

NanoMQS

NanoMQS 0.50MM MINIATURIZED SIGNAL CONNECTOR SYSTEM FOR NEXTGEN VEHICLE

- 1.8mm connector system for space-constrained signal interfaces
- Up to 50% reduced PCB footprint



Building on the proven success of TE Connectivity's MQS connector system, the NanoMQS connector system delivers a compact, high-performance solution designed for space-constrained transportation applications. Its next generation locking lance terminal design ensures a secure, audible, and tactile connection when fully inserted into the housing - supporting reliable assembly in demanding environments.

With a reduced 1.8mm pin pitch, NanoMQS enables up to 50% PCB footprint savings while providing a nominal current capacity of up to 6A and operating at temperatures up to 170°C (AG-rated). Engineered to meet stringent automotive standards, the system supports robust electrical and mechanical performance.

The NanoMQS portfolio includes receptacle and tab terminals for round wires, as well as FFC terminals for flat flexible and printable cables - featuring a variety of contact surfaces to meet a wide range of application-specific needs. It's a versatile, space-saving solution ideal for today's evolving vehicle architectures.

APPLICATIONS

- Battery/Cell Control Modules
- Engine Control Units and Airbags
- Blackbox applications with extreme space constraints (headlamps, steering wheel, mirrors, doors, cameras, audio systems)

BENEFITS

- Space and weight savings - Up to 50% reduced PCB footprint, compared to 2.54mm pin-pitch connector
- Locking Functions - CPA, Koshiri, primary and secondary contact locking
- Up to 55% reduced housing weight/packaging
- 50% reduced terminal weight
- Multiple Variants - Receptacle and tab terminals for round wires, automotive-grade FFC/FPC terminal for flat flexible/printable cables including different types of contact surfaces
- Easy Adoption - Integrated into the MQS terminal family series and connector cavity compatible with Gen50 locking lance

TARGET MARKETS

- Automotive
- Industrial & Commercial Transportation
- Transportation

PRODUCT FEATURES

- 1.8mm pin-to-pin pitch
- 0.13 mm² to 0.35 mm² wire range
- Mating for 0.5 x 0.4 blade size
- Current capacity: 6A (90°C)
- Max. Temperature 170°C (Ag)
- 90° / 180° pin orientation
- Flame resistant UL 94 V0
- SG4 Vibration Grade (Ag)
- LV214 compliant & USCAR2 (validation in progress)
- Locking Lance design
- Top latch and side latch
- Primary and secondary contact locking
- Click-audible connector position assurance (CPA)
- Koshiri Connector Design as Anti-Stubbing feature
- 1 or 2-row, 6 - 40 positions (CPA option up to 28 positions)
- NanoMQS FFC terminal and housing 8, 20, 32 and 40 positions
- 1 and 2-row headers (S-bending header design)

LEARN MORE

- [NanoMQS Connector Product Page](#)
- [Miniature Product Group Page](#)
- [Miniaturized Automotive Connectivity Video](#)
- [Automotive Connector Strategies and Solutions for Space Reduction White Paper](#)
- [Battery Connectivity, Management and Protection White Paper](#)
- [Miniaturized Connector Solutions Portfolio \(NA\)](#)
- [Miniaturized Connector Solutions \(EMEA\)](#)
- [Battery Management System Resources](#)