

Railway



# Railway Computer RSL 83

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

PRELIMINARY

Image similar



## 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
- Designed for 24/7 continuous operation
- 24VDC Isolated input voltage

# Railway Computer RSL 83



| Order Code   |  | IPC/RSL83I11-C150E                   |
|--|--|--------------------------------------|
| <b>Processor / Performance</b>   |  |                                      |
| Intel® Atom™ x7211RE - Dual core 100MHz clock   8GB RAM  |  | ✓                                    |
| Intel® Atom™ x7433RE - Quad core 1.5GHz clock   16GB RAM   |  | on request                           |
| <b>Memory / Storage</b>  |  |                                      |
| L2 cache   |  | 6MB                                  |
| 4800MT/s LPDDR5x RAM soldered on board (16GB on request)   |  | 8GB                                  |
| Internal eMMC 32GB (64GB version available)  |  | ✓                                    |
| <b>Features</b>  |  |                                      |
| Real time clock PC compatible with Goldcap backup (up to 48h)                                      |  | ✓                                    |
| Hardware Watchdog & Temperature supervisor   |  | ✓                                    |
| TPM 2.0 according to ISO/IEC11889  |  | optional                             |
| <b>Communication Interfaces</b>  |  |                                      |
| DisplayPort 1.4 (4096 x 2160 @ 60Hz)   |  | 1                                    |
| USB version 3.2 up to 5Gps   |  | (Type A) 2                           |
| Ethernet 10/100/1000 BASE-T (1x Intel® GbE   1x Intel® i210-IT)                                    |  | (M12 female x-coded) 2               |
| Buzzer   |  | ✓                                    |
| <b>Technical Data</b>  |  |                                      |
| Exterior Dimensions [mm] (housing incl. mounting plate)  |  | w257 x h54 x d127                    |
| Net weight [gram]  |  | ~1500                                |
| Isolated input voltage   |  | (M12 4P male a-coded) 16.8 ... 30VDC |
| Interruption of voltage supply time  |  | EN50155 - Class: S1                  |
| Power consumption typ. in Watt @ 24V without Add-Ins   |  | ~12                                  |
| <b>Environmental Conditions</b>  |  |                                      |
| Operating temperature (complies with EN50155 class OT4/ST0) <sup>3</sup>                           |  | -40°C ... +70°C                      |
| Non operating temperature (Recommended storage temperature 20°C .. 25°C)                           |  | -40°C ... +85°C                      |
| Ingress protection standard according to EN60529   |  | IP40                                 |
| Conformal coating <sup>4</sup>   |  | PCX                                  |
| MTBF @ 25°C according to Telcordia SR-332, Environment GM, excluding Cfast and optional interfaces |  | TBD                                  |
| <b>Certifications</b>  |  |                                      |
| Railway certification EN50155  |  | ✓                                    |
| Railway environmental conditions EN50125   |  | ✓                                    |
| Shock EN61373  |  | ✓                                    |
| Vibration EN61373  |  | ✓                                    |
| EMI-Conformity EN50121-3-2   |  | ✓                                    |
| Safety (according to EN62368-1)  |  | designed to meet                     |
| Fire protection DIN EN45545-2  |  | HL3                                  |
| UKCA/CE  |  | ✓                                    |
| <b>Software</b>  |  |                                      |
| Supports various Linux Distributions   |  | ✓                                    |
| BSP Windows T1 IoT Enterprise LTSC   |  | ✓                                    |

**Scope of delivery**  
 1x Mounting Brackets for DIN Rail (optional)  
 2x Protective cap USB A  
 1x Protective cap DisplayPort  
 1x Device packaging

<sup>1</sup> Please contact factory for minimum order quantities  
<sup>2</sup> Internal connector  
<sup>3</sup> Depending on installation situation and interface connection. Please see user documentation.  
<sup>4</sup> on all possible components (excl. Connectors)

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.

For support and further information:  
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 or [syslogic.com](http://syslogic.com)

## 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.

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