

MATenet Modular and Scalable Connectors

Enabling Automotive
Ethernet



MATenet

Modular and Scalable Connectors

Enabling Automotive Ethernet

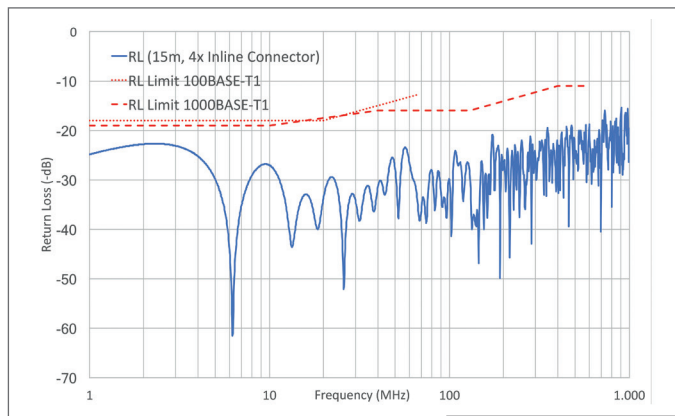
TE Connectivity's (TE's) MATenet modular and scalable connectors are designed for the harsh automotive environment and can transmit up to 1Gbps according to IEEE 100BASE-T1 and 1000BASE-T1 Standards.

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

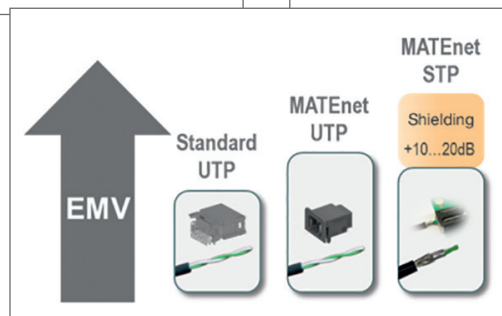
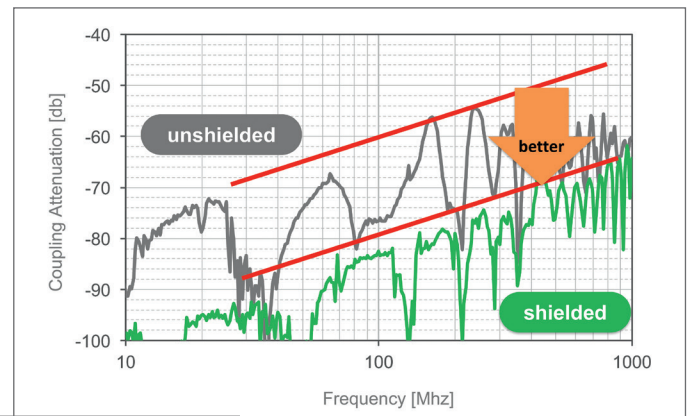
and tomorrow's requirements of vehicle connectivity. MATenet was specifically developed for IEEE Automotive Ethernet networks and set a standard for unshielded cabling.

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






Header Portfolio	Description	TE PN
	1 port Header	0-2304372-1/-2/-3*
	1 port Header sealed	0-1802162-1/-2/-3*
	1 port Header 180°	0-2308956-1/-2/-3*
	2 port Header	0-2305987-1/-2/-3*
	5 port Header	0-2305390-1/-2/-3*
	6 port Header 2 row	0-2339800-1/-2/-3*

Application Specification

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

Product Specification

108-94568

Connector Portfolio	Description		TE PN
	1 port	UTP	0-2302454-1/-2/-3*
		STP	0-2302510-1/-2/-3*
	1 port sealed	UTP	0-1802105-1/-2/-3*
		STP	0-1802113-1/-2/-3*
	1 port Inliner Coupler (with male insert)		0-2302461-1/-2/-3*
	2 port	UTP	0-2305974-1/-2/-3*
		STP	0-2307961-1/-2/-3*
	5 port	UTP	0-2302455-1/-2/-3*
		STP	0-2302515-1/-2/-3*
	6 port	UTP	0-2302456-1/-2/-3*
		STP	0-2302516-1/-2/-3*
	6 port 2 row	UTP	0-2334013-1/-2/-3*
		STP	0-2333538-1/-2/-3*

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

MATenet Cable Assembly (UTP/STP)



Possible Configurations:

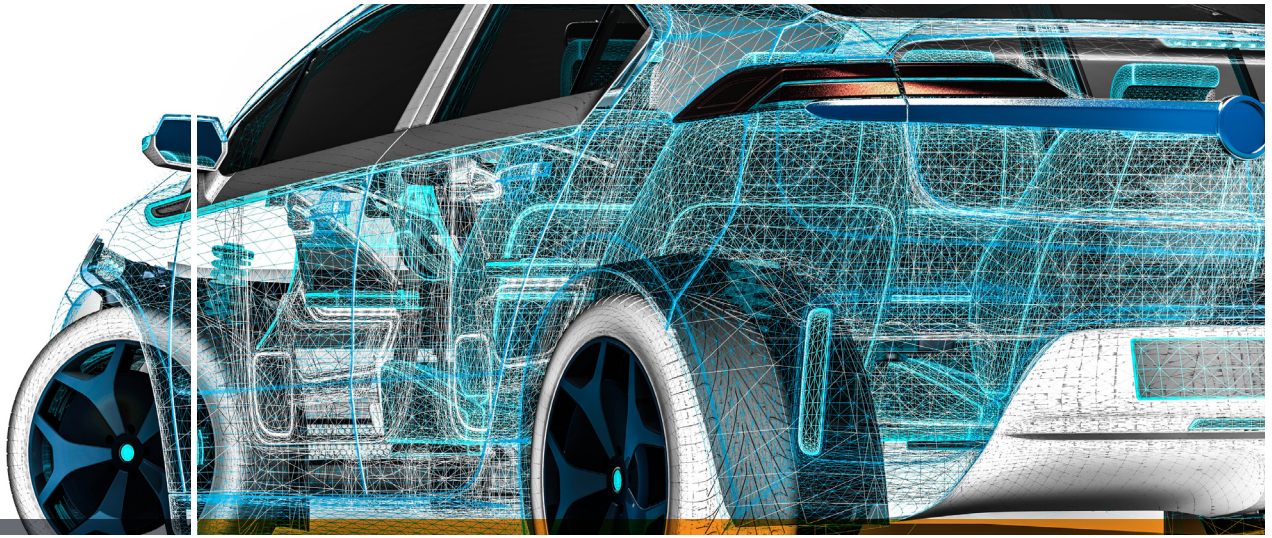
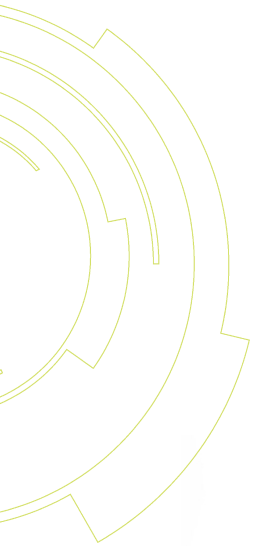
1 port Frame - 1 port Frame
1 port Frame - 1 port Inline Coupler
Female insert - Female insert
Female insert - Male insert

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

**For further information
please contact:**

Thorsten Eisele
Product Manager (EMEA)
Email: teisele@te.com

Jens Wülfing
Staff Field Application Engineer
Email: jwuelfing@te.com



TE Connectivity Germany GmbH

Ampèrestrasse 12-14
64625 Bensheim | Germany

Product Information Center:
+49 (0)6251 133-1999

www.TE.com

MATenet, NanoMQS, TE, TE Connectivity, and TE connectivity (logo) are trademarks.

IEEE and HDBaseT are trademarks.

Other logos, product(s) and/or company names might be trademarks of their respective owners.

TE Connectivity's (TE's) only obligations are those stated in TE's General Terms and Conditions of Business (www.te.com/aboutus/tandc.asp). While TE has made every reasonable effort to ensure the accuracy of the information in this catalog, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The specifications in this catalog are for reference purposes only and are subject to change without notice. Consult TE for the latest dimensions and design specifications.

1-1773941-1 | EMEA | Revision 09-2019