

RockBLOCK 9603

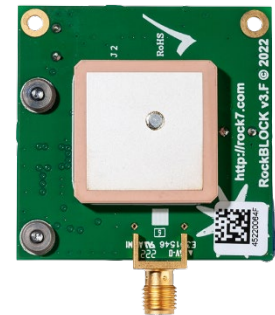
Compact, global satellite messaging
for your remote application



RockBLOCK 9603 makes it simple to add reliable, two-way satellite messaging to compact IoT and M2M applications.

Designed for developers and systems integrators, it combines the Iridium 9603N transceiver with integrated power management, a straightforward serial interface and a choice of built-in or external antenna. Connect it to your host controller to send and receive small amounts of data from anywhere on Earth.

RockBLOCK 9603 uses Iridium Short Burst Data (SBD), making it ideal for remote monitoring, tracking, telemetry and control applications where coverage, power efficiency and compact size matter more than high data throughput.



KEY FEATURES

Truly global satellite connectivity

Send and receive data over Iridium's Low Earth Orbit satellite network, including across oceans, polar regions and other areas beyond terrestrial coverage.

Compact, lightweight design

Measuring just 45 × 45 × 16 mm and weighing 39 g, RockBLOCK 9603 integrates easily into space-constrained products and enclosures.

Simple serial integration

Connect to your host controller through a 3-wire UART interface using familiar AT commands, with 3.3 V LVTTTL logic that is tolerant of 5 V signals.

Built-in or external antenna

Choose the integrated patch antenna for a self-contained installation, or configure the SMA connection for an approved external Iridium antenna.

Efficient two way messaging

Transmit messages of up to 340 bytes and receive messages of up to 270 bytes using Iridium Short Burst Data.

Flexible data delivery

Deliver messages to your application through an HTTP webhook or email, and send messages back to individual devices using our web services.

Controlled airtime costs

Activate and manage devices, review message activity and maintain visibility of airtime usage through Ground Control's online management platform.

TECHNICAL CHARACTERISTICS

PHYSICAL AND ENVIRONMENTAL

Size	45 x 45 x 16 mm (1.77 x 1.77 x 0.63 in)
Weight	39 g (1.38 oz)
Antenna	1621 Mhz tuned patch antenna
Form Factor	PCB assembly – if you need outside casing, see RockBLOCK Plus
Operating Temperature	-40C to +70C (-40F to +185F)
Operating Humidity	≤ 75% relative humidity
Mounting Holes	Two on PCB
Header Connector	Molex 51021

ELECTRICAL POWER *(the host system must provide DC power to RockBLOCK)*

Power Input	3.0-5.4 V DC via 5 V input; 3.5-5.4 V via Li-ion input
Supply Requirement	Regulated supply capable of at least 500 mA
Power Consumption, Transmit	Up to 2.5 W
Power Consumption, Idle	Approximately 270 mW
Power Consumption, Sleep	Approximately 0.5 mW
Power Control	Dedicated On/Off input for low power operation

COMMUNICATIONS

Satellite Service	Iridium Short Burst Data (SBD)
Mobile Originated Message	Up to 340 bytes
Mobile Terminated Message	Up to 270 bytes
Typical Send / Receive Cycle	Approximately every 40 seconds
Message Delivery	HTTP POST to your web service or delivery to a nominated email address
Sending Data	HTTP POST to Ground Control's web service; message queued for download by the device
Data Formats	ASCII or binary

INTERFACES

Host Interface	3-wire asynchronous serial: TX, RX and GND
Logic Levels	3.3 V LVTTTL, 5 V tolerant
Serial Configuration	19,200 baud, 8 data bits, no parity, 1 stop bit
Connector	10-way Molex PicoBlade, 1.25 mm pitch
Additional Signals	Network Available, Ring Indicator, RTS, CTS and On/Off