As the industry is moving towards smaller, more miniaturized solutions, automotive manufacturers are under constant pressure having to reduce vehicle fuel consumption, CO2 emissions, component footprint and packaging space while also achieving the necessary robustness and reliability when deployed in harsh, high-vibration, high-temperature automotive environments. Because of this, OEMs are looking to adopt miniaturized connectors for space constrained applications that follow harsh automotive requirements ensuring all modules and connections are reliable by staying connected and functional so as not to interrupt a safe and continuous operation.

TE Connectivity’s new PicoMQS automotive connector system is a miniaturized innovative solution that combines both the automotive-grade robustness and reliability needed when deployed in harsh high-vibration, high temperature automotive applications together with the reduction of component footprint (55% reduction in crimp length) and packaging weight (78% reduction), making it one of the smallest automotive qualified crimped terminal, connector and header system on the market.

**APPLICATIONS**

- Head lamps/indicators
- Steering wheel controls
- Front and rear cameras
- Switches/sensors/roof control/antenna module
- Wire harness/electrical systems
- HVAC
- Audio modules
- Battery applications: (battery management system, battery/cell control modules)

**BENEFITS**

- Automotive-grade robustness with Class 2 vibration stability with maximum temperature of 130°C (Sn) / 150°C (Ag), 0.22 wire, continuous current capability up to 4A @80°
- Best-in-class miniaturization/space-reduction for space constrained signal interfaces with up to 78% reduced packaging weight (compared to MQS), 1.27mm pin pitch (30% reduction), and 55% reduction in crimp length with complete LV214 qualification
- Smallest LV214 qualified crimped connection with anti-scooping features, secondary locking system, Kojiri connector design
- Manufacturing ease, quality and cost efficiency with automated pin insertion and S-bending solder pin design for camera control for header board position with a reduced pin length by 4mm (42% shorter length)

**PRODUCT FEATURES**

- 1.27mm pin-to-pin pitch
- SG2 vibration grade
- 0.13mm² to 0.22mm² wire range
- Current capacity: 4A (90°C)
- Mating for 0.5mm x 0.4mm blade size
- S-bended pins header design
- Max. temperature 130°C (Sn) / 150°C (Ag)
- Automotive standard compliant (LV214)
- Locking lance design
- Primary and secondary contact locking
- Click-audible connector position assurance (CPA) possible
- Clearance and creepage distance on a level of 12V
- FFC terminal coming soon
- 2-to-10 position side latch housings
- 2-to-10 position headers
- Receptacle 0.22 FLU & FLR (0.13 FLR)

**LEARN MORE**

- PicoMQS Connector Product Page
- PicoMQS Product Video
- Miniature Product Group Page
- Miniature White Paper
- Battery White Paper
- Miniature Portfolio (US)
- Miniature Portfolio (EMEA)
- Signal and Power Connector Brochure
- Battery Management System Resources