

Secure and Flexible IoT Data Transmission from Harsh Environments

RockREMOTE Rugged has tough outer protection and tested resilience to ensure reliable data connectivity for both mobile and static use cases. Securely connecting your remote IoT assets and using IP or message-based protocols, it provides diverse connectivity through Iridium Satellite or LTE networks. Whether over water, crossing a variety of terrains, or in permanent installations in challenging conditions, RockREMOTE Rugged delivers data gathering, transfer, backhaul, and management capabilities for your global satellite IoT project.



Key Features

Ruggedized Exterior Casing: RockREMOTE Rugged casing is rated IP67 and compliant with stringent health, safety and environmental requirements

Global Connectivity from Iridium Satellite Network: Combining the Iridium LEO network, Certus 100 and least cost data routing over cellular LTE, ensures connectivity that matches your application needs from anywhere in the world

IMT Option - Optimized Data Transfer: With Iridium Messaging Transfer (IMT) service there is no TCP/IP or MQTT overhead - only pay for sending your message payload. Integrated lossless compression further reduces the IoT payload. For small messages, there is up to 90% cost saving versus Certus IP

Solution Flexibility and Evolution: Equipped with a range of physical serial, digital and LAN connectivity options, the RockREMOTE Rugged is designed to connect a wide range of measuring and monitoring sensor devices. It both solves short-term challenges and will adapt to your application needs over time

Physical & Environmental

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| Satellite Transceiver | Iridium Certus 9770 Transceiver |
| LTE Cellular Module | Regional specific variants |
| Device Size | 9.8" x 3.8" x 2.4" |
| Weight | 2.6 lbs |
| Form Factor | Aluminum casing |
| IP Rating | IP67 |
| Vibration Rating | EN 300 019-2-5, EN 300 019-2-7 |
| Operating Temperature | -40F to +158F |
| EMC Compliance | CE & FCC & IC |
| Power Cabling | 3.3' power cable including device terminal block connector |
| Iridium Antenna | 3.7" diameter x 7.5" height, pole mounted omnidirectional antenna, and 1 x 29.5' antenna cable, including connectors |

Electrical Power

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| Voltage Required | 10 to 30V DC |
| Power Consumption | 0W (sleep), 5W (idle), 9W (average transmit) |

Interfaces

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| M12 Connector | Serial |
| M12 Connector | DC Power & LAN (Hybrid cable supplied) |
| SMA Connector to External Antennas | Cellular, GNSS, Wifi. (TNC cable assembly to supplied Certus antenna) |
| SIM Card Slot | Standard (2FF) x 2, (Satellite & Cellular) |

Supporting RockBLOCK

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| Cellular Antenna Mounting | Optional external LTE antenna The device is designed with pre-drilled fixing holes, allowing for easy mechanical fastening to other structures. Optional mounting brackets can be purchased for mechanical fixing to a bulkhead or pole |
| Developer Documentation | Use our support hub for set up and everything you need to get your project up and running |

Compute Module

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| Processor | Quad Core 1.5GHz |
| Memory | 2GB RAM, 8GB Flash |
| Operating System | Linux based |
| Protocol Facades | For MQTT and FTP |

Communications

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| Iridium Certus 100 | TCP/IP: 22Kbps up / 88Kbps down. LTE failover |
| Iridium Messaging Transport (IMT) | Data transfer packet size from 1 to 100,000 bytes, providing flexibility to meet varied data requirements |
| Cellular | LTE Cat 1 and Cat 4. Automatic WAN failover |
| GNSS | GPS, Glonass, Bei-dou, Galileo, QZSS |
| Wifi | 2.4 GHz, 5.0 GHz IEEE802.11 b/g/n/ac |

Controls and Monitoring

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| Cloudloop | Manage and monitor your device and delivery network with our cloud-based platform, providing real-time data-driven insight. Giving you the capability to monitor and manage data usage and billing across all devices |
| RockREMOTE DashBoard | Local web based configuration and management interface |

Related Products

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|-----------------------|---|
| RockBLOCK 9603 | The smallest and lightest version in the SBD RockBLOCK family. Powered via USB or direct-header connection |
| RockREMOTE | Mid-range IoT device utilising Iridium Certus 100 to transmit multiple sensors' data or compressed images. Designed for use within an enclosure |