

Railway



Railway Computer RSL 83

Embedded Railway Computer with Intel Atom™ Amston Lake processor (x7000 Series)

PRELIMINARY



Product Highlights

Maintenance free

Long term availability

Trusted platform module (TPM 2.0)

Fanless, no moving parts

Railway approved EN 50155 & 45545

Market/Applications

Railway (rolling stock)

Transportation

IPC RSL 83

This fanless entry level Railway Computer is based on the Intel Atom™ Amston Lake (ASL) processor technology.

The robust and uncompromising industrial design allows the implementation in rolling stock applications and guarantees long term availability.

This Railway computer is also available as DIN-Rail Variant.

- → Intel® Atom™ Amston Lake Series
- ightarrow Designed for 24/7 continuous operation
- → 24VDC Isolated input voltage



Railway Computer RSL 83



| | Or | der Code | IPC/RSL83111-C150E |
|--|-----------------------|----------|---------------------|
| Processor / Performance | | | |
| Intel® Atom™ x7211RE - Dual core 100MHz clock 8GB RAM | | | 0 |
| Intel® Atom™ x7433RE - Quad core 1.5GHz clock 16GB RAM | | | on request |
| Memory / Storage | | | |
| L2 cache | | | 6MB |
| 4800MT/s LPDDR5x RAM soldered on board (16GB on REQUEST) | | | 8GB |
| Internal eMMC 32GB (64GB version available) | | | 0 |
| Features | | | |
| Real time clock PC compatible with Goldcap backup (up to 48h) | | | Ø |
| Hardware Watchdog & Temperature supervisor | | | • |
| TPM 2.0 according to ISO/IEC11889 | | | optional |
| Communication Interfaces | | | |
| DisplayPort 1.4 (4096 x 2160 @ 60Hz) | | | 1 |
| USB version 3.2 up to 5Gps | (Туре А) | | 2 |
| Ethernet 10/100/1000 BASE-T (1x Intel® GbE 1x Intel® 1210-IT) | (M12 female x-coded) | | 2 |
| Buzzer | | | 0 |
| Technical Data | | | |
| Exterior Dimensions (mm) (housing incl. mounting plate) | | | w257 x h54 x d127 |
| Net weight (gram) | | | ~1500 |
| solated input voltage | (M12 4P male a-coded) | | 16.8 30VDC |
| nterruption of voltage supply time | | | EN50155 - Class: S1 |
| Power consumption typ. in Watt @ 24V without Add-Ins | | | ~12 |
| Environmental Conditions | | | |
| Operating temperature (complies with EN50155 class 0T4/ST0)3 | | | -40°C +70°C |
| Non operating temperature (Recommended storage temperature 20°C 25°C) | | | -40°C +85°C |
| ngress protection standard according to EN60529 | | | IP40 |
| Conformal coating ⁴ | | | PCX |
| MTBF @ 25°C according to Telcordia SR-332, Environment GM, excluding CFast and optional interfaces | | | TBD |
| Certifications | | | |
| Railway certification EN50155 | | | 0 |
| Railway environmental conditions EN50125 | | | • |
| Shock EN61373 | | | • |
| /ibration EN61373 | | | 0 |
| EMI-Conformity EN50121-3-2 | | | 0 |
| Safety (according to EN62368-1) | | | designed to meet |
| Fire protection DIN EN45545-2 | | | HL3 |
| UKCA/CE | | | • |
| Software | | | |
| Supports various Linux Distributions | | | • |
| BSP Windows 11 IoT Enterprise LTSC | | | • |

Scope of delivery
1x Mounting Brackets for DIN Rail (optional)
2xProtective cap USB A
1xProtective cap DisplayPort 1xDevice packaging

Product specifications subject to change without notice. All data is for information purposes only and not guaranteed for legal purposes. Information in this data sheet has been carefully checked and is believed to be accurate. However, no responsibility is assumed for inaccuracies. Please refer to the user documentation for additional product specification.

v0.4 | February 2025

Please contact factory for minimum order quantities



Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

US

sales@assured-systems.com

Sales: +1 347 719 4508 Support: +1 347 719 4508

1309 Coffeen Ave Ste 1200 Sheridan WY 82801 USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050 Support: +44 (0)1785 879 050

Unit A5 Douglas Park Stone Business Park Stone ST15 0YJ United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660