

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	4-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: 1xRS232/422/485, COM_B: 1xRS232/422/485, COM_C: 6x Rx-Tx only RS232
USB	1 x USB 3.0, 1 x USB 2.0
CAN Bus	1 x CAN Bus supports J1939 & J1708
GPS/G-sensor	Ublox NEO-7N/ADXL 345

Expansion

PCIe	Internal 2 x full-size Mini-PCIe sockets with 2 x SIM slots & 1x Half-size mini-PCIe
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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	Microsoft Window 7/7 Embedded/8 Embedded
Linux	Linux 2.6.X or later

Certification

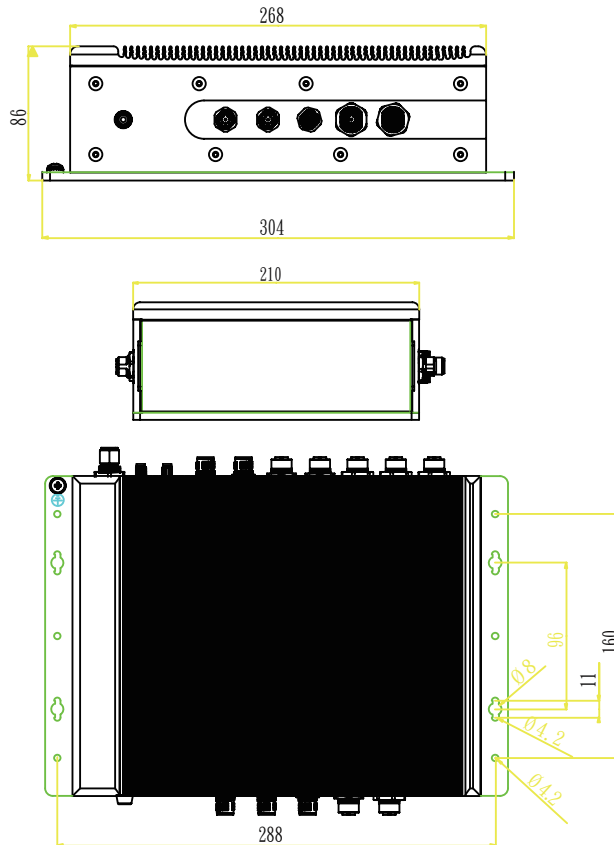
EMC	CE Class A, FCC Class A, RoHS, EN50155
IP rating	IP67 (Need contact with IP67 mating cable or protection cap)

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

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