# CAPTURE MODULE SERDES GMSL2/3

## CAPTURE YOUR GMSL AUTOMOTIVE SENSOR DATA STREAM IN THE CAR WITHOUT INTERFERING WITH THE ORIGINAL NETWORK



## DESCRIPTION

The Capture Module Serdes GMSL2/3 from Technica Engineering GmbH is a versatile and powerful device for logging data in automotive applications, such as AD/ADAS. It features 4x GMSL2/3 link lines (8 ports) and 4x SFP+ ports for high-speed and reliable data logging output (up to 10Gbps each).

With a Capture Module Serdes you can capture up to 4 GMSL2/3 sensor data stream point-to-point connections without influencing with the network itself. Sensor data (GMSL forward link) is forwarded from the sensor (connected to the CM deserializer port) to an ECU (connected to the CM serializer port) at the same time it is being captured and sent to logger packetized in ethernet frames using PLP/TECMP protocol. Control data (I2C and GPIO) transmitted using the GMSL reverse link is also forwarded between the sensor and the ECU while it is being captured by the CM.

Designed with durability in mind, the Capture Module SerDes has a robust aluminum anodized case and is compatible with 12-to-24-volt systems, making it suitable for a variety of automotive applications. The device also has two Ethernet ports. These ports can be used for easy configuration through a web server or remote configuration messages as well as for time synchronization (802.1AS gPTP). The module also allows for the import and export of configurations, making it easy to set up and customize for specific needs.

The Capture Module SerDes is ideal for automotive engineers and developers who require logging high-speed camera data when developing and testing their AD/ADAS or infotainment applications.

The Capture Modules are a family of devices specifically built to help automotive engineers analyze, debug, and test in-vehicle networks, such as CAN, LIN, FlexRay, and automotive Ethernet, among others. With its advanced features and robust design, the Capture Module SerDes is a valuable asset for automotive engineers and developers working on AD/ADAS systems.

## RELATED PRODUCTS

Enhanced Ethernet Switch -H-MTD
Capture Module MultiGigabit
Enhanced Ethernet Switch RJ-45

www.technica-engineering.com/en/products

## FACTS

- 4x GMSL2/3 video links (8 ports). MAX96793 GMSL2/3 Serializer used for connections to ECUs and MAX96792A GMSL2/3 Deserializer used for connection to sensors. Variants for HFM and Tyco Mate-AX quad coaxial connectors
- 1 × MQS connector with 1 × Host port for configuration only
- 4x SFP+ Ports for Logging data output (up to 10Gbps each)
- 2x RJ-45 1000BASE-T Ethernet Port for configuration
- Extended voltage range 9 to 24 Volt DC (nominal 12/24 Volt DC)
- Galvanic isolation between battery and camera connection through a dedicated galvanic isolated DC/DC
- 17 to 32 Watt (depending on connected SFP Modules)
- 240 x 131 x 65 mm
- Robust aluminum anodized case with integrated heatsink
- -40°Celsius to 75°Celsius

## FEATURES

- Captures the traffic from up to 4x GMSL2/3 sensors 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 (AVNU 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)
- TECMP (Technically enhanced capture module protocol) & PLP (Probe Logging Protocol) support
- Support for injecting POC (Power over coax) from the capture module (12V regulated) or bypassing the POC provided by the ECU
- Extended power mode for car integration
- 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