

# MATenet Modular and Scalable Connectors

Enabling Automotive  
Ethernet



# MATEnet

## Miniaturized Automotive Ethernet Connector System

A growth in ADAS and infotainment technologies within vehicles is leading to an increased requirement for complex high-speed data networking architectures based on the IEEE Automotive Ethernet standard.

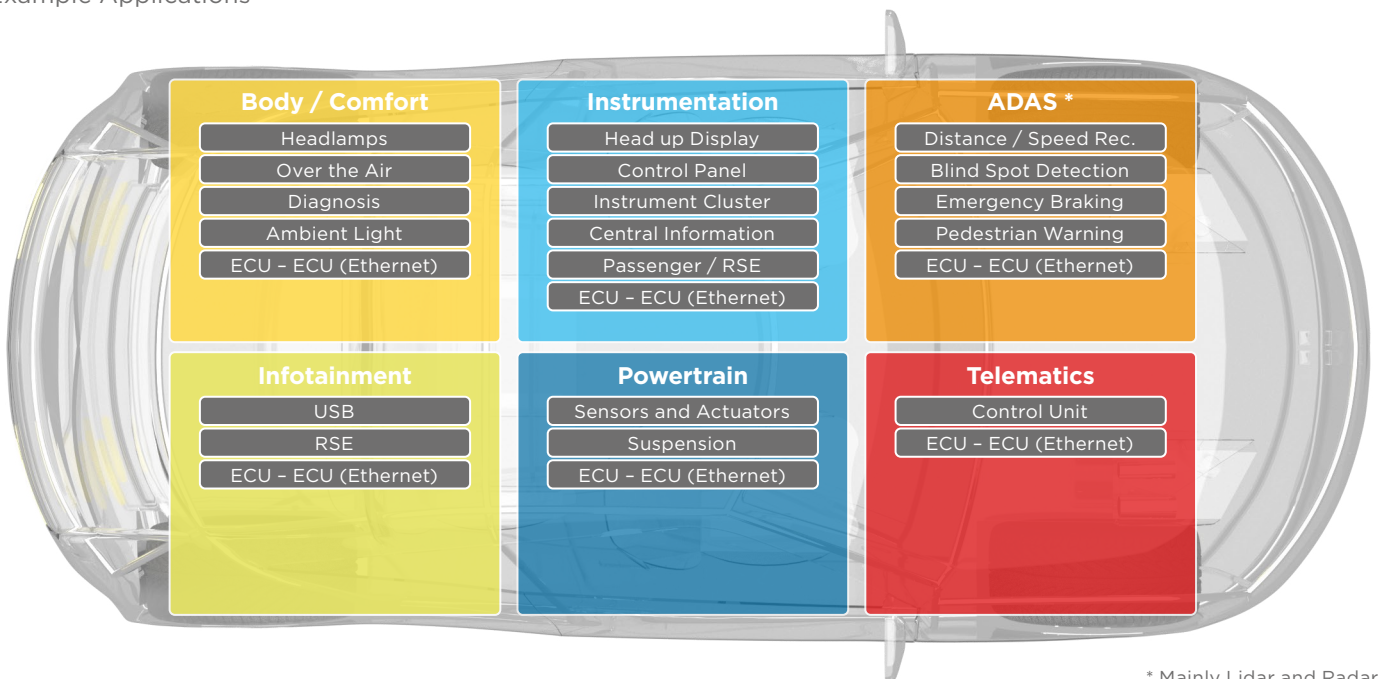
This complexity is driving the need for economical cabling solutions for physical link technologies that can be seamlessly integrated into existing ECU interfaces.

MATEnet is TE Connectivity's modular and scalable connector system, developed for the latest generation of vehicle architectures. Based on proven standard miniaturized terminals and available in shielded (STP) and unshielded (UTP) versions, MATEnet meets data transmission requirements according to 100BASE-T1 and 1000BASE-T1.

In addition, MATEnet uses higher modulation data transmission technologies, enabling it to support data rates up to 4 Gbps.

***Supports up to 1 Gbps  
(with potential for 4 Gbps  
with alternative technologies)***

### Example Applications



# MATEnet

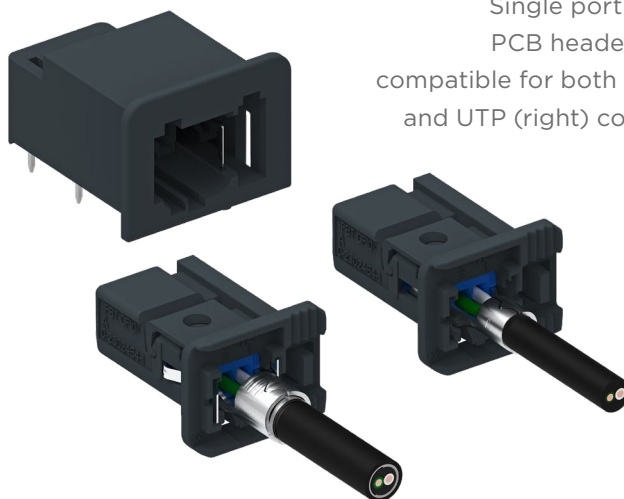
## Miniaturized Automotive Ethernet Connector System

### Features/Advantages

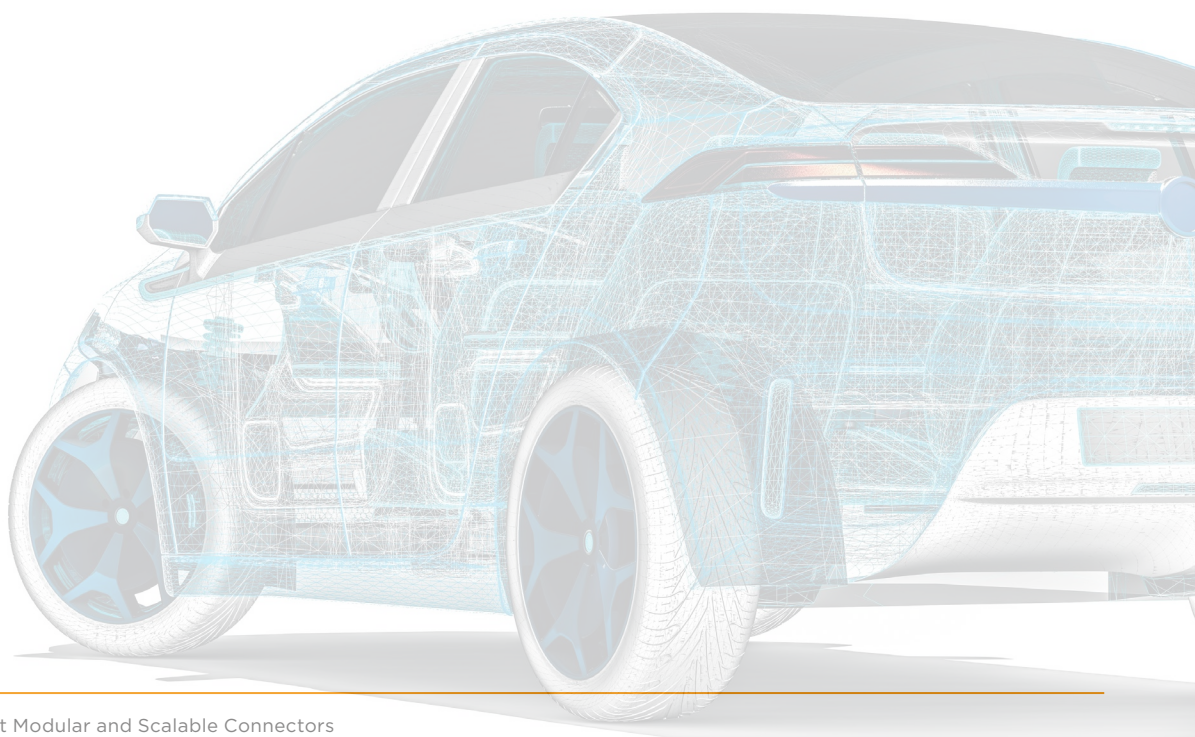
- Automotive grade robustness:  
Based on proven NanoMQS terminals system.
- Higher data-rate:  
Supports up to 1Gbps (potential for 4Gbps with alternative technologies).
- More flexibility:  
Available in Unshielded Twisted Pair (UTP) and Shielded Twisted Pair (STP).
- Modular and scalable solution:  
Integrates into existing automotive connectivity interfaces.
- Cost efficient:  
Design and process aligned for Automotive Ethernet.

### Market Compatibility

- IEEE conformance:  
100BASE-T1 (100Mbps - IEEE802.3bw) and  
1000BASE-T1 (1Gbps - IEEE802.3bp PoDL  
(Class 3 - 48 Volt))
- A2B
- HDBaseT



Single port MATEnet PCB header (above), compatible for both STP (left) and UTP (right) connectors.



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## Miniaturized Automotive Ethernet Connector System

Portfolio Header and Frames	Description	TE PN
	1 port Header	0-2304372-1/-2/-3*
	1 port Inliner Coupler	0-2302461-1/-2/-3*
	2 port Header	0-2305987-1/-2/-3*
	5 port Header	0-2305390-1/-2/-3*
	1 port sealed Header	0-1802162-1/-2/-3*
	1 port Frame UTP	0-2302454-1/-2/-3*
	1 port Frame STP	0-2302510-1/-2/-3*
	2 port Frame UTP	0-2305974-1/-2/-3*
	2 port Frame STP	0-2307961-1/-2/-3*
	5 port Frame UTP	0-2302455-1/-2/-3*
	1 port sealed Frame UTP	0-1802105-1/-2/-3*
	6 port (2 row) Header	2339800
	6 port (2 row) Frame	2334013

\* xxx-1 Code A / xxx-2 Code B / xxx-3 Code C - further codings on request

**Application Specification**  
**Product Specification**

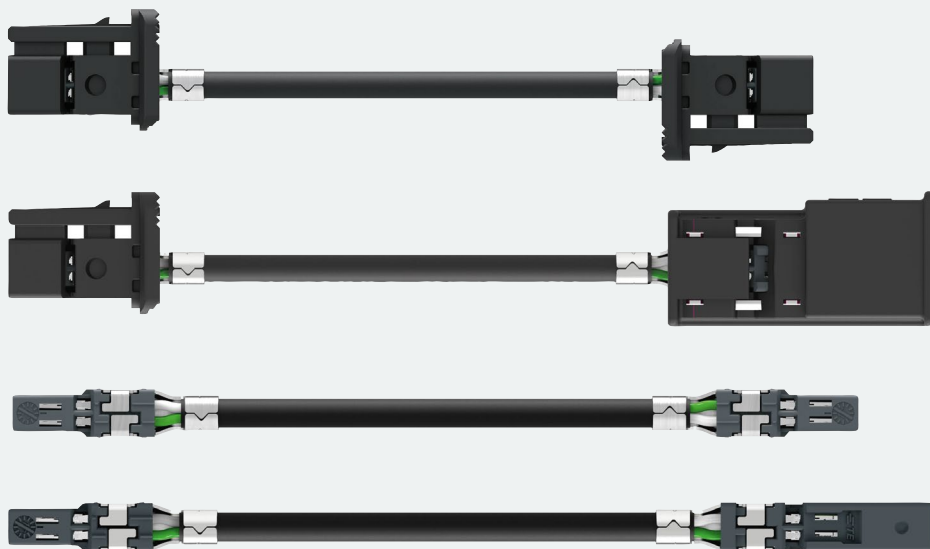
Cable Assemblies and Components: 114-94431  
108-94568

Header: 114-94448

# MATEnet

## Miniaturized Automotive Ethernet Connector System

### MATEnet Cable Assembly (UTP/STP)

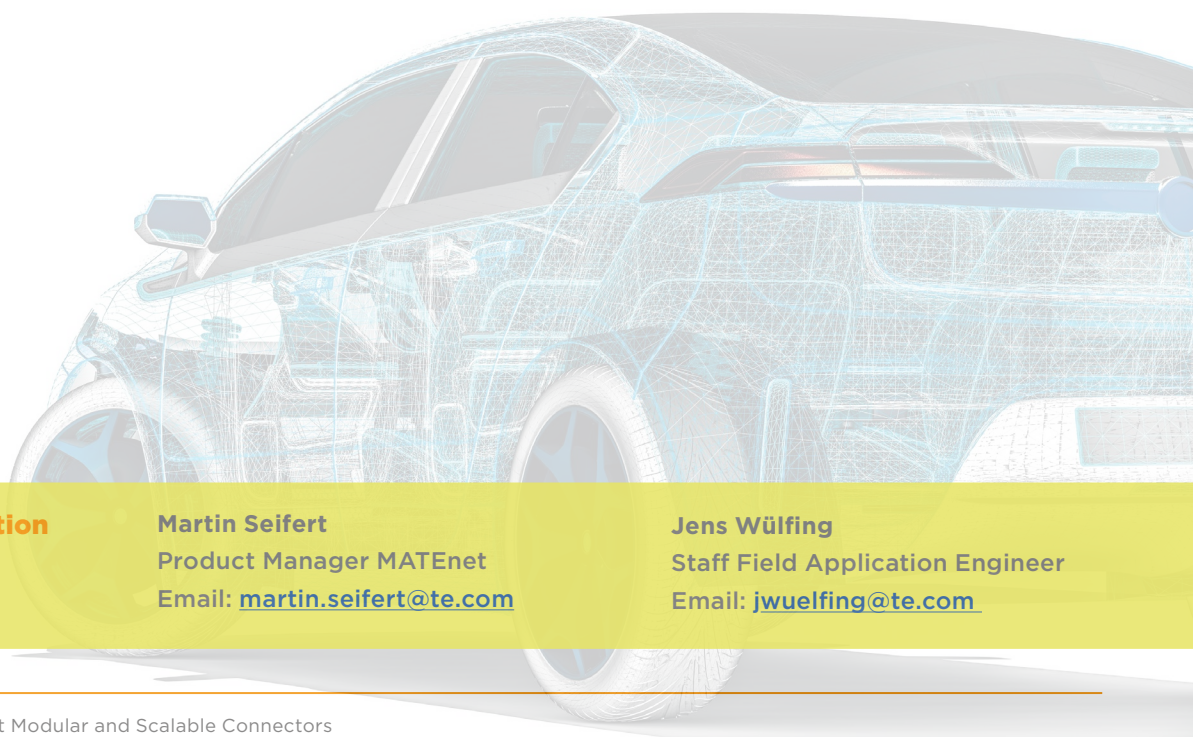


#### Possible Configurations:

- 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 1Gbps
- and STP 1Gbps



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1-1773941-1 | Revision 06-2020