CSM UniCAN 3 Data Logger

Reliable Measurement Data Acquisition

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The UniCAN 3 is a stand-alone data logger. Microcontroller-based CAN bus data loggers of the UniCAN line are very powerful and feature unique properties that are normally found only in larger devices. This is because key functions are implemented directly in the hardware (FPGA). In addition, the CSM file system supports the specific features of cutting-edge ATA flash-memory cards in terms of fast data storage rates and maximum data security.

System Features

▶ Fail-safe data acquisition
The firmware detects interruptions to the power supply and the removal of the CF card during data recording. No data recorded up to this time is lost. Data recording restarts automatically as soon as the card is inserted again and the supply voltage restored.

▶ Simultaneous acquisition
CAN messages and signals, each up to a maximum of eight separate groups, can be recorded in parallel. Each group has individual trigger- and filter criteria and can be used as linear- or ring buffers.

▶ Trigger- and filter criteria
Wide trigger criteria and pre- and post-trigger ranges can be defined per channel/message group. As the capacity of the CF card is the only limit to the size of a pre-trigger, the occurrence of a trigger event can practically contain any amount of trigger data.

▶ Optimized memory access to CF cards
Contrary to data loggers with standard file systems the write access of a UniCAN 3 logger to a memory card is not impaired by the increased segmentation of the memory device. The data is compressed during recording.

▶ Quick start-up
The data transmission mode can be used to determine when the data logger should transmit data. Data can be transmitted when the ignition is switched on and off or periodically.

▶ Start delay
A delay between ignition and the start of data recording can be defined.

▶ Remote data transmission
Data can be transmitted via LTE modem while data recording continues without interruption. Measurement data can be read directly from the CF card or remotely via modem/(S)FTP server (data formats are, for example: MDF, ASCII). For maximum data security, the data transmission is binary.

▶ Data transmission modes
Data transmission can take place after "ignition off" or according to a pre-defined time, e.g. every hour, while the data recording process continues to run.

▶ Data integrity and data security
If the internet is used for data transmission, data integrity can be ensured by using the ftp command XCRC. SSH2 provides protection against data theft and data corruption.

▶ UniCAN 3 Professional Tools
This package includes CSMuniconf, an easy to operate software tool for configuration, fleet- and measurement data management on local Windows computers. Furthermore, CSM offers the data processing software CSMdataconv for automated conversion and pre-processing of measurement data on server structures.

Global Fleet Deployment

A wide range of functions is available for data transmission to effectively integrate the post-processing of UniCAN 3-recorded data in your internal processes. Due to the use of the LTE modem and WLAN, data can be transmitted while the recording of data continues. The interfaces can also be used to change the logger configuration during operation. If remote data transmission is not desired, the data transmission can be carried out via network (LAN) or simply by changing the CF card.
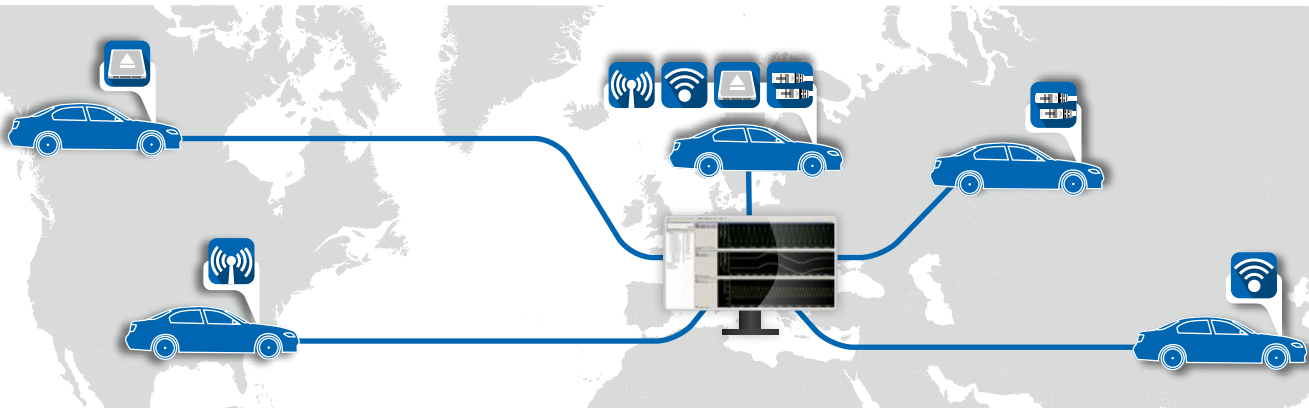
LTE   **WLAN**

LAN   **CF-Card**

Stand-Alone Data Logger

Status indication

Swift diagnosis thanks to an easy-to-read display

LTE (+UMTS/EDGE/GPRS)

Free choice of mobile data transmission without vendor lock-in

WLAN

Data transmission and configuration with WLAN

Power and LAN

Measurement data transmission via Ethernet

USB

A wide range of configuration options via USB

Compact Flash

Exchangeable CF card for best possible data security

Acquisition

▶ Start of data recording: wake-on CAN, ignition line and time-controlled

▶ Post- and pre-trigger

▶ Recording of CAN traces and/or signals

GPS

Easy selection of the appropriate GPS antenna for your application.

12 × CAN Interfaces

▶ Supported protocols: CCP, XCP, OBDII/EOBD, J1939

▶ CAN FD

▶ galvanically isolated (option)

▶ CANsend, CAN Stimulation

▶ Seed & Key (customer-specific)

Digital inputs/outputs

Data recording can, for example, be triggered with a button.

CSM GmbH
Computer-Systeme-Messtechnik

Raiffeisenstr. 36, 70794 Filderstadt, Germany
📞 +49 711 - 77 96 40 ✉ info@csm.de
www.csm.de

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ISO 9001, ISO 14001
Certified Integrated Quality
and Environmental
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