GV851 Series

4G High Performance Linux-Based Telematics Gateway with Open CAN

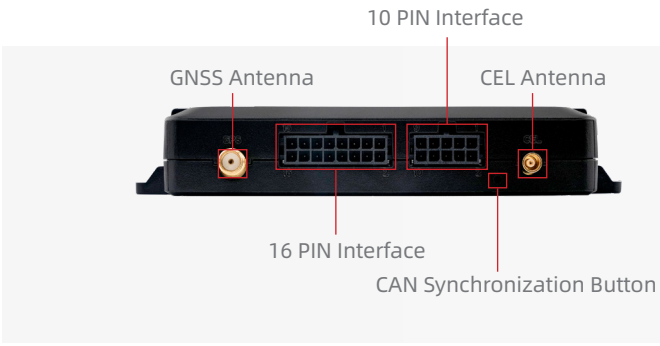
- LTE CAT 1 with 2G Fallback
- Programmable Linux OS
- Open CAN Architecture
- Multiple Interfaces – I/O/RS232/RS485/1-wire
- Multi-constellation GNSS Receiver
- BLE 5.2 Support

The GV851 series is a 4G programmable Linux-based telematics gateway with a wide range of interfaces, consisting of multiple I/Os, a serial port, and BLE connectivity. With an open Linux-based platform, it enables fleet service providers and system integrators to create featured applications that cater to different market needs. Moreover, the flexible solution allows for the integration of proprietary CAN libraries or protocols, providing extensive personalization and customization options.

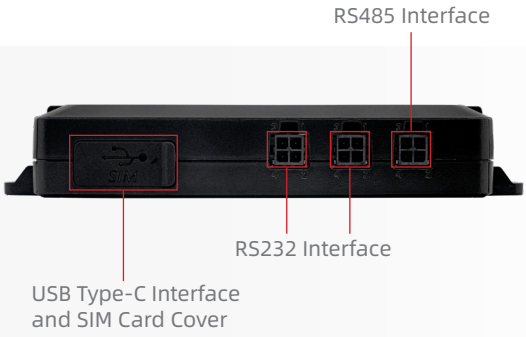
GV851 Series

	Region	Frequency Bands	Certification
GV851CEU	EMEA	LTE-FDD: B1/B3/B5/B7/B8/B20/B28 GSM:B2/B3/B5/B8	CE
GV851CNA	NA	LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71	FCC

Front View



Rear View



Configuration and Upgrade Cable

Debug Cable

2-in-1 Debug Cable used for configuration and debug.

General Specification

Dimensions	123(L)*80(W)*21(H) mm 4.84(L)*3.14(W)*0.83(H) inch
Weight	137.2 g (0.3 lb)
Backup Battery	1100mAh, 3.7V, Li-polymer Rechargeable
Power Input	8 ~ 32V DC
Operating Temperature	-20 °C ~ +60 °C (-4 °F ~ 140 °F)
Storage Temperature	-40 °C ~ +85 °C (-40 °F ~ 185 °F)
Main Processor	STM32
Operating System	OpenSTLinux, Kernel over 5.15
RAM	128MB, DDR2
ROM	128M, Flash
Motion Sensor	3-axis G-sensor

BLE

Mode	BLE 5.2
Frequency	2.4GHz

GNSS

GNSS Type	GPS, GLONASS, Galileo, Beidou
Sensitivity	Autonomous: -148 dBm Hot start: -160 dBm Tracking: -167 dBm
Position Accuracy (CEP)	Autonomous: < 2.0 m
TTFF (Open Sky)	Cold start: 24s average Hot start: 1s average

Interfaces

SIM Card	1 x SIM card slot or eSIM
Button	1 x CAN synchronization button
LED Indicator	1x GNSS, 1x CEL, 1x PWR, 1x CAN
USB Port	Type C
CEL ANT	Internal antenna & optional external antenna (SMA)
GNSS ANT	Internal antenna & optional external antenna (SMA)
CAN Port	2 x CAN_H 2 x CAN_L
K Line	1 x K line
1 Wire	1 x 1-wire Data 1 x 1-wire VDD
5V Power Output	3 x 5V power output for external peripherals
RS232	2 x RS232
RS485	1 x RS485
Positive Input	1 x positive trigger input for ignition detection
Negative Input	5 x negative trigger inputs
Digital Output	5 x digital output, open drain, 150mA max drive current
Analog Input	4 x analog input (0-32V)