

# StreamLine

## 4761 StreamLine Model W BLE WiFi



*See indication of scale below*

The 4761 StreamLine Model W BLE WiFi is the solution for long term asset tracking. Elevate your asset tracking with the StreamLine Model W BLE WiFi. It excels in long-term tracking, offering precision through beacon tech, GNSS, and WiFi localization. Users can easily configure it over-the-air via LoRa or locally with NFC. Its sealed enclosure protects against a wide range of environmental challenges, from weather conditions to impacts dust and moisture.

### Key features

#### General

- Size 84 x 33 x 23 mm (exluding mounting ears)
- Weight 75 gr
- Sealed enclosure offering IP68 protection
- Wide operating range: -20°C ... +60°C
- Multiple watchdog levels for maximum stability
- Event based free configurable module to fit any job
- Remote configurable to fit any job (both firmware and configuration files can be updated/patched over-the-air)
- Supports integration into third party networks

#### Optional extras

- ATEX certification
- Solar powered (other enclosure)
- High-capacity battery
- Sigfox

#### Connectivity

- LoRa technology, EU-868 MHz
- Compatible lora based solutions such as: private LoRa networks or Helium
- FSK
- RF
- Bluetooth beacon technology
- NFC, write settings and firmware

#### Positioning

- GNSS
- WiFi sniffing
- Supports StreamLine scanners

#### Sensors

- 3D accelerometer up to 16g

#### Electrical

- 2000 mAh battery capacity

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## Product summary

The 4761 StreamLine Model W BLE WiFi is a fully sealed module capable of tracking any asset. Made to be highly resistant to outside influences, the module is fully potted. Protecting it against impacts and from the ingress of water or dusts. The module can also optionally be delivered with ATEX certification.

The module can be used to track assets even when connections with external networks not available. Using Beacon technology, the user can set up areas for the module to recognise and forward the identifier of the beacon it is located nearby. The module is otherwise capable of gathering a global position using GNSS and LoRa localisation if available. Equipped with WiFi sniffing, the location can be determined based upon the collected Mac addresses.

The StreamLine Model W BLE WiFi has a very long operating life thanks to its high battery capacity and low power consumption. The individual components on the module are only powered when needed, increasing power efficiency. Depending on settings the module can be operational for more than 7 years.

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

## Example use cases

### ***Reel monitoring***

When installed on a cable reel the module measures up to 360 rotations per minute. Note: with increase of the number of rotations per minute, the power consumption increases as well.



### ***Wheeled waste container tracking***

The 4761 StreamLine Model W BLE WiFi can track the location of a wastebin and monitor the usages using detected movements.

The waste collecting truck can pick up tag location and identification data using FSK signals to aid in searching for the asset up to 300 metres away. A successful emptying of the waste container is automatically confirmed.



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## Connectivity specifications

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- WiFi Sniffing
  - LoRa and FSK
  - BLE (RF 2.4 GHz)
  - 2,4 Ghz, IEEE 802.11b/g/n – Listen only
  - Semtech LR1110
    - Frequency: EU 868 MHz
    - Protocol: LoRaWAN 1.0.2 and custom LoRa protocol
    - Transmitting power: Up to +15 dBm
    - Sensitivity: -148 dBm
  - Nordic nRF52810
    - Protocol: BLE 5.3 and custom 2,4 GHz
    - Transmitting power: Up to +4 dBm
    - Sensitivity: -96 dBm (BLE)
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## Navigation

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- WiFi Sniffing
  - GNSS Receiver
  - 2,4 Ghz, IEEE 802.11b/g/n – Listen only
  - Quectel L76 GNSS (Glonass + GPS + A-GPS + Galileo) module
    - 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
    - Included internal patch antenna
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## Sensors

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- Accelerometer
  - Sensitivity: light vibrations up to movement of 16 g
  - Sensitivity can be adjusted over-the-air
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## Operating temperature

Battery operating range: -20°C ... +60°C

## Electrical

Standard Li-MnO<sub>2</sub> rated voltage +3 VDC

Nominal capacity 2000 mAh

## Optional extras:

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- ATEX certification
  - Solar charging
  - High-capacity battery
  - The module can be ordered with a certification for use in zone 2 and 22
  - Possibly higher certifications ask your supplier for more details.
  - Charging through +5 VDC solar cell (other enclosure)
  - Not compatible with ATEX certification
  - Increase of battery capacity to 3000 mAh
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## Indication of scale



Size: 84 x 33 x 23 mm

Size excluding mounting holes:  
57 x 33 x 23 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.

## Disclaimer

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