CANcaseXL

USB 2.0 Interface for CAN and LIN

Development, simulation, testing, and maintenance of mobile and stationary CAN and LIN networks require high-performance, user-friendly, and adaptive hardware interfaces. The CANcaseXL USB 2.0 interface and its compact and robust construction, is the ideal solution as a USB bus interface for use with laptops or desktops.

Features/Advantages

Based on the high-performance 32 bit microcontroller and the flexible hardware design, the CANcaseXL is well suited for present and future applications.

The CANcaseXL features include:

- USB 2.0 interface
- Robust metal housing
- 32 bit microcontroller with 64 MHz
- 2 completely independent channels
- CAN 2.0B and LIN
- Bus transceiver as plug-in boards (CAN-/LINpiggies)
- Plug & Play
- Power supply via USB, external power supply optional
- Status display via 3 LEDs per channel

Functions

Functional scope of the CANcaseXL:

- Sending and receiving of data and remote frames
- Listening to a CAN bus without influencing it (silent mode)
- Recognition and generation of error frames
- Buffering of messages in the device
- Time synchronization
- Simultaneous operation of several devices

Application Areas

Thanks to the high-performance microcontroller and the USB 2.0 interface, the CANcaseXL is suitable for high-end applications where high data throughput, quick reaction times, precise time synchronization, and time stamps matter.

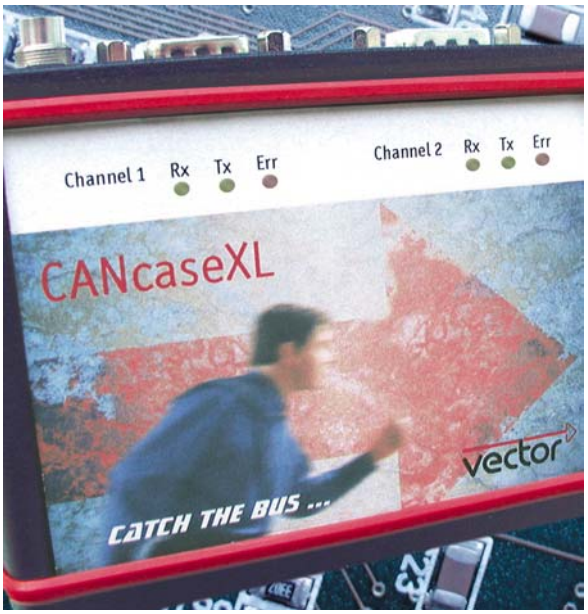
The stable metal housing and robust connection allow use in the field.

The variety of bus drivers (CAN-/LINpiggies) enables the CANcaseXL to be used in many application areas of CAN and LIN:

- Automobile technology
- Commercial vehicle technology
- Automation technology
- Air and space flight technology
- Marine technology

The CANcaseXL can be operated with all Vector tools such as CANalyzer, CANoe, and CANape. It can be used with any number of additional CANcaseXLs and with any other Vector CAN or LIN interface.

In addition, it is possible to use the “CAN Driver Library” to create individual applications. Of course these applications can also be used with all other Vector interfaces.



CANcaseXL

Special Functions

- Access to LIN bus
- High data throughput (35,000 messages per second)
- Precise time stamp (1µs)
- Message processing on the card to reduce the PC load
- FPGA update possible by the customer
- Precise measurement of bus load
- Time synchronization possible with other hardware via external connection (party line)

Bus Transceiver

There are many bus drivers, so-called CAN- and LINpiggies (plug-in boards) available.

For LIN applications, Vector offers the LINpiggy 6259opto.

The two channels of the CANcaseXL can be operated with any combination of plug-in boards.

For more information about the bus drivers, see the CAN-/LINpiggies product descriptions.

Included with Delivery (standard)

- CANcaseXL
- Drivers for Windows 98, ME, 2000, XP
- "CAN Driver Library" (32 bit driver library for C++, C, Delphi and Visual Basic)
- Documentation

Technical Data	
Area of application	Mobile, stationary
Microcontroller	ATMEL AT91 (ARM7 TDMI with 64MHz)
CAN controller	Philips SJA1000
Number of CAN controllers	2
Identifier	11/29 bit
Transceiver	See CAN-/LINpiggy product description
Opto decoupling	Yes, with CAN-/LINpiggy XXXopto
PC interface	USB 2.0
Temperature range	Operation: 0..55°C Storage: -40..125°C
Installation	Plug & Play
Driver libraries: platform	C++, C, Visual Basic, Delphi
Operating system	Windows 98, ME, 2000, XP
Error frame	Detection: Yes; Generation: Yes
Remote frame	Detection: Yes; Generation: Yes
Max. Baud rate	1 Mbit/sec
Dimensions approx.	105mm x 85mm x 32mm
Current consumption (typical)	150 mA plus CANpiggies (z.B. 30mA per CANpiggy 251)
Time stamp accuracy	1µs

The following CAN-/LINpiggies are available:

- 251 (PCA82C251, 1Mbit/s)
- 251opto (PCA82C251, 1Mbit/s)*
- 1041opto (TJA1041, 1Mbit/s)*
- 1050 (TJA1050, 1Mbit/s)
- 1050opto (TJA1050, 1Mbit/s)*
- 1054 (TJA1054, 125Kbit/s)
- 1054opto (TJA1054, 125Kbit/s)*
- 5790 (AU5790, 100Kbit/s high-speed 40Kbit/s low-speed)
- 5790opto (AU5790, 100Kbit/s high-speed 40Kbit/s low-speed)*
- 10011opto (B10011S, 250Kbit/s; Truck & Trailer)*

LIN:

- 6259opto*

* = opto-decoupled