



LRIT

Long Range Identification
and Tracking



BlueTraker LRIT for Commercial Shipping

Global Communication Coverage
through the Iridium Satellite Network!

by
eilia
WIRELESS DATA SOLUTIONS

BlueTraker LRIT



Absolutely free full pre-conformance test!

Full package with 50m cable and mounting accessories!

Truly global communication coverage through the Iridium satellite network!

BlueTraker LRIT fully complies with IMO regulations on Long Range Identification and Tracking (LRIT) and is the leading terminal for integration in LRIT systems 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

BlueTraker LRIT offers reliable, safe and secure, truly global LRIT operation for all types of vessels. It is a cost effective solution with a long life of operation. Its exceptional features and benefits are unparalleled on the market

Fully Integrated and Robust Design

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 level of integration makes misapplication impossible and so protects sensitive 'cable rich' modular devices.

Pole-to-Pole Coverage and Optimizes your Running Costs

BlueTraker LRIT terminal offers truly global communication coverage through the Iridium Low Earth Orbit (LEO) satellite constellation, which is the only one 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.

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 acquire Conformance Test Report (CTR). In order to complete the test hassle free, BlueTraker LRIT customers have the unique option of an absolutely free and full pre-conformance test with our engineers.



A Complete Ship-Borne LRIT Solution

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

With 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 tonnage 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



Cold start at -50° C

World's only LRIT terminal engineered to withstand the rigorous of Arctic voyages!

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

All electronic and mechanic components especially selected for low temperature operation!

Shorter routes between Atlantic and Pacific Ocean are opening up:

- Northern Sea Route [North East passage] through the Russian Arctic
- North West Passage through the Canadian Arctic.

Navigating these routes means navigating the A4 Sea Area, essentially North and South of about 70 degrees of latitude and through the Arctic, where the Iridium satellite network is the only choice of communication and all electronics are put under stress due to extreme weather conditions. Navigating through Arctic areas calls for an LRIT terminal suited to the task and the **BlueTraker LRIT Arctic** is the only choice!

Unparalleled Features and Advantages

Besides the standard **BlueTraker LRIT** IMO compliant features and functionalities, the **BlueTraker LRIT Arctic** offers an array of unparalleled advantages.

Reliable Operation

- **BlueTraker LRIT Arctic** is certified for operating in temperatures down to -50° C.
- Integrated pre-heating element:
 - Increases inner housing temperature +15° C
 - Prevents the device temperature to drop below - 40° C when the outside temperature sinks to -50° C!

Smart Engineering

- All electronic components used in a **BlueTraker LRIT Arctic** are selected for their low operating temperature range. Smart thermostatic temperature control enables successful "Cold State Power-up" at temperatures unthinkable before - important in cases of main power loss within extreme cold environments and then powering-up again.
- Smart Firmware, specially designed for Arctic operations provides safe thermostatic control to keep working in these extremely low temperatures.

Specially Engineered Adaptable Mount with Accessories

- Carefully selected stainless steel (EN1.4571) is used for the mount and it is capable of withstanding mechanical stress and vibration at temperatures down to -50° C.
- Arctic grade power supply cable ensures required flexibility and reliable operation in the extreme cold.

The Perfect Choice for the A4 Sea Area

BlueTraker LRIT Arctic is truly the world's only LRIT terminal which enables operation in the extremely cold environments of Arctic areas. It resists accelerated cooling in extreme environments, successfully battling Arctic chill factor - the effect of the arctic wind on exposed electronic equipment.

The Benchmark for A4 LRIT Operation

The **BlueTraker LRIT Arctic** terminal can operate in extremely cold environments with temperatures down to -50° C. It is the benchmark for LRIT operation under extreme conditions and was extensively tested by Intertek of Finland for Arctic operation.



BlueTraker LRIT Technical Specifications

External power supply	24V DC, 1A / Arctic version 9V DC to 36V DC, 0.5A max
Power Supply Protection	Power line disconnects above 36V Withstands continuous connection up to 150V DC source Internal self recovering poly fuse
Marine environment	BlueTraker LRIT: Temperature range: -25°C to +70°C BlueTraker LRIT Arctic: Temperature range: -50°C to +70°C
Storage	Temp. Range: -50°C to +70°C
Waterproof and dust protection	IP68 to depth of 5 metres; IP69K
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 2.5m CEP, Velocity 0.1m/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 colour 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
Certification	Satellite modem, FCC and CE certified (for Type Approvals see below)

Standards, Certificates and Type Approvals

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



U.S. Department of
Homeland Security
**United States
Coast Guard**



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