



RockSTAR APNT is a compact, rugged, handheld device that delivers Assured Position, Navigation, and Timing (A-PNT) in environments where GNSS signals may be denied, degraded, or manipulated. Designed for defense and critical infrastructure operations, it integrates Iridium PNT, a secure, space-based timing and location service that uses cryptographic techniques to validate signal integrity. Whether operating in GPS-contested areas or supporting systems that require a resilient timing source, RockSTAR APNT ensures dependable operation through a trusted satellite-based alternative.

## Key Features

### GPS/GNSS Independent Positioning with Iridium PNT

Receives secure, high-integrity timing and location signals via Iridium PNT, using cryptographic techniques to verify authenticity and resist manipulation.

### Resilient to Jamming and Spoofing

Provides assured PNT even in environments where GNSS signals are subject to jamming or spoofing, maintaining confidence in position and timing data.

### 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 *Coming Soon*

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.

### Compact and Rugged Design

Weighing just 305g and built to IP67 standards, RockSTAR APNT is fully waterproof, dustproof, and impact-resistant for dependable use in the harshest conditions.

### Optimized Power Consumption

Reporting every 30 minutes, you can expect ~15 hours of operation in default (Fast) mode. Switching to Eco mode extends this to around 20 hours

### Flexible Configuration and Data Access

Provides a USB charging port that also supports firmware updates and configuration via Ground Control's Serial API, enabling seamless device management and data retrieval for integration into external systems.

## Physical & Environmental

### Form Factor

Rubberized casing, 5x large user-friendly buttons, 1x Emergency Alert button

### Device Size (LxWxH)

144 x 76 x 36mm including antenna

### Weight

305 g (incl. antenna)

### Environmental

IP67, waterproof to 1m;  
MIL-STD-810 F/G ruggedness

### Operating Temperature

-20°C to +55°C

## Electrical Power

### Charging Device

USB (5v) - Mini USB connector

### Battery Life

Position reporting every 30 minutes:  
FAST mode: 15 hours  
ECO mode: 20 hours

## Functionality

### Navigation Display

Valid positions (PFOM  $\leq 8$ ) are refreshed to the display every second. Time, latitude, longitude, Iridium PNT position figure of merit (PFOM) and received Iridium PNT bursts per minute (BPM) are displayed

### Security/Emergency Alert

SOS alert sends message to nominated contact. Message delivery in seconds

### Adaptable Firmware & Software

Flexible API to fit IoT data/monitoring software requirements

### Waypointing Function

Pin key check-in points on shared location map

## Communications

### Iridium Short Burst Data® (SBD®) APNT

340 / 270 bytes per message, suitable for simple sensor data  
Iridium PNT

### GNSS

Built in GNSS receiver.  
Concurrent reception of 4 GNSS