

# 10BASE-T1S Tool Overview

From System Design to Implementation



## Ordering Information

Foundation Edition:

- OptoLyzer Studio Foundation LAN Order No. B10469
- OptoLyzer Studio Foundation compact Order No. B10446

Professional Edition:

- OptoLyzer Studio Professional compact Order No. B10471

10BASE-T1S is a new 10 Mbps Single Pair Ethernet physical layer network technology under the specification IEEE 802.3cg that has been designed for automotive and industrial applications. The key objective is to provide a low-cost, collision-free, deterministic Ethernet-based transmission over a multi-drop network, with up to 10 Mbps.

K2L presents the Espresso T1S™ device, the new hardware interface solution for 10BASE-T1S networks. In combination with OptoLyzer® Studio, which is an analysis- and simulation software, 10BASE-T1S bus systems can be easily examined. Both the K2L's Espresso T1S device and the OptoLyzer Studio will be highly helpful for you in the matter of 10BASE-T1S development.

For 10BASE-T1S system designs and migration of CAN and FlexRay™ clusters, T1S Sim can be employed.

The 10BASE-T1S to 10/100BASE-TX Media Converter helps to secure your 100BASE-TX toolchain investments.

## Espresso T1S Device

- Spy+ with low-level bus events
- Precise hardware timestamping
- 100BASE-TX interface to the PC for data- and control communication
- Time synchronization with OptoLyzer MOCCA family devices
- Seamless operation with OptoLyzer Studio

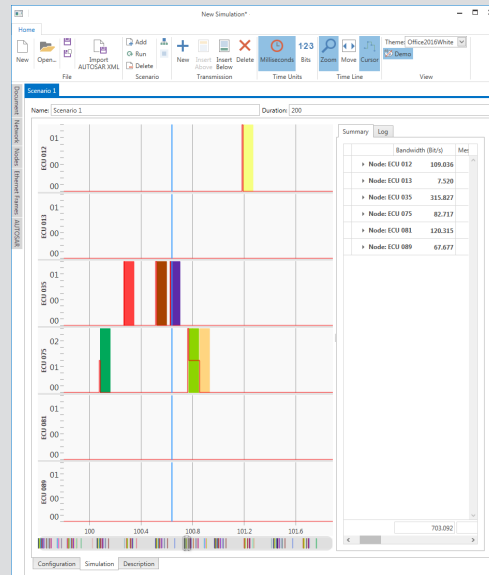
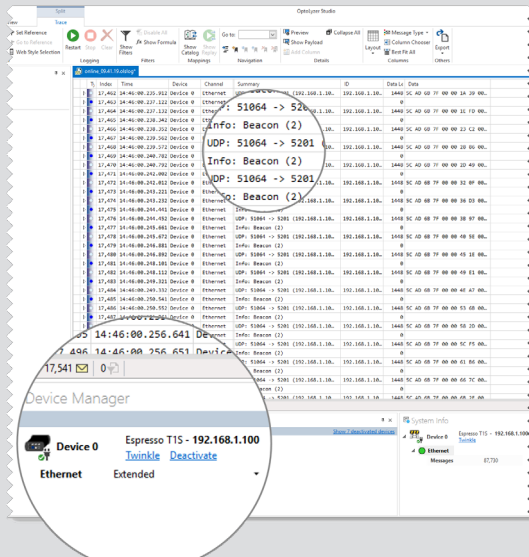


## OptoLyzer Studio

- Simulation and analysis software for automotive devices and systems
- Support of all major networking technologies incl. Ethernet/IP
- Espresso T1S device configuration
- Espresso T1S device statistics

## T1S Sim

- Simulation for 10BASE-T1S system design
- Import CAN/FlexRay cluster defined in AUTOSAR XML
- ECU activity visualization
- Calculation of statistics (for example jitter and bandwidth)



## 10BASE-T1S to 10/100 BASE-TX Media Converter

- Media conversion between 10BASE-T1S and 100BASE-TX
- 10BASE-T1S master and node
- Configuration via software and DIP switches
- Bus termination



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