

GV850/GV851 Introduction

Stock: 300590.SZ



GV850/GV851 Linux-based Tracker





GV850/GV851 is a CAT 1 fallback 2G programmable Linux-based telematics gateway with abundant interfaces consists of multiple I/Os, Serial port, and BLE connectivity.





Version



Regions\CAN Solution	Formula CAN	Open CAN
EU Version LTE-FDD: B1/B3/B5/B7/B8/B20/B28 EDGE: B2/B3/B5/B8	GV850EU	GV851EU
NA Version LTE-FDD: B2/ 4/5/ 12/ 13/ 66	GV850NA	GV851NA

Hardware



- STM32MP133A Cortex®-A7
 650MHz
- > 128MB RAM (expandable to
 256MB by software)
- 128MB Flash (17MB available for userspace/system backup mode)
- Internal&External antennas
- > 110mAh battery
- > uBlox GPS chipset
- > 3 axis G-sensor
- > 8-32V wide range input power
- ➢ BLE 5.2







For easy development



QUECINK Driving Smarter IoT





Port Name	Description	Port Name	Description
CAN port	*CAN1_H & CAN1_L:Support J1939 / FMS *CAN2_H & CAN2_L:Support J1708/ OBD CAN (including DTC) / DDD file download	Serial port	2 x RS232, 300-115200 baud rate 1 x RS485, 300-115200 baud rate/Half Duplex (2 wires)
KLine	1x K line	Positive input	1 x positive trigger input for ignition detection
1wire	1x 1-wire data 1 x 1-wire VDD	Negative input	5 x negative trigger inputs
5V power output	3x5V power output for external peripherals	Digital output	5 x digital output, open drain, 150mA max drive current

Software



Thanks to the rich interfaces, GV850 provides multi telematics applications. Developer can develop their own applications based on the existing Linux system.

Linux user User space services and applications launch Linux OS, Kernel over 5.15 space • Support stop and standby mode • Linux kernel initialisation (platform device drivers, Sleep Current <1.5mA@12V (Target 600µA/12V) • etc.) Linux kernel Root file system (rootfs) mounting User space init process launch (/sbin/init) Support buildroot, and yocto version will be • Boot file system (bootfs) loading from mass storage available soon. Second Stage or Ethernet (TFTP) Boot Loader User feedback with boot loader splash screen (SSBL) Linux kernel (ulmage) launch with its device tree All hardware drivers are intergrated and blob (*.dtb) interfaces are available for development. Complete clock tree initialization **First Stage** External RAM (DDR, LpDDR) controller initialization SSBL loading from the boot device (mass storage Boot Loader SDK is under development. • or serial link) (FSBL) SSBL launch Remote tachograph Data (DDD file) Downloading • Basic clock tree initialization FSBL loading from the boot device (mass storage ROM Code or serial link) FSBL launch



Driving Smarter IoT

In addition to being a regular Tracker, a variety of external devices can be connected with GV850/GV851 through serial ports, 1-wire port and DI/DO ports, such as temperature sensor, PLC, door sensor, relay, etc. Customers can devleop their applications to gather and forward the data from these devices to their backends.

Applications



With an open Linux-based platform, it allows fleet service provider and system integrators to ensure a complete control of the application.

- Flee management
- Intelligent Industry
- Automotive Cybersecurity
- Cold Chain





A hardware platfrom for many possibilities!

Development Kits

The following files are provided for development:

- 1. driver&tools
- 2. BLE (Commad list for BLE)
- 3. CAN (Library for formula CAN)
- 4. GV850 GV851_firmware
- 5. GV850 GV851 Software Development Guide
- 4. GV850_buildroot_dd981da1.tar.gz
- 5. GV850 Building Guide 1.0 (Video)









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