



# ONBOARD PASSENGER INFORMATION SYSTEMS FOR ROLLING STOCK

An enjoyable, easy and safe experience for passengers

**DA**  
GROUP

# Smart rolling stock systems

## OPEN IP TECHNOLOGY FOR NEW AND EXISTING VEHICLES

Passenger safety and satisfaction are important goals of public transportation operators. DA Group's onboard systems are designed to increase the enjoyment and transportation experience of passengers.

DA-Group provides vehicle computers for networks and user interfaces. The vehicle computer works as a part of the network, managing all devices in an open IP network, including the displays (LED, LCD), user/driver interfaces, CCTV cameras and servers, public announcements by using IP audio amplifiers and interfaces to outer networks.



We increase the performance of applications with new solutions, or by replacing and modernizing existing systems with cutting-edge electronics. Due to the open architecture, the system interfaces with any third-party devices, such as cameras and speakers. This is an important issue especially in retrofitting projects.

### User interface and Onboard computer

The driver can control and monitor all onboard systems with the interface. The unit works as part of the open IP network and with third-party equipment and outer networks. DA-Group's onboard passenger information system is designed for public transportation operators and rail vehicle manufacturers of metros, trams, light rail rolling stock and trains.

### LED displays in all lighting conditions

LED displays are designed for indoor and outdoor applications and show passenger information, with high visibility in all lighting conditions. The displays have one of the lightest casing structures, and dimensions can be customized for tight and special installations. For demanding outside installation, curved displays are also available.

### Extra thin LED displays for demanding conditions

DA-Group has developed the most modern and slimmest LED display as part of its portfolio for onboard passenger information equipment. Display sizes can be customized to match customer requirements. The slim displays are well suited for train car modernization, as displays can be fitted into existing casings. The ruggedized displays are designed both for indoor and outdoor use.

### LCD/TFT displays

The LCD/TFT displays present all information important for passenger safety and ease of travel, such as destinations and next stops with connections. Flexible design and customization are easily performed to modify the system to fit the customer's existing rail car architecture and requirements. The displays are designed to have a low lifecycle cost: The operators can collaborate with advertisers to run their campaigns in vehicle infotainment media.



### CASE Tampere City Tram

DA-Group has delivered for the new tramway of Tampere City a complete passenger information system. The train cars are manufactured by Škoda Transtech. Passenger information system includes driver interfaces, outdoor and indoor displays as well as the public announcement and emergency systems.



### CASE Helsinki Jokeri Light Rail

Škoda Transtech manufactures the new train cars for Jokeri Light Rail. DA-Group delivers the onboard systems, including passenger information system with displays, driver interfaces and camera-mirrors displays. Jokeri Light Rail will be implemented with the alliance model. This means that the client organization formed by the cities of Helsinki and Espoo will be combined into one organization, together with the planners and the implementers. The new rail line will be opened in 2024.

### CASE VR FleetCare, retrofit project

DA-Group delivers the CCTV and passenger information systems to VR FleetCare for the modernization project of the Helsinki Metro train cars. The objective is to improve the drivers' work environment and to modernise the look and feel of the trains. The new

onboard system supplied by DA-Group includes driver control interfaces, PA system equipment, passenger displays and CCTV system with cameras and recorders.





## DA-Group offers reliability for operators and safety for passengers

Agile retrofitting and new installation.

Open architecture and easy integration.

Improved passenger satisfaction.

Safety for drivers and passengers.

Preventive maintenance diagnostics.

Customized HW and SW applications.

## Guaranteed quality from seabed to space

Compliance with EN50155 and EN45545 standards

Certified ISO 9001:2015

Certified ISO 14001:2015

DA-Group is a provider of advanced electronics and high technology solutions and products. We serve industrial, defence and space sector customers on a global scale.

DA-Group collaborates with all transportation eco-system players, including universities. Highly skilled engineering development professionals guarantee continued innovation to improve solutions. We provide the best and the most robust way to increase the performance with new solutions or modernise existing systems with cutting-edge technologies.

Our systems enhance the passenger experience by automatically delivering the right information at the right time and the quality you can trust. Just feel it!



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