

StreamLine

4663 StreamLine Compact LAR LoRa LTE-M/2G (with Power-I/O Cable and Box)



See indication of scale below

The 4663 StreamLine Compact LAR LoRa LTE-M/2G is a specialized Track and Trace module designed for monitoring powered assets. Equipped with internal antennas for connection to both LoRa networks and positioning satellites. Its internal battery automatically charges when external power is accessible, ensuring uninterrupted operation even in the absence of external power sources.

Key features

General

- Environmental resistance IP 65
- Size: 120 x 55 x 24 mm
- Wide operating range: -20 ° C ... +60 ° C
- Multiple watchdog levels for maximum stability
- Event based free configurable module to fit any job with over 300 different events
- Save up to 4000 geozones
- Remote configurable to fit any job (both firmware and configuration files can be updated/patched over-the-air)
- Supports integration into third party networks
- User definable SMS commands

Optional extras

- eSIM
- Barometer

Interfacing

- Digital and analog I/Os
- Serial I/Os
- 1-Wire compatible

Connectivity

- LoRa technology, EU-868 MHz
- Compatible lora based solutions such as: private LoRa networks or Helium
- LTE Cat M1/NB-2/EGPRS
- Micro SIM socket
- Internal patch antenna
- Proprietary RF
- BLE beacon technology

Positioning

- GNSS, internal patch antenna

Sensors

- 3D accelerometer (up to 16 g)

Electrical

- Input range +6 ... +31 VDC power
- Output power for peripherals +5 VDC
- Ultra low stand by power consumption

Connectors

- Molex connector

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Product summary

The 4663 StreamLine Compact LAR LoRa LTE-M/2G is an exceptionally precise tracking module, delivered with a rugged enclosure for dependable protection against dust and water intrusion. It boasts internal antennas that ensure accurate positioning and reliable data connectivity.

Effortlessly track assets with advanced GNSS satellite positioning technologies like GPS, A-GPS, Galileo, and Glonass. Furthermore, enhance asset monitoring with a built-in temperature sensor and an acceleration sensor. The module offers versatile interfacing options for connecting external sensors. The same interfacing cable can also serve as a power source. Using Beacon technology, the user can set up devices for the module to recognise and define an action for the module to take or simply forward the identifier when it is detected.

For uninterrupted operation, 4663 StreamLine Compact LAR LoRa LTE-M/2G can seamlessly switch to its internal rechargeable backup battery in case of power loss. In situations where network connectivity is unavailable the module can smoothly transition to 2G coverage or when necessary, store up to 8,000 positions in its internal memory to transmit them once the connection is re-established.

When ordered in large volumes, the device can be customised to specifications, e.g. adding or removing features. From only the PCBA up to a full solution (with enclosure, setting, special firmware, etc.), please contact your StreamLine products supplier for your project.

Connectivity specifications

- | | |
|--------------------|--|
| • GPRS modem | • Quectel BG95 LTE cat M1/NB-2, GSM module, all global certifications, and R&TTE directives <ul style="list-style-type: none">○ Frequency bands: GSM/GPRS: 850/900/1800/1900 MHz○ LTE FDD: B1-5, 8, 12, 13, 18, 19, 20, 25, 26, 28○ LTE TDD: B39 |
| • LoRa transceiver | • Semtech SX 1272 <ul style="list-style-type: none">○ Frequency: EU-868 MHz○ Protocol: LoRaWAN 1.0.2 and custom LoRa protocol, optional Sigfox○ Transmitting power: Up to +20 dBm○ Sensitivity: -137 dBm |
| • BLE (RF 2,4GHz) | • Nordic nRF51822 <ul style="list-style-type: none">○ Protocol: Bluetooth Low Energy and custom 2,4 GHz protocol○ Transmitting power: Up to +4 dBm○ Sensitivity: -93 dBm (BLE) |
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Navigation

- GPS Receiver
 - Quectel L76 GNSS module: GPS + A-GPS + Galileo + Glonass
 - Frequency: L1 1575.42 MHz C/A Code
 - 33 tracking/99 acquisition channels
 - Sensitivity: Acquisition -148 dBm (typical)
 - Reacquisition -160 dBm (typical)
 - Tracking -165 dBm (typical)
 - Position accuracy: <2,5 m CEP
 - Antenna: Internal patch antenna
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Operating temperature

- Standard
 - -20 °C ... +60 °C
 - When charging backup LiPo cell
 - 0 °C ... +45 °C
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Electrical

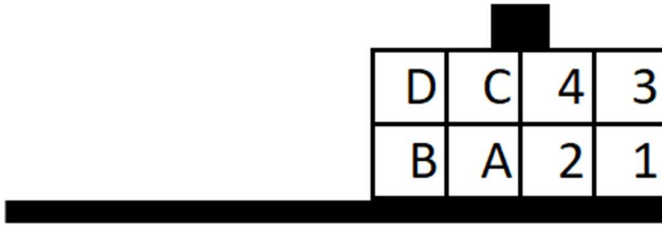
- Rated voltage
 - External power supply +6 ...+31 VDC
 - LiPo cell battery charging current
 - +450 mA
 - Peak transmission current
 - +2 A
 - Typical power consumption
 - +20 mA, GPS tracking
 - +100 uA, modem and sensors power down, 4 inputs and 1 timer active
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Optional extras

- Accelerometer
 - Sensitivity: light vibrations of 0,016 g up to movements of 16 g
 - Sensitivity can be adjusted over-the-air
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External peripheral connectors



Molex connector

Pin	Description
• 1	• Ground for VCC and IO
• 2	• +6 ... +31 VDC or VCC charge input and power supply
• 3	• +3 VDC serial Tx4
• 4	• I/O, AN IN 3 to 5 (0 ... +35 VDC) DI OUT 3 (+150 mA)
• A	• I/O, +3 VDV serial Rx4 AN IN (0 ... +1 VDC)
• B	• I/O, AN IN 1 (0 ... +35 VDC) DI IN 1 (+150 mA)
• C	• OUT, optional board voltage +5 VDC max +500 mA
• D	• I/O, AN IN 2 (0 ... +35 VDC) open collector OUT 2 (+150 mA) TxD2 open collector

Optional on-board sensors

• Accelerometer	• Sensitivity: light vibrations of 0,016 g up to movements of 16 g • Sensitivity can be adjusted over-the-air
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Indication of scale



Size: 120 x 55 x 24 mm

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About StreamLine IoT BV

StreamLine IoT BV is part of a group of companies active in the industry of track & trace devices, IoT solutions, and internet portal services since 1995.

Disclaimer

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www.streamline-iot.com
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