

RockREMOTE Rugged

Resilient satellite and cellular connectivity for exposed and mobile equipment



RockREMOTE Rugged is an industrial communications gateway designed for permanent outdoor, mobile and semi-fixed installations where reliable connectivity is needed beyond consistent terrestrial coverage.

It combines LTE cellular with Iridium Certus 100 satellite connectivity, automatically switching between networks according to the configured routing strategy. Ethernet and configurable serial interfaces connect existing PLCs, RTUs, sensors and onboard systems, while optional Wi-Fi provides additional local connectivity.

A Linux-based platform supports local applications, MQTT, APIs and edge processing, allowing data to be filtered, processed or acted on closer to the equipment. Cloudloop Device Manager provides remote configuration, monitoring, diagnostics and software updates for deployed devices.

KEY FEATURES

Satellite and cellular connectivity

Use LTE where available, with Iridium Certus 100 providing connectivity beyond cellular coverage.

Automatic network switching

Automatically switch between cellular and satellite according to the configured WAN routing strategy.

IP and message-based communications

Use Certus 100 IP connectivity or Iridium Messaging Transport for payloads up to 100 KB.

Rugged for exposed installations

IP67 aluminum enclosure with a -40°C to $+70^{\circ}\text{C}$ operating range for demanding fixed and mobile deployments.

Industrial interfaces

Connect PLCs, RTUs, sensors and onboard equipment through Ethernet, serial and GPIO interfaces.

Edge processing and IoT integration

Run local applications and use MQTT, APIs and IMT-based data services to process and route data efficiently.

Remote device management

Configure, monitor, diagnose and update deployed terminals remotely through Cloudloop.



TECHNICAL CHARACTERISTICS

PHYSICAL, ENVIRONMENTAL & POWER

Dimensions	250 x 90 x 61 mm; 262 x 90 x 67 mm including mounting brackets
Weight	1.2 kg
Form Factor	Aluminum enclosure with sealed external connectors
Ingress Protection	IP67
Operating Temperature	-40°C to +70°C
Vibration	EN 300 019-2-5 and EN 300 019-2-7
Mounting	Four 4.5 mm fixing holes; optional pole-mount brackets
Input Voltage	10-30 V DC
Power Consumption	0.2 W sleep; 5 W idle; 9 W average transmit
Power Supply	External supply capable of 30 W during startup

SYSTEM & COMMUNICATIONS

Processor & Memory	Quad-core 1.5 GHz; 2 GB RAM; 8 GB flash
Operating System	Linux-based OS
Satellite Service	Iridium Certus 100 IP and Iridium Messaging Transport
IP Data Rate	22 Kbps upload; 88 Kbps download
IMT Message Size	1-100,000 bytes (minimum billable size 25 bytes)
Cellular	LTE Cat 1 and Cat 4; region-specific variants
WAN Failover	Automatic switching between LTE and Iridium
GNSS	Multi-constellation GNSS
Wi-Fi	Optional 2.4 GHz 802.11n

INTERFACES & CONNECTIONS

Ethernet	Rugged Ethernet interface; 2 m cable to RJ45
Serial	RS-232 and configurable RS-422/RS-485
Digital I/O	8 isolated GPIOs
Iridium Antenna	TNC
Cellular & GNSS Antennas	Separate SMA connections
Wi-Fi Antenna	Reverse-polarity SMA
SIM Cards	2 × standard 2FF; Iridium and cellular

MANAGEMENT & DEVELOPMENT

Local Management	Browser-based management via Ethernet or Wi-Fi
Remote Management	Cloudloop Device Manager
Network Management	Configurable routing, connection strategies and firewall
IoT Gateway & APIs	MQTT gateway, REST APIs, raw IMT and FTP over IMT