

A high-angle photograph of a multi-lane highway at dusk or dawn. Several white semi-trucks are driving away from the viewer. Each truck is positioned within a white circular line painted on the road surface, suggesting a lane-based tracking or monitoring system. The background shows a hazy horizon with some distant structures and power lines.

DRIVE YOUR DESIGN TO SPEED WITH TE CONNECTIVITY

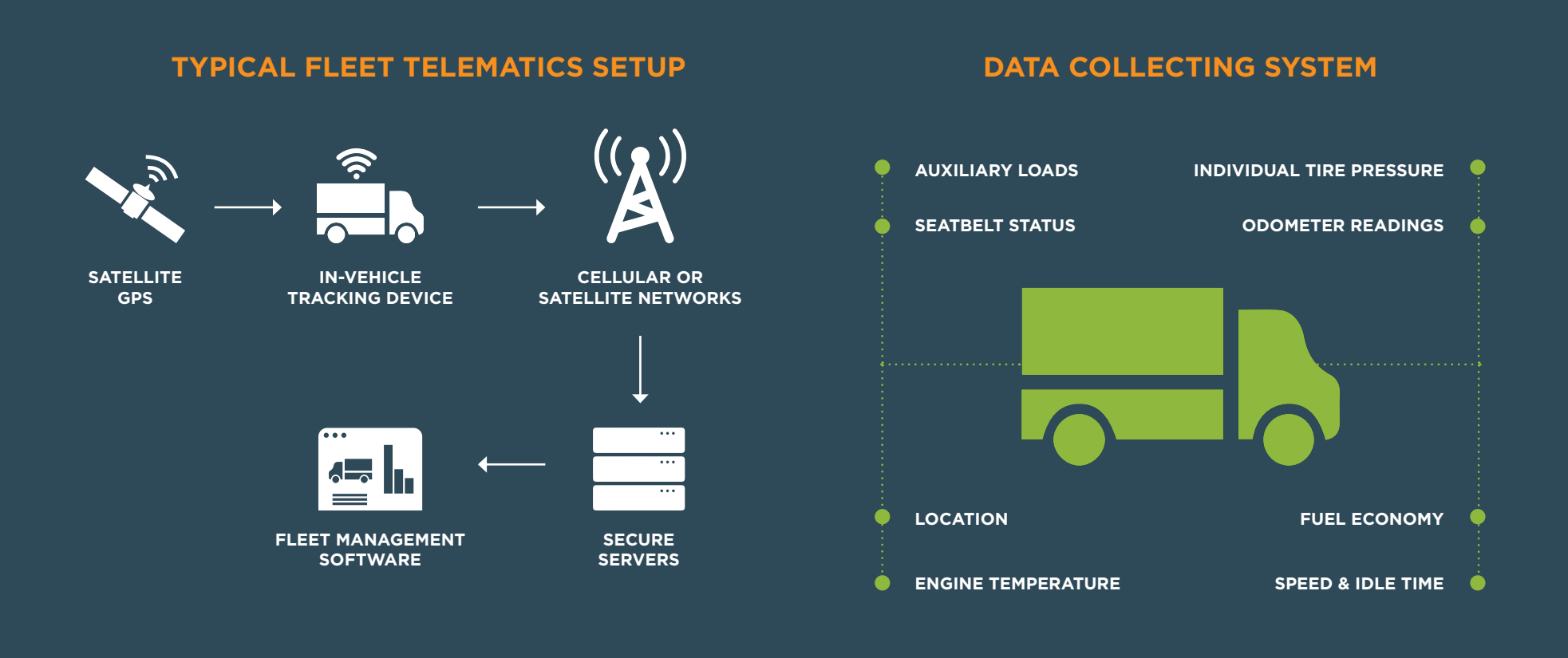
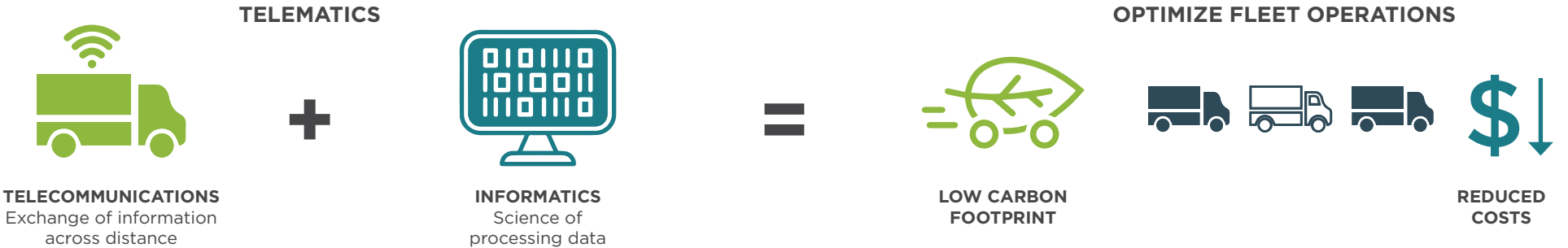
PRODUCT SOLUTIONS FOR FLEET TELEMATICS

As fleet telematics technology continues to accelerate, design engineers will need to respond with reliable, miniaturized solutions that will enable high performing applications. See how TE Connectivity's (TE) reliable, compact, high performance connectors and antenna solutions are enabling the reliability and connectivity for Fleet Telematics applications.

LEARN MORE AT
www.te.com/fleet-telematics



TYPICAL FLEET TELEMATIC SYSTEM TO SMARTLY INCREASE FLEET PRODUCTIVITY AND PROFITABILITY



THE 4 LEVELS OF TELEMATICS

BASIC GPS TRACKING	OBD-BASED TELEMATICS	ENHANCED SIGNALS	ELECTRIC VEHICLE SUPPORT
Remote GPS vehicle tracking data transmitted to online portal. • Geofences • Fuel economy • Vehicle location • Vehicle speed & idle time	On-board diagnostics (OBD) help zero in on what's going on under the hood of vehicle. • Hyper – accurate trips logs • Calculate fuel economy • Engine temperature • Diagnostic trouble code for specific machines	Use CAN (Controller Area Network) Bus inputs by tapping into enhanced signals not readily available through the OBD port. • Auxiliary loads • Power take-off status • Individual tire pressure • Seat belt status	Efficient level, robust system for coping with the complexities of electric vehicles. • Maximize ROI • Predictive analytics based on Duty Cycles • Valuable insight into purchasing and maintenance timetables

CONNECTIVITY
DESIGN
REQUIREMENTS



Low-profile, compact design for small-factor configurations



Hardened, tamper-resistant device with a backup battery



Long-life built-in service battery



Wireless signal integrity



Plug-and-play interfaces



Compatibility with global cellular networks



EMI protection

TE CONNECTIVITY
PRODUCTS
ALLOW
DESIGNERS TO
MEET THE
CHALLENGING
DESIGN
REQUIREMENTS
IN THE FLEET
TELEMATICS
MARKET.

TYPES OF FLEET TRACKING DEVICES

MANAGED INSTALLED DEVICES

These are hard-wired into vehicles and are often tamper-resistant offering greater security. Hard-wired devices also have greater connectivity to peripheral devices and sensors, providing operators a broader view of the operational performance.



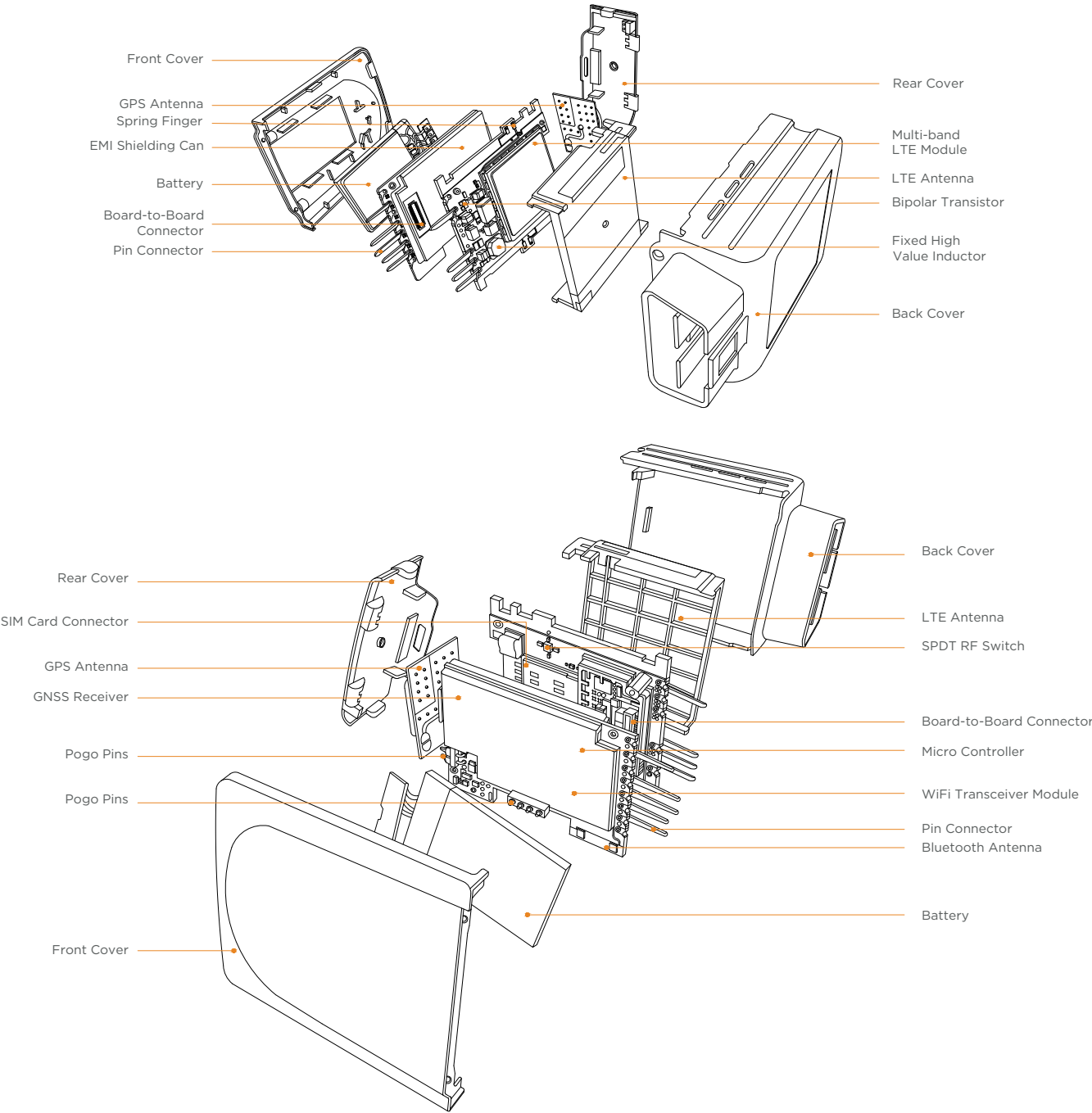
SELF-INSTALLED DEVICES

These are plugin devices that are often simple to install and may easily be moved between vehicles across fleet. This is often the device used when the data collected isn't required for compliance and when there is a high vehicle turnover or a large volume of rental vehicles.



A DEEP LOOK AT FLEET TELEMATICS HARDWARE

360° VIEW



LEARN MORE ABOUT CONNECTIVITY SOLUTIONS FOR FLEET TELEMATICS

ANTENNAS	RF CONNECTORS	APPLICATION TOOLS	WIRE-TO-BOARD
 Standard Antenna & Custom Antenna Our antenna solutions provide high-quality transmissions in wireless devices in a wide variety of frequencies, including Bluetooth, WLAN, Cellular and Zigbee, etc.  LDS Custom Antenna Use of laser direct structuring (LDS) antenna and product technology can save valuable space in your application by integrating high frequency, mechanical and electrical functionality into one component.	 RF Connectors An RF connector is an electrical connector that is engineered to work at radio frequencies ranging from a few MHz to over 100 GHz. RF connectors are designed to perform in rugged, challenging environments, while maintaining low insertion losses, superb voltage standing wave ratio, and other mechanical and electrical functions.  RF Coax Connector Types (SMA/SSMA) RF coax connectors transmit analog signals while minimizing RF (radio frequency) signal losses. These devices are designed to work at the multi-megahertz range of radio frequency.  Micro-Miniature RF Connectors With a rugged, compact design, our space-saving micro-miniature coax connectors are engineered for high-performance microwave systems.  AMPSEAL 16 Connectors with Coaxial Terminals Fully sealed IP67-rated one and four position coaxial connectors utilizing our industry-proven AMPSEAL 16 style ruggedized housing technology. Space saving MATE-AX miniature coaxial terminals provide superior analog signal and digital data transmission performance. Used in sealed antenna connections.	 Crimp Applicators Designed to crimp an array of terminals from TE and other manufactures, our OCEAN 2.0 applicators are engineered from high grade tool steels and processed through advanced CNC equipment for tight tolerances to deliver high repeatability and efficient throughput.  Bench Top Terminators Our extensive line of bench-top wire crimping machines provide flexibility, performance, and reliability for low to medium volume wire processing.  Portable Crimp Tools We provide a wide variety of portable crimp tools for wire crimping. Whether you need manual tooling or something with more power, TE has the crimping tool for you. Our SDE dies can be used across most platforms from manual to pneumatic to battery-powered as your needs change.	 AMP CT interconnect AMP CT connector system consists of an extensive product offering and broad industry usage.  Mini CT interconnect 1.5mm AMP Mini CT connectors are miniature wire-to-board interconnect solutions.
WIRE APPLIED CONNECTORS			
 FAKRA Coaxial System for Radio Frequency Compatible with the FAKRA RF and USCAR standards, our portfolio features an extensive range of terminals, housings and cable assemblies for use in most automotive RF-based applications, including 14 key codes with sealed, unsealed, 180° and 90° orientation variants.  MATE-AX Miniaturized Automotive Coaxial Connectors MATE-AX miniaturized FAKRA coaxial connector system provides advanced automotive data transmission performance, supporting up to 15 GHz. It features an extensive portfolio offering a wide range of connector types and sizes to support all types of RF-based applications.			 Heavy Duty Sealed Connector Series with MATEnet Inserts Rugged, IP67/9K thermoplastic connector using our single pair Ethernet MATEnet inserts. Can support multiple hybrid interfaces (single pair Ethernet plus power) and scalability by using unshielded or shielded twisted pair cable. Used in hybrid Ethernet applications.  Heavy Duty Sealed Connector Series Made of rugged UL94 V-0-rated thermoplastic and rated to IP67 and IP6K9K (with backshell), features an integrated secondary lock for inline or flange-mount applications in wire-to-wire or wire-to-device configurations. Used in controller area network (CAN) and power/signal applications.

INTERNAL INTERCONNECTS



Standard Modular Jack: RJ45 & RJ point five

We offer a variety of accessories for modular jack connectors and plug connectors, including circular Ethernet hardware, modular jack and plug caps and covers, and screwlocks. Ethernet hardware, modular jack and plug caps and covers, and screwlocks.



Mobile Battery Interconnect

Mobile battery interconnects include low profile battery connectors, leaf battery connectors, and floating battery interconnection systems (FBIS II). These mobile battery connectors' high design flexibility allow it to be scaled up or down regardless of possibilities, working height or contact pitch.



Spring Fingers

Spring fingers can be used for antenna feeds, low voltage electrical connections, or for grounding to prevent EMI noise and static caused by a speaker, motor, microphone, or any other vibration within an application.



Eurocard

Our Eurocard line is available in board-to-board, wire-to-board, ribbon cable-to-board and high-current connectors.



USB Type-C Connectors

As the next-generation solution for current and future USB applications, our USB Type-C connectors are designed to an industry standard that provides a sleek, slim design small enough for handheld devices and small home appliances and robust enough for industrial applications.



Flexible Printed Circuit (FPC)

As the market trends towards miniaturization, FPC connectors have been developed to meet the challenges of this expanding market, which demands smaller centerline or pitch spacing, lower profile heights, and lighter interconnect solutions.



Fine Pitch Board-to-Board Connectors

When it comes to high-reliability in small spaces, TE delivers with fine pitch board-to-board connectors and board-to-flexible printed circuit connectors. These connectors have robust anchor points for durability, making them a design-flexible, effective solution for a variety of today's smart devices.



SIM Card Connectors

SIM card is widely used in a variety of mobile applications, including, billing, security and number storage purposes in mobile devices. Currently SIM card connector is widely used in IoT related applications. We offer a variety of SIM card connectors to meet different.

PCB CONNECTORS



DEUTSCH DT and DTM Headers

Field-proven reliability and rugged quality with optional flange mounting, multi-pin arrangements and design flexibility. Thermoplastic IP67 rated housings and silicone rear wire and interface seals help withstand extreme temperature and moisture. Used in controller area network (CAN) and power/signal applications.



DEUTSCH DT High Speed Connectors

Provides 1 Gb speeds for 40 m channel lengths with four inline connections and enables the potential for multi-Gig (2.5/5 Gb) speeds. Utilizes proven DEUTSCH DT/DTM contacts and is fully sealed IP67-rated. Used in high speed, long-length Ethernet applications. Available soon.



DEUTSCH PCB Enclosures and Headers

Rugged, environmentally sealed solutions for PCB applications. Feature through hole mounting flanges and optional venting. Designed to accommodate one or more DEUTSCH DT or DTM connector interfaces, the headers feature 90° pins.



EEC Headers with TNC/SMA Interface

Rugged, environmentally sealed solution for PCB applications. Features one interface for 12 position DEUTSCH DTM connectors and another for sealed TNC or SMA coax connectors. Use with DEUTSCH PCB enclosures for a sealed off-the-shelf solution for custom electronics and controllers.

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