**LOSTnFOUND® LENTICUS**

**LENTICUS*eco***

## Technical specification

Version 1.02
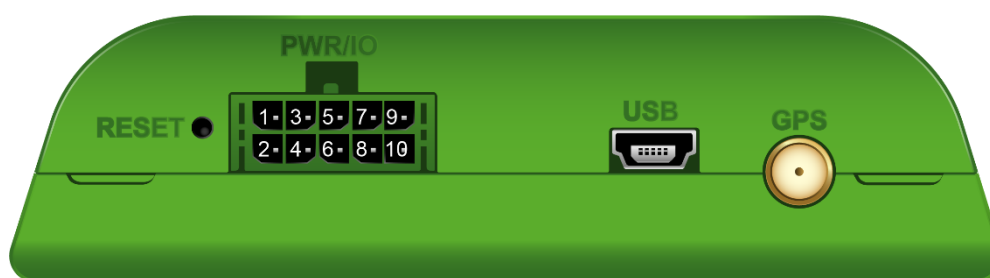February 9th 2018

support@lostnfound.com

**lost'n'found.com®**
*track ● trace ● protect*

# Device Connectors & Pin Assignment

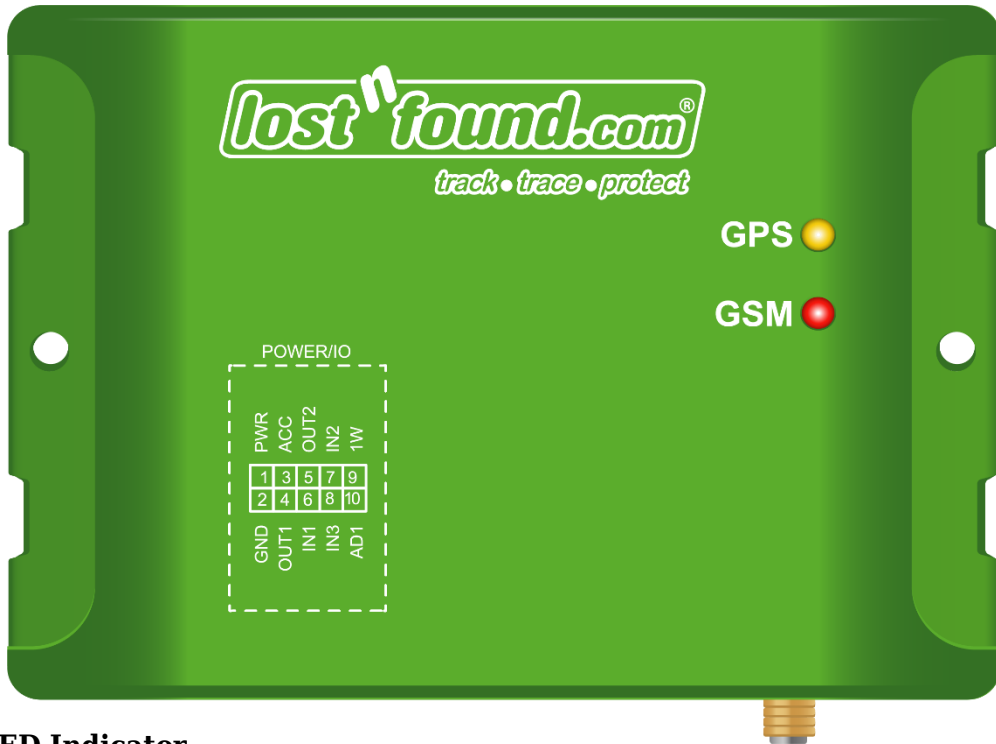| Front View | |
|---|---|
| RESET | Hardware Reboot Button (Pinhole) |
| PWR / IO | Power and I/O Connector |
| USB | Do not use until advised by LnF Customer Service |
| GPS | SMA Connector for external GPS Antenna |



## POWER / IO Connector

| Pin# | Signal Name | Description | I/O | Remark |
|---|---|---|---|---|
| 1 | DC IN | Power supply input | I | DC Vin = +8 ~ +30V |
| 2 | GND | Signal ground | — | |
| 3 | Ignition | Ignition (ACC) Input | I | DC Vin = +30 ~ +7.5V (Active high) |
| 4 | Output 1 | Open-Drain output | O | Imax = 300mA |
| 5 | Output 2 | Open-Drain output | O | Imax = 300mA |
| 6 | Input 1 | Negative Trigger | I | DC VIN = 0V (Low Active) |
| 7 | Input 2 | Positive Trigger | I | DC VIN = +30V ~ +7.5V (Active high) |
| 8 | Input 3 | Negative Trigger | I | DC VIN = 0V (Low Active) |
| 9 | 1-Wire | 1-Wire® Data | I/O | |
| 10 | Analog Input 1 | Analog Input | I | DC VIN = 0V ~ +30V |

## Top view

| GPS | LED Indicator (orange) |
|---|---|
| GSM | LED Indicator (red) |

### GPS LED Indicator

| Power Mode | GPS Status | GPS LED |
|---|---|---|
| Power Off | N/A | Off |
| Low Power | N/A | Off |
| Full Power | Acquiring | Flash Orange (5x / sec.) |
| Full Power | Tracking | Solid Orange |

### GSM LED Indicator

| Power Mode | GSM/GPRS Status | GSM LED |
|---|---|---|
| Power Off | N/A | Off |
| Low Power | N/A | Off |
| Full Power | Acquiring | Flash Red (3x / sec.) |
| Full Power | Registered | Solid Red |

# Technical Specification

| Characteristics | |
|---|---|
| Dimensions (L x W x H) | 72mm x 105.5mm x 28.5mm |
| Weight | 95g |

| Radio Performance | |
|---|---|
| Frequency | Quad-band 850/900/1800/1900MHz |

| GSM Functionality / GPRS | |
|---|---|
| GPRS Mode | Multi-slot Class 10 |
| GPRS Coding Scheme | CS1,CS2,CS3 and CS4 |
| GSM Antenna | Internal |
| SIM Interface | SIM Card 1.8V, 2.9V Supported |

| GPS Functionality | |
|---|---|
| Receiver | 50 Channels |
| Sensitivity (Tracking) | -160dBm |
| Antenna Type | External GPS Active Antenna, 3.3V |
| Connector | SMA Female |
| GPS Protocol | NMEA 0183 Ver3.0 |

| Onboard Components | |
|---|---|
| CPU | ARM Cortex-M3 |
| Data Memory | 16MB |
| Motion Sensor | 3-axes Acceleration Sensor |
| LED Indicator | GPS and GSM Indicator |

| Interface I/O | |
|---|---|
| Power / IO Connector | 1 Connector, 10 Pins |
| Input Ports | Positive Triggers: 2  (incl. Ignition)<br>Negative Trigger: 2<br>Analog Input: 1 (0~30V, 12 Bits) |
| Output Ports | 2 max. current 300mA |
| 1-Wire® | iButton (Reader optional) |

| Electrical | |
|---|---|
| Power Source | DC 8V to 30V |
| Power Consumption | 49mA @ 12V (Operating Mode)<br>10mA @ 12V (Standby Mode)<br>6mA @ 12V (Deep Sleep Mode) |

| Environment | |
|---|---|
| Operating Temperature | -20 °C to +70 °C (Without Backup Battery)<br>-20 °C to +60 °C (With Backup Battery) |

| Battery | |
|---|---|
| Rechargeable Backup Battery | 160mAh |

# Disclaimer Notes

**General**

This LOSTnFOUND® LENTICUS Series device works solely based on the GSM (Global System for Mobile Communication) & GPS (Global Positioning Satellites) Coverage. Thus, its functionalities solely rely on the availability of the network coverage. The manufacturer, its subsidiaries, authorized dealers, distributors and installers do not warrant the operation of this device will be not interrupted or error-free.

In no event will the manufacturer, its subsidiaries, authorized dealers, distributors, dealer and installers shall be liable for any general, special, incidental, or consequential damages and losses due to any cause of operation of the device or any failure of the device to perform, including any lost, expenses, cost incurred or suffered whether caused directly or indirectly or arising from the function or malfunction of the device.

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