GMDSS Iridium kit

Alphatron LT-3100 Iridium
Alphatron LT-3100S GMDSS Iridium

ALPHATRON
Marine

- 100% Global GMDSS Coverage (SOLAS GMDSS approved)
- Offering Voice, SMS, Data & GNSS/GPS
- Tracking facilities
- Bluetooth interface (Smartphone connection/headset)

Category
>500 GT
3.000 GT - 10.000 GT
Over 10.000 GT

Workboats

Deepsea

Fishing

Yachting

alphatronmarine.com

Features |

The Alphatron GMDSS Iridium kit is a maritime satellite communication product that is designed for the professional market (deep sea, fishing, and workboats), but can be used for the leisure market as well. The system meets all standards and certification requirements needed for worldwide maritime satellite communication equipment.

- 2.4 kbps and 9.6 kbps compressed data
- Programmable softkeys for e.g. Emergency Service
- Single antenna cable solution (up to 500 m)
- High-performance GNSS/GPS receiver
- High quality microphone, speaker, and equalizer

- Bluetooth interface supporting voice, SMS, and data
- Firewall and user authentication for high level of security
- Webserver for configuration and maintenance
- Large 4.3" TFT display supporting day and night modes
- Connectivity of Smartphones, Softphones, and Apps

Global coverage |

The Alphatron LT-3100 Iridium and Alphatron LT-3100S GMDSS Iridium have voice and data capabilities with 100% global GMDSS coverage provided by the Iridium® Communications Network. The system consists of a control unit, handset with cradle, antenna unit, snap-in bracket for flush mounting, bracket for desktop mounting, power cable and a user and installation manual. A single coaxial cable connects the control unit with the antenna unit. Using a standard coaxial RG-214 cable, up to 500 meters of separation between the units can be obtained, giving freedom to mount the antenna unit in the best possible location, with free line of sight to the satellites.

Voice, SMS, Data & GNSS/GPS |

This system is the first on the market to feature all three GMDSS services - safety voice, distress alerting and maritime safety information messaging, as well as being able to utilize Iridium's global voice and data services – all in one cost-effective and compact terminal. The Alphatron LT-3100 Iridium and Alphatron LT-3100S GMDSS Iridium can be used as the primary satellite communication product on vessels, covering the basic communication needs in terms of connectivity between the ship and shore. In addition, the system can be used for crew calling or as back-up satellite communication prduct. The system provides voice, SMS, data, vessel tracking and other Iridium services with competitive airtime rates, making it the perfect satellite communication product on board any vessel.

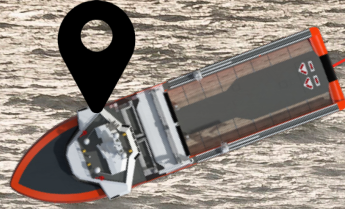Supported by

SKYFILE MAIL

MARLINK

AST

- 2,4 kbps and 10 kbps compressed data
- Text message service –also via Smartphone App
- External LAN Wi-Fi Access Point compatible
- Built-in web server for s/w updates & diagnostic reports
- Onsatmail (AST)
- SkyFile (Marlink)
- Iridium Mail & Web

ALPHATRON Marine Iridium

Bluetooth

Color display
Large 4.3"TFT display supporting brightness adjustment and day/night mode themes

Volume control
Speaker and ringer volume control button

Keypad
Responsive keypad with brightness adjustment

Ringer
Incoming call ringer

Noise-canceling
High quality microphone. Improving voice quality in noisy environments

Audio speaker
Audio speaker supporting key beep, voice prompt, and alarms

Functional keys
Functional keys; off-hook, on-hook, navigation keys, and programmable softkeys

Tracking facilities |

The Alphatron GMDSS Iridium kit is not only designed for GMDSS services. It also supports the Ship Security Alert System (SSAS), Anti-Piracy/Citadel Communications and Long Range Identification and Tracking (LRIT). The LRIT (Long Range Identification & Tracking) functionality is based on the Iridium SBD-service.

- GNSS/GPS
- Position accuracy:
    - < 1 m. in 63 % of the time
    - < 2 m. in 96 % of the time
- GNSS output via NMEA0183
- Tracking features
- Via SBD, SMS or E-mail
- Pull & Push

System diagram |

Spiral cord

LAN Aux Power

Coaxial cable
up to 500 meter

Basic

Optional

Power

LAN

RS-422

GPIO

CAN

CAN

Citadel solution |

In recent times there has been a significant increase in the number of pirate attacks on vessels. Many major shipping lanes are targeted by pirates which affects the safety of seafarers and merchant seamen from all over the world.

The maritime piracy solution implements a satellite communication channel delivered to the below deck in a citadel safe-zone where all crew member seek safety in emergency situations. The usage and incorperation of the citadel method in ships has become more common.

The antenna is installed at a concealed spot on the ship with a clear view of the sky. A cable is run down to the safe-zone and connected to the Alphatron LT-3100S GMDSS Iridium. This allows the crew or the maritime security officer to quickly contact maritime authorities and request immediate help.

Safe room communication

• New Builds & Retrofit
• Tracking
• GNSS/GPS output to VHF/DSC
• Supporting SIP phones
• Concealed Antennas
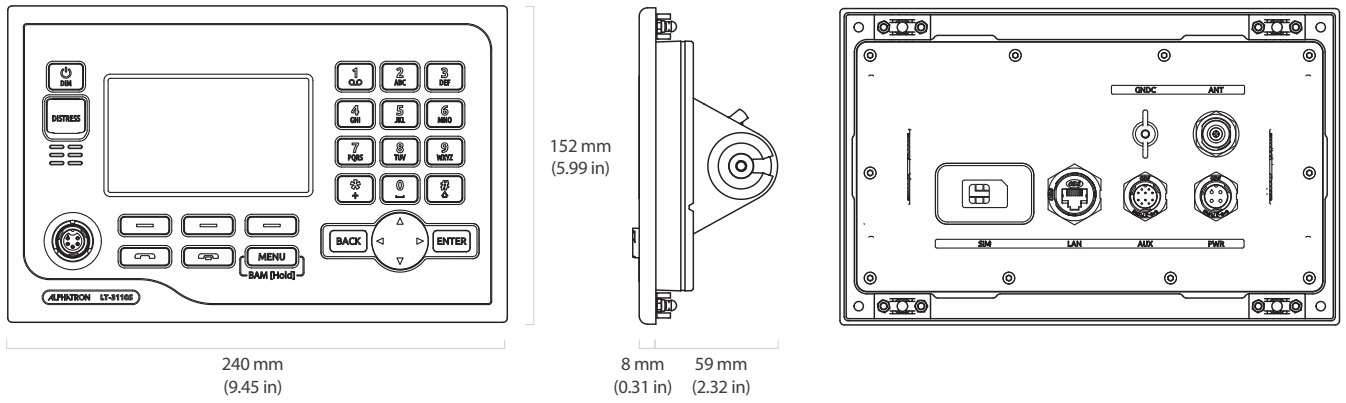
Concealed antenna

SIP / PABX

VHF DSC

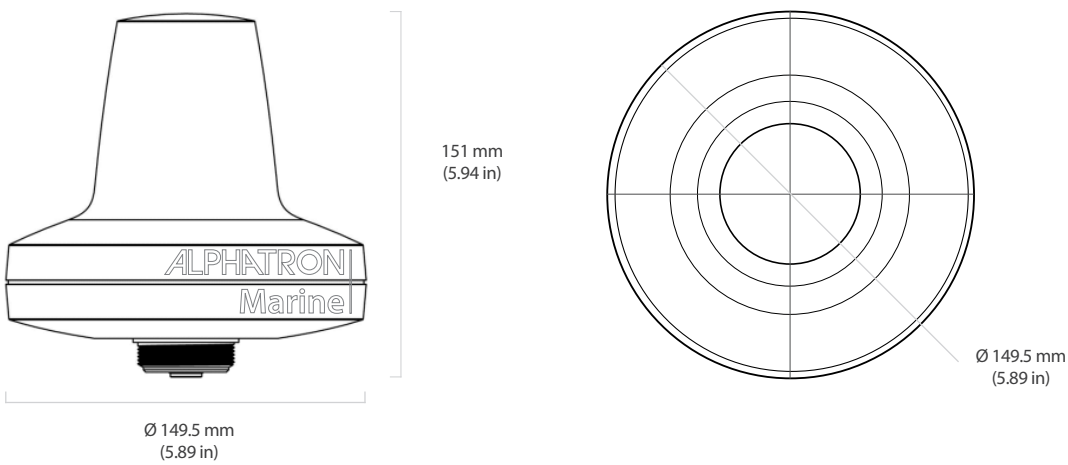Battery

Tech Specs |

LT-3110S Control Unit (GMDSS) RoHS

G-008364 Weight 0.658 kg (1.45 lbs)

152 mm (5.99 in)
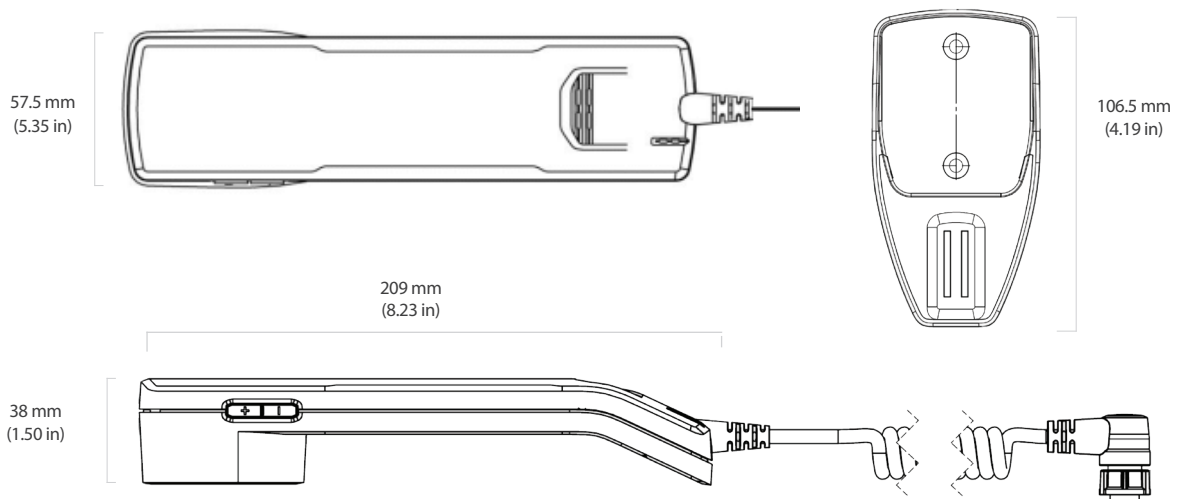
240 mm (9.45 in)

8 mm (0.31 in) 59 mm (2.32 in)

GNDC ANT

SIM LAN AUX PWR

LT-3130 Antenna Unit RoHS

G-007783 Weight 0.687 kg (1.51 lbs)

151 mm (5.94 in)

ALPHATRON Marine

Ø 149.5 mm (5.89 in)

Ø 149.5 mm (5.89 in)

LT-3120 Handset RoHS

G-007782 Weight 0.29 kg (0.64 lbs)

57.5 mm (5.35 in)

106.5 mm (4.19 in)

209 mm (8.23 in)

38 mm (1.50 in)

Specifications |

Alphatron GMDSS Iridium kit	
Certification & standards	Maritime CE, FCC, ISED, RCM, RED, MED (Wheel Mark), RoHS 2, Iridium®
Vibration, operational	IEC 60945 (sine) & proprietary Maritime Random profile
Vibration, survival	Proprietary Maritime Random profile
Vibration, shock	Proprietary Maritime profile (20 g, 11 ms)
Power consumption: operating mode, max	40.8 W
Compass Safe Distance, std.	1.0 m (3.3 ft)
Compass Safe Distance, steer.	0.9 m (3.0 ft)
Control Unit	
Temperature, operational	-15°C to +55°C (+5°F to +131°F)
IP rating, dust and water	IP 32
Interfaces	Ethernet, auxiliary, DC input, chassis ground Antenna Unit (N conn.), Handset, Bluetooth, SIM card
Input power	12-24 VDC (2.2-1.7 A)
Handset	
Temperature, operational	-15°C to +55°C (+5°F to +131°F)
IP rating, dust and water	IP 32
Antenna Unit	
Temperature, operational	-40°C to +55°C (-40°F to +131°F)
IP rating, dust and water	IP67
Interfaces	Control Unit (N conn.)
Antenna communication cable	Coaxial cable RG-214, up to 500 m (1500 ft)

In the box

• Alphatron LT-3100 Iridium (Basic set)	G-007784
• Alphatron LT-3100S GMDSS Iridium (GMDSS set)	G-007760

Sets include:

or

• LT-3110 Control Unit	G-008362
• LT-3110S Control Unit	G-008364
• LT-3120 Handset	G-007781
• LT-3121 Handset cradle	G-007782
• LT-3130 Antenna Unit	G-007783
• Power cable 3 meter	
• User & Installation Manual	

Optional

• Bracket Mount (1.5" to 2.5" pipe), Antenna Unit	G-007771
• Pole Mount (1.5" tube), Antenna Unit	G-007772
• Power cable, 3m for LT-3100	G-008405
• Power cable, 3m for LT-3100S	G-007773
• Aux Cable, 3m	G-007774
• Coaxial Cable RG-58 Ø4.9mm 10m	G-007775
• Coaxial Cable RG-58 Ø4.9mm 25m	G-007776
• Coaxial Cable RG-213 Ø10.3mm 10m	G-007777
• Coaxial Cable RG-213 Ø10.3mm 25m	G-007778
• Coaxial Cable RG-213 Ø10.3mm 50m	G-007779
• LT-3150S Alarm Panel (incl. 25m cable)	G-007764
• LT-3160S Printer Adapter (incl. 25m cable)	G-007765
• LT SSAS Kit for 3100S GMDSS System	G-007762
consists of:	
• LT-3140S Interface Unit	G-007763
• LT SSAS Alert Button (incl. 50m cable)	G-007766
• LT SSAS Test Button (incl. 50m cable)	G-007767

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