# ) Ground Control

# RockBLOCK APNT

Resilient satellite communication and positioning anywhere on Earth.



**RockBLOCK APNT is a rugged, self-contained satellite communication and** positioning device that combines the proven reliability of Iridium's global messaging network with the cutting-edge Iridium PNT technology. Unlike traditional GPS/GNSS-based devices, RockBLOCK APNT delivers secure, spoof-resistant positioning, navigation, and timing (PNT) data even in GPS/GNSS-denied or contested environments. Built to withstand the

toughest conditions, it's ideal for commercial shipping, mobile asset tracking, and critical applications where trusted, resilient PNT data and global satellite connectivity are essential.

**Key Features** 

#### GPS/GNSS-Independent Positioning with Iridium PNT

Leverages Iridium's PNT signals for positioning, with cryptographic techniques resilient to jamming and spoofing, anywhere on Earth.

#### Global Two-Way Satellite Messaging

Enables reliable two-way communication worldwide via the Iridium satellite network, ensuring connectivity regardless of terrestrial coverage.

# Physical & Environmental

Form Factor Mounting Device Size (LxWxH) Weight **Environmental Rating** Antenna

Aluminium enclosure 121 x 75 x 57 mm 188 x 91 x 57 inc antenna 400 g (incl. antenna) IP66, suitable for permanent mounting in outdoor locations Optional built-in antenna; or use SMA connector **Operating Temperature** -40C to +70C, <95% RH

#### **Configurable Real-Time Tracking**

Supports customizable position update intervals ranging from 15 seconds to 24 hours, allowing flexible tracking tailored to mission needs.

## Geofencing and Alerting

Create custom geofence zones and receive automatic alerts when the device enters or exits predefined areas, enhancing asset security and operational control.

#### Historical Movement Logging

Records detailed movement history for post-mission analysis, audit trails, and enhanced situational awareness.

#### Rugged, Military-Grade Design

Constructed with an IP66-rated enclosure to resist water, dust, and harsh environmental conditions for dependable performance in the field.

### **Electrical Power**

Requirement Power Consumption

5-30V DC, 5 V USB-C 200mW Idle, 2.5W Max

Interfaces

Digital General Purpose I/O Bluetooth Serial

 $4 \times \text{configurable channels} (0-10 \text{ V analog})$ input / open-drain digital output / dry-contact input) BLE 5.0. App for configuration /status. Future sensor connectivity planned RS485 or RS232. Proprietary serial API & support for legacy 9603 AT commands Serial port. MSD file system

#### Low Power Consumption

Optimized for extended battery life and energy efficiency, making it suitable for long deployments in remote locations.

#### Flexible Integration Options

Offers multiple interfaces and antenna configurations including built-in and external antenna options - to simplify integration into diverse applications.

# Communications

Iridium Messaging Transport (IMT) APNT GNSS Protocol

USB-C

Data transfer packet size flexible from 1 to 100,000 bytes PNT GNSS supplied via the built in STL module Serial via AT Command set for IMT message exchange (Including SBD AT Command set emulation)



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