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
Cloudlloop 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.

Ground Control

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	RockBLOCK 9704 SMA	RockBLOCK 9704 Antenna	RockBLOCK Pro OEM	RockBLOCK Pro
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 x 75 x 57 mm 188 x 91 x 57 inc antenna
Weight	35 g (excl. antenna)	50 g (incl. patch antenna)	<108 g (excl. antenna)	400 g (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 × 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

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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.
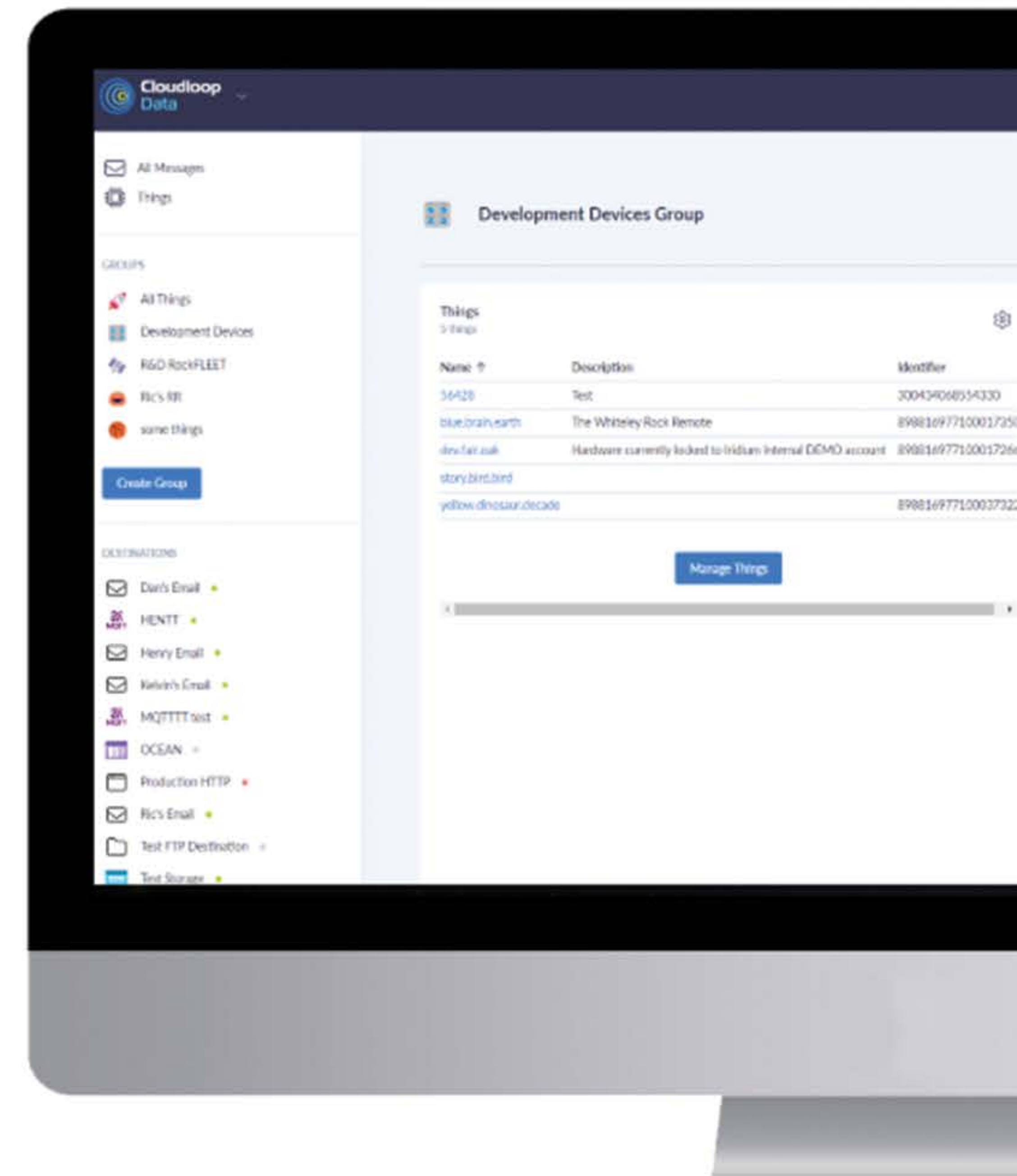
Cloudloop Data

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 JSPR 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

Code Bank

Cloudloop Data

Cloudloop Subscription Manager

Need More Data?

RockREMOTE Mini

RockREMOTE Rugged

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