

# MATenet Modular and Scalable Connectors

Enabling Automotive  
Ethernet



# MATenet

## Modular and Scalable Connectors

### Enabling Automotive Ethernet

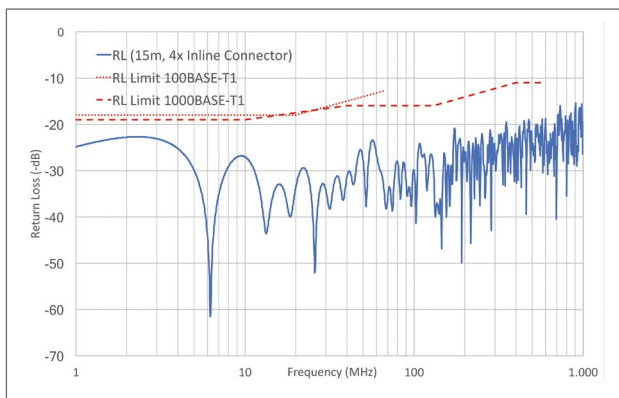
TE Connectivity's (TE's) MATenet modular and scalable connectors are designed for the harsh automotive environment and can transmit up to 1Gbps according to IEEE 100BASE-T1 and 1000BASE-T1 Standards.

TE Connectivity's MATenet interconnection system contributes to modern E/E architectures and answers today's

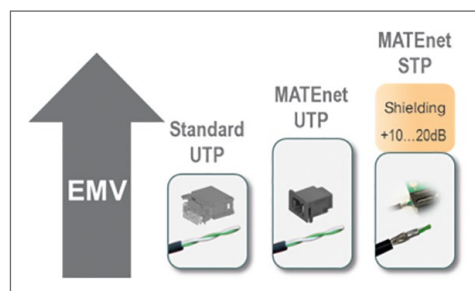
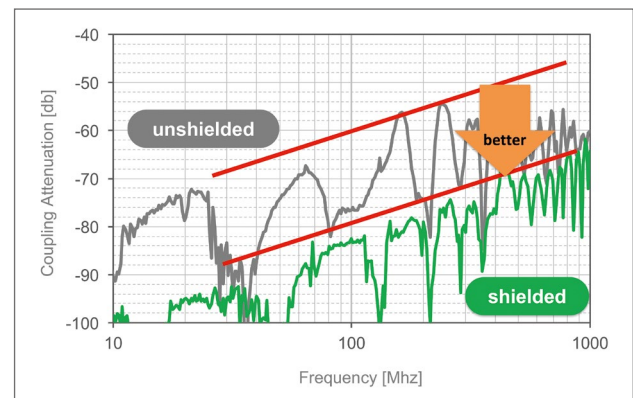
and tomorrow's requirements of vehicle connectivity. MATenet was specifically developed for IEEE Automotive Ethernet networks and set a standard for unshielded cabling.

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 6 Gbps with alternative technologies)

IEEE conformance:

- 100BASE-T1 (100Mbps - IEEE802.3bw and 1000BASE-T1 (1Gbps -IEEE802.3bp)
- Potentially up to 6 Gbps 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

	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*
	5 port Frame STP	0-2302515-1/-2/-3*
	1 port sealed Frame UTP	0-1802105-1/-2/-3*
	1 port sealed Frame STP	0-1802113-1/-2/-3*

\* 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)



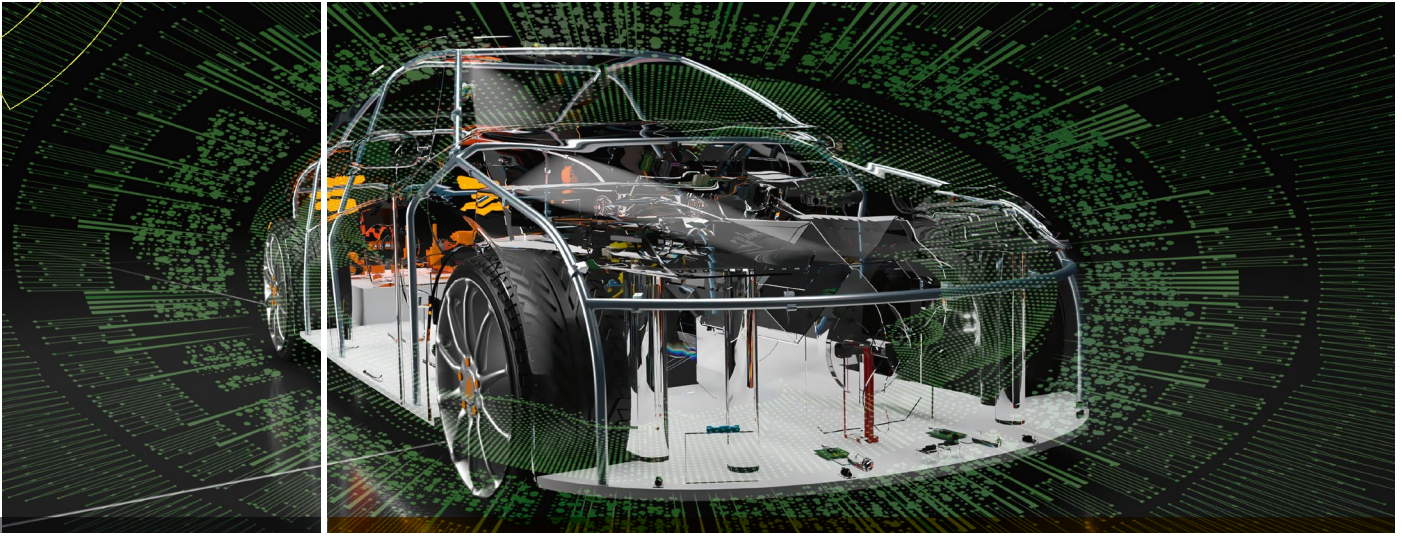
### Possible Configurations:

- 1 port Frame - 1 port Frame
- 1 port Frame - 1 port Inliner Coupler
- Female insert - Female insert
- Female insert - Male insert

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

### For further information please contact:

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