MEDIACONVERTER MULTIGIGABIT

CONVERSION BETWEEN AUTOMOTIVE MULTIGIGABIT ETHERNET AND COMMERCIAL ETHERNET SOLUTIONS

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DESCRIPTION

The **MediaConverter MultiGigabit** from Technica Engineering establishes a direct point-to-point conversion between automotive ECUs using 10GBASE-T1 (10 Gbit/s Fullduplex, with 1x Unshielded Twisted Pair (UTP) cable) and any standard Gigabit Ethernet (10 Gbit/s, 10GBASE-T) device. In the conversion, no packets are stored or modified. The conversion takes place on the physical layer with the highest proven reliability.

This device is one of the first implementations of a MultiGigabit physical layer MediaConverter. We ensure a trustworthy and effective tool to our customers that are looking for a cost-efficient, quick, and manageable solution for their testing requirements, with no latency and no packet loss.

The device features bi-directional conversion between Gigabit Ethernet (10GBASE-T) and Automotive Gigabit Ethernet (10GBASE-T1). A massive housing made of galvanized sheet steel, coupled with DIP switches for ease of configuration, enables the user to interact with the converter effortlessly.

No customized driver is needed to interact with this MediaConverter. It communicates with standard Ethernet through an SFP+ slot. It comes with an automotive-grade H-MTD connector and a standard SFP+ slot. Its design makes it portable and easy to install in test racks. The metal housing makes it robust with IP20 protection. The devices can also be accessed using the debug connector for TX/RX register values as well as information regarding link quality and SQI. With the in-built status LEDs, the operation of the device is transparent and aids the tester to detect link-up and data transmission visually.

No extra hardware or software complements are needed to connect the device with a PC or a Laptop. The device can be coupled with any hardware or software tool that runs on standard Ethernet with an RJ-45 connector.

Thus, the MediaConverter MultiGigabit is the ideal solution for working quickly and efficiently with the new 10GBASE-T1 technology without the hustle of extra- wiring, customized connectors, and vendor specific tools.

FACTS

- 4 × DIP switches
- 1 × Standard SFP+ port
- 4 × Status LEDs
- 1 × Transmitter port
- 1 × Receiver port
- 1 × H-MTD port for 10GBASE-T1 Automotive Ethernet
- 1 × MQS connector
- Cable set:
  - Tyco MQS socket
  - 1 × Automotive H-MTD connector
  - Cableset (Power, 10GBASE-T1)
  - Additional optical components
- Voltage requirement: 12/24 Volt DC
- Robust metal case with black powder-coating
- Size: 100 x 93,5 × 27mm

FEATURES

- Allows easy connectivity to ECUs with 2.5/5/10GBASE-T multigigabit Automotive Ethernet ports
- Supports line speed rate matching to be able to adapt to different bandwidths between the 2.5/5/10GBASE-T1 interface T1 line speed and the one negotiated on SFP+ module side
- I/O signals to easily interface to automated systems
- Possibility to update SW via Service micro USB port
- Configuration via DIP switches:
  - DIP switch 1: Master/Slave
  - DIP switch 2: 10G
  - DIP switch 3: 5G
  - DIP switch 4: Not Used