Hardware interface for optical communication in vehicles

MCBuster is a rugged unit, aimed to be located in a vehicle and therefore designed to withstand an automotive environment. MOST25 data can be monitored from either of the USB, CAN or RS-232 ports. In addition a trigger output is available in order to invoke any external measurement equipment, for instance an oscilloscope.

Application areas

The MCBuster with it's FPGA- and micro controller based solution is a receiver able to log data from all channels of a MOST25 network. Connected via USB or a CAN based flight recorder it is a powerful tool for logging control messages.

Functions

- Receive data in spy mode from MOST™ (control messages)

- Deliver data through USB, CAN or RS232 ports

- Trigger function for finding patterns in dataflow

- Microprocessor firmware and FPGA configuration upgradeable through USB or CAN

Dataflow

Input:

Optical network MOST™

Output:

	Control data	Asynchronous data	Synchronous data
USB	X		
CAN	X		
RS-232	X		

Software

BusterViewer is a software application used together with MCBuster for online analysis of data. It connects to MCBuster through USB and offers filtering and database support. Logfiles are stored in OP2-format. The application is downloadable for free at our website.

Technical specifications

- 44.1 and 48 kHz frame rate support

- USB 2.0 and (CAN or RS-232) output

- CAN according to ISO11898

- Designed for automotive electrical environment (such as surges and crank dips).

- All I/O's are ESD protected

- EMC certified according to EN 61000-4

- Energy saving mode - Invokes sleep mode after 3 minutes of inactivity on MOST™ network

- Galvanic isolation between power and interfaces

- Galvanic isolated trigger output

- Voltage supply 9 – 16 V

- Current consumption 150 mA @ 13.8 V operational, 30 mA standby (sleep mode)

- Operating temperature rating -40 to +85°C