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4815 StreamLine Smart LAR LTE-M

See indication of scale below

The 4815 StreamLine Smart LAR LTE-M is designed as a lightweight, long-term tracking solution, delivering exceptionally precise positional data. This module is suited tailored for tracking and tracing a wide range of items, including objects, livestock, and personal use. Equipped with a low-power GNSS receiver, alongside multiple on-board sensors and low-level I/O-connectivity, the 4815 StreamLine Smart LAR LTE-M is a versatile choice for your tracking needs.

Key features

General

- Small enclosure 56 x 37 x 16mm
- Lightweight: under 40 grams
- 3 LEDs and 3 switches for user interaction
- Wide operating range: -40˚C … +85˚C
- Multiple watchdog levels for maximum stability
- Event based free configurable module to fit any job with over 300 different events
- Define 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

- Humidity sensor (sensitivity up to 2%RH)
- Barometer
- Altitude meter (sensitivity up to 10cm)
- Compass/3D Magnetometer
- eSIM
- BLE connectivity

Connectivity

- LTE Cat M1, NB IoT cat NB2
- GNSS and GPRS antennas
- Nano SIM socket

Positioning

- GNSS

Sensors

- Temperature sensor (sensitivity up to 0,5°C)
- 3D accelerometer (sensitivity up to 16g)

Electrical

- Rechargeable 670 mAh battery
- +3 VDC output

Connectors

- Micro-USB connector

Interfacing

- Digital and Analog I/O
- iButton/1-Wire

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Product summary

The 4815 StreamLine Smart LAR LTE-M boasts an array of customizable features, including programmable LED feedback, buttons, and a micro-USB port for charging and integrations.

This module acquires highly accurate positioning data through its dedicated GNSS receiver, enabling compatibility with GPS, A-GPS, Galileo, and Glonass. It effortlessly transmits its location via LTE-M/NB-IoT networks and seamlessly switches to 2G networks when needed. With multiple on-board sensors and versatile interaction options, coupled with the flexibility of freely configurable event-based settings and Digital and Analog I/O integration, it caters to a diverse range of custom IoT applications.

The module can be customised to specification when ordering in large volumes. Ask your StreamLine products supplier for more details.

Connectivity specifications

- Mobile data modem
  - Quectel BG95 M3 LTE cat M1, NB IoT cat NB2
    - All global certifications and R&TTE directives
    - Frequency bands: GSM/GPRS: 850/900/1800/1900 MHz
    - LTE: B1 … 5, 8, 12, 13,18, 19, 20, 25 … 28, 66, 85

Navigation

- GNSS receiver
  - Quectel L76 GNSS (Glonass + GPS + Galileo) module
    - Frequency: GPS L1 1575,42 MHz C/A code, 48 search channels
    - Glonass L1 1598,0625 … 1605,375 C/A code
    - Sensitivity: Acquisition -148 dBm (typical)
      - Reacquisition -160 dBm (typical)
      - Tracking -165 dBm (typical)
    - Position accuracy: <2,5 m CEP

Sensors

- Accelerometer
  - Sensitivity: light vibrations of 0,016 g up to movements of 16 g
  - Sensitivity can be adjusted over-the-air
- Temperature sensor
  - Set alarm thresholds at specified temperatures
  - Accuracy up to 0,5 ˚C

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Operating temperature

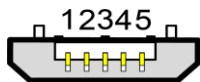|	
• With primary lithium cell	• -40°C … +85°C (discharging only)
• With rechargeable LiPo cell	• -20°C … +60°C (discharging)/ 0°C … +45°C (charging)

Electrical

• Battery	• Internal Lithium primary cell
	  ○ Optional external +5 VDC with 10% variance (micro-USB-connector)
	  ○ Charging current: 450 mA observing 0 … +45 ˚C safety range for LiPolymer

• Peak transmission current	• 2A
• Typical power consumption	• 20 mA, GPS tracking • 100 uA, modem and sensors power down, 4 inputs and 1 timer active

Battery connector

Pin	Description
• 1	• Temperature sensor
• 2	• Ground
• 3	• VCC, +3,4 … +4,5 VDC battery connection

Micro-USB F

Pin	Description
• 1	• VCC, +4,5 … +5,5 VDC charge input, max 600 mA
• 2	• Serial input or DI IN3 (+2 … +31 VDC for active high) (Unless special action 72 is used then DI IN6) 50 k pulldown
• 3	• Serial or digital output 1, open collector (max +31 VDC/10 mA/100 mW)
• 4	• Analog input= %SG4 (0 … +44 VDC)
• 5	• GND for charge and I/O

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Optional extras

- Humidity sensor
- Barometer/altitude meter
- Compass
- 4816

- Sensitivity up to 2% RH
- Sensitivity up to 10 cm
- 3D magnetometer for advanced position detection
- Version of this device without enclosure
- May be ordered BLE connectivity
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Indication of scale

Size: 56 x 37 x 16 mm

About StreamLine IoT BV

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

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