

The RockBLOCK Pro Family

RockBLOCK Pro SMA / ANT / OEM



RockBLOCK Pro and Pro OEM: plug and play satellite IoT and tracking terminals powered by Iridium Certus 9704 for faster, larger messages.

Ground Control's RockBLOCK Pro series leverages the Iridium Certus 9704 module with Iridium Messaging Transport for two way message payloads up to 100 kB and low latency delivery (typically under 10s). Both the Pro and Pro OEM include an onboard processor that handles queuing, retries, and network management, configurable digital and analog I/O, and an integrated GNSS receiver, making them ideal for IoT telemetry or precision asset tracking.

RockBLOCK Pro is a fully assembled, IP66-rated, plug-and-play terminal with a built-in or external antenna for rapid deployment in harsh environments. RockBLOCK Pro OEM provides the same feature set on a compact PCB assembly with mounting frame, enabling seamless integration into custom enclosures and embedded systems.

KEY FEATURES

Onboard processing

The Pro builds on the RockBLOCK 9704 module with the added capability to handle retries, queuing and modem control. Reducing the integration complexity and accelerating development by managing message flow automatically.

Multi-constellation GNSS

With precise GNSS positioning built in, these devices are ideal for mobile, remote or autonomous systems. Paired with our tracking platform, or leveraging our APIs to move data to your preferred platform, you can be assured of your global asset or team location in real time.

Supporting Iridium Messaging Transport (IMT)

Offering higher throughput, low latency messaging, up to 100,000 bytes. IMT enables efficient, bi-directional data exchange for demanding applications, without high power requirements, or the high overheads from TCP/IP transmissions.

Supporting SBD upgrades

RockBLOCK Pro supports the original AT command set implemented by the 9602 and 9603 SBD modules. This means you can directly replace your Iridium SBD module with RockBLOCK Pro and enjoy larger message sizes, faster throughput and lower data costs for your existing application.

Flexible interface options

RS232, RS485, USB, and GPIO on a single 30 way header. Seamlessly integrates with embedded, industrial, and legacy systems, with no carrier board required.

BLE 5.0 configuration

Wire-free setup and diagnostics in the field. Configure and monitor devices easily via the Ground Control mobile app, with no cables, laptops, or specialist tools needed.

Full stack support

The Cloudloop Platform provides data, device and subscription management, or the equivalent RESTful API to integrate functions into your own application and software.



TECHNICAL CHARACTERISTICS



RockBLOCK Pro OEM



RockBLOCK Pro SMA / ANT

PHYSICAL AND ENVIRONMENTAL

Form Factor	PCB assembly with mounting frame	Aluminum enclosure
Device size (LxWxH)	104 × 65 × 29 mm	121 x 75 x 57 mm 188 x 91 x 57 inc antenna
Weight	<108 g (excl. antenna)	400 g (incl. antenna)
Environmental Rating	None	IP66, suitable for permanent mounting in outdoor locations
Antenna	SMA connector; approved combined Iridium + GNSS antenna required	Optional built-in antenna; or use SMA connector

ELECTRICAL POWER

Requirement	5–30 V DC, 5 V USB-C	5–30 V DC, 5 V USB-C
Power consumption	200mW Idle, 2.5W Max	200mW Idle, 2.5W Max

INTERFACES

Digital – General Purpose I/O	2 × inputs & 2 × outputs, via 30-way header	4 × configurable channels (0–10 V analog input / open-drain digital output / dry-contact input)
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COMMUNICATIONS

Iridium Messaging Transport (IMT)	Data transfer packet size flexible from 25 to 100,000 bytes	Data transfer packet size flexible from 25 to 100,000 bytes
GNSS	Built in GNSS receiver; concurrent reception of 4 GNSS	Built in GNSS receiver; concurrent reception of 4 GNSS
Protocol	Serial via AT Command set for IMT message exchange (including SBD AT Command set emulation)	Serial via AT Command set for IMT message exchange (including SBD AT Command set emulation)