium 9603 delivers:

- Mobile-originated messages (up to 340 bytes)
- Mobile-terminated messages (up to 270 bytes)
- Low, uniform global latency (less than 1 minute)

## How it works

A single-board core transceiver, the Iridium 9603 comes in 'black box' format. All device interfaces are provided through a single, multi-pin interface connector and an antenna connector, with additional end-user field application functions (e.g., GPS, microprocessor-based logic control, digital and analog inputs and outputs, power supply and antenna) provided by the solution developer. The Iridium 9603 transceiver does not incorporate or require a SIM card. Its device interface consists of a serial interface, power input, network available output and power on/off control line.

## Key Features

- Small form factor offering unmatched integration flexibility
- Pole-to-pole global coverage
- Single-board transceiver
- Single header connector for:
  - Power
  - On/off control
  - logical level asynchronous
  - UART control
  - Network availability
- Simple AT command interface
- SIM-less operation
- Automatic notification that mobile-terminated messages are queued



Superior coverage, performance and innovation.  
Iridium built, Iridium Connected™.



Designed, certified, manufactured and sold by Iridium, the Iridium 9603 complies fully with the standards for Radio Emissions Compliance, Electromagnetic Compatibility and AC Safety in the United States, the European Union and Canada. Approved by the FCC, Industry Canada and the CE (assuming an antenna with a gain of ~3Bi and adequate shielding), it can be integrated into a variety of wireless data applications or retrofitted into existing SBD-only applications that use Iridium 9522B, 9522A, 9522, 9523, 9601 and 9602 L-Band Transceiver-based products.

The Iridium 9603 supports Iridium's Short Burst Data capability. It does not support voice, circuit switched data or short message service (SMS).

## Specifications

### Mechanical

- Length: 31.5 mm
- Width: 29.6 mm
- Depth: 8.1 mm
- Weight: 11.4 g

### Environmental

- Operating temperature range: -30°C to +70°C
- Operating humidity range: ≤ 75% RH
- Storage temperature range: -40°C to +85°C
- Storage humidity range: ≤ 93 % RH

### RF Parameters

- Frequency range: 1616 to 1626.5 MHz
- Duplexing method: TDD (Time Domain Duplex)
- Input/output impedance: 50Ω
- Multiplexing method: TDMA/FDMA
- VSWR return loss: 1.5:1 In Iridium Band, 3:1 Out of Band

### DC Power Input

- Supply input voltage range: 5.0V +/- .2V DC
- Supply input voltage ripple: <40mV pp
- Idle current (average): 45 mA
- Idle current (peak): 195 mA
- Transmit current (peak): 1.5 A
- Transmit current (average): 190 mA
- Receive current (peak): 195 mA
- Receive current (average): 45 mA
- SBD message transfer - average current: 190 mA
- SBD message transfer - average power: <= 1.0 W