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IVN2Eth Capture Module

CM ETHERNET COMBO

Capture your 100BASE–T1 and 1000BASE–T1 without interfering the original network

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DESCRIPTION

With Ethernet as in-vehicle-network (IVN) technology comes the challenge of capturing the traffic of these new technologies: 100BASE-T1 and 1000BASE-T1.

The **CM Ethernet Combo** from Technica Engineering provides the necessary ports to capture the traffic from 1x 1000BASE-T1 line (between two DUTs) and 2x 100BASE-T1 lines, correspondingly.

The traffic is captured without influencing the network, thanks to guaranteed deterministic latency and is delivered with a 40 ns time resolution timestamp, thus analyzing AVB/TSN traffic is possible.

Several Capture Modules, of the same or different types, can be combined and used together on the same measurement network. Thanks to the built-in time synchronization, all the devices will act as one, allowing to share a common understanding of time for all the connected buses and Ethernet networks (100BASE-T1 & 1000BASE-T1). This makes Capture Modules very scalable and allows to add other in-vehicle-network (IVN) technologies to the measurement setup.

Many additional features make this device appropriate for general-purpose testing, such as the definition of active filters, triggering of user events, and to some extent, manipulation of VLANs.

FEATURES AND FACTS

- ✔ 1 Link Line 1000BASE-T1 (2 ports)
- ✔ 2 Link Line 100BASE-T1 (4 ports)
- ✔ Technically Enhanced Capture Module Protocol (TECMP), which is royalty free and provides timestamping, source information, etc. (natively supported in Wireshark (v3.4), GPL C libraries for conversion to PCAPNG available at https://github.com/Technica-Engineering)
- ✔ Configure easily via webserver or via dedicated UDP frames
- ✔ Network Time Synchronization supporting several standards- allows to synchronize multiple CM Ethernet Combos or other Capture Module variants
- ✔ Cascading for synchronization of multiple devices
- ✔ Source Timestamping with 40 ns resolution
- ✔ High-speed startup
- ✔ Startup buffer
- ✔ Output traffic shaping
- ✔ AVB/TSN capture capable
- ✔ Time-aware injection
- ✔ Rotary switch for manual configuration of the device IP address (Gbit, RJ-45)
- ✔ Wake-up capable
- ✔ Extended power mode for car integration
- ✔ Optimized for automotive and automotive-like use-cases
- ✔ High voltage range: 12 to 24 volt DC
- ✔ Robust galvanized sheet steel with black powder coated housing
- ✔ Size: 137 x 129 x 33 mm

TECMP is compatible with PLP Protocol

4x **100BASE-T1**	**2x** **STANDARD GIGABIT** **ETHERNET (RJ-45)**	**2x** **1000BASE-T1** **(MATEnet)**	**1x** **SYSTEM** **CONNECTOR**