

# ADLINK

Pioneering AI for Railways



From optimising operations to enhancing passenger experiences, AI has emerged as a game-changer, revolutionising every facet of rail transportation.

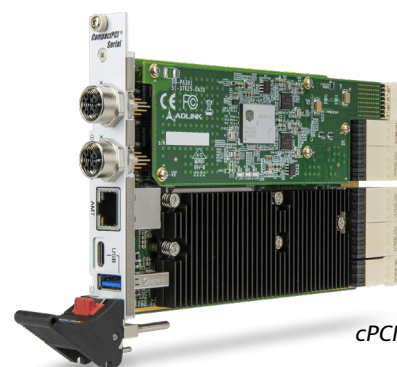
As a leader in providing AI-enabled computing platforms, ADLINK empowers rail operators with cutting-edge solutions tailored to the unique demands of the industry. ADLINK's robust computing platforms serve as the backbone for critical applications such as communications-based train control (CBTC), train control and monitoring systems (TCMS), autonomous train operations (ATO), data communication systems (DCS) and on-board passenger information system (OBIS).

## CompactPCI Serial

ADLINK has developed new CompactPCI Serial processor boards, representing valuable additions

to our extensive, industry-leading portfolio and demonstrating our commitment to the standard.

The cPCI-A3535 flagship is a rugged 3U Intel Xeon blade designed to perform in the demanding conditions faced by railway operators. Engineered for EN50155 compliance, this processor blade ensures reliable operation in harsh environments. The cPCI-A3535 offers extensive connectivity, graphics, and storage options, providing system integrators with the flexibility to choose the right blade for their specific applications.



cPCI-A3535

## Rugged Edge AI Computer: AVA Series

The ADLINK AVA Series encompasses a comprehensive set of EN50155 compliant solutions that bring AI and the IoT (AIoT) to the railway industry. The AVA Series is expertly designed for high compute density with I/O flexibility to meet the growing demands of railways developments and provide the essential systems for harnessing AI benefits across their edge infrastructure.

### AVA-7200, Edge AI Server

Rail system integrators can deploy AI-driven AVA systems to enhance onboard and wayside functions including:

- Railroad obstacle detection: expedite emergency response capabilities
- Rail inspection: real-time diagnostics to automate equipment fault detection
- Surveillance: AI-powered CCTV analysis analysis to heighten train terminal security

When installed in a specialised inspection railcar, AVA-7200 models can process images of vital wayside equipment, identify faulty equipment, and disseminate maintenance alerts while travelling at high speeds.



AVA-7200

### AVA-1000, Train to Ground Communication Gateway

On the other hand, ADLINK's AVA-1000 offers a seamless bridge between moving trains and ground networks, ensuring that passengers remain connected, informed and productive regardless of their physical location. The AVA-1000 is EN50155 certified with a fanless design and durability in extended temperature ranges (OT4, ST1), which ensures its reliability and performance in demanding environments.



AVA-1000 for train-to-ground communication

## Passenger Information Display System for Real-Time Communication

By providing real-time data on upcoming stops, estimated arrival times, service disruptions and emergency announcements, passengers can make more informed decisions and foster greater satisfaction. Moreover, PIDS can manage crowd flow and minimise congestion. Its seamless integration with various transit systems creates a cohesive transportation network that ensures travellers enjoy a convenient, reliable and transparent journey.

As a leading provider for the transportation industry, ADLINK offers cutting-edge hardware and software tailored specifically for PIDS applications. Our collaboration with AUO is a key differentiator, allowing us to integrate advanced display technologies with enhanced visibility and durability. We provide a range of panel sizes, brightness levels, glass types, coatings and housing options to meet different installation needs across diverse transit environments.

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For more information, please visit [ADLINK](#) or send us an [email](#)

