

LVR-2010

EN50155 Certified & IP67-Rated Railway
Embedded PC with Intel® Bay Trail-I CPU



■ Features

- Intel® Atom™ E3845 Processor
- Compliant with EN50155 and MIL-STD-810G standard
- Robust IP67-rated M12 connectors for various I/O ports
- 2 x Mini-PCIe slots with 2 x SIM card readers
- Wide range operating temperature from -40 to 70°C
- Onboard GPS receiver module and G-sensor

■ Preliminary Specifications

Processor System

CPU	Intel® Atom™ E3845
Frequency	1.91 GHz
Core Number	Quad-core
BIOS	AMI SPI Flash BIOS
Chipset	SoC

Fanless

Yes

Memory

Technology	DDR3L 1333 MHz
Max. Capacity	4GB (Pre-install default 2GB)
Socket	1 x 204-pin SODIMM

Ethernet

Controller	Intel i210-IT
Speed	10/100/1000 Mbps
Interface	2 x GbE ports: by 2x M12 connector

Storage

SATA	1 x SATA for 1 x 2.5" HDD/SSD drive bay
mSATA	1 x mSATA socket

Display

Graphic Controller	Intel® integrated HD graphic engine
Display Interface	VGA x 1 (up to 1600x1200), HDMI/DisplayPort x 1 (1920x1080/2560x1600)

Audio

1 x MIC input and HD Audio output (w/ 2Watt)

I/O

Serial Ports	COM_A:2xRS232/422/485, COM_B: 2xRS232/422/485, COM_C: 6x Rx-Tx only RS232
USB	1 x USB 3.0, 1 x USB 2.0
CAN Bus	Optional for 1 x CAN Bus supports J1939 & J1708
GPS/G-sensor	Ublox NEO-7N/ST LSM6DS3H

Expansion

PCIe	Internal 2 x full-size Mini-PCIe sockets with 2 x SIM slots & 1x Half-size mini-PCIe
------	--------------------------------------------------------------------------------------

Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

Environment

Operating Temperature	-40 ~ 70°C/-40~158°F (Follow EN-50155TX)
Storage Temperature	-40 ~ 85°C/-40~185°F
Relative Humidity	5~95%, non-condensing

Miscellaneous

LEDs	1x green IP67 LED for Power-On status
Hardware Monitoring	Yes
Internal RTC with Li Battery	Yes

Mechanical

Dimension (W x H x D)	268 x 210 x 86 mm
Weight	4 kg
Mounting	Wall mount

Power

Connector	M12 (4-pin: +, -, Ignition, GND)
Input	1x 4-pin (10A) connector for DC +9~36 / Optional for 18 ~ 75 / 43 ~ 160V

OS Support

Microsoft Windows	WES7 (WS7E) / W7 Pro SP1 / WE8 STD / WIN 10 IOT/ WIN 10 IOT Retail and TC
Linux	Linux 2.6.X or later

Certification

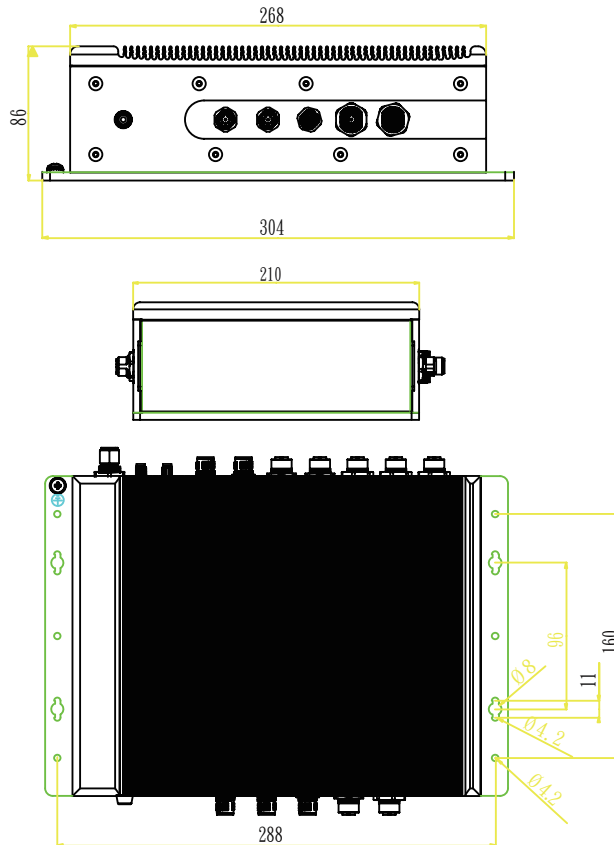
EMC	CE Class A, FCC Class A, RoHS, EN50155
IP rating	IP67 (Need contact with IP67 mating cable or protection cap)

Product I/O View



- | | | | | |
|--------------------|------------------|----------------|---------------|-------------------|
| A Power LED | D HDMI | G MIO | J LAN1 | M Audio |
| B USB 2.0 | E CAN Bus | H COM_A | K LAN2 | N DC Input |
| C USB 3.0 | F COM_C | I COM_B | L VGA | |

Dimensions 268 x 210 x 86 mm



Ordering Information

LVR-2010 Fanless IP67 Rolling Stock Embedded Computer with Intel® Atom™ E3845 1.91GHz CPU

IP67 External Cable kits for LVR-2010

1. 8-pin female IP67 connector cables x3 for audio port, USB2.0 port and USB3.0 port
2. 8-pin male IP67 connector cable x1 for CAN bus
3. 8-pin M12 IP67 connector cables x 2 for LAN
4. 17-pin female IP67 connector cables x2 for VGA and HDMI
5. 17-pin male IP67 connector cables x4 for MIO port x1 and COM portx3
6. 4-pin power IP67 connector cable x1

V.2-2016.5.4