

AVL65 Vehicle Tracker



Introduction

SD-Omega offers AVL hardware device for major vehicle system integrators who managed the application software covering GPS vehicle tracking/monitoring/navigation, transportation fleet management, GSM logistics log record, GPRS communication.

This telematic device is a highly integration of 4-in-1 hardware unit which consists of the following hardware component:

- Embedded Vortex86 computer/computing system
- 4-band GPRS communication module or any other type of communication module.
- 24 GPS Global Satellite Positioning Receiver devices
- 5-in-1 Automobile/Vehicle/Car OBD2 real-time diagnosis system.

Note: There are 24 geostationary satellites orbiting the globe at an elevation of 11,000 miles.

Features

1. Automatic supervision monitoring of the automobile engine start-up
2. Record the Vehicle GPS utilizing the global satellite positioning information, the recording precision is accurate up to one second at a time.
3. Using Flash + NVSRAM in memory design
4. The GPRS communication Module has 4- band frequencies 850/900/1800/1900 supporting the TCP/IP communication protocol
5. Complete integrity supporting J1850PWM / J1850VPWM / KWP2000 / KWP1281 / ISO9141-2 (with the exclusion of CAN BUS), a total of 5 kinds of OBD2 immediate realtime automobile diagnosis hardware interface and breakdown diagnosis code.
6. Establish wake-up time setting or remote control awakening supervisory monitoring
7. Constitute with the constructs of onboard 4 groups of belts with light partner isolation for the input of the specific/specified monitor contact
8. Construct another onboard 4 groups of belts light partner isolation for the output of the specific control contact, which utilize to provide reports to the police.
9. Provide connection to outside communication, using a group of external standard RS232 interface
10. Provide lamp indication for status condition on PWR / SAVE / GPS / GPRS / OBD2 / SLEEP LED.
11. Support DC range from 8V ~ 36V
12. Emergency microphone (MIC) / messenger call communication design.
13. Provides connection to outside storage, using external USB device /GPRS/ downloading of updated software
14. Provide connection to DVI port monitor, or extended LVDS interface to LCD monitor
15. Onboard 1 set of external connection to K Type temperature sensing device

Hardware Specification

- Vortex86-166MHz SOC
- System memory SDRAM 128MB
- SRAM 512KB for data backup
- IDE interface for DOM
- BIOS 256KB
- External USB x2
- Internal USB x1
- LPC-MIO W83697UF
- AC97 CODEC ALC202A
- Power Management Control chip with I2C interface
- DC power input 12V/24V Auto Detect
- Photo Isolate input x4 with LED display
- Photo Isolate output x4 with LED display
- COM1 D type 9 pin Rs232
- COM2 OBD-II / Option D type 9 pin Rs232
- COM3 GPRS module MC55/56 or SIM200 or other CDMA
- COM4 GPS module GN80-V
- GPIO Port 2,3,4,8
- Audio LINE-Out, MIC-In
- VGA, LVDS LCD display output
- LED display status
- XPCI expand connector
- XPCI to MINI-PCI support wireless LAN
- Power Voltage detect.
- Wake on Timer
- Wake on Photo Isolate input x4
- Wake on GPRS(Ring) (Voice,GPRS data,Modem,SMS)
- System Auto Power on by detect input volt
- Manual push button power on/off
- Software control power off.
- GPRS module SIM card easy changeable.

Ordering Information

- AVL650: AVL/Vortex86-166/128M memory/32MB DOM, GPS/GSM/WiFi/OBD-II
- AVL651: AVL/Vortex86-166/128M memory/64MB DOM, GPS/GSM/WiFi/OBD-II
- AVL652: AVL/Vortex86-166/128M memory/128MB DOM, GPS/GSM/WiFi/OBD-II
- AVL653: AVL/Vortex86-166/128M memory/256MB DOM, GPS/GSM/WiFi/OBD-II
- AVL654: AVL/Vortex86-166/128M memory/512MB DOM, GPS/GSM/WiFi/OBD-II

Connector Description

Connectors Summary

- DC Power input Connector 14-pin(7x2)-4.2mm(Include Photo Isolate Inx4, OUTx4, Temperature sensor input x1)
- COM2 OBD-II Connector DSUB-9 Male or COM2 RS232 DSUB-9 Female
- USB 90 degree connector x1
- COM1 RS232 DSUB-9 Female or DVI 29pin connector(DVI connector include VGA, LVDS LCD,USBx1,RS232(TX/RX))
- Power on/off Switch Pushbutton x1
- GPRS Antenna SMA type
- GPS Antenna SMA type
- Reserved Wireless LAN Antenna SMA type
- Reserved LINE-out, MIC-In phone jack connector x2
- Internal X-PCI connector
- Internal GPRS Module interface connector
- Interface OBD-II Module interface connector
- Internal IDE interface for DOM
- Internal Line-out, MIC-in header 4-2.0mm X2
- Internal GPIO 16Bits expand connector (Option)

Drawing

