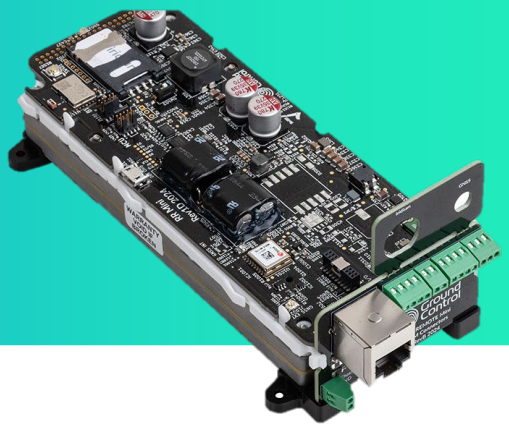
RockREMOTE Mini OEM

Build low power Iridium Certus 100 connectivity into your product



RockREMOTE Mini OEM is a compact satellite communications subassembly designed for integration into new products, equipment and remote IoT systems.

It combines Iridium Certus 100 IP connectivity and Iridium Messaging Transport with Ethernet, serial, Bluetooth and GNSS support. All essential non-RF connections are available through a single 30-way interface header, helping simplify electrical and mechanical integration.

Using the same firmware and Cloudloop device-management tools as RockREMOTE Mini, the OEM module provides a proven route to adding global satellite connectivity without developing a complete communications platform from the ground up. Iridium and GNSS antennas, external cabling and the finished-product enclosure are supplied or designed by the OEM integrator.

KEY FEATURES

Global satellite connectivity
Add Iridium Certus 100 connectivity to equipment operating beyond reliable terrestrial network coverage.

IP and message-based communications
Use TCP/IP for networked applications or Iridium Messaging Transport for efficient transfer of messages from 1 to 100,000 bytes.

Designed for OEM integration
The compact PCB assembly mounts using four fixing points, with essential power and interface connections presented through a single 30-way header.

Low-power operation
Typical idle consumption is approximately 300 mW, with low-power sleep modes available for energy-conscious applications.

Flexible host connectivity
Integrate Ethernet and RS-232 or RS-485 serial connections, with Bluetooth Low Energy available for local configuration.

GNSS support
Connect an external GNSS antenna for multi-constellation positioning support.

Shared Mini firmware and management
Use the same firmware, Bluetooth configuration and Cloudloop remote-management environment as RockREMOTE Mini.

Developer and integration support
Access mechanical guidance, interface documentation, reference designs, APIs and coding examples to support product development and certification.

TECHNICAL CHARACTERISTICS

PHYSICAL, INTEGRATION & POWER

Size	130 x 77.15 x 42.48 mm, including mounting features
Weight	310 g
Form Factor	Unenclosed PCB assembly with mounting chassis
Mounting	Four screw mounting points
Operating Conditions	−40 °C to +70 °C; <95% RH
Compliance	Finished-product compliance is the OEM integrator's responsibility
Input Voltage	10–30 V DC
Power Consumption	<36/75 mW sleep at 12/24 V; approximately 300 mW typical idle; 7.25 W average transmit
Peak Current	<1.66 A at 12 V; <833 mA at 24 V

SYSTEM & COMMUNICATIONS

Processor	Arm Cortex-M7
Memory	564 KB RAM; 1 GB flash
Satellite Service	Iridium Certus 100
IP Data Rate	22 Kbps upload; 88 Kbps download
IMT Message Size	1-100,000 bytes (minimum billable size 25 bytes)
GNSS	GPS, GLONASS, BeiDou, Galileo and QZSS
Bluetooth	BLE 5.0

INTERFACES & CONNECTIONS

Main Interface	30-way, 2 x 15, 2.0 mm-pitch header
Ethernet / LAN	Available through main header; external magnetics required
Serial	Full-level RS-232 or RS-485
Digital I/O	4 GPIO channels
Iridium Antenna	MMCX connector
GNSS Antenna	U.FL connector
SIM Card	1 x standard 2FF satellite SIM

MANAGEMENT & DEVELOPMENT

Cloudloop IoT Platform	Account, subscription, device and data management
Configuration	Local via BLE; remote via Cloudloop Device Manager
API & Data Delivery	Platform APIs and pre-integrated data destinations
Integration Support	Integration guidance, developer documentation and code examples