

BlueTraker[®]

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Long Range Identification
and Tracking



Global communication coverage
through Iridium satellite network!

by **eilia**
WIRELESS DATA SOLUTIONS



Absolutely free full pre-conformance test!

Full package with 50 m cable and mounting accessories!

Truly global communication coverage through Iridium satellite network!

BlueTraker® LRIT fully complies with IMO regulations on Long Range Identification and Tracking 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 for a long life 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, avoiding 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 optimization in running costs

BlueTraker® LRIT terminal offers **truly global communication coverage** through Iridium Low Earth Orbit (LEO) satellite constellation, which is the only one offering a truly 100% Pole-to-Pole coverage, including full coverage of A4 sea area. 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 Reports (CTR). In order to complete the test hassle free, the BlueTraker® LRIT customers have the unique advantage of an **absolutely free and full pre-conformance test** with EMA.



A complete ship-borne LRIT solution

BlueTraker® LRIT terminal is an easy-to-install device, installed above the deck, conquering the harshest weather conditions. **It comes together with 50 m 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, and
- Mobile offshore drilling units.

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



Cold start at -55° Celsius!

World's only LRIT terminal engineered for Arctic voyage!

Complete A4 Sea Area communication coverage through Iridium satellite network!

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

Shortest routes between Atlantic and Pacific Ocean are opening:

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

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

Navigating through Arctic areas calls for LRIT terminal suited to the task and the **BlueTraker®** LRIT Arctic is the only choice.

Unparalleled features and advantages

Beside 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 -55° C.
- Integrated pre-heating element:
 - adds additional +15° C to the inner housing temperature,
 - prevents the device temperature to drop under - 40° C when outside cold sinks to -50° C or more.

Smart engineering

- All electronic components used in a **BlueTraker®** LRIT Arctic are selected for the lowered operating temperature range and special, smart thermostatic temperature control enables successful "Cold State Power-up" at temperatures unthinkable before - important in cases of main power loss within extreme cold environment and then powering-up again.
- Smart Firmware, specially designed for Arctic operations provides safe thermostatic control without electromagnetic interference (EMI).

Adjusted mounting and installation

- Carefully selected stainless steel (EN1.4571) is used for the mounting accessory which is capable to withstand mechanical stress and vibration down to -55° C and lower.
- Arctic grade power supply cable ensures required flexibility and reliable operation in extreme cold.

The perfect choice for A4 sea area

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

The benchmark for A4 LRIT operation

The **BlueTraker®** LRIT Arctic terminal can operate in extremely cold environments with temperature down to -55° C. It is the benchmark for the LRIT operation under extreme conditions, tested by Intertek of Finland for perfect Arctic operation.



BlueTraker® LRIT technical specification

External power supply	24 V DC, 0.06 A 9 V DC to 35 V DC, 0.5 A max Protection: Power line disconnect above 35 V Withstands continuous connection to 180 VDC source
Safety	Internal self recovering Poly fuse.
Marine environment	BlueTraker® LRIT: temp. range: -25 °C to 70 °C; BlueTraker® LRIT Arctic: temp. range: -55 °C to 70 °C;
Storage	Temp. range: -40°C to +85 °C;
Waterproof and dust protection	IP68 to depth of 5 meters; IP69K
Integrated Antennas	GPS, Iridium: 3 dBi RHCP
Iridium transceiver	frequency range 1616 MHz to 1626.5 MHz; maximum output power 33 dBm (2 W)
GPS receiver	12 channels, 1 sec. update rate, 1575.42 MHz (L1 band) Accuracy: Position 2.5m CEP, Velocity 0.1m/sec, Time 300ns Sensitivity: -161dBm 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 device
Certification	Type approved by Classification Society (in procedure) CE conformance Satellite modem FCC and CE certified U.S. Coast Guard Approval Certificate Number 165.207/5/0


Compliances, Certifications & Approvals



- Iridium Compliance Certificate
- Germanischer Lloyd Type Approval
- US Coast Guard Certificate of Approval
- CE1304 - Certificate of compliance with standards for radio communication devices
- IEC60950 - Compliance with the safety standard for communication equipment
- IEC60945 - Marine environment standards compliance
- IP68 and IP69K - Water and dust protection grade standards
- ISO9001:2000 - Quality management system certificate

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EMA  +386 (0)3 42 84 800

Mariborska 1c  bluetraker@ema.si

SI - 3000 Celje, SLOVENIA  www.bluetraker.com