



Telematic unit

Prototype P5 (WIP)



Description

The device serves as a telematic unit with an integrated general purpose VCU microcontroller. Interfacing with the vehicle through a 18 pin connector.

Features

- Wide range supply voltage (6-60V)
- Inbuilt Cellular and GNSS antenna.
- Inbuilt backup battery
- x6 GPIOs
- x2 CAN interface
- 512Mb flash memory
- Accelerometer
- Temperature sensor
- Tamper detection for lid and connector removal
- LED status indication
- Water protected housing and connectors
- Extra general purpose VCU for business applications
- Sleep modes (Low and high frequency mode, Deep sleep)
- Programmable through connector or OTA

Specifications

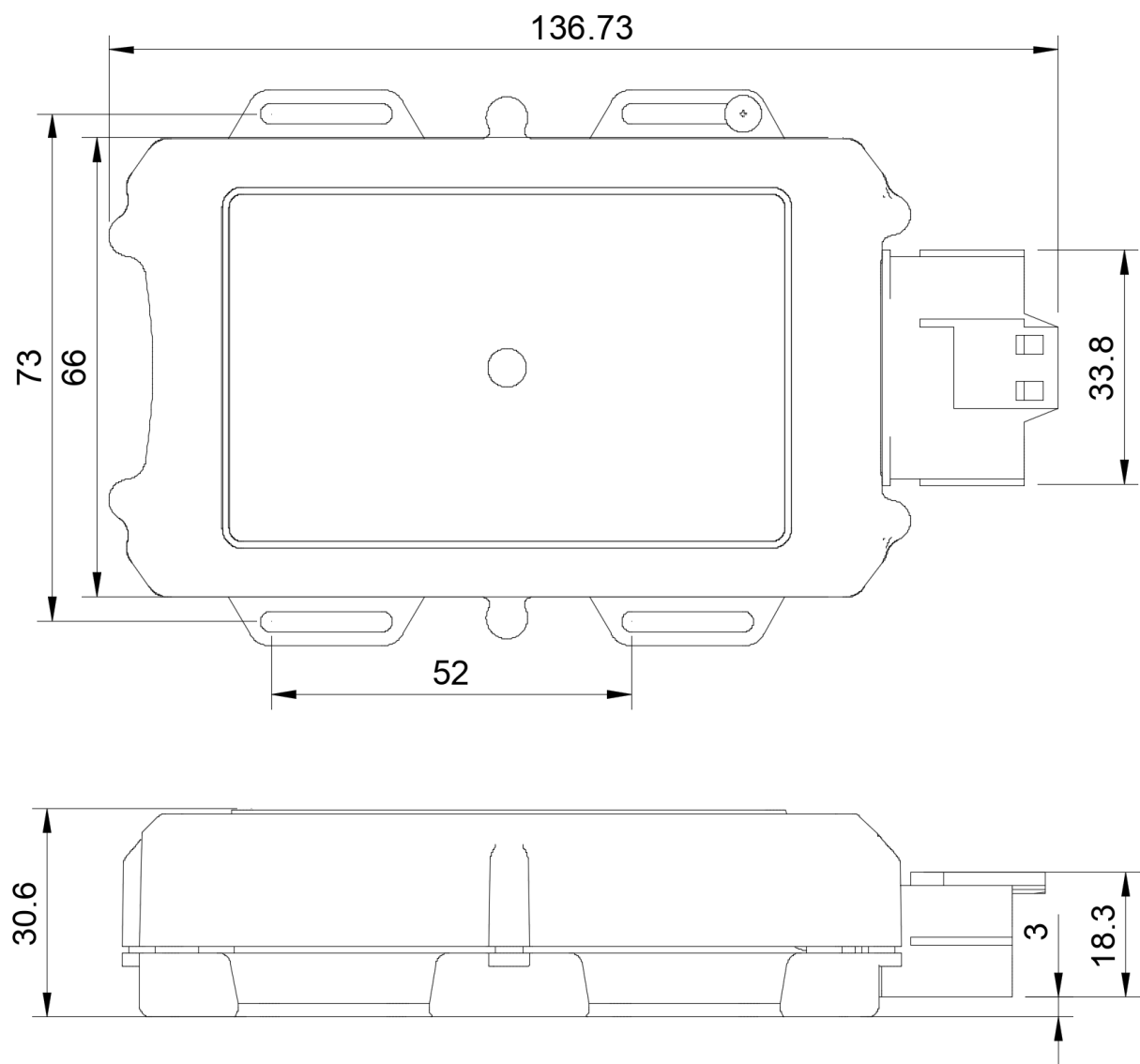
Supply voltage	8-60V VDC
Backup battery:	Lipo 1800mAh (6.66Wh)
Temperature range	-40°C to +85

[RADIO SPEC WHEN AVAILABLE]

[CONSUMPTION SPEC WHEN AVAILABLE]

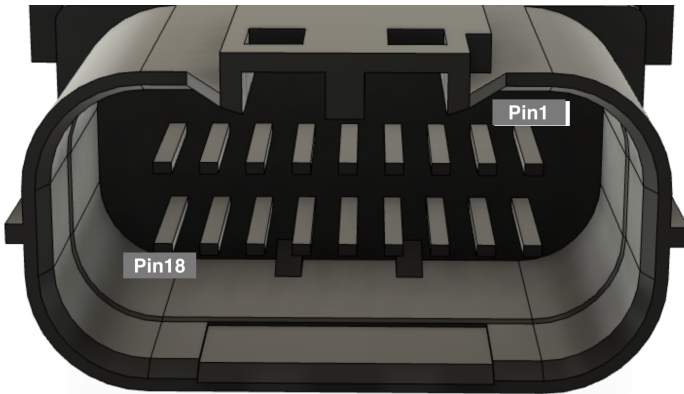
GPIO(1-5) pins	3V3 digital input / output, (12V input tolerant)
AIN	Analog input 0-100V
IM_OUT	Digital output 3V3
GNSS antenna	PCB mounted ceramic high gain antenna.
Cellular antenna	Internal PCB GSM High Gain
LED indications	GNSS, CELL, FAULT
SIM	Nano-SIM
Memory	512Mb flash memory for VCU
Memory	64Mb flash memory for OTA
2xCAN	ISO-11898-5, 1Mb/s
LTE CAT-M1	
Cellular bands	850 / 900 / 1800 / 1900 MHz
GNSS	GPS, GLONASS, BEIDOU

Dimensions



CHANGE TO LATEST DESIGN

Connector pinout



1	VDC	12V (6V-60V)
2	CAN_H	250 baud
3	CAN_L	250 baud
4	CAN_H	500 baud
5	CAN_L	500 baud
6	IM_OUT	Immobilizer output
7	GPIO_5	Battery temp input
8	GPIO_1	Immobilizer output
9	TAMPER_CONN	Connector tamper detection
10	NRF_SWDIO	Programmer data pin (NRF)
11	NRF_SWCLK	Programmer clock pin (NRF)
12	VCU_SWDIO	Programmer data pin (VCU)
13	VCU_SWCLK	Programmer clock pin (VCU)
14	GPIO_2	GPIO_2
15	GPIO_3	GPIO 4
16	GPIO_4	GPIO 3
17	AIN_100V	Analog input (max 100V)
18	GND	Ground pin

FCC Warning

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.