

CAPTURE MODULE MULTIGIGABIT

CAPTURE YOUR AUTOMOTIVE MULTIGIGABIT TRAFFIC IN THE CAR WITHOUT INTERFERING THE ORIGINAL NETWORK

DESCRIPTION

The future brings connected and self-driving cars, for which an unprecedented amount of data is required. One of the latest technologies that addresses this challenge is Automotive MultiGigabit Ethernet.

With a Capture Module MultiGigabit you can capture one 2.5/5/10/10GBASE-T1 automotive ethernet point-to-point connection. Using a 40 ns resolution hardware timestamp and highly deterministic latency times, AVB/TSN traffic remains synchronized and can be accurately analysed. For the high amount of data, you have two SFP+ with up to 10 Gbps interfaces that provide enough bandwidth for the uplink to modern logging systems.

The traffic is captured without influencing the network, thanks to guaranteed deterministic latency and is delivered with a 40 ns time resolution timestamp, thus analysing 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 (100/1000BASE-T1 & 2.5/5/10GBASE-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.

FACTS

- 2x ports with 2.5/5/10GBASE-T1 PHY with H-MTD connector
- 1 × MQS connector with 1 × Host port for configuration only
- 2x SFP+ Ports for Logging data output (up to 10Gbps each)
- 2x RJ-45 1000BASE-T Ethernet Port for configuration and time synchronization
- Extended voltage range 9 to 24 Volt DC (nominal 12/24 Volt DC)
- 17 to 32 Watt (depending on connected SFP Modules)
- 187 x 131 x 65 mm
- Robust aluminum anodized case with integrated heatsink
- -40°Celsius to 75°Celsius

FEATURES

- Captures the traffic from a 2.5/5/10GBASE-T1 Automotive Ethernet link lines (one input and one output for each link line)
- Easy configuration via webserver and remote-control APIs
- Import and export of configurations
- Network Time Synchronization supports several standards (ANVU gPTP / 802.1AS, PTPv2) – allowing the user to synchronize multiple Capture Module variants and other devices
- Source timestamping with 40 ns resolution
- High-speed startup (<400ms)
- AVB/TSN capture capable
- Time-aware injection
- Rotary switch for manual configuration of the device IP address (Gbit, RJ-45)
- TECMP & PLP (Probe Logger Protocol) support
- Wake-up/Sleep functionality
- Extended voltage range: 12-to-24-volt automotive battery voltage systems compatible
- Rotary switch for manual configuration of the device IP address (Gbit, RJ-45)
- Possibility to reset to default settings by the rotary switch

RELATED PRODUCTS

Capture Module Serdes GMSL2/3
Capture Module 1000 High
Enhanced Ethernet Switch RJ-45

