MATEnet Modular and Scalable Connectors
Enabling Automotive Ethernet
TE Connectivity’s (TE’s) MATEnet modular and scalable connectors are designed for the harsh automotive environment and can transmit up to 1Gbps according to IEEE 100BASE-T1 and 1000BASE-T1 Standards.

TE Connectivity’s MATEnet interconnection system contributes to modern E/E architectures and answers today’s and tomorrow’s requirements of vehicle connectivity. MATEnet was specifically developed for IEEE Automotive Ethernet networks and set a standard for unshielded cabling.

It relies on automotive-grade, miniaturized, robust and proven interconnection technology and has successfully passed severe testing and validation.

**Signal integrity return loss**

**EMC mode conversion / coupling attenuation**

**Benefit**

- Automotive grade robustness:
  - NanoMQS terminals system
- Higher data-rate:
  - Applicable for up to 1Gbps (also potential for 6Gbps with alternative technologies)
- IEEE conformance:
  - 100BASE-T1 (100Mbps - IEEE802.3bw and 1000BASE-T1 (1Gbps -IEEE802.3bp)
  - Potentially up to 6Gbps with alternative technologies
- More flexibility:
  - Compatible with Unshielded Twisted Pair (UTP) and Shielded Twisted Pair (STP)
  - Cost efficient – design and process perfectly aligned for Automotive Ethernet needs
  - Provides a modular and scalable solution that fits to automotive connectivity building blocks

**Applications**

- In-Vehicle Networks
- Advanced Driver Assistance Systems (ADAS)
- Radar / LIDAR Applications
- 360° surround view camera
- On-board diagnostic (V2X technologies)

**Market Compatibility**

- PoDL (Class 3 - 48 Volt)
- A2B
- HDBaseT
### Portfolio 2018

**Header and Frames**

<table>
<thead>
<tr>
<th>Description</th>
<th>TE PN</th>
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<tr>
<td>1 port Header</td>
<td>0-2304372-1/-2/-3*</td>
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<tr>
<td>1 port Inliner Coupler</td>
<td>0-2302461-1/-2/-3*</td>
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<tr>
<td>2 port Header</td>
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<tr>
<td>1 port sealed Header</td>
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<tr>
<td>1 port Frame UTP</td>
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<tr>
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* xxx-1 Code A / xxx-2 Code B / xxx-3 Code C - further codings on request

### Application Specification

Cable Assemblies and Components: 114-94431
Header: 114-94448

Product Specification: 108-94568

### MATEnet Cable Assembly (UTP/STP)

Possible Configurations:
- 1 port Frame - 1 port Frame
- 1 port Frame - 1 port Inline Coupler
- Female insert - Female insert
- Female insert - Male insert

Available cable types: UTP 100 Mbps / UTP 1 Gbps and STP 1 Gbps

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