

**RockBLOCK  
9704 SMA**



**RockBLOCK  
9704 Antenna**



**RockBLOCK  
Pro OEM**



**RockBLOCK  
Pro**

These devices are built around the Iridium Certus 9704 satellite module, utilizing Iridium Messaging Transport (IMT) for faster message throughput, larger payloads, and improved power efficiency compared to other message-based services.

Designed by Ground Control, the hardware combines decades of satellite integration experience with the advanced capabilities of IMT. Whether you're looking to upgrade from a 9603-based solution or launch a new IoT deployment, our 9704 devices offer a compact form factor, low power consumption, and seamless integration into your remote applications.

## Key Features



### Low Power Consumption

Engineered for battery- and solar-powered deployments. Minimizes energy draw compared to larger modules



### Compact and Lightweight

The small form factor, particularly in the RockBLOCK 9704 SMA, lends itself to small enclosures.



### Full Stack Support

Cloudloop Platform provides data, subscription, device, GNSS tracking (PRO only) and network operational management, or equivalent RESTful API to integrate functions into your own application and software.



### High Volume Messages

Send messages up to 100KB, far exceeding SBD limits.



### Cost-Efficient Pricing

Optimized airtime pricing for 10–55KB/month; this is the sweet-spot for IMT via 9704



### Flexible Form Factors

Supporting multiple applications, from developer PCBs to ruggedized enclosures.

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## Physical & Environmental

| Form factor          | PCB assembly with notched edge for slot-mounting. Mounting frame available | PCB assembly with 4 mm mounting holes                | PCB assembly with mounting frame                                 | Aluminium enclosure                             |
|----------------------|--|--|--|---|
| Device size (LxWxH)  | 48 × 52 × 16 mm  | 72 × 72 × 16.5 mm                                    | 104 × 65 × 29 mm   | 121 × 75 × 57 mm<br>188 × 91 × 57 inc antenna   |
| Weight               | 35 g<br>(excl. antenna)  | 50 g<br>(incl. patch antenna)                        | <108 g<br>(excl. antenna)  | 400 g<br>(incl. antenna)                        |
| Environmental Rating | None   | None   | None   | IP66  |
| Antenna              | SMA connector for Iridium/GNSS + U.FL for GNSS passthrough                 | Integrated patch antenna + U.FL for GNSS passthrough | SMA connector; approved combined Iridium + GNSS antenna required | Optional built-in antenna; or use SMA connector |

## Electrical Power

| Requirement       | 4.0–5.3 V DC; 3.6–4.5 V battery; 5 V USB-C | 4.0–5.3 V DC; 3.6–4.5 V battery; 5 V USB-C | 5–30 V DC, 5 V USB-C | 5–30 V DC, 5 V USB-C |
|-------------------|--|--|----------------------|----------------------|
| Power consumption | 60mW Idle, 1.4W Max                        | 60mW Idle, 1.4W Max                        | 200mW Idle, 2.5W Max | 200mW Idle, 2.5W Max |

## Interfaces

### Digital - General Purpose I/O

|   |   |   |   |
|---|---|---|---|
| Serial and 9704 control via 16-way cable assembly | Serial and 9704 control via 16-way cable assembly | 4 x configurable channels (0-10 V analog input / open-drain digital output / dry-contact input) | 4 x configurable channels (0-10 V analog input / open-drain digital output / dry-contact input) |
|---|---|---|---|

## Communications

| Iridium Messaging Transport (IMT) | Data transfer packet size flexible from 1 to 100,000 bytes      | Data transfer packet size flexible from 1 to 100,000 bytes      | Data transfer packet size flexible from 1 to 100,000 bytes                        | Data transfer packet size flexible from 1 to 100,000 bytes                        |
|-----------------------------------|---|---|---|---|
| GNSS                              | External RF feed for external GNSS decoders via U.FL            | External RF feed for external GNSS decoders via U.FL            | Built in GNSS receiver. Concurrent reception of 4 GNSS                            | Built in GNSS receiver. Concurrent reception of 4 GNSS                            |
| Protocol                          | IMT messaging via Iridium interface supported by our libraries. | IMT messaging via Iridium interface supported by our libraries. | IMT via our bespoke AT command set. Or SBD AT commands via internal 9603 emulator | IMT via our bespoke AT command set. Or SBD AT commands via internal 9603 emulator |



## System and Data Management

### Pre-Pay Top Ups and Subscriber Account Management

Providing contract, billing management, and full visibility and control over airtime usage, and provisioning of your connected devices. The pre-pay module for the 9704 enables developers to establish satellite connectivity with full control over airtime spend. Pre-pay in bundles for KB of usage and full cost control, eliminating unnecessary bill shock.

### Developer Support

APIs are provided for all functions within the Cloudloop Platform. Pre-integrated data destinations for seamless integration. Developer documentation and coding examples, more info in links below.

### Cloudloop Data

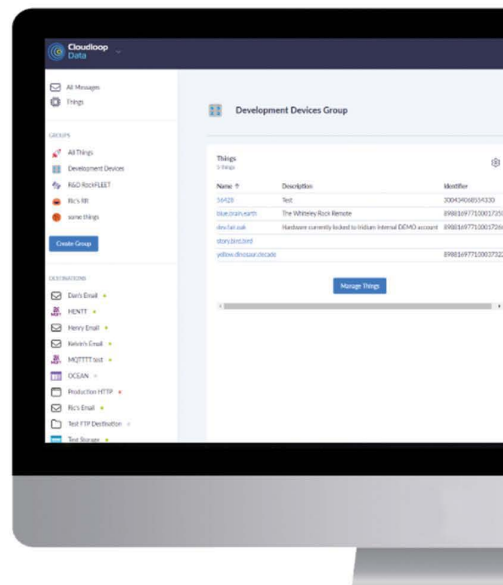
For IoT and tracking data management, the platform provides a unified, device-agnostic message format supporting a wide range of data transports and platforms. Manage where and how your IoT data is consumed.

### Cloudloop Device Manager

Providing remote device management and troubleshooting, CDM provides real-time visibility into device status, connectivity and operational health, reducing the need for costly site visits to remote locations. (Applicable to the Pro variants)

### C & Python (RB 9704 only)

Supplying open source C and Python SDKs handling JSPPR command sequencing, session and power-mode management, fragmentation/reassembly, and flow control.



## Products

### RockBLOCK 9704 Patch



### RockBLOCK Pro



### RockBLOCK 9704 SMA



### RockBLOCK Pro OEM



## Developer Support

### Developer Center



### Cloudloop Data



### Code Bank



### Cloudloop Subscription Manager



## Need More Data?

### RockREMOTE Mini



### RockREMOTE Rugged

