INTRODUCING

GEMnet
MULTI-GIGABIT DIFFERENTIAL CONNECTOR SYSTEM

- **Enabling up to 15 GHz bandwidth, supporting up to 56 Gbps data transmission and used for Multi-gigabit Ethernet and SerDes applications for transportation industry**

Automotive manufacturers are increasingly utilizing multi-gigabit (10Gbps+) data links to design applications and architectures. Designed to meet these requirements, TE Connectivity's (TE) GEMnet connector family supports Multigigabit Ethernet and SerDes applications; provides bandwidth up to 15 GHz and supports data transmission up to 56 Gbps for the transportation industry. The GEMnet connector system offers flexibility to support a wide range of Ethernet applications and industry protocols including 4K displays, radar/lidar, high performance computer, electronic control unit and safety critical applications.

TARGET MARKETS

- Transportation
- Automotive
- Industrial Commercial Transportation
- Data and Device

KEY FEATURES AND BENEFITS

- **High performance**
  - Up to 15 GHz bandwidth, capable of supporting 56 Gbps data transmission
- **Automotive Robustness (LV214 and USCAR qualified)****
  - Including, Class 1 vibration stability, primary and secondary locking, anti-stubbing, scoop proof and optional connector position assurance (CPA), and high cable retention force
- **High EMI performance**
  - From multiple contact points
- **Protocols supported**
  - Ethernet: 100BASE-T1, 1000BASE-T1, 2.5/5/10/25GBASE-T1
  - SerDes APIX®, FPD-Link, GMSL™, MIPI® A-PHY℠, PCIe®, USB, GVIF, HDBase-T™, ASA Motion Link
- **Extensive portfolio**
  - Based on 90° and 180° terminals, TE offers sealed/unsealed 1,2,4,6 port connectors and headers

  **Note: industry standards used to define the quality and performance requirement

APPLICATIONS

- **Autonomous Driving**
  - LiDAR
  - Radar
- **Connected vehicle**
  - High performance computer
  - Domain ECU (ADAS, infotainment)
  - Zonal controller
- **Infotainmentg**
  - 4K Displays; 8K/High-resolution displays
  - USB

LEARN MORE

- GEMnet Multi-Gigabit Differential Connector System Brochure
- GEMnet Multi-Gigabit Differential Connector System Landing Page