Rail

AEI Solutions for Mass Transit, Light Rail, and People Mover

TransCore's Automatic Equipment Identification (AEI) solutions have improved the operational efficiency of mass transit systems worldwide.

Using Radio Frequency Identification (RFID) technology, location and time data is collected easily and accurately, enabling management to better monitor and control train operation functions. The result is safer, more convenient travel.
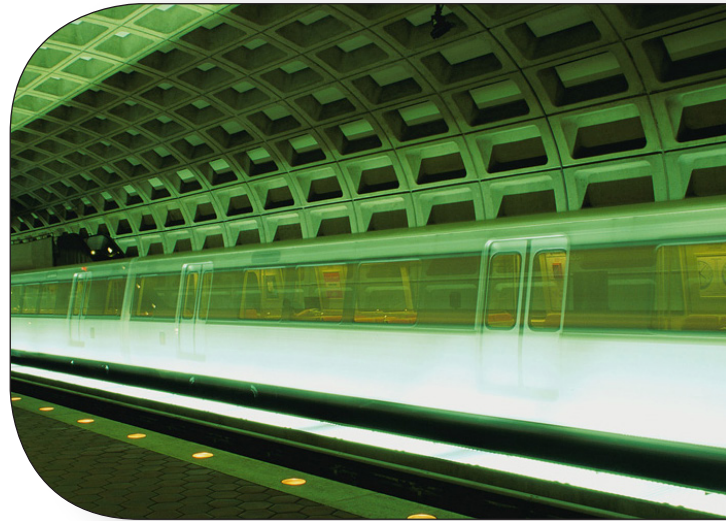
Better Data, Better Performance

Having pioneered RFID technology for the transportation industry, TransCore's AEI applications now allow for fault detection and condition-based monitoring, increasing transit operational efficiency, profitability, and safety. Our systems eliminate complicated and time-consuming processes by providing automatic train positioning for Communications-Based Train Control (CBTC) applications, including Automatic Train Location (ATL), Automatic Train Separation (ATS), and Automatic Train Operations (ATO).

Data on RFID transponders on the railcars is collected electronically by RFID readers stationed along the route and then then transmitted to a host computer.

Improve Safety & Operations

TransCore's AEI solutions improve safety and operations by providing onboard operators with accurate position information from which to best determine speed and distances. This information also enables the train operations' control center to better react to conditions, such as temporary speed restrictions or malfunctioning trackside controls.

Improve Customer Service

TransCore's AEI solutions can help both heavy and light rail transit systems run on schedule. With accurate, real-time data, train controllers can safely increase the number of trains moving along the line. For passengers, this means a better transit experience with more reliable on-time arrivals and departures during peak hours. The result: increased satisfaction and ridership.

TransCore Rail Solutions Provide:

- ▶ Accurate data for key management decisions
- ▶ Automation for operational flexibility
- ▶ Timely data to increase capacity and speed
- ▶ Arrival/departure data for signal control

TransCore.
Trusted Transportation Solutions

TransCore Solutions across the Globe

NYC Transit Authority · London Underground · Barcelona Metro · Madrid Metro · Chicago Transit Authority Washington Metropolitan Area Transit Authority · Urban Metro - Malaysia, Singapore MTR - Hong Kong

Flexible Configurations

TransCore systems can easily be configured to meet both onboard and wayside systems. For systems with onboard configurations, readers are mounted on the train and the transponders are mounted to the track bed. For wayside configurations, transponders can be attached to each railcar or coach, and readers mounted along the side of the tracks; or the reader's external antenna can be mounted on the track with a simple tag attached underneath the railcar or coach.

Asset Management Applications

- AT5118 Tag (902-928 MHz)
- Multi-Protocol Rail Reader (870 MHz and 902-928 MHz)
- Encompass 4 Reader (902-928 MHz)
- E1R Flex Reader (870 MHz and 902-928 MHz models)
- ETSI E4 Reader (870 MHz)
- AT5422 Tag (870 MHz)

Train Positioning Applications

- AI1422E with AT5415 tag (902-928 MHz)
- AI1831 Reader with AT5831 tag (2.45 GHz)
- AA3233 Heavy Rail Antenna (902-928 MHz)
- AA3234 Light Rail/Mass Transit Antenna (902-928 MHz)
- AI1422 E with AT5421 Tag (870 MHz)
- AA3236 Heavy Rail Antenna (870 MHz)
- AA3237 Compact Harsh-Environment Antenna (902-928 MHz)
- AA3238 ETSI Compact Harsh-Environment Antenna (870 MHz)

On Board System Example

Wayside Example

Track Bed Example
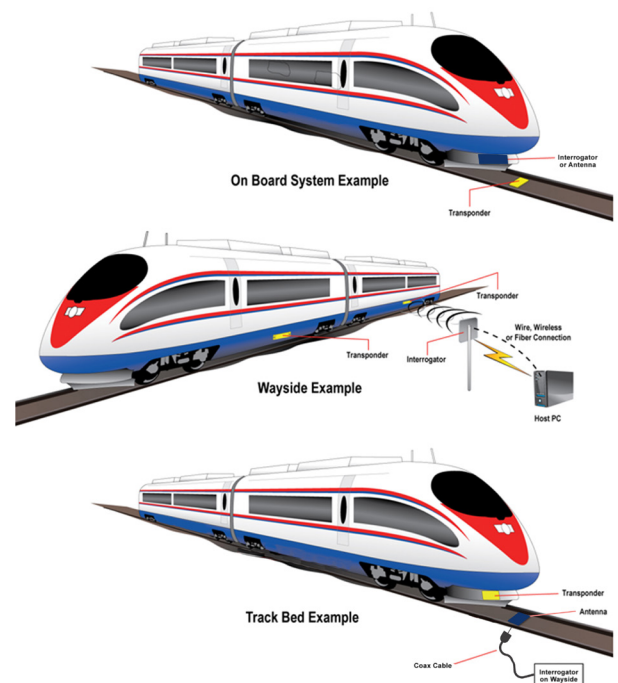
For more information:

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