

## 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

### References



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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.

For passenger information systems 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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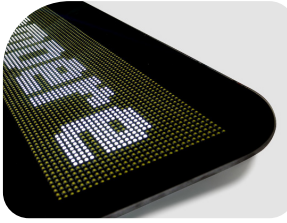
## ONBOARD PASSENGER INFORMATION SYSTEMS FOR ROLLING STOCK



# ROBUST DISPLAYS

## LED DISPLAYS – CURVED, EXTRA SLIM AND RGB

The LED displays are designed for indoor and outdoor applications showing passenger information with the best visibility in all lighting conditions. The LED displays have one of the lightest casing structures, and dimensions can be customized for tight and special installations.



The **extra slim** display is designed for outdoor use with special anti-frost silicon structure.

The **multicolor RGB** LED displays are an excellent choice among passenger information displays due to high brightness, long service life and energy efficiency.



## TFT/LCD DISPLAYS

The TFT/LCD displays present all information important for ease of travel and passenger safety in passenger cars, such as next stops with connections, destinations and other information. Flexible design and customization will be easily performed to modify the system to fit the customer's existing train car architecture and requirements.

The displays are manufactured as single or double sided, basic or V-shape.



# CONTROL and COMMUNICATION

## COMPACT ONBOARD COMPUTER

The onboard Central Processing Unit manages all devices in an open IP network. The Central Unit will interface also with third party equipment and is able to connect to outer networks. The small size enables easy retrofitting.



## NETWORKING

The onboard network includes network switches, wireless communication hubs and coach-to-coach wireless communication.



The network provides a link to external network by using public networks and special train-to-ground connection with communication speed of gigabit per second.



## USER INTERFACE

The User Interface monitors and controls all onboard systems providing the best assistance to the driver.

All control and operational functionalities can be operated with the User Interface. The displays come with a touch screen, or in addition, also with push buttons.



# CCTV and PA SYSTEM

## CCTV SYSTEM

The CCTV system offers video and audio recording as well as live view possibility through User Interface. The system can be integrated with the Public Announcement system's emergency function and cameras will be directed to monitor the situation.



## AUDIO SYSTEM

The IP based Audio system offers crystal clear sound informing passengers about any important announcements, such as destinations and next stops. The intercom system is part of the complete Public Announcement system.

