BlueTraker LRIT

for Commercial Shipping

LRIT - Long Range Identification and Tracking

BlueTraker

by ellla

WIRELESS DATA SOLUTIONS

BlueTraker LRIT

BlueTraker LRIT is **fully compliant with IMO regulations on Long Range Identification and Tracking (LRIT)** and is the most robust LRIT terminal on the market.

It configures and transmits:

- Automatic Position Report (APR):
  - Identity of the ship.
  - Position of the ship.
  - Date and time of the position.
- On-demand position report polling.
- Pre-scheduled position reports.

Truly global communication coverage through the Iridium satellite network!

Absolutely free full pre-conformance test!

Full package with 50 m cable and mounting accessories!

BlueTraker LRIT provides **reliable, safe, and secure global LRIT operations** for all types of vessels. It's a cost-effective solution with long-lasting operation and unparalleled features and benefits.

Fully Integrated with Robust Design

The BlueTraker LRIT is a fully integrated device with embedded GPS and Iridium antennas, removing any need to connect additional external components for tracking and monitoring. All its components are packed inside a very robust, double-shell housing with IP68 and IP69K environmental protection. This integration eliminates the risk of misapplication, safeguarding sensitive, cable-dense modular devices.

Free Full Pre-conformance Test

When installed on a ship, all LRIT terminals have to be tested for communication capabilities by an Application Service Provider (ASP) and obtain Conformance Test Report (CTR). To simplify the testing process, BlueTraker LRIT customers have the unique option of a full and completely free pre-conformance test conducted by our engineers.

Pole-to-Pole Coverage and Optimized Running Costs

The BlueTraker LRIT terminal offers truly global communication coverage through the Iridium Low Earth Orbit (LEO) satellite constellation, which is the only network offering 100% Pole-to-Pole coverage, including sea area A4. The BlueTraker LRIT terminal transmits Automatic Position Reports (APR) using Iridium's efficient and cost-effective Short Burst Data (SBD) service.

A Complete Ship-Borne LRIT Solution

The BlueTraker LRIT terminal is easy-to-install device, installed above the deck and is designed to withstand the harshest weather conditions. It comes together with a 50 m connection cable and all necessary mounting accessories.

With the International Maritime Organization (IMO) resolution MSC.202(81) adoption of chapter V amendment of the International Convention for the Safety of Life at Sea (SOLAS), regulation 19-1, the LRIT regulation applies to: All passenger ships, including high-speed craft on international voyages; Cargo ships, including high-speed craft of 300 gross tonnages and above on international voyages; Mobile offshore drilling units.

The Long-Range Identification and Tracking (LRIT) system provides global identification and tracking of ships.

BlueTraker LRIT Arctic

Shorter routes between the Atlantic and Pacific Oceans are opening up: the Northern Sea Route [North East passage] through the Russian Arctic, and North West Passage through the Canadian Arctic.

Navigating these routes means navigating the A4 Sea Area, essentially North and South of about 70 degrees latitude, and through the Arctic, where the Iridium satellite network is the only choice for communication, and all electronics are under stress due to extreme weather conditions.

Cold start at -50°C.

The world's only LRIT terminal engineered to withstand rigorous Arctic voyages!

Complete A4 Sea Area communication coverage through the Iridium satellite network!

All electronic and mechanical components are specially selected to operate in low temperatures!

Unparalleled Features and Advantages:

Reliable Operation

BlueTraker LRIT Arctic is certified for operation in temperatures as low as -50°C. An integrated pre-heating element raises the inner housing temperature and prevents the device temperature from dropping below - 40°C when the outside temperature drops to -50°C!

Smart Engineering

All electronic components in the BlueTraker LRIT Arctic are selected for low-temperature operation. Smart thermostatic temperature control enables successful "Cold Start," critical in the event of main power loss in extremely cold environments, allowing the device to power up again reliably.

The smart firmware, specially designed for Arctic operations, ensures safe thermostatic control in extremely low temperatures.

Customizable Mounts and Various Accessories

Sturdy stainless steel (EN1.4571) is used for the mount and can withstand mechanical stress and vibration at temperatures down to -50°C. The arctic grade power supply cable ensures flexibility and reliable operation in extreme cold.

The Perfect Choice for the A4 Sea Area

The BlueTraker LRIT Arctic is truly the world's only LRIT terminal that enables operation in the extremely cold environments of Arctic areas. It resists accelerated cooling in extreme environments, successfully battling the Arctic chill factor, referring to the impact of Arctic wind on exposed electronics equipment.

The Benchmark for A4 LRIT Operation

The BlueTraker LRIT Arctic terminal can operate in extremely cold environments with temperatures as low as -50° C. It sets the benchmark for LRIT operation under extreme conditions and has been extensively tested by Intertek of Finland for Arctic operation.

BlueTraker LRIT Technical Specifications

External power supply	24 V DC, 1 A / Arctic version 9 V DC to 36 V DC, 0.5 A max
Power supply protection	Power line disconnects above 36 V Withstands continuous connection up to 150 V DC source Internal self recovering poly fuse
Operating temperature - Standard version	-25 °C to +55 °C
Operating temperature - Arctic version	-50 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Waterproof and dust protection	IP68 protection class (depth 6 m, duration 30 min.)
Integrated antennas	GPS, Iridium
Iridium transceiver	Frequency range 1616 MHz to 1626.5 MHz; Maximum output power +32 dBm (1.6 W)
GPS receiver	33 channels, 1 sec. update rate, 1575.42 MHz (L1 band) Accuracy: Position 5 m CEP, Velocity 0.1 m/sec Sensitivity: - 167 dBm tracking
Installation	External, mast, vertical rail, horizontal rail, flat vertical surface
Mounting accessories	UniMount mounting bracket (included)
Cable	50 m (included)
Housing	Double-shell, white-coloured outer shell, resistant to UV sun radiation
Mechanical	Dimensions: 198 x 67 x 198 mm (width x height x length) Weight: 1.19 kg; 2 kg with UniMount
Shock resistance	Multiple drop from 1.2 m height to every side of the device

Standards, Certificates and Type Approvals

- Iridium Compliance Certificate
- US Coast Guard Certificate
- DNV GL Type Approval
- Russian Maritime Register of Shipping Type Approval
- IEC60945 - Marine environment standards compliance
- IP68 & IP69K - Water and dust grade protection standards
- Quality management system certified: EN ISO 9001 & EN ISO 14001

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