DATASHEET

# ILaS SNIFFER

## General description

The ILaS Sniffer is a specialized capture module for monitoring and analyzing ILaS (ISELED Light and Sensor) network traffic, along with one 10BASE-T1S Ethernet link. It is designed to tap into live automotive communication networks without disrupting their topology, allowing simultaneous capture of up to four ILaS links and one 10BASE-T1S line. By timestamping all captured data and encapsulating it using the open TECMP logging protocol, it ensures a detailed and accurate trace of network behavior.

## Standardized logging protocol

Captured traffic is encapsulated in Ethernet frames with a TECMP header, which includes critical metadata such as source hardware timestamp, interface ID, counters, and more. This standardization enables consistent interpretation and integration with existing analysis tools.

## Scalable setups

The ILaS Sniffer supports network time synchronization using 802.1AS (gPTP automotive profile), functioning as Grandmaster, Master, or Slave. This allows multiple devices to operate in synchronized setups, extending analysis to larger and more complex network configurations.

ILaS Sniffer

## Application Areas

The ILaS Sniffer is designed to be used in various environments such as in the car, on a development desk, or in testbenches. To best support these scenarios, the device allows continuous operation and supports a wide input voltage range, making it suitable for demanding automotive environments.

## Optimized logging

Startup time is crucial in an in-vehicle-network. Therefore, the ILaS Sniffer is developed to provide an optimized startup time to be ready to log before the ECUs are up and send data. In addition to that, the Capture Module is equipped with an internal buffer to store the first frames (sent from the ECUs), even if the data sink is not yet ready. As soon as the data sink is up and ready to receive data, all the stored data will be sent out. With the packetization and output traffic shaping feature the Capture Module can adjust the size of the logging frames and have the possibility to maintain a consistent data flow (to the logger or the test PC). This way it actively prevents forwarding of bursts. The combination of these features ensures that no frames are lost.

## Configuration

The ILaS Sniffer offers a flexible and user-friendly configuration through its built-in web server. The device webpage can be easily accessed via a standard web browser. In addition, the possibility to import/export a configuration makes it even more convenient.

## Technical Data

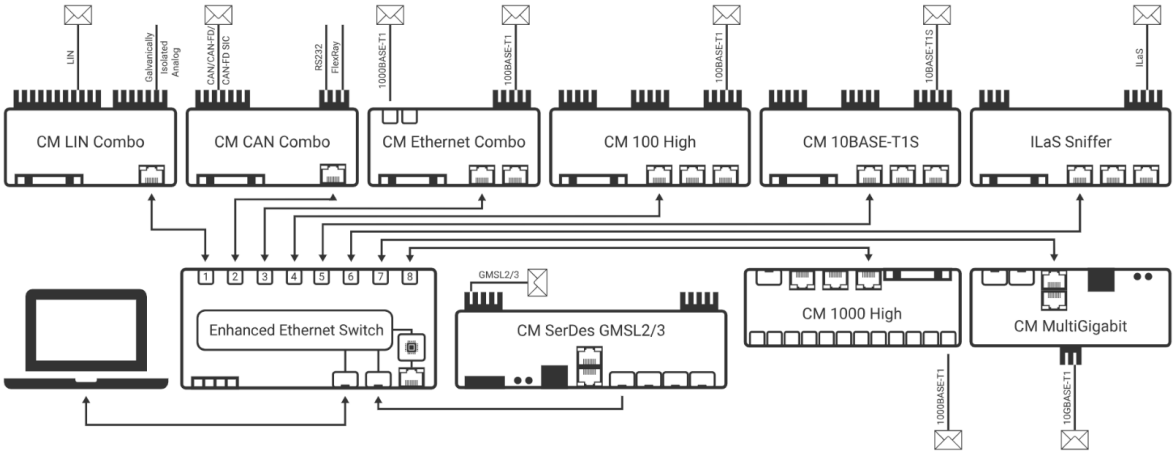
| | |
|---|---|
| Operating temperature | -40 °C to +85 °C |
| Supply Voltage | 6.5 V to 32 V DC (typ. 12 V) |
| Power consumption | 5 to 7 Watt |
| IP Protection Class | IP 20 |
| Housing Dimensions | 166.5 mm (W) x 130 mm (L) x 36 mm (H) |
| Weight | 0.7 kg (approx.) |
| Interfaces | 1x 10BASE-T1S (MQS)<br>4x ILaS (MQS)<br>3x 1000BASE-T (RJ-45) for Config, Logging, Sync<br>1x 100BASE-T1 (MQS) for Config, Logging, Sync<br>1x 100BASE-T1 (MQS) for Config<br>2x Wake in/out (MQS) |
| Phy (vehicle-side) | INLT220Q (Inova)<br>LAN8670 (Microchip) |

## Features of IlaS Sniffer

| | |
|---|---|
| Device Features | Configuration Webpage |
| | Wake-/Sleep |
| | Import-/Export of Configurations |
| | Status LEDs |
| | TECMP |
| | Status Messages |
| | Manual IP Configuration via Rotary Switch |
| | Optimized Startup + Startup Buffer |
| | Cascading |
| | Hardware Timestamping |
| | Time Synchronization (gPTP/802.1AS-2011 AVnu profile or PTPv2 subset) |
| | Packetization |
| | Output Traffic Shaping |
| | Advanced Filtering |
| | Sync Events |
| Event Logging* | The 10BASE-T1S Event Logging feature captures and timestamps key network occurrences, including physical layer errors and significant PLCA cycle events to enable precise network monitoring and diagnosis |

* License needs to be ordered separately

## Use case




## Order Information

| Name | Article Number | Article number cable set* | Event logging |
|---|---|---|---|
| ILaS Sniffer | TE-1180 | KS-1180 | TE-1180-AF |

*Cable set needs to be ordered separately