RAILWAY DATA CONNECTIVITY

APPLICATION GUIDE

Data Connectivity is a vital aspect of modern railways that refers to Internet of Things (IoT) capabilities, connected mobility, and improved experiences for both your customers and operators. We at TE Connectivity (TE) help empower designs for these applications by offering innovative, reliable, and installer-friendly solutions for onboard data networks and trackside connectivity.

Onboard data networks and trackside signage can be optimized by TE's portfolio of solutions that help enhance designs and meet industry requirements for a lasting and efficient connection. Below, you will find data connectivity solutions offered by TE that help drive IoT innovations such as predictive maintenance and driveless automation, as well as connected mobility for improved network capabilities, remote tracking, and increased security.

Explore solutions at: te.com

Ethernet Switches

Robust, EN50155-compliant Industrial Ethernet Switches designed to enable faster and more reliable Gigabit Ethernet networks with features such as M12 connectivity, built-in data security, options for input voltage, and Power over Ethernet (PoE).

Unmanaged switches

PoE Splitters and Injectors

Managed switches

Rail Antennas

Explore a wide range of trackside and external vehicle antennas for professional and mission-critical applications, most combining multiple services such as 2G/3G/4G/5G/LTE, Wi-Fi and GPS/GNSS in a single antennas package that meet industry standards.

MiMo Rooftop Antennas

Multi-function MiMo Antennas

WLAN Antennas

M12 Connectors

M12 Cable Assemblies

D-Sub Backshells

Connectors and Cable Assemblies

Ruggedized connectors and cable assemblies designed for field assembly that support automation, safety, reliability and a lasting connection for extremely harsh environments.

Data Cables

Data Cables

Explore a portfolio of rail data cables ranging from high speed CAT 7 4 pair and CAT 5 quad to 120 ohm profibus cables. All cable jackets are Halogen-free, flame-retardant and meet EN45545-2 HL 3 standards.

GLOBAL SUPPORT NETWORK

From design and assembly to installation and maintenance, TE is engaged and invested in your success with a worldwide network of engineers to offer service before and after the sale. No matter where you are, you can rest assured that TE will be there to help with technical hurdles and design challenges.

Connect with us today to find the one-stop-shop you have been looking for in your rolling stock and trackside application needs. We are looking forward to partnering with you to assist in the design and testing of your components and systems to build the onboard networks and sub-systems of tomorrow. With our versatile product portfolio, TE's system expertise extends beyond rail, and into other sub-systems, our system expertise extends into other sub-systems and applications you may be designing as well, such as IoT, Intelligent Lighting, Transportation, Industrial Equipment, and more.

As we partner with you to design the onboard networks and sub-systems of tomorrow, we are happy to provide service capabilities integral to the testing and approval of your designs. By partnering with TE we can offer assistance in a variety of ways:

- Offering a solution portfolio to complete onboard network sub-systems
- Trusted partner in the design, manufacturing and commissioning of onboard networks supported by historical rail presence and industry expertise
- Design and commissioning of networks supported with shared insight on network topology and mapping of network devices
- Local engineering teams to assist with design installation and commissioning in order to help meet global manufacturing requirements
- Global teams to assist in the design of cable assemblies and optimized cable routing
- IRIS certification to support manufacturing expertise

GLOBAL MANUFACTURING FOOTPRINT

With decades of experience in the railway industry, our history and reputation make us a partner you can rely on. Our global footprint allows us to offer worldwide coverage with fully equipped TE manufacturing plants in Poland, India, and China, including high voltage testing (in Faraday cages). Our verification testing takes place in-house in our high voltage lab in Swindon. Connect with us today to see how we can enable your high voltage designs and keep you on track with industry trends.

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