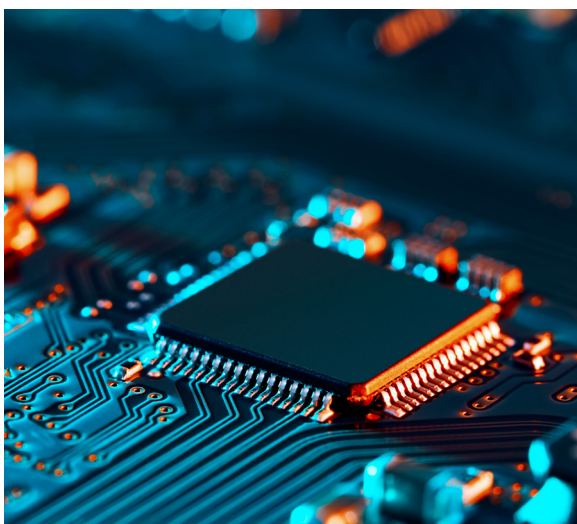# Rail Electronics Solutions

High performance on-board electronics solutions for railway rolling stock

www.lpa-group.com   lighting@lpa-group.com   +44 (0)1924 224100

Innovative product design

Product prototyping

IRIS certified

In house product manufacture & integration

40+ years rail experience

High reliability design & components

Bespoke rail interior solutions

bsi — ISO 9001 Quality Management Systems CERTIFIED — ISO 14001 Environmental Management CERTIFIED

FM 702666   EMS 709322

IRIS Certification®

LPA's manufacturing capabilities and services

We offer End-to-End solutions, from hardware to software, and from concept design through to manufacture of the finished product.

With 40+ years working in the rail sector, we use our electronics, mechanical and software design expertise to develop analogue, digital & electronic solutions for rail rolling stock applications.

With a comprehensive knowledge of rolling stock standards, compliance and reliability is embedded into our products.

Typical rail applications

Printed circuit boards

Power supply units

Touch screen control panels – DMI / HMI

Cabin access badge readers

Current imbalance detectors

Cab audible systems

Seat electronics

Charging solutions

Brake monitoring & control systems

Door lock systems

Vigilance units

Low voltage detection units

Energy metering such as AC & DC meters

Data acquisition & recording

Electronics manufacturing facility

Our manufacturing facilities are equipped with fully automated surface mount assembly lines, allowing for high-quality and efficient production.

Utilising automatic component pick and place, and multi zone reflow ovens allow for a constant and efficient flow of production.

Laser guided conventional components insertion equipment.

By using automatic test equipment (ATE), manufacturing defects analysis (MDA) and advanced 3D camera optical inspection we ensure all our components and products are manufactured to the highest standard and 100% tested.

Standards compliance

EN 61373:2010	Rolling stock equipment. Shock and vibration
EN 50121-3-2:2016/A1:2019	Rolling stock equipment. Electromagnetic compatibility
EN 50155:2021	Electronic equipment used on rolling stock
BRB/LUL RIA12	Surge and transient requirements
EN 45545-2:2020+A1:2023 (HL1/2 & 3)	Fire protection on railway vehicles
EN 50716:2023	Railway applications – requirements for software development
EN 50128:2011	Railway applications – communication, signalling and processing systems – software for railway control and protection systems
EN 50657:2017	Railway applications – rolling stock applications – software on board rolling stock
REACH	Regulation on the registration, evaluation, authorisation and restriction of chemicals