

IVN2Eth Capture Module **CM 100 HIGH**

APPLICATION

Capture your Automotive Gigabit Ethernet traffic in the car without interfering the original network

IVN2Eth Capture Module CM 100 HIGH



DESCRIPTION

Automotive Ethernet has conquered the modern E/E vehicle network. The challenges that arise during test and validation include a reliable capture of AVB/TSN traffic, without interfering with the network timing. This challenge gets even bigger with the need for diagnostic protocols to be sent to the DUTs during runtime.

Technica Engineering's **CM 100 High** was specifically designed to solve these problems and many more, such as ensuring that it starts-up faster than the DUTs, whose traffic it will transmit to the corresponding partner as well as capture, and that the traffic is delivered for logging with accurate hardware timestamp.

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, etc.

FEATURES AND FACTS

- ✓ 6x Link lines 100BASE-T1 (12 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 100 High 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: 167 x 130 (143) x 32 mm

**TECMP is compatible with PLP Protocol*

12x
100BASE-T1



3x
STANDARD GIGABIT
ETHERNET (RJ-45)



1x
SYSTEM CONNECTOR

