

RockFLEET Assured

Independent vessel position assurance when GNSS cannot be trusted



RockFLEET Assured is a marine grade smart antenna system that provides an independent Iridium PNT based A-PNT position source for vessels operating in GNSS challenged, spoofed or jammed environments.

The system combines an above-deck smart antenna, Iridium Messaging Transport and optional below-deck chartplotter display. Data delivery is sent to Cloudloop tracking platform, or use API to integrate functionality into your own system. It supports trusted position reporting, device status monitoring, integrity alerts and operational visibility for bridge teams and shore-based fleet operators.

BENEFITS

- **For Bridge Awareness:**
The additional chart plotter provides a clear comparison of GNSS & A-PNT positions for situational reliability.
- **For Incident Review:**
Independent position and event records that support post event analysis.
- **For Fleet Visibility:**
Monitor vessel movements, device status & alert teams across a wide operating area.
- **Flexible Integration:**
Structured data can be routed into fleet, compliance & operational platforms.

KEY FEATURES

Assured Positioning via Iridium PNT

Independent A-PNT position source for trusted vessel position reporting when GNSS is unreliable, spoofed or jammed.

Chart View for Bridge Awareness

Optional chart plotter display showing assured A-PNT position alongside GNSS position, with track and status indicators.

Integrity Alerts on GNSS position

With chart plotter - utilise configurable alerts and event logs when position integrity is at risk, these are shown locally and forwarded to shore (feature in development).

Flexible Installation Options

- Single above-deck unit with marine-grade cable up to 100 m (two variants (NMEA 2000 or NMEA 0183)).
- BDU chart plotter - optional Raymarine Axiom+9 chartplotter and optional rugged casing (Rapid Deploy Bundle).

Insurance, Compliance and Auditing

Event records support post incident review, compliance evidence and insurance reporting when GNSS integrity is questioned.



Accuracy note: Dynamic position accuracy varies by latitude and satellite geometry. Real world tests have shown median accuracy of 25 m in Norway at 69°N, with 95% under 50 m, and 42 m in the Red Sea at 19°N, with 97.5% under 200 m. **Specification subject to change.**

PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

PHYSICAL FEATURES

Form Factor	Low profile, marine-grade smart antenna for deck or pole mounting
Size	201 mm diameter x 125 mm height
Weight	1,460 g, including antenna and mounting bracket
Iridium Transceiver	9704 modem
Environmental	IP67
Operating Temperature	-40°C to +70°C
Cable	Marine grade cable, available up to 100m

ELECTRICAL POWER

Power Input/Output	Powered by vessel DC supply
Voltage Required	ADU 15V to 24V DC (Cable 0-100m) BDU 10V to 30V DC
AC Input	220 V AC via external power supply, kit / integration dependent

COMMUNICATIONS

Iridium IMT	Available with the 0183 model - Iridium Messaging Transport with flexible packet sizes from 25 to 100,000 bytes.
A-PNT	Integrated Iridium PNT module
Configurable Reporting	Position reports and alerts, geofence, power and tamper events, depending on configuration
Operational Payloads	Additional payloads supported, subject to size, rate profile and configuration

USER INTERFACE AND DEVICE MANAGEMENT

Mobile App	Bluetooth LE app for commissioning, configuration and status reporting
Remote Configuration	OTA configuration of device, key parameters and reporting profiles
App Messaging	Device, position and message or connection state available via the app.
	Remote device management.
Cloudloop Platform	Manage data, tracking, alerts, telemetry, reporting and multiple user accounts remotely or integrate all functional API into own systems

CHART PLOTTER (BDU) AND CABLE

Visible Position Check



Optional Raymarine Axiom+ 9 chart plotter for bridge situational awareness.

Supplied with a Raymarine Y NMEA cable where the bridge display option is selected.

Displays assured A-PNT position alongside GNSS position, helping bridge teams compare trusted and conventional position sources.



Further information
on
RockFLEET Assured

Order Reference:

RockFLEET Assured (NMEA2000)
RockFLEET Assured (NMEA 0183)
RockFLEET Assured Full Bundle
RockFLEET Assured Rapid Deploy Bundle

FP-GC-RFA-B
FP-GC-RFA0183-B
FP-GC-RFA-FB
FP-GC-RFA-RD