

# PEAK-System Technik

Product Overview 2009 / 2010

Hardware

Software

Accessories

# You have a vision . . .

You are working on the future of your company and planning successful products for tomorrow's markets.

You want to translate your projects into reality, so you look for a responsive and reliable partner.

You set great store by the functionality of your development tools and the quality of the hardware you use.

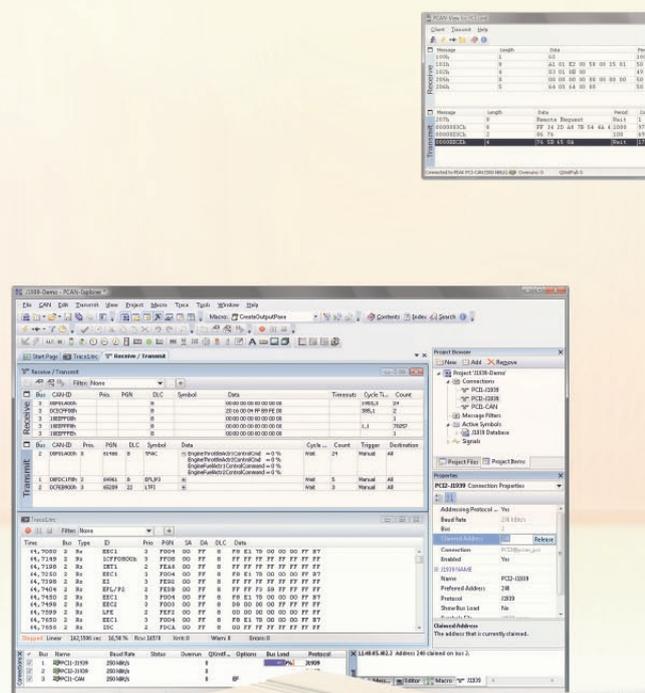
Whether you need a plug-in card for the PC, a microcontroller module for temperature recording, a program monitoring your system or just the right kind of cable – with our product range we can help you concentrate on what is important to you: developing successful products.



## Engineering on your behalf

We support you at every phase in a product's development: from consultation to design to production.

- \_\_\_ Based on your requirements we develop the solution that is right for you – with a cost-conscious and efficient attitude
- \_\_\_ Customer specific hard- & software for CAN/LIN communication
- \_\_\_ We create your documentation ...
- \_\_\_ carry out the training and familiarization ...
- \_\_\_ and organize the manufacture



... we do the rest.

## Hardware

- \_\_\_ CAN/LIN-PC interface modules
- \_\_\_ Digital and analog CAN microcontroller modules
- \_\_\_ Converters for use in different physical layer applications (Bus converter modules)
- \_\_\_ Cable makeup to your requirements

## Software

- \_\_\_ CAN development systems for Windows Vista/XP/2000 and Linux
- \_\_\_ CAN validation and diagnostic tools
- \_\_\_ Control engineering applications
- \_\_\_ Process visualization

In your quest for new technologies and successful products, you need a partner you can rely on 100 percent.

PEAK-System Technik puts creative teams of experienced and highly-motivated specialists at your disposal, open to new ways, open to new solutions. Talk over your aims and objectives with us.

Visit us in the  
Internet at  
[www.peak-system.com](http://www.peak-system.com)

- \_\_\_ Use our convenient online shop for your orders.
- \_\_\_ You can find a complete list of our distributors in the Contact Distributors section.
- \_\_\_ You can download current documentation on our products as well as our product catalog in PDF format.
- \_\_\_ The newest drivers for our hardware products for Windows Vista/XP/2000 and Linux, the free of charge PCAN-View CAN monitor and the PCAN-Light development kit can also be downloaded.

[www.peak-system.com](http://www.peak-system.com)

# Engineering on your behalf

From our experts: tailor-made developments ...



## ... for the automotive industry

For example ...

- ▢ Simulation and controls for vehicle prototypes and concept cars
- ▢ Vehicle instrument displays (speedo and entertainment simulation)
- ▢ Process measurement and control systems for small batch runs and prototypes
- ▢ Onboard microcomputers
- ▢ Prototype I/O connections



Whether you build vehicles for use on road, rail, or in the air – whether you develop manufacturing plant and machinery or consumer goods – as specialists in fieldbus communication we support you from the very outset. And being perfectionists, we are never satisfied until your product is working absolutely perfectly.

## Project flow

Design-phase consultation

Cost analysis

Specifications & project coordination

Hardware and software development



**... for the aircraft industry**

- └─ Current monitoring devices for Pitot tube heating
- └─ Customer-defined display systems
- └─ LCD display activation
- └─ Diagnostic hardware and software

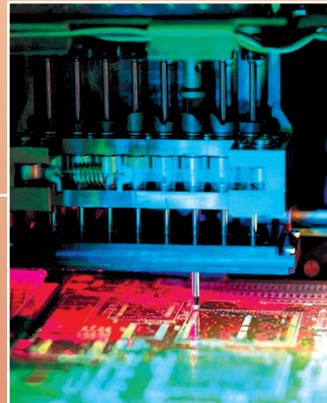


**OEM development**

One of our products fits your portfolio?  
Your development department is under pressure?

We have the ideal solution for you:

- └─ Adaptation of our products to your specific needs
- └─ Available as customer OEM-product (your logo, your case)
- └─ Translation of your ideas into ready-to-manufacture products
- └─ Advice and consultation on hardware and software development
- └─ Fixed-price development on your behalf



**Quality and safety:**

We have our own products and customer-specific OEM products produced in reputable manufacturing companies in Germany and throughout Europe.



Documentation

Prototype build

Mass production management

Marketing & publicity planning

Product maintenance & support

## Hardware & software for CAN/LIN bus applications

PEAK-System Technik is one of the market leaders in the field of CAN-PC connections. Profit from our experience -profit from the quality of our CAN products.

# Our products . . .

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A constantly updated overview of our products can be found at ...

□ □ □ [www.peak-system.com](http://www.peak-system.com)

# Hardware . . .

CAN interfaces

Bus converter modules

Microcontroller hardware

- └ CAN interfaces for all commonly-used PC interfaces
- └ Optional with electrical isolation
- └ Linux drivers available free of charge
- └ All products are conform to CE standards
  
- └ Microcontroller hardware ideal for development, prototype build, and small batch runs
- └ No software development needed
- └ Easy integration into existing networks

# Hardware

Hardware

# PCAN-USB

## USB to CAN interface

The PCAN-USB adapter enables simple connection to CAN networks. Its compact plastic casing makes it suitable for both stationary and mobile applications.

The opto-decoupled version guarantees galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V



### Specifications

- Interface in compact plastic casing
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver
- Voltage supply through USB bus

#### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V

### Ordering information

Designation	Art. No.	Price [€]
PCAN-USB	IPEH-002021	195,00
PCAN-USB opto-decoupled	IPEH-002022	245,00

(All prices are net prices)

#### Scope of supply

- PCAN-USB-Adapter
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-USB Pro

## USB to CAN/LIN-Interface

The PCAN-USB Pro adapter enables simple connection of a PC to CAN and LIN networks. Two field buses can be connected at the same time, with up to four connections available using appropriate adapter cables (2 x CAN, 2 x LIN). Its robust aluminum casing makes the PCAN-USB Pro adapter suitable for both stationary and mobile applications.

The package is also supplied with the CAN monitor PCAN-View for Windows, the LIN monitor LIN-View for Windows, and the programming interface PCAN-Light.

D-Sub	Pin	Pin assignment
	1	+5V
	2	CAN-L
	3	CAN-GND
	4	LIN
	5	GND-LIN
	6	GND-LIN
	7	CAN-H
	8	Not connected
	9	V <sub>BAT</sub>

### Specifications

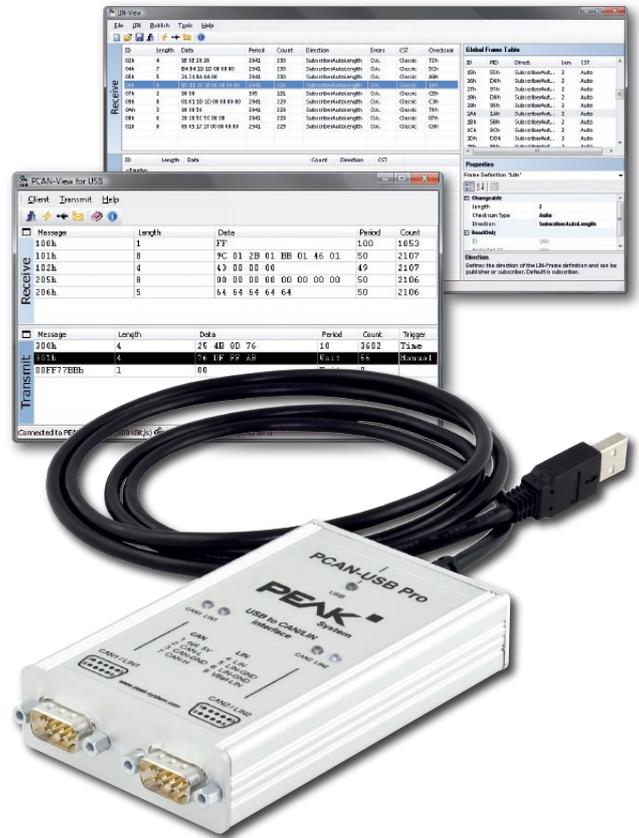
- Sending and receiving of CAN and LIN messages using 2 D-Sub connections (both with pin assignment for CAN and LIN bus)
- Time stamp resolution 1  $\mu$ s

#### Properties for CAN operation:

- Transfer rates up to 1 Mbit/s
- Fulfills CAN specifications 2.0A and 2.0B
- Measurement of bus load including error frames and overload frames
- Induced error generation for incoming and outgoing CAN messages

#### Properties for LIN operation:

- Transfer rates of 1 – 20 kbit/s
- Can be used as a LIN master or slave (1 ms master task resolution)
- Automatic baud rate, frame length and checksum type recognition
- Automatic schedule with support for unconditional, event and sporadic frames
- Hardware can work through a schedule table (up to 8 schedule tables can be configured with a total of 256 slots)



### Ordering information

Designation	Art. No.	Price [€]
PCAN-USB Pro	IPEH-002061	490,00

(All prices are net prices)

PCAN-USB Pro adapter is available as of April 2009

### Scope of supply

- PCAN-USB Pro in an aluminum casing
- PCAN-View CAN monitor for Windows Vista/XP/2000
- LIN-View LIN monitor for Windows Vista/XP/2000, including source code
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-USB Hub

All-in-one USB adapter for communication through USB, CAN and RS-232

The PCAN USB hub provides multiple hardware interfaces through a USB connection. It offers the user one CAN, two RS-232 and two further USB interfaces.

Its robust aluminum casing makes the PCAN-USB Hub suitable for both stationary and mobile applications.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	CAN-GND
	4	Not connected
	5	Not connected
	6	PWR-GND
	7	CAN-H
	8	Not connected
	9	PWR-OUT

D-Sub	Pin	Pin assignment RS-232
	1	DCD
	2	RxD
	3	TxD
	4	DTR
	5	GND
	6	DSR
	7	RTS
	8	CTS
	9	RI

## Specifications

- High-speed USB 2.0 hub with
  - USB to CAN interface, connection through 9-pin D-Sub (in accordance with CiA DS102-1)
  - Two USB to RS-232 converters using two D-sub connectors (9-pin)
  - Two high-speed USB 2.0 downstream ports
- Passive (bus-powered) hub operation through the USB port of a PC enables power consumption of up to 100 mA per USB channel
- Active (self-powered) hub operation through the optional external hub power supply (9 – 36 V) enables power consumption of up to 500 mA per USB channel
- External supply voltage can be switched to the CAN plug (pin 9) using software commands
- Guaranteed high transfer rates on all channels if a full-speed device is connected, thanks to a hub controller with 4 transaction translators
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A and 2.0B
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

## Ordering information

Designation	Art. No.	Price [€]
PCAN-USB Hub	IPEH-002004	390,00

(All prices are net prices)

PCAN-USB Hub is available as of April 2009

## Scope of supply

- PCAN-USB Hub in an aluminum casing
- Mating connector for voltage supply
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-PC Card

## PC Card to CAN interface

The card allows the connection of a CAN bus to a laptop or to a desktop PC with a PC Card slot.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 100 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected



## Specifications

- Slot-in card for the PC Card slot
- Type II model, maximum 5 mm in height
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

### Optionally available:

- Galvanic isolation on the CAN connection up to 100 V, separate for each CAN channel
- Also available as a dual-channel version

## Ordering information

Designation	Art. No.	Price [€]
PCAN-PC Card single ch.	IPEH-002090	195,00
PCAN-PC Card dual ch.	IPEH-002091	240,00
PCAN-PC Card single channel opto-decoupled	IPEH-002092	245,00
PCAN-PC Card dual channel opto-decoupled	IPEH-002093	295,00

(All prices are net prices)

### Scope of supply

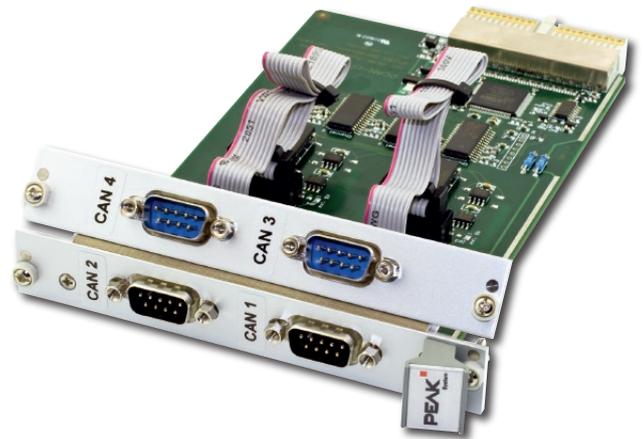
- CAN interface PCAN-PC Card
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-cPCI

## CompactPCI to CAN interface

The PCAN-cPCI card enables the connection of an industrial computer system with CompactPCI to CAN networks. There is galvanic isolation of up to a maximum of 500 Volts between the computer and CAN sides. The card is available as a dual or four-channel version.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



### Specifications

- Extension card with euroboard form factor (3U) for a CompactPCI system
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver
- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel

Optionally available:

- Available as a dual or four-channel version

D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

### Ordering information

Designation	Art. No.	Price [€]
PCAN-cPCI dual channel opto-decoupled	IPEH-003021	450,00
PCAN-cPCI four channel opto-decoupled	IPEH-003022	580,00

(All prices are net prices)

### Scope of supply

- PCAN-cPCI card
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-miniPCI

## Mini PCI to CAN-Interface

The PCAN-miniPCI card enables the connection of embedded PCs and laptops with Mini PCI slots to CAN networks.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected

### Specifications

- CAN interface for the Mini PCI slot
- CAN bus connection via connection cable and D-Sub, 9-pin (to CiA DS102-1)
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Space-saving dimensions thanks to SMD technology
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

#### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel
- Also available as a dual-channel version

### Ordering information

Designation	Art. No.	Price [€]
PCAN-miniPCI single ch.	IPEH-003044	200,00
PCAN-miniPCI dual ch.	IPEH-003045	245,00
PCAN-miniPCI single ch. opto-decoupled	IPEH-003046	250,00
PCAN-miniPCI dual ch. opto-decoupled	IPEH-003047	345,00

(All prices are net prices)

PCAN-miniPCI is available as of April 2009

#### Scope of supply

- PCAN-miniPCI card, mating connector and Connection cable inc. D-Sub plug
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-PCI Express

## PCI Express to CAN interface

The PCAN-PCI Express card enables the connection of a PC with PCI Express slots to CAN networks.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

### Specifications

- PC plug-in card (PCIe-x1) for PCI Express slot
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Space-saving dimensions thanks to SMD technology
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel
- Also available as a dual-channel version

### Ordering information

Designation	Art. No.	Price [€]
PCAN-PCI Express single ch.	IPEH-003024	210,00
PCAN-PCI Express dual ch.	IPEH-003025	255,00
PCAN-PCI Express single channel opto-decoupled	IPEH-003026	260,00
PCAN-PCI Express dual channel opto-decoupled	IPEH-003027	355,00

(All prices are net prices)

### Scope of supply

- PCAN-PCI Express card
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-PCI

## PCI to CAN interface

The PCAN-PCI card enables the connection of a PC with PCI slots to CAN networks.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

### Specifications

- PC plug-in card for PCI slot
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Space-saving dimensions thanks to SMD technology
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

#### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel
- Also available as a dual-channel version

### Ordering information

Designation	Art. No.	Price [€]
PCAN-PCI single channel	IPEH-002064	200,00
PCAN-PCI dual channel	IPEH-002065	245,00
PCAN-PCI single channel opto-decoupled	IPEH-002066	250,00
PCAN-PCI dual channel opto-decoupled	IPEH-002067	345,00

(All prices are net prices)

#### Scope of supply

- PCAN-PCI card
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-PC/104-Plus

## PC/104-Plus to CAN interface

The PCAN-PC/104-Plus card enables the connection of two CAN networks to a PC/104-Plus system. Up to four cards can be operated, with each piggy-backing off the next. The CAN bus is connected using a 9-pin D-sub plug on the slot array supplied.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

### Specifications

- Form factor PC/104
- Use of the 120-pin connection for the PCI bus
- Up to four cards can be used in one system
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- Connection to CAN bus through D-Sub slot array, 9-pin (in accordance with CiA DS 102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

#### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel
- Also available as a dual-channel version
- PC/104-ISA stack-through connector

### Ordering information

Designation	Art. No.	Price [€]
PCAN-PC/104-Plus single ch.	IPEH-002094	200,00
PCAN-PC/104-Plus dual ch.	IPEH-002095	245,00
PCAN-PC/104-Plus single channel opto-decoupled	IPEH-002096	250,00
PCAN-PC/104-Plus dual channel opto-decoupled	IPEH-002097	345,00

(All prices are net prices)

#### Scope of supply

- PCAN-PC/104-Plus plug-in card
- Slot array with D-sub plug(s) for the CAN bus connection
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-PC/104

## PC/104 to CAN interface

The PCAN-PC/104 is a compact PC/104-CAN slot which allows the networking of two CAN buses to a PC/104 system. Multiple PCAN-PC/104 cards can easily be operated using interrupt sharing.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

### Specifications

- 100% PC/104 compatible
- Multiple PC/104 cards can be operated in parallel (interrupt sharing)
- 14 port and 8 interrupt addresses are available for configuration using jumpers
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- Connection to CAN bus through D-Sub slot array, 9-pin (in accordance with CiA DS 102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

#### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel
- Also available as a dual-channel version

### Ordering information

Designation	Art. No.	Price [€]
PCAN-PC/104 single ch.	IPEH-002054	128,00
PCAN-PC/104 dual ch.	IPEH-002055	149,00
PCAN-PC/104 single channel opto-decoupled	IPEH-002056	169,00
PCAN-PC/104 dual channel opto-decoupled	IPEH-002057	200,00

(All prices are net prices)

#### Scope of supply

- PCAN-PC/104 plug-in card
- Slot array with D-sub plug(s) for the CAN bus connection
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-View for DOS
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-ISA

## ISA to CAN interface

The PCAN-ISA card enables simple, cost-effective connection of relatively old computer systems with ISA slots to CAN networks. Multiple PCAN-ISA cards can easily be operated using interrupt sharing.

The card is available as a single or dual-channel version. The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

### Specifications

- PC plug-in card for 16-bit ISA slot
- Multiple cards can be operated in parallel in a single PC (interrupt sharing)
- 13 port and 8 interrupt addresses are available for configuration using jumpers
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- Connection to CAN bus through D-Sub slot array, 9-pin (in accordance with CiA DS 102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

#### Optionally available:

- Galvanic isolation on the CAN connection up to 500 V, separate for each CAN channel
- Also available as a dual-channel version

### Ordering information

Designation	Art. No.	Price [€]
PCAN-ISA single channel	IPEH-002074	88,00
PCAN-ISA dual channel	IPEH-002075	108,00
PCAN-ISA single channel opto-decoupled	IPEH-002076	148,00
PCAN-ISA dual channel opto-decoupled	IPEH-002077	200,00

(All prices are net prices)

#### Scope of supply

- PCAN-ISA plug-in card
- Slot array with D-sub plug(s) for the CAN bus connection
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-View for DOS
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-Dongle

## PC parallel port to CAN interface

This parallel connection to CAN converter is a sensible alternative to using a PCAN-USB adapter for connecting to a CAN network, especially for older PCs and laptops. Depending on the parallel interface present, it can be operated in "Multiplex" or "Enhanced Parallel Port" mode. Power is supplied to the PCAN-Dongle through a special adapter connected to the PC's keyboard output.

The opto-decoupled versions also guarantee galvanic isolation of up to 500 Volts between the PC and the CAN sides.

The package is also supplied with the CAN monitor PCAN-View for Windows and the programming interface PCAN-Light.



D-Sub	Pin	Pin assignment
	1	Not connected / optional +5V
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V



### Specifications

- Logic control by means of integrated CPLD
- Supplied in space-saving port adapter casing DIN 25-pin (LPT) to DIN 9-pin (CAN)
- Software-driven switching from "Multiplex" to "EPP (Enhanced Parallel Port)" mode
- The voltage supply is through the PS/2 or DIN keyboard connection
- Transfer rates up to 1 Mbit/s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- 82C251 CAN transceiver
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver

Optionally available:

- Galvanic isolation on the CAN connection up to 500 V

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Dongle PS/2	IPEH-002019	145,00
PCAN-Dongle PS/2 opto-decoupled	IPEH-002020	195,00
PCAN-Dongle DIN	IPEH-002015	145,00

(All prices are net prices)

### Scope of supply

- PCAN-Dongle
- PCAN-View CAN monitor for Windows Vista/XP/2000
- PCAN-View for DOS
- PCAN-Light programming interface consisting of interface DLLs and examples and header files for all conventional programming languages
- Device drivers for Windows Vista/XP/2000
- Linux drivers available free of charge
- Manual in PDF format

# PCAN-LIN

## PC serial to LIN and CAN interfaces

The PCAN-LIN module enables CAN, LIN and serial users to communicate. The module is supplied in a plastic casing and includes firmware which enables data to be exchanged between the different bus systems. Various modes can be set up with the aid of configuration software. Then for instance the module acting as the LIN master can request data and send the incoming LIN data to the CAN bus and/or the serial interface. Data can be routed between CAN and LIN with an ID offset.



Female D-Sub Connector	Pin	Pin assignment RS-232
	1	Not connected
	2	TxD (RS-232-level)
	3	RxD (RS-232-level)
	4	Not connected
	5	GND
	6	Not connected
	7	Not connected
	8	Not connected
	9	Not connected
Male D-Sub Connector	Pin	Pin assignment CAN/LIN
	1	V <sub>bat</sub> 8-18V (I <sub>max</sub> ~130mA)
	2	CAN-L
	3	GND
	4	LIN data
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected

### Specifications

- Sending/receiving LIN 1.x and 2.0 frames
- The standard bit rate is set to 19200 bit/s for LIN and to 500 kbit/s for CAN
- Electrical decoupling available between RS-232 and CAN/LIN (maximum 1 kV, optional)
- Available for use as LIN slave or master/ slave
- General-purpose gateway (or router when using Acceptance Code/Acceptance Mask feature) from:
  - RS-232 to LIN (and back)
  - CAN to LIN (and back)
  - RS-232 to CAN (limited bandwidth)
- Individual LIN frames can be initiated via CAN or RS-232
- Processing a user-definable LIN-ID list (scheduler with limited number of entries, cyclic handling if required)
- Voltage supply 8 - 18 V

### Optionally available:

- Simulation of LIN slaves. Data can be changed via CAN frames (firmware must be modified)

### Ordering information

Designation	Art. No.	Price [€]
PCAN-LIN High-speed CAN	IPEH-002025	245,00
PCAN-LIN Low-speed CAN	IPEH-002028	245,00
PCAN-LIN High-speed CAN opto-decoupled	IPEH-002029	295,00

(All prices are net prices)

### Scope of supply

- PCAN-LIN
- Configuration and monitoring tool  
PCAN-LIN Config for Vista/XP/2000
- Manual in PDF format

# PCAN-LWL

## Optical coupler for CAN data transmission

For use in explosion-proof areas or for EMC measurements, the PCAN-LWL can be used to replace a stretch of CAN network with a fibre-optic line at any point. There are the options of conversion to high-speed CAN or low-speed CAN.

The modules are supplied with power externally. As an alternative to using the mains power pack supplied, the unit can also be operated using the optional battery pack.



D-Sub	Pin	Pin assignment
	1	Not connected
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	Not connected
	7	CAN-H
	8	Not connected
	9	V <sub>IN</sub> (optional)



### Specifications

- LED display for driver mode
- High-speed CAN: AMIS 30660 transceiver, max. 500 kbit/s, switchable 120 Ohm bus termination
- Low-speed CAN: TJA1054 transceiver, max. 125 kbit/s, switchable 510 Ohm / 5.6 kOhm bus termination, bus error display
- The fibre-optic line consists of a 62.5/125 µm fibre-optic duplex line with ST connectors
- Aluminum casing
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- Supply voltage: 6.5 – 30 V
- Supply via D-Sub 9-pin, or DC connector (jumper).

Optionally available:

- Battery operation via external battery (7.2 V)

### Ordering information

Designation	Art. No.	Price [€]
PCAN-LWL	IPEH-002026	695,00
PCAN-LWL battery pack	IPEH-002036	on request

(All prices are net prices)

### Scope of supply

- 2 CAN optical waveguide converters including power supply units
- 5 or 10 meters optical waveguide cable 62.5 / 125 µm duplex with ST connector (other lengths on request)
- Manual in PDF format

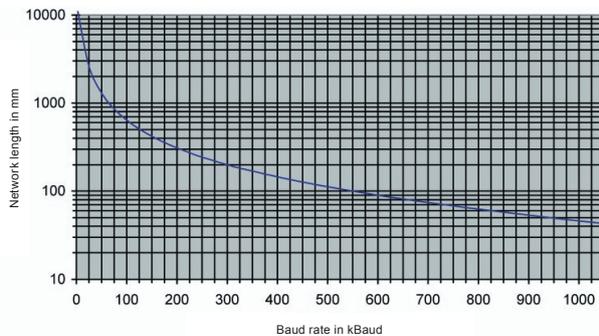
# PCAN-Optoadapter

## Plug-in adapter for decoupling CAN networks

The PCAN-Optoadapter is a general-purpose, plug-in optical adapter for electrical decoupling CAN bus systems.

Its integrated logic means that decoupling can be installed at any point in the CAN network.

The phase delays on the optical couplers mean that each optical adapter represents a virtual cable of about 8m in length (see graph).



Female D-Sub Connector	Pin	Pin assignment
	1	5V Power supply
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected

Male D-Sub Connector	Pin	Pin assignment
	1	Not connected
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected



### Specifications

- Plug-in adapter for decoupling the CAN bus for all PEAK CAN interfaces
- Optical decoupling and electrical isolation by DC/DC converters up to 500 V
- Transfer rates up to 1 Mbit/s
- NXP TJA1050 CAN transceiver
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- All PEAK CAN interfaces can be set to the supply voltage required

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Optoadapter	IPEH-002038	75,00

(All prices are net prices)

### Scope of supply

- Adapter in plastic casing
- Manual in PDF format

# PCAN-AU5790

## Bus converter High-speed CAN to Single-wire CAN

The PCAN-AU5790 bus converter establishes a connection between a high-speed CAN bus (ISO 11898-2) and a single-wire CAN bus (SAE J2411). One of the most important potential applications of the bus converter is a simple connection between a PCAN series CAN interface (e.g. PCAN-USB) and a single-wire CAN bus.



Female D-Sub Connector	Pin	Pin assignment high-speed CAN (82C251)
	1	5V Power supply
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected / optional +5V

Male D-Sub Connector	Pin	Pin assignment single-wire CAN (AU5790)
	1	Not connected
	2	Not connected
	3	GND
	4	Not connected
	5	CAN-H
	6	GND
	7	Not connected
	8	Not connected
	9	V <sub>BAT</sub>

### Specifications

- There are three different operating modes for the SW CAN side which can be set using a sliding switch. Normal (33.3 kbit/s), High-speed (83.3 kbit/s) and Wake-up
- Indicator LEDs for power supply (red) and wake-up signals (yellow)
- Power supply (5 V, 150 mA) through HS CAN connection (a current list of PEAK CAN interfaces with suitable supply voltage is available on request)
- If the power supply has a lower current output than 150 mA, an additional 12 V is needed through an SW CAN connection

### Ordering information

Designation	Art. No.	Price [€]
PCAN-AU5790	IPEH-002040	95,00

(All prices are net prices)

### Scope of supply

- Adapter in plastic casing
- Manual in PDF format

Other transceiver types on request

# PCAN-B10011S

## Bus converter High-speed CAN to Truck Trailer CAN

The PCAN-B10011S bus converter establishes a connection between a high-speed CAN bus (ISO 11898-2) and a Truck Trailer CAN bus (ISO 11992-1). One of the most important potential applications of the bus converter is a simple connection between a PCAN series CAN interface (e.g. PCAN-USB) and a Truck Trailer CAN bus.



Female D-Sub Connector	Pin	Pin assignment high-speed CAN (82C251)
	1	Not connected
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected

Male D-Sub Connector	Pin	Pin assignment Truck Trailer CAN (B10011S)
	1	Not connected
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	V <sub>BAT</sub>

### Specifications

- Direct connection to a high-speed CAN bus through a D-Sub socket, 9-pin with switchable termination
- Direct connection of the truck trailer CAN bus through a D-Sub plug, 9-pin with switchable termination (master/slave mode)
- Connection of the Truck Trailer CAN via 9-pin D-Sub connector
- Setting for normal or listen-only operating modes
- Data transfer rates up to 125 kbit/s
- Power supply via Truck Trailer CAN bus or self-sufficient with power supply unit
- Adjustable truck trailer system voltage (11 - 26 V) for power through mains power pack
- Status display for power supply and error states via LEDs

### Ordering information

Designation	Art. No.	Price [€]
PCAN-B10011S	IPEH-002041	195,00

(All prices are net prices)

### Scope of supply

- Adapter in plastic casing
- Power supply unit
- Manual in PDF format

Other transceiver types on request

# PCAN-TJA1054

## Bus converter High-speed CAN to Low-speed CAN

The PCAN-TJA1054 bus converter establishes a connection between a high-speed CAN bus (ISO 11898-2) and a low-speed CAN bus (ISO 11898-3). One of the most important potential applications of the bus converter is a simple connection between a PCAN series CAN interface (e.g. PCAN-USB) and a low-speed CAN bus.



Female D-Sub Connector	Pin	Pin assignment high-speed CAN (82C251)
	1	5V Power supply
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected
Male D-Sub Connector	Pin	Pin assignment low-speed CAN (TJA1054)
	1	Not connected
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected

### Specifications

- Adapter from high-speed CAN to low-speed CAN
- Transfer rates of up to 125 kbit/s
- CAN transceiver 82C251 and TJA1054
- Termination resistors for low-speed CAN can be switched (560 Ohm / 5.66 kOhm)
- Power LED
- Error LED (low-speed CAN)
- CAN bus connection via D-Sub, 9-pin (to CiA DS102-1)
- Power supply (5 V) through pin 1 of the high-speed CAN connection. All PEAK CAN cards can be set to the required supply via solder jumper

### Ordering information

Designation	Art. No.	Price [€]
PCAN-TJA1054	IPEH-002039	85,00

(All prices are net prices)

### Scope of supply

- Adapter in plastic casing
- Manual in PDF format

Other transceiver types on request

# PCAN-MicroMod

## General purpose I/O module with CAN interface

The plug-in module PCAN-MicroMod represents a straightforward possibility to provide electronic circuits with I/O functionality and a CAN connection. Configuring is done with a Windows program which sends the configuration data to the module via CAN. Several modules can be configured independently on a CAN bus.

Configuration options in the PCAN-MicroMod  
Configuration software supplied:

- Periodic and edge-triggered sending of CAN messages
- Logical linking of digital inputs
- Direct conversion from analog inputs to CAN IDs
- Analogue values can be processed using characteristic curves or hysteresis function
- Direct evaluation of rotary encoders

With various PCAN-MicroMod baseboards, it can be used in device and plant engineering and in the motor vehicle industry. An optional evaluation board simplifies the enhancement and development of custom boards.

### PCAN-MicroMod Specifications

- 8 analog inputs 10 bit Vref 5 V
- 8 digital inputs and 8 digital outputs
- Four PWM/frequency outputs in the range 1 Hz – 20 kHz
- Maximum of 32 MicroMods in one CAN network
- Dimensions: 32 x 36 mm

### PCAN-MicroMod Evaluation Specifications

- Open collector output driver for digital outputs and CMOS PWM outputs
- Protected digital inputs + LED
- Potentiometers for analog inputs
- Low pass and resistive divider for voltages > 5 V
- Serial interface for firmware updates
- Low-speed CAN transceiver with equipment options
- Dimensions: approx. 100 x 100 mm



### Ordering information

Designation	Art. No.	Price [€]
PCAN-MicroMod	IPEH-002080	98,00
PCAN-MicroMod Evaluation Kit 1	IPEH-002081	298,00
PCAN-MicroMod Evaluation Kit 2	IPEH-002079	348,00

(All prices are net prices)

### Scope of supply PCAN-MicroMod

- PCAN-MicroMod
- Configuration software PCAN-MicroMod  
Configuration for Windows Vista/XP/2000
- Manual in PDF format

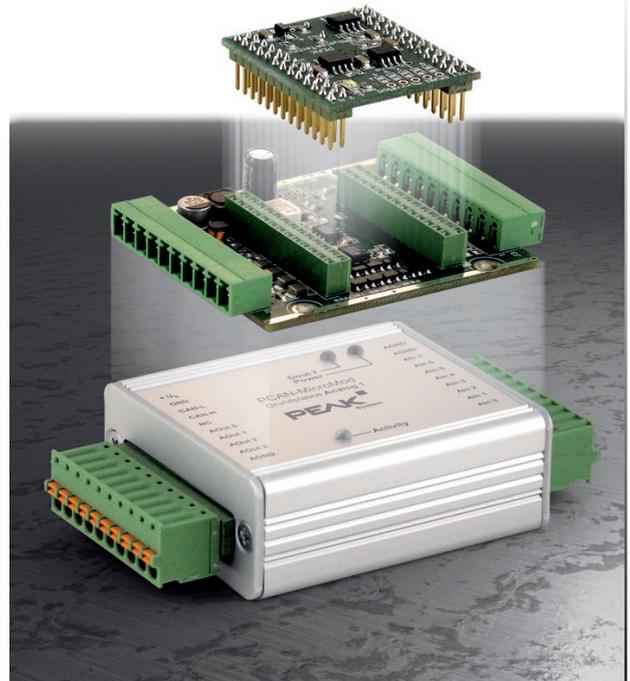
### Scope of supply PCAN-MicroMod Evaluation Kit

- PCAN-Dongle PS/2 (Kit1) / PCAN-USB (Kit 2)
- PCAN-MicroMod-Evaluation Board
- PCAN-MicroMod
- Power supply unit, CAN cable (2 m)
- Configuration software PCAN-MicroMod  
Configuration for Windows Vista/XP/2000
- Manual and schematic in PDF format

# PCAN-MicroMod Analog/Digital

## Application-specific PCAN-MicroMod baseboards

The motherboards for the PCAN-MicroMod provide an application-oriented environment. Typical characteristics of this product group include a wide supply voltage range and the protective circuit for the inputs and outputs. CAN open firmware is available for all PCAN-MicroMod baseboards.



### Specifications Digital 1 + 2

- It is completely configurable using the windows software PCAN-MicroMod Configuration
- Communication through high-speed CAN
- Operating voltage: 8 - 30 V
- Aluminium casing with spring terminal connectors. Optional DIN rail fixing option available

8 digital inputs with the following properties:

- Pull-up or Pull-down circuit selectable in groups (3 groups)
- Voltage level difference 5 - 18 V
- Schmitt trigger behaviour, inverting
- Low pass behaviour
- Parallel switching of one frequency input for 4 digital inputs for an alternative use (e.g. for fast status changes, counters)

5 digital outputs with the following properties:

- Digital 1: 4 Low-side switch, max. 45 V, 0.5 A
- Digital 2: 4 High-side switch, max. 34 V, 1.1 A
- 1 fast Low-side switch, max. 55 V, 0.75 A („frequency output“)
- Short-circuit protection
- Status LEDs for power supply and digital output

### Specifications Analog 1

- It is completely configurable using the windows software PCAN-MicroMod Configuration
- Communication through high-speed CAN
- Operating voltage: 11 - 30 V
- Aluminium casing with spring terminal connectors. Optional DIN rail fixing option available

8 analog inputs with the following properties:

- Pull-down circuit
- Measuring range unipolar, 0 - 5 V (10 bit)
- Measuring range extension optional
- Protection against under- and overvoltages
- Parallel connection of one digital input each (alternative use, e.g. for keys)

4 analog outputs with the following properties:

- Voltage range 0 - 10 V (based on 8 bit PWM)
- Output current 15 mA per channel
- Short-circuit protection

# PCAN-MicroMod Mix 1

## Application-specific PCAN-MicroMod baseboards

The Mix 1 motherboard combines general analog and digital requirements with temperature recording functions.

### Specifications

- \_\_\_ It is completely configurable using the windows software PCAN-MicroMod Configuration
- \_\_\_ Communication through high-speed CAN
- \_\_\_ Operating voltage: 11 - 30 V
- \_\_\_ Aluminium casing with spring terminal connectors. Optional DIN rail fixing option available



6 digital inputs with the following properties:

- \_\_\_ Pull-up or Pull-down circuit selectable in groups (3 groups)
- \_\_\_ Voltage level difference 5 - 18 V
- \_\_\_ Schmitt trigger behavior, inverting
- \_\_\_ Low pass behavior
- \_\_\_ Parallel switching of one frequency input for 4 digital inputs for an alternative use (e.g. for fast status changes, counters)

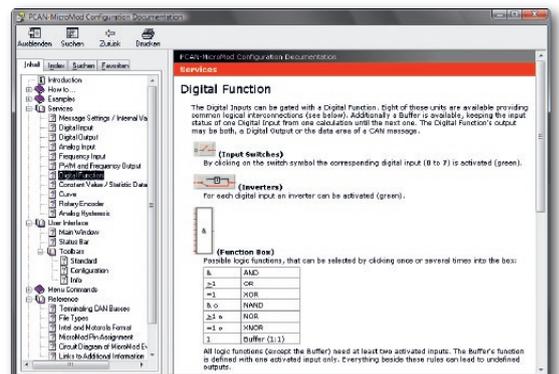
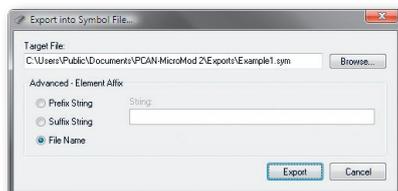
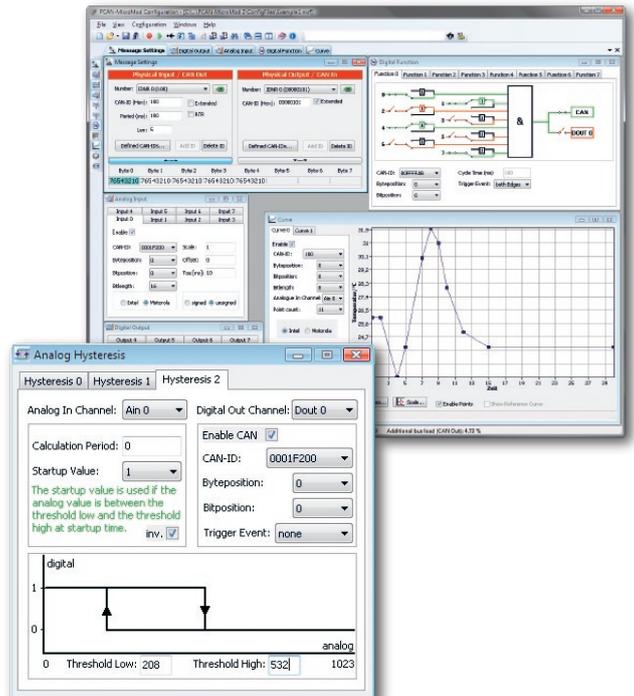
2 analog inputs with the following properties:

- \_\_\_ Pull-down circuit
- \_\_\_ Measuring range unipolar, 0 to 5 V
- \_\_\_ Measuring range extension optional
- \_\_\_ Protection against under- and overvoltages

2 temperature inputs for the connection of NTC resistors (type EC95F103W), measuring range 0 - 70 °C

2 digital outputs (frequency outputs) with the following properties:

- \_\_\_ Fast Low-side switch, max. 55 V, 0.75 A
- \_\_\_ Short-circuit protection



# PCAN-MicroMod Mix 2

## Application-specific PCAN-MicroMod baseboards

The Mix 2 motherboard combines general analog and digital requirements with temperature recording functions.

### Specifications

- It is completely configurable using the windows software PCAN-MicroMod Configuration
- Communication through high-speed CAN
- Operating voltage: 11 - 30 V
- Aluminium casing with spring terminal connectors. Optional DIN rail fixing option available

2 digital inputs with the following properties:

- Pull-up or Pull-down circuit selectable in groups (3 groups)
- Voltage level difference 5 - 18 V
- Schmitt trigger behavior, inverting
- Low pass behavior
- Parallel switching of one frequency input for 4 digital inputs for an alternative use (e.g. for fast status changes, counters)

3 analog inputs with the following properties:

- Pull-down circuit
- Measuring range unipolar, 0 - 4.1 V
- Measuring range extension optional
- Low pass behavior
- Protection against under- and overvoltages

2 temperature inputs for the connection of one NTC resistor (type EC95F103W) and one platinum sensor PT1000, measuring range 0 - 70 °C each

1 digital output with the following properties:

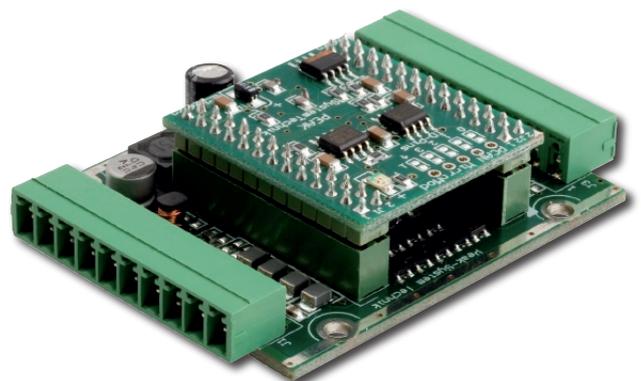
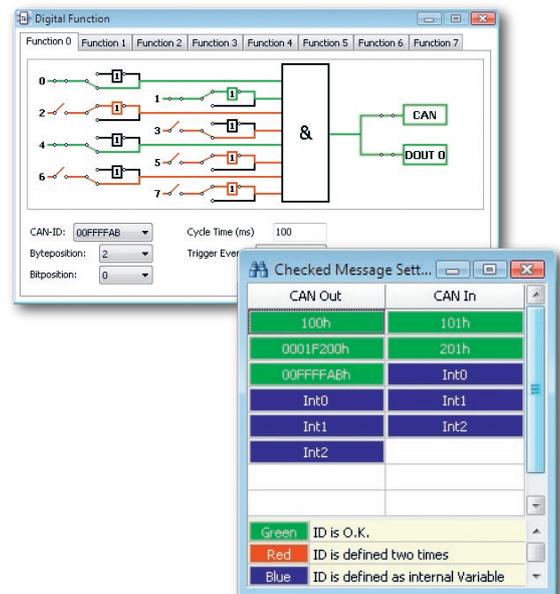
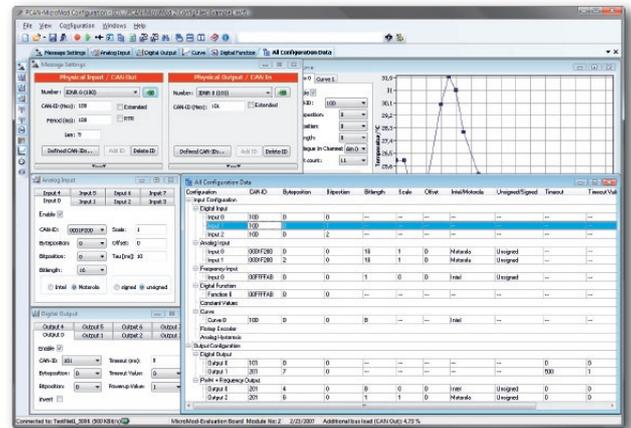
- Fast Low-side switch, max. 55 V, 0.75 A
- Short-circuit protection

1 analog output with the following properties:

- Voltage 0 - 10 V on PWM basis at 16 bit resolution
- Load capacity: 15 mA, short-circuit proof

1 analog output with the following properties:

- Current intensity 0 - 20 mA on PWM basis at 16 bit resolution



# PCAN-MicroMod Mix 3

## Application-specific PCAN-MicroMod baseboards

The Mix 3 baseboard allows the use of all inputs and outputs available on the PCAN-MicroMod, which opens up a wide range of potential applications in the automotive and industrial sectors.

### Specifications

- It is completely configurable using the windows software PCAN-MicroMod Configuration
- Communication through high-speed CAN
- Operating voltage: 12 V DC nominal, 8 - 18 V possible
- Plastic casing with Tyco automotive connectors

8 analog inputs with the following properties:

- 0 – 4.1 V (can be expanded using resistive dividers)
- 10 bit resolution
- Protection against voltage dips and surges
- Low pass behavior

8 digital inputs with the following properties:

- Schmitt trigger behavior ( $V_H = 4\text{ V}$ ,  $V_L = 2,5\text{ V}$ )
- Voltage level difference 5 - 18 V
- Pull-up or pull-down switching can be set for each channel
- Low pass behavior

4 frequency inputs (differences to the digital inputs):

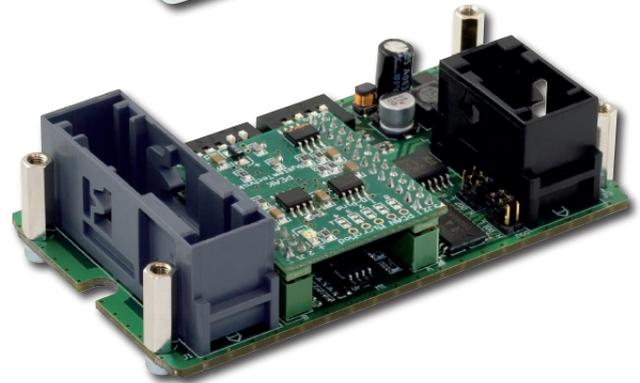
- Scanned frequency range 0 – 10 kHz

8 digital outputs with the following properties:

- High-side drivers, 350 mA continuous current, 500 mA short-circuit current
- 4 outputs switchable in low-side drivers, 700 mA continuous current, 1 A short-circuit current
- Short-circuit protection

4 frequency outputs with the following properties:

- Low-side drivers, 350 mA continuous current, 1 A short-circuit current
- 2 outputs switchable in high-side drivers, 1,5 A continuous current, 5 A short-circuit current



### Ordering information

Designation	Art. No.	Price [€]
PCAN-MicroMod Digital 1	IPEH-002200	196,00
PCAN-MicroMod Digital 2	IPEH-002201	196,00
PCAN-MicroMod Analog 1	IPEH-002204	196,00
PCAN-MicroMod Mix 1	IPEH-002202	196,00
PCAN-MicroMod Mix 2	IPEH-002203	196,00
PCAN-MicroMod Mix 3	IPEH-002206	255,00

(All prices are net prices)

PCAN-MicroMod Mix 3 is available as of April 2009

### Scope of supply

- PCAN-MicroMod
- PCAN-MicroMod Motherboard including mating connectors
- Configuration software PCAN-MicroMod Configuration for Windows Vista/XP/2000
- Manual in PDF format

The PCAN-MicroMod modules are also available with a CANopen firmware.

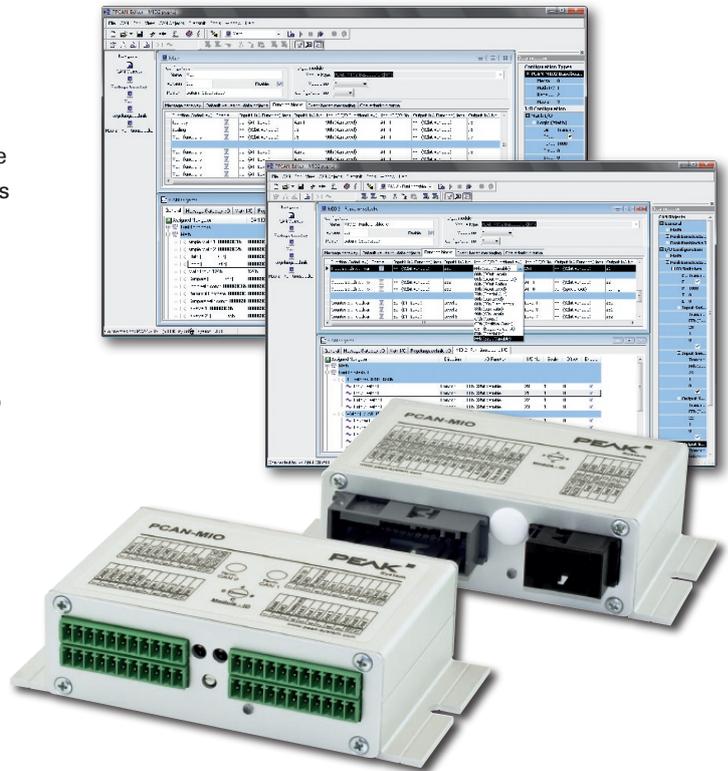
# PCAN-MIO

## Universal Controller for CAN Applications

The Multiple Input Output Module (MIO) is a universal, modular controller for use both in the industrial and automotive fields.

The module has two CAN interfaces as well as multiple analog and digital inputs and outputs. Incoming signals can be processed by the microcontroller and then outputted via the CAN interfaces or output channels. For this purpose, the performance of the PCAN-MIO Module can be freely configured using a comprehensive Windows software. A large number of function blocks and other settings are available to help the user in creating such a configuration.

A bus structure also enables expansion of the number of inputs and outputs with additional modules. Customer-specific requirements can be implemented in doing so.



### Specifications

- 8 digital inputs with low-pass performance
- 8 digital outputs, 2 of these with PWM capability
- 6 analog inputs
- 2 analog outputs (10 bit, 0 - 10 V)
- 2 high-speed CAN channels through plug-in transceiver models, with optional low-speed, single-wire and opto-decoupled high-speed modules available
- CAN gateway between buses
- Configuration via Windows software
- Module can store up to 16 configurations
- Individual function blocks for data linkage and data modification
- Suitable for use in the automotive field
- Spring terminal connectors or optional alternative front with automotive connectors available
- 9 - 30 V voltage supply, overvoltage and reverse polarity protection
- Wake-up function using separate input or CAN bus
- Aluminum casing available with flange or optional DIN rail fitting

### Ordering information

Designation	Art. No.	Price [€]
PCAN-MIO		
Basic Version	IPEH-002187	480,00
PCAN-MIO Set	IPEH-002187-Set	650,00

(All prices are net prices)

#### Scope of supply PCAN-MIO Basic Version:

- PCAN-MIO including mating connectors
- Manual in PDF format
- PPCAN-Editor configuration software for Windows Vista/XP/2000

#### Scope of supply PCAN-MIO Set:

- PCAN-MIO including mating connectors
- CAN interface PCAN-USB
- Manual in PDF format
- PPCAN-Editor configuration software for Windows Vista/XP/2000

Customization on request

# PCAN-Router

## Universal CAN converter

The PCAN router is a dual-channel CAN module whose NXP LPC21 series programmable microcontroller provides the option of using the CAN messages on both channels on a flexible basis. This gives a whole range of options for configuration, manipulation, evaluation, filtering and routing of CAN messages.

The WinARM software provided (contains the GNU Compiler Collection (GCC) for C and C++) can be used to produce your own firmware and then transfer it to the module via CAN. The PCAN-Router is shipped with demonstration firmware which performs one-to-one forwarding of the CAN messages between the two CAN channels at 500 kbit/s. The corresponding source code is included.

The module is installed in an sectional aluminum casing, and is shipped in versions with two D-Sub connectors, or a screw-terminal strip.

### Specifications

- NXP LPC21 series microcontroller (16/32 bit ARM CPU)
- External 32 kb EEPROM
- New firmware can be loaded via serial or CAN interface
- Two high-speed CAN channels (ISO 11898-2) with transmission rates from 40 kbit/s to 1 Mbit/s (slower transmission rates available on request)
- An additional LIN channel available on request
- Status signaling with two 2-color LEDs
- Connections via two 9-pin D-Sub connectors or one 10-pole screw-terminal strip (Phoenix)
- Aluminium casing with spring terminal connectors or D-Sub connectors. Optional DIN rail fixing option available

The following prerequisites must be met in order to be able to use the PCAN router properly:

- To transfer the firmware via CAN, you need a PCAN-series CAN-adapter to connect to your computer



D-Sub	Pin	CAN 1	CAN 2
	1	Not connected	Not connected
	2	CAN-L1	CAN-L2
	3	GND	GND
	4	Not connected	Not connected
	5	CAN_SHLD	CAN_SHLD
	6	Boot_CAN	Not connected
	7	CAN-H1	CAN-H2
	8	Not connected	Din0
	9	+Ub1	+Ub2
Phoenix	Pin	Pin assignment	
	1	+Ub (7-26V DC)	
	2	GND	
	3	CAN-L1	
	4	CAN-H1	
	5	CAN-L2	
	6	CAN-H2	
	7	Boot_CAN	
	8	optional LIN	
	9	V24_RxD	
	10	V24_TxD	

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Router with D-Sub connectors	IPEH-002210	200,00
PCAN-Router with Phoenix connector	IPEH-002210-P	200,00

(All prices are net prices)

PCAN-Router with D-Sub connector opto-decoupled is available as of July 2009

### Scope of supply

- PCAN-Router module in aluminum casing
- Windows software (WinARM software with GNU Compiler Collection for C and C++) and demonstration project
- Manual in PDF format

# MU-Thermocouple1 CAN

Configurable System for Data Acquisition and Data Processing

The Thermocouple Measuring Unit offers connections for 8 thermoelements for different temperature ranges (T, K, J).

Measurement data can be pre-processed and sent via CAN bus using a central microcontroller. Configuration work involves using Windows software on a computer connected to the same CAN bus.



## Specifications

- 8 sockets for thermocouple types J, K, and T (depending on assembly at delivery)
- 4 galvanically isolated measuring modules, each with 2 thermocouple sockets of the same type
- Measuring ranges:
  - J: -210 to +1121 °C
  - K: -200 to +1370 °C
  - T: -200 to +400 °C
- Measurement accuracy: 0.2 %
- Precision of the reference sensors: ±0.5 K at +25 °C
- Temperature resolution at CAN communication: 1/16 K
- High-speed CAN connection (ISO 11898-2) for data transfer and configuring, galvanic separation up to 500 V
- Simple configuration with the windows software Thermocouple Configuration
- Preprocessing of readings possible with integrated microcontroller
- Aluminium profile casing available with flange or optional DIN rail fitting

## Ordering information

Designation	Art. No.	Price [€]
MU-Thermocouple1 CAN	IPEH-002205	560,00

(All prices are net prices)

## Scope of supply

- MU-Thermocouple1 CAN
- Mating connector for voltage supply
- Configuration software for Windows Vista/XP/2000 (requires PEAK CAN interface)
- Manual in PDF format

# CAN-Ethernet Monitor

## CAN-Ethernet Monitor module with integrated web-server

The CAN-Ethernet Monitor enables connection to CAN networks and sending of CAN signals to further subscribers via a UDP stream. At the same time, physical signals such as the CAN level and the supply voltage for the PoE supply, plus the bus load and error counter (differentiated by error type) can also be transferred.

E-mails can be sent automatically if values fall below or exceed limit values. This is configured using the integrated web server.

A PCAN-Client service is also implemented which emulates a PCAN-Link software client. This means that the module can communicate with a PCAN-Link server.



### Specifications

- Plastic casing for DIN rail mounting
- Easy configuration using web interface
- 24 V DC voltage supply (Phoenix connector)
- 1 x high-speed CAN (ISO 11898-2), opto-decoupled on D-Sub in accordance with CiA 102 DS
- 1 x RS-232 (D-Sub) and 1 x RS-422 (Phoenix)
- 1 x Ethernet (10/100 MBit)
- Power supply can be through Power over Ethernet (PoE), compatible with IEEE 802.3af
- LED displays for Ethernet, RS-232/422, CAN, PoE and CPU
- Operating temperature -40 to +85 °C

### Configuration via the web interface

- Status display for CAN bus voltage
- Recording of minimum and maximum voltage values, display of CAN traffic statistics
- Presentation of statistics on the CAN traffic
- Setting to send e-mail if values fall below or exceed limit values

### Features

- IP address via DHCP host or manually
- CAN transfer rates 125k/250k/500k/800k/1M
- Integrated SNTP client (time updated using time server and time zone)
- Automatic sending of e-mail notifications (requires an SMTP server)
- All status information and CAN messages can also be sent via the UDP port
- Compatible with PCAN-Link software (device works in PCAN-Link client mode)
- Access to all settings using web interface, telnet or RS-232
- Software can also be updated through the web interface

### Ordering information

Designation	Art. No.	Price [€]
CAN-Ethernet Monitor	IPFH-000100	585,00

(All prices are net prices)

### Scope of supply

- CAN/Ethernet/RS-232 adapter in plastic casing
- Manual in PDF format

# Software . . .

Development packages  
Application software  
PCAN-Explorer & Add-ins

PEAK-System Technik GmbH designs customer-specific software for PC and embedded systems.

We support you from the idea through to the finished product

- └ Specification
- └ Technical analysis
- └ Development
- └ Test
- └ Documentation
- └ Delivery
- └ Support

# Software

Software



# The right software...

... for your CAN bus application

---

Windows Vista/XP/2000

---

Supports all PCAN-PC hardware

---

Multiple programs on one driver

---

CAN communication between programs

---

Maximum number of supported hardware devices per driver

---

Maximum number of programs per hardware device

---

Advanced hardware status information

---

Real-time accuracy of the outgoing (1) and incoming messages (2)

---

Time information transferred to driver

---

Event on receipt of a message

---

Internal message buffer on driver per program

---

Software simulation between programs (no hardware needed for development)

---

One interface for all PCAN-PC cards

---

Hotline support for developers

---

Hardware configuration via Control Panel

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Hardware reset from within the application

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Message filter user-definable

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Software-driven gateway function between two hardware units

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Driver licensing

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Applications included in package

# PCAN-Light

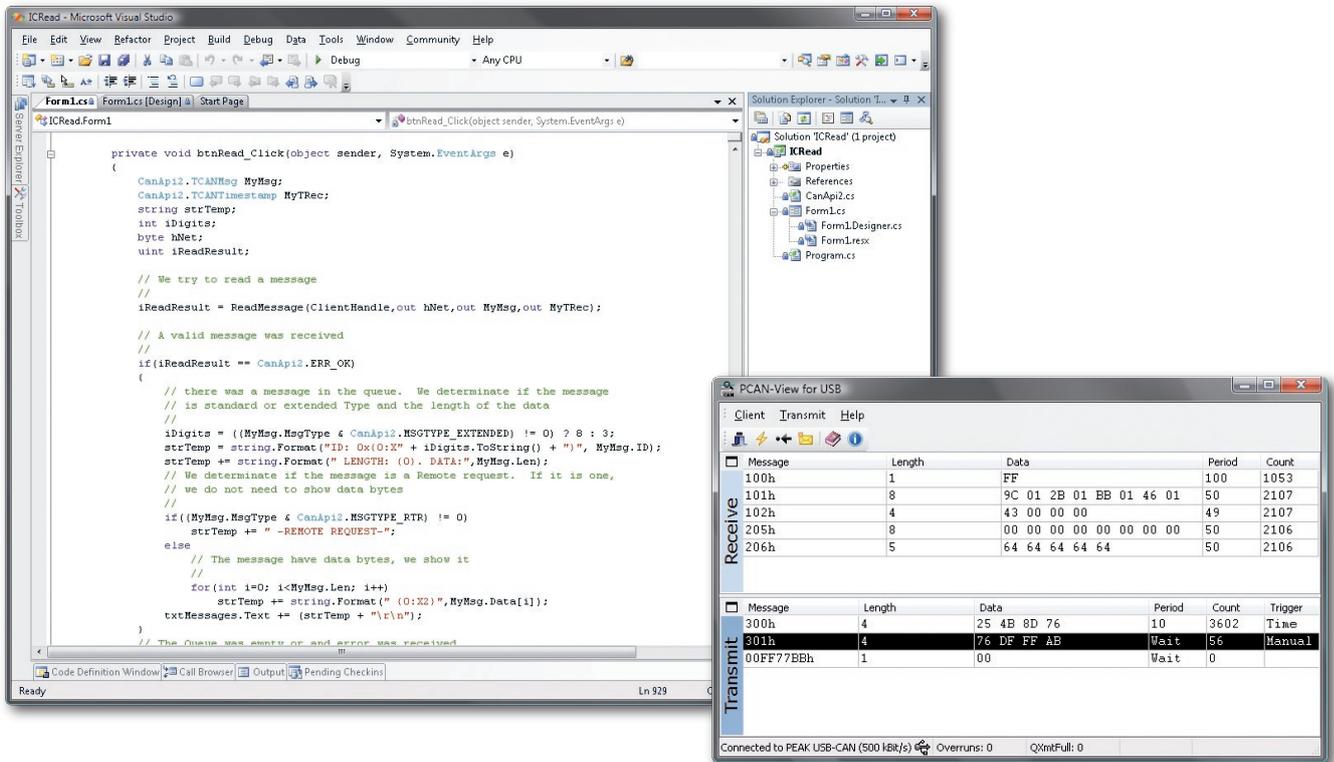
# PCAN-Evaluation

# PCAN-Developer

■	■	■
■ One DLL one CAN channel	■	■
- only own programs & PCAN-View	■	■
-	■	■
2	16	16
1 and PCAN-View	32	32
-	■	■
(1) 10 ms Windows Vista/XP/2000	(1) 10 ms Windows Vista/XP/2000	(1) 10 ms Windows Vista/XP/2000
(2) 1 μs	(2) 1 μs	(2) 1 μs
-	■	■
■ (Version 2.0)	■	■
■ 32,768	■ 32,768 per client	■ 32,768 per client
-	■	■
- (different DLLs)	■ (one DLL)	■ (one DLL)
-	■	■
- Task performed in application	■	■
- in CAN_Init only	■	■
■ Filter can be set globally	■ One filter per application	■ One filter per application
■ Only between different HW	■	■
■ Supplied with the hardware	■ 5 licenses in package, others may be acquired	■ unlimited
■ PCAN-View	■ PCAN-View, PCAN-Status Display, PCAN-Nets Configuration	■ PCAN-View, PCAN-Status Display, PCAN-Nets Configuration, PCAN-Explorer, PCAN-Trace

# PCAN-Developer / Evaluation

CAN development packages for Windows Vista/XP/2000



PCAN is a flexible system for planning, developing and applying CAN networks. Windows Kernel mode ring-0 drivers are the basis for communication between PCs and external hardware via a CAN bus. These form the core of a complete CAN network environment on a PC running Windows.

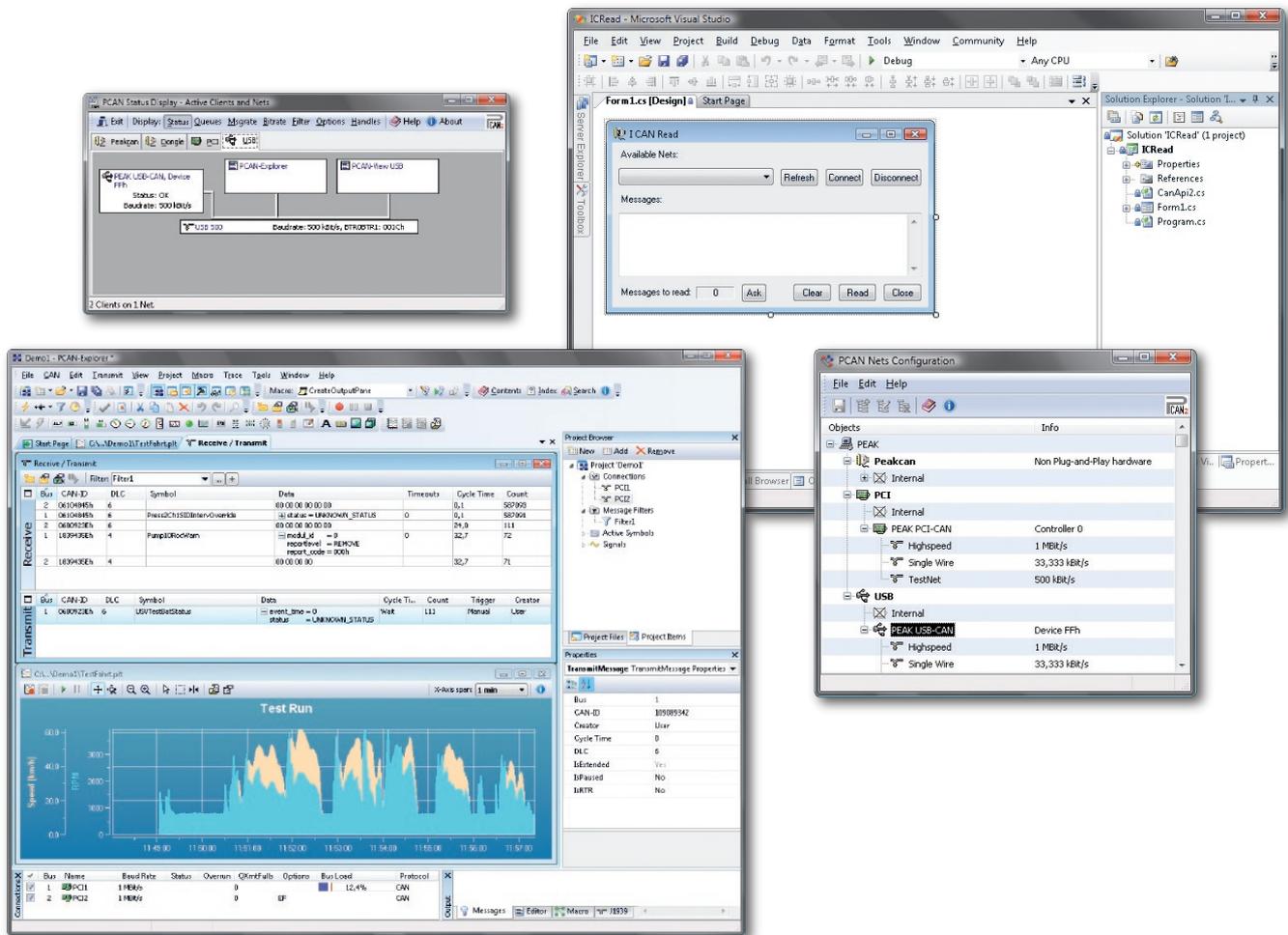
The device driver manages the whole data traffic for all the hardware connected to the PC. The interface to the user or operator of a hardware device, which is connected to a CAN network, is formed by so-called PCAN clients. These enable process quantities to be displayed and influenced as necessary. The driver allows multiple clients to be connected, and these are able to communicate with CAN buses. It also supports multiple hardware components based on an SJA1000. The following features apply to PCAN client programs, networks, and hardware:

- A client can be connected to more than one network
- A network supports multiple clients
- A hardware device belongs to one network only

- A network may have exactly one hardware device assigned to it, or none at all
- When a client sends, the message is passed via hardware to the external bus and to all the other clients
- If a message is received via the hardware, it is received by all clients
- Defining the installed hardware and networks. Multiple networks may be defined per hardware device.

The CANAPI2 Interface DLL enables software developers to use these features.

Additional features in the PCAN-Developer package are the unlimited number of device driver licenses for marketing departments that have their own developments in-house (clients), as well as the CAN monitor PCAN-Explorer, and the PCAN-Trace data logger which are included in the items supplied. Your development team can also use our support hotline free of charge.



**Features**

- \_\_\_ 32-bit/64-bit Windows compatible DLL as programming interface (API)
- \_\_\_ Interrupt-driven reception of CAN messages from the hardware into a FIFO buffer within the driver, complete with time stamp
- \_\_\_ Reception of CAN messages between the driver and the Windows application can be event-oriented
- \_\_\_ Support for CAN protocol 2.0A and 2.0B (29-bit identifier)
- \_\_\_ Comprehensive programming manual (Help file) complete with fully compatible sample source code
- \_\_\_ Transmission accurately timed by transferring the required timestamps from the application to the system driver
- \_\_\_ Comprehensive toolkit for configuring, parameterizing, and visualizing the CAN system

**Ordering information**

Designation	Art. No.	Price [€]
PCAN-Developer	IPES-002070	3.280,00
PCAN-Evaluation	IPES-002071	500,00

(All prices are net prices)

**Scope of supply**

- \_\_\_ Program description as HTML help file
- \_\_\_ Header files, units, and examples
- \_\_\_ Tools: PCAN-CPL, PCAN-Nets Configuration, and PCAN-Status Display
- \_\_\_ Applications: PCAN-View
- \_\_\_ 5 licenses for device drivers (PCAN-Evaluation package only)
- \_\_\_ PCAN-Trace, PCAN-Explorer and Free-License driver (PCAN-Developer only)

**System requirements:**

Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-Light

CAN software API for Windows and Linux

## PCAN-Light ...

... is a software API (Application Programming Interface ) for Windows Vista/XP/2000. PCAN-Light consists of the actual device driver, and an interface DLL which provides the API functions. You can use the PCAN-Light API to create your own applications for communicating with the PCAN-PC hardware.

## PCAN-Light API

PCAN-Light provides developers of C++, C#, Delphi, VB.NET, Java etc. with the following functions:

Logging on and off the device driver:

- Init: Initializing hardware, setting the baud rate, logging on to drivers
- Close: Logging out of drivers

CAN communication:

- Write: Sending a CAN message (11/29-bit ID and RTR available)
- Read: Reading a CAN message / status
- ReadEx: Reading a CAN message or status inc. time stamp (new in Version 2.0)
- SetRecvFunc: Event handling for incoming messages (new in Version 2.0)
- ResetClient: Deleting the outgoing and ingoing buffer
- MsgFilter: Registering messages to be received
- ResetFilter: Resetting the CAN filter

Status information:

- Status: Reading driver status information (data in buffer, overruns, error codes...)
- VersionInfo: Information on the device drivers used (new in Version 2.0)
- DLLVersionInfo: Reading the DLL information (new in Version 2.0)



## PCAN-Light for Linux

The PCAN-Light Linux device driver can be downloaded free of charge from our website in RPM and tar.gz file format.

The C source code for the Linux version of the device driver is available free for all PEAK CAN hardware products. More information is available at <http://www.peak-system.com/linux>

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Light	Internet*	at no cost

\* ) Download/Internet: [www.peak-system.com](http://www.peak-system.com)

### Scope of supply

- \_\_\_ Interface DLLs, examples, and header files for all conventional programming languages
- \_\_\_ Documentation in HTML help format

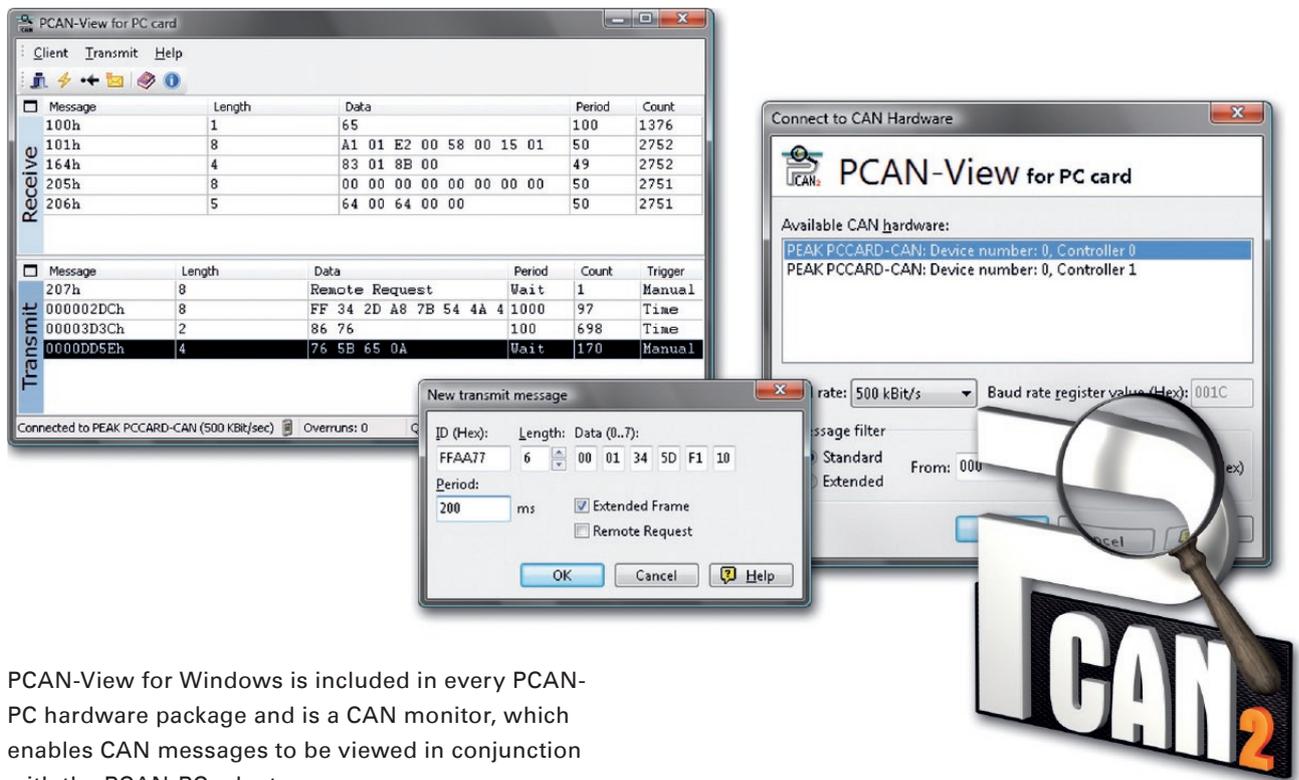
The current version of PCAN-Light ...  
 ... can be found on the installation CD for our PC hardware  
 ... can be found on the Internet as a free download ready and waiting for you

### System requirements:

Windows Vista/XP/2000  
 at least 512 MB RAM - from 1 GHz CPU

# PCAN-View

Windows compatible software for displaying CAN messages



PCAN-View for Windows is included in every PCAN-PC hardware package and is a CAN monitor, which enables CAN messages to be viewed in conjunction with the PCAN-PC adapter.

The program enables CAN messages to be sent and received simultaneously. It supports the CAN specifications 2.0A and 2.0B at a maximum transfer rate of 1 Mbit/s. Messages can be sent manually and periodically. Bus system errors and memory overflows in the CAN hardware being controlled are displayed.

## Features

- Transfer rates up to 1 Mbit/s
- Sending of CAN messages with a resolution of 10 ms and receiving at 1 ms
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN controller hardware reset (SJA1000)
- Incoming, outgoing and error status display

## Ordering information

Designation	Art. No.	Price [€]
PCAN-View	Internet*	at no cost

\*) Download/Internet: [www.peak-system.com](http://www.peak-system.com)

Will be supplied at no charge together with all PEAK PC-CAN Interfaces.

## Scope of supply

- Installation routine for Windows Vista/XP/2000
- Documentation in HTML help format

The current version of PCAN-View ...

... can be found on the installation CD for our PC hardware

... can be found on the Internet as a free download ready and waiting for you

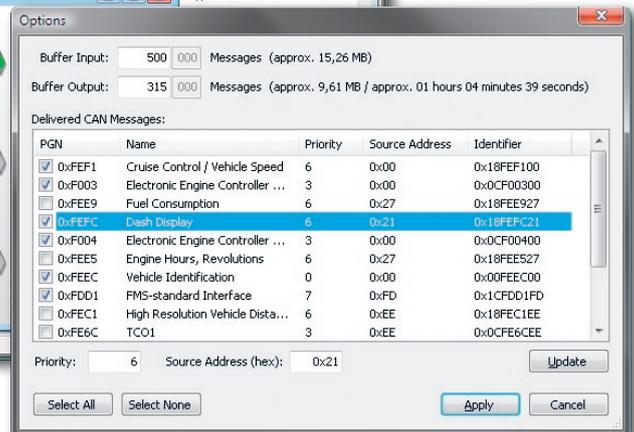
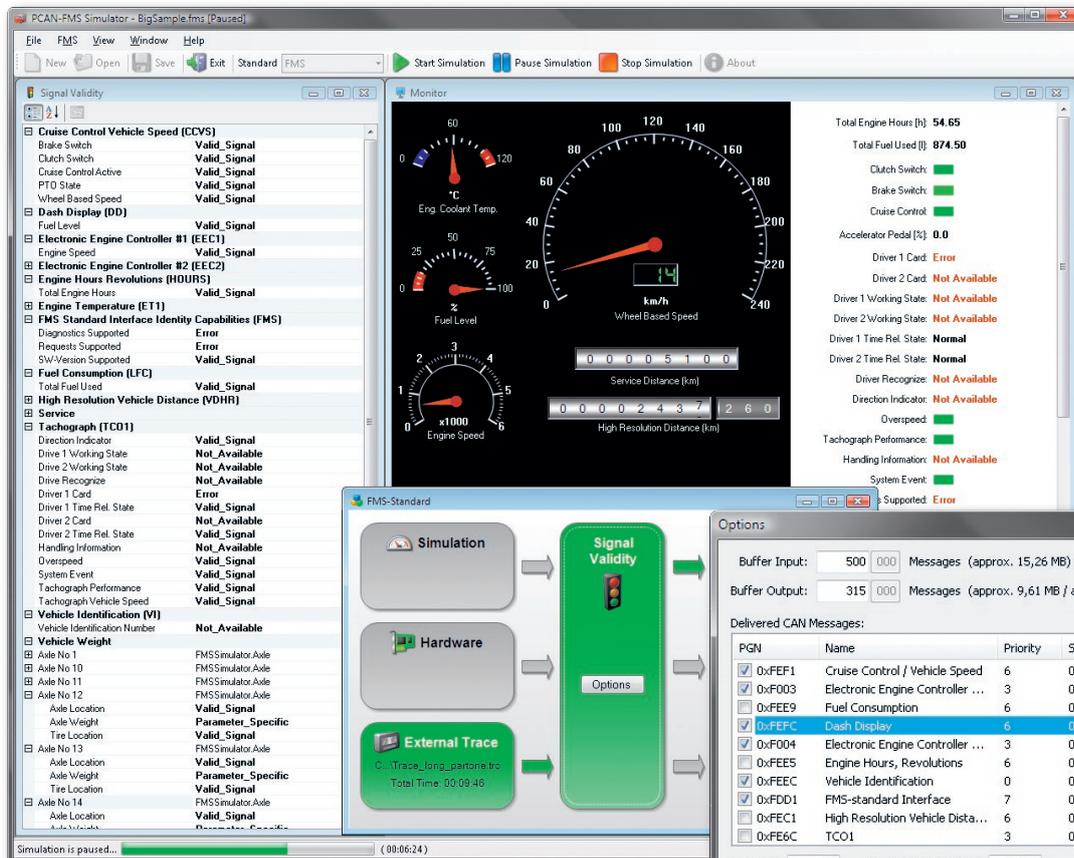
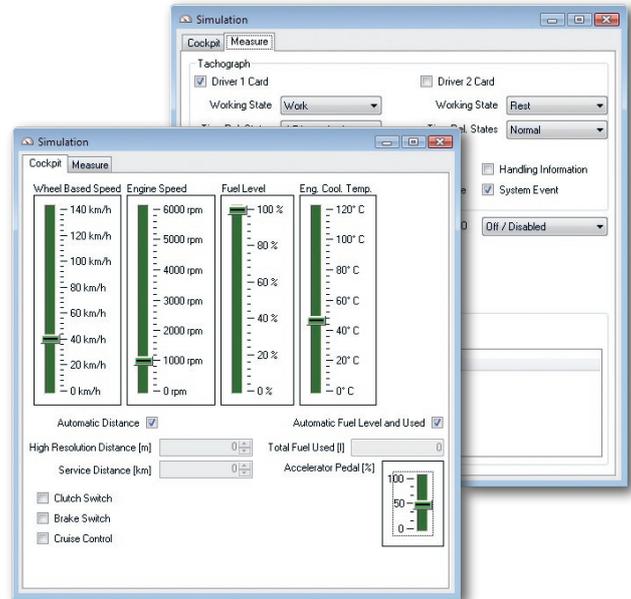
## System requirements:

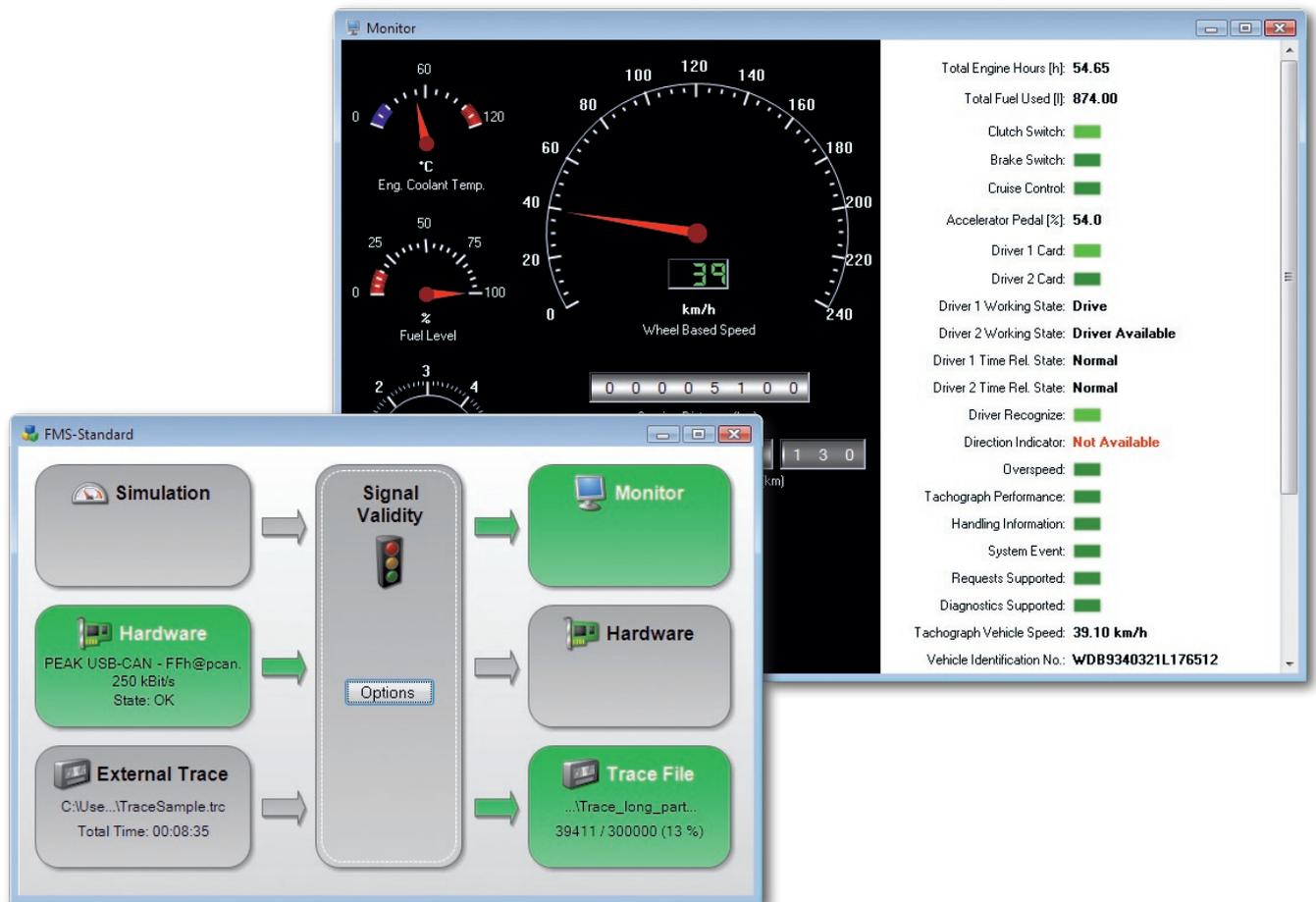
Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-FMS Simulator

Windows software for simulating CAN data according to FMS standard

The FMS (Fleet Management System) protocol and Bus-FMS provide a manufacturer-independent interface for reading vehicle-specific CAN data on heavy commercial vehicles and buses. The extensive and continually growing support of leading commercial vehicle and bus manufacturers allows cross-market telematics applications to be implemented. For these types of developments, the PCAN-FMS Simulator application made by PEAK-System Technik provides the simulation of both standards in a single software application with an easy-to-use graphical user interface.





**Features**

- Switching between the FMS standard and Bus-FMS
- Simulation of CAN data at FMS input
- CAN data input for FMS Simulator via PCAN hardware
- Play-back of Trace files at FMS input
- Possibility of simulating error statuses
- Disconnection and connection of specific CAN messages
- Graphical representation of FMS output data
- FMS output data displayed on PCAN-Hardware
- Recording of FMS output data in Trace files
- Loading and saving project files

**Ordering information**

Designation	Art. No.	Price [€]
PCAN-FMS Simulator	IPES-002050	590,00

(All prices are net prices)

**Scope of supply**

- PCAN-FMS simulator installation CD (only available in English)
- Documentation in German and English (installation manual, program help)

**System requirements:**

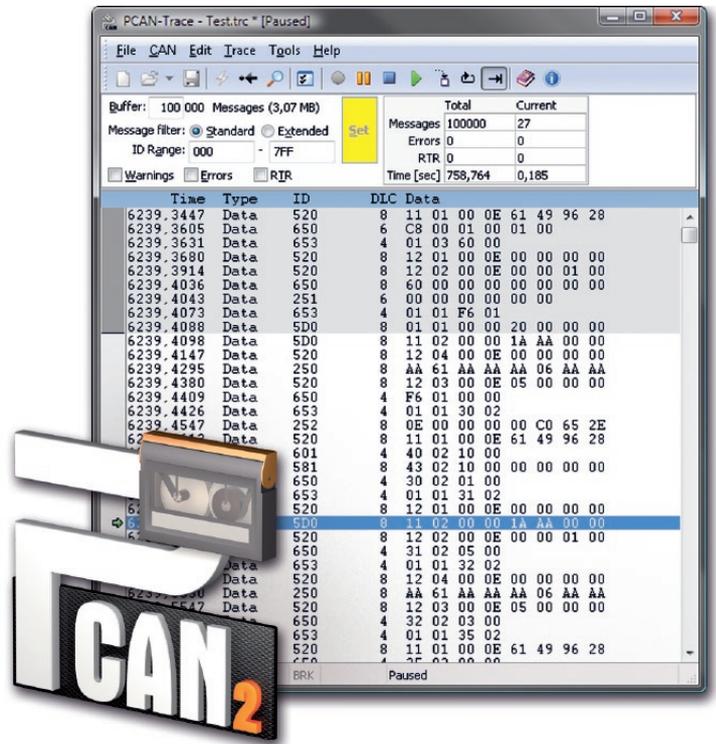
Windows Vista / XP (32-bit versions)  
 Microsoft .NET Framework 2.0  
 at least 512 MB RAM - from 1 GHz CPU

# PCAN-Trace

Comprehensive data logger for CAN messages

The PCAN-Trace program is a data logger for up to 9,999,000 CAN messages. It enables CAN messages to be quickly recorded, saved, and even played back on the CAN bus. The program displays the number of received messages, and identifies the types of the messages (data frame, error frame, RTR frame). PCAN-Trace runs within Windows Vista/XP/2000

CAN messages can be recorded or replayed in linear or ring buffer mode. PCAN-Trace also provides an option to play back CAN messages in single step mode. You can also simplify analysis and tracing by setting playback mode breakpoints.



## Features

- Log facility for up to 9,999,000 CAN messages
- Choice of linear buffer or ring buffer (in receive and playback mode)
- Displays number and type of received CAN messages
- Adjustable message filter
- Support for 11-bit and 29-bit IDs
- Facility to play back CAN messages that have been recorded using PCAN-Explorer, even in single-step mode
- Breakpoints can be used in playback mode
- Integrated online help
- Received data can also be viewed in a text editor

## Ordering information

Designation	Art. No.	Price [€]
PCAN-Trace	IPES-002027	300,00

(All prices are net prices)

## Scope of supply

- PCAN-Trace installation CD (in English)
- Documentation in HTML help format

## System requirements:

Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-Link

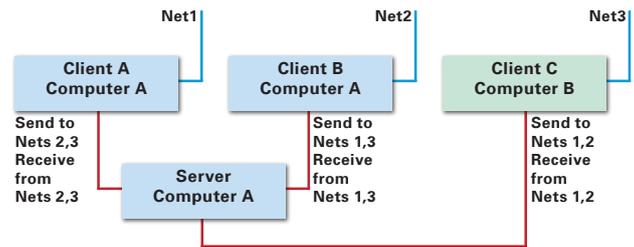
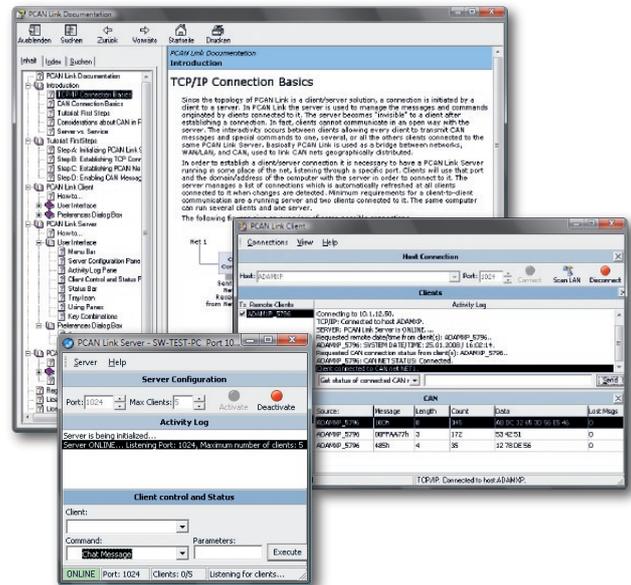
## Transferring CAN data via TCP/IP

The PCAN-Link software package allows the transfer of CAN data using TCP/IP. PCAN-Link is based on the CANAPI2 interface by PEAK and thus supports various communication scenarios.

Various virtual or physical CAN networks (blue lines) can be connected via a network medium (red lines).

### Features

- \_\_\_ Communication of up to 15 CAN networks via WAN/LAN with TCP/IP
- \_\_\_ Free allocation of the ports used (adaptation to any firewall possible)
- \_\_\_ Integrated CAN monitor in each Client module with exact allocation of the sender (IP, local or NetBIOS name)
- \_\_\_ Server can be started as service under Windows Vista/XP/2000
- \_\_\_ The clients incorporate additional services in order to receive information about the remote client (operating system, local date or time) or the CAN connection
- \_\_\_ Chat mode integrated to exchange information between programs
- \_\_\_ Simple and intuitive user interface
- \_\_\_ Setting for the delay on receipt in order to compensate for run times and bandwidth problems
- \_\_\_ Cost-effective remote integration for trouble-shooting or visualization in CAN-based networks (CANopen, DeviceNet)
- \_\_\_ Available in 3 different expansion stages
  - 2 client version (peer to peer)
  - 5 client version
  - 15 client version
- \_\_\_ PCAN-Link runs on all PEAK CAN interfaces and is compatible with the CAN-Ethernet Monitor



### Ordering information

Designation	Art. No.	Price [€]
PCAN-Link 2 client version	IPES-002010	195,00
PCAN-Link 5 client version	IPES-002011	390,00
PCAN-Link 15 client version	IPES-002012	580,00

(All prices are net prices)

### Scope of supply

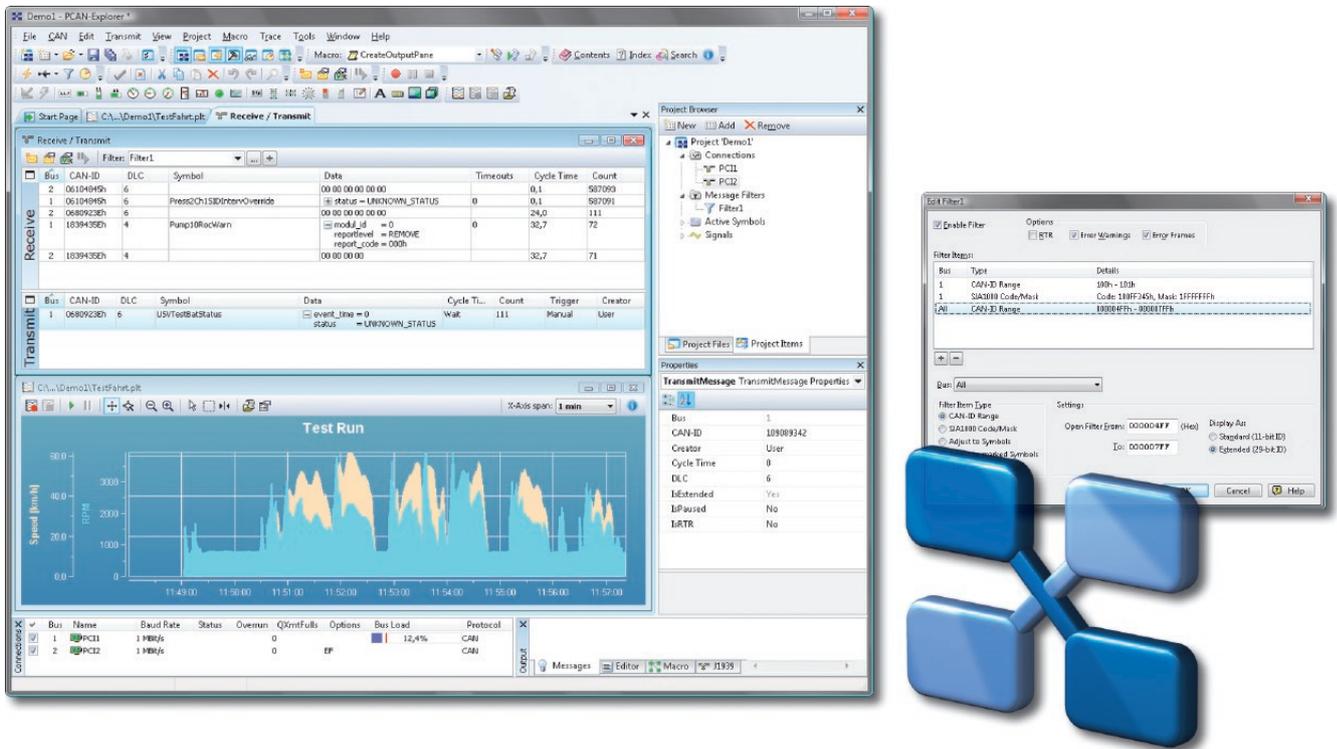
- \_\_\_ PCAN-Link software on CD
- \_\_\_ Software and documentation in HTML help format available in English only

### System requirements:

Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-Explorer 5

Comprehensive CAN Monitor for Windows

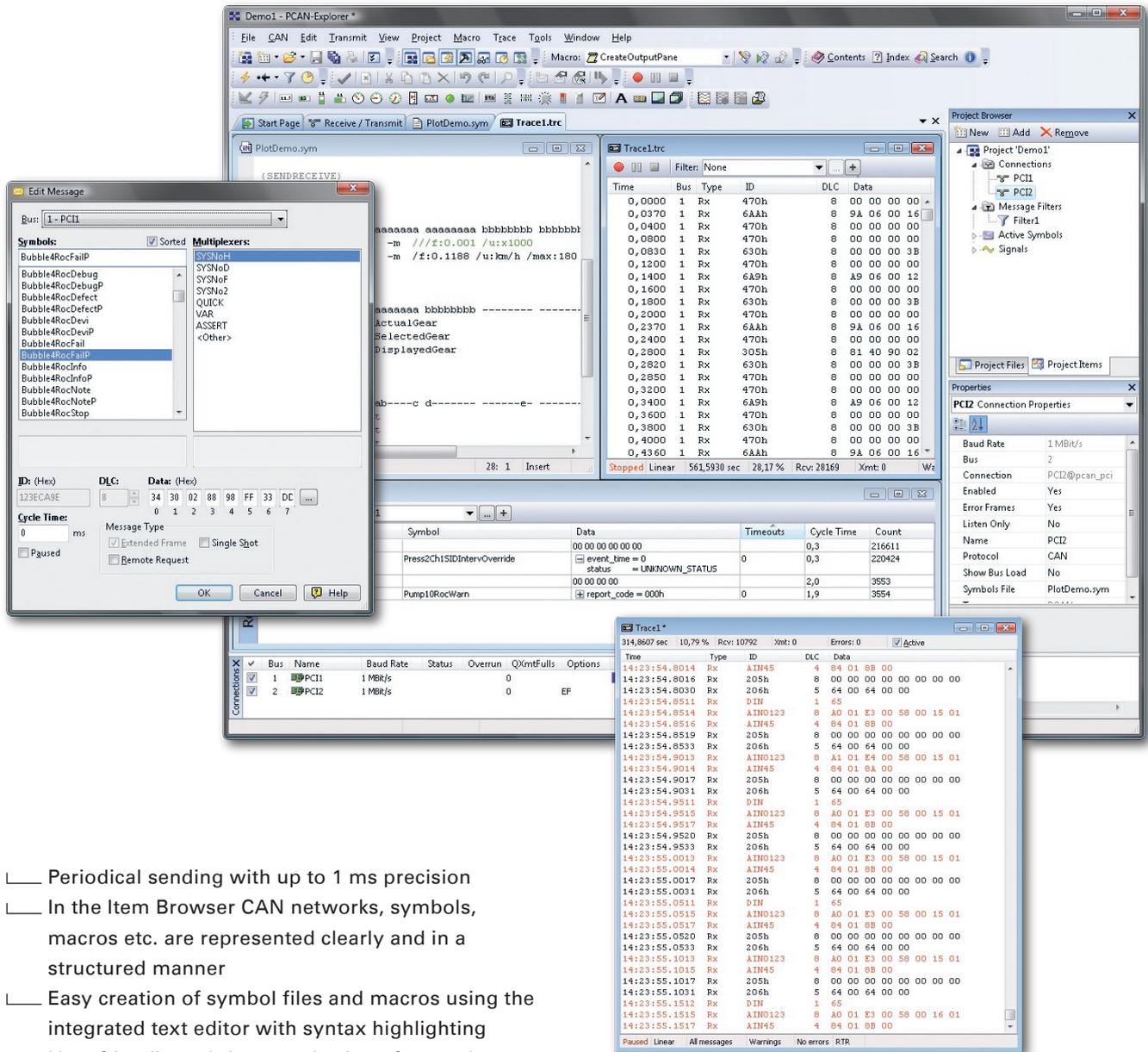


PCAN-Explorer is an universal tool for monitoring data traffic on a CAN network. For easy and clear allocation of the individual messages, these can be identified as so-called symbols. The integrated VBScript support allows the creation of macros to automate complex tasks. The integrated data logger means that the data traffic of a bus can be recorded, analyzed, and stored. PCAN-Explorer is designed as automation server and can therefore be remote controlled through scripts.

## Features

- \_\_\_ All files and elements can be saved in projects and administered using the project browser
- \_\_\_ The new start page allows fast access to the most recently opened projects or files
- \_\_\_ Simultaneous connections with multiple networks/ CAN interfaces of the same hardware type
- \_\_\_ Connection window with an overview of all connections, complete with status, error counters, bus load, etc.
- \_\_\_ All parameters of all elements in the user interface can be examined using a Property Window and edited if necessary.

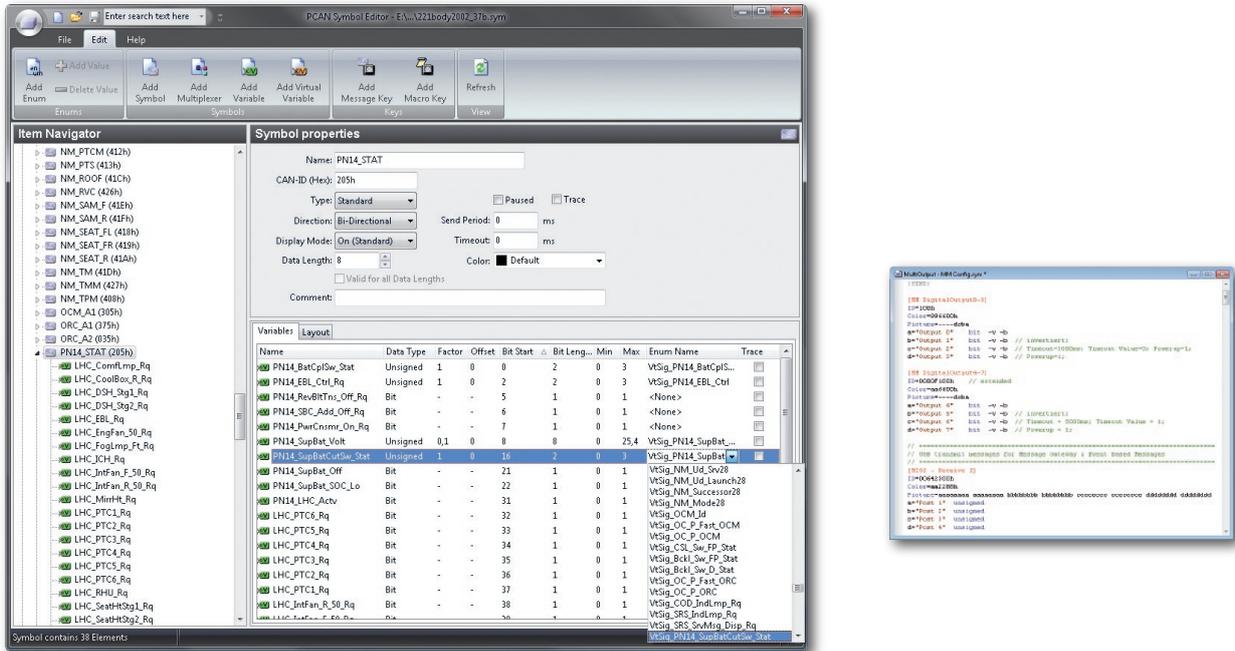
- \_\_\_ Multiple flexible filters can be configured and, for example, assigned to the send/receive window or the various different tracers
- \_\_\_ Tabs to switch between the different windows
- \_\_\_ Flexible arrangement of the user interface using the dockable windows
- \_\_\_ User-defined column display and arrangement in send/receive window
- \_\_\_ J1939 support with the relevant add-in
- \_\_\_ Display of received messages showing the ID, length, data bytes, number of messages received and receiving interval
- \_\_\_ Simultaneous hexadecimal and symbolic representation of the details
- \_\_\_ Display of remote frames, status reports of the CAN controller and, as option, CAN-bus error frames also
- \_\_\_ Logging of time-outs
- \_\_\_ Sending of messages at fixed intervals of time, manually or as reply to remote frames
- \_\_\_ Messages can be created as send lists, stored and loaded as desired, in order to e. g. emulate CAN nodes



- \_\_\_ Periodical sending with up to 1 ms precision
- \_\_\_ In the Item Browser CAN networks, symbols, macros etc. are represented clearly and in a structured manner
- \_\_\_ Easy creation of symbol files and macros using the integrated text editor with syntax highlighting
- \_\_\_ User-friendly real-time monitoring of several signals via the watch window
- \_\_\_ Extensive improvements to user prompting and user interface
- \_\_\_ Simple integration of external tools
- \_\_\_ Integration of Add-Ins to upgrade functionality
- \_\_\_ Supports Windows Vista

Properties of the integrated, configurable PCAN-Explorer data logger:

- \_\_\_ Operation of multiple tracers at the same time
- \_\_\_ Variable buffer size
- \_\_\_ Optional linear buffer or circular buffer
- \_\_\_ Representation of the logged messages with time stamp, type, ID, length and data bytes
- \_\_\_ Logging of errors that have occurred is possible
- \_\_\_ Flexible storage possibility for the logged data in text form for importing into Excel or similar
- \_\_\_ Filtering of the messages for logging through symbol definitions
- \_\_\_ Subsequent examination of the logged data in the buffer via different symbol files



**Properties of the independent Symbol Editor:**

- The graphic representation of symbols and the automatic error detection allow easy creation of symbol files
- Symbolic representation of CAN messages through the assigning of alphanumeric names
- Bit-exact division of the data into variables for assigning name, data type, list of values, scaling, Offset etc.
- Supports data processing in accordance with IEEE 754 as well as in the Intel and Motorola format
- The Item Navigator and the search function allow targeted access to all elements of the symbol files
- Importing of CANdb files into the symbol data format and vice versa (requires the PCAN-Explorer Add-In CANdb Import)

**Function upgrade of the PCAN-Explorer with the integrated VBScript language**

- Creation of macros in VBScript with the integrated text editor
- Access with macros and scripts to almost all program elements via the PCAN-Explorer object model
- Ideal for creating test tools to implement or develop CAN systems
- Examples: sending of e-mails when a temperature is exceeded, starting of a test tool when a particular message is received, opening of an Excel sheet when an event occurs and saving of data in the individual cells

- Assignment of function keys with individual send messages or macros
- VBS scripts run in the background even without the PCAN-Explorer interface

**Ordering information**

Designation	Art. No.	Price [€]
PCAN-Explorer 4	IPES-004028	398,00
PCAN-Explorer 5	IPES-005028	450,00

(All prices are net prices)

PCAN Explorer 5 is available as of May 2009. If you purchase PCAN Explorer 4 after 1 March 2009, you will receive a free upgrade to version 5.

**Scope of supply**

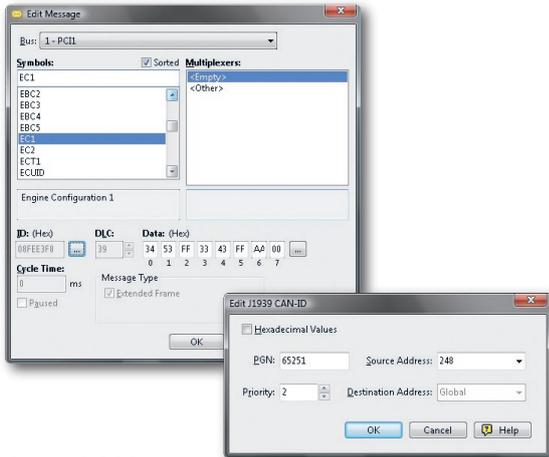
- PCAN-Explorer installation CD including PCAN-Explorer Line Writer Add-in (in English)
- Documentation in HTML help format

**System requirements:**

Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-Explorer Add-ins

Optional function upgrades for PCAN-Explorer



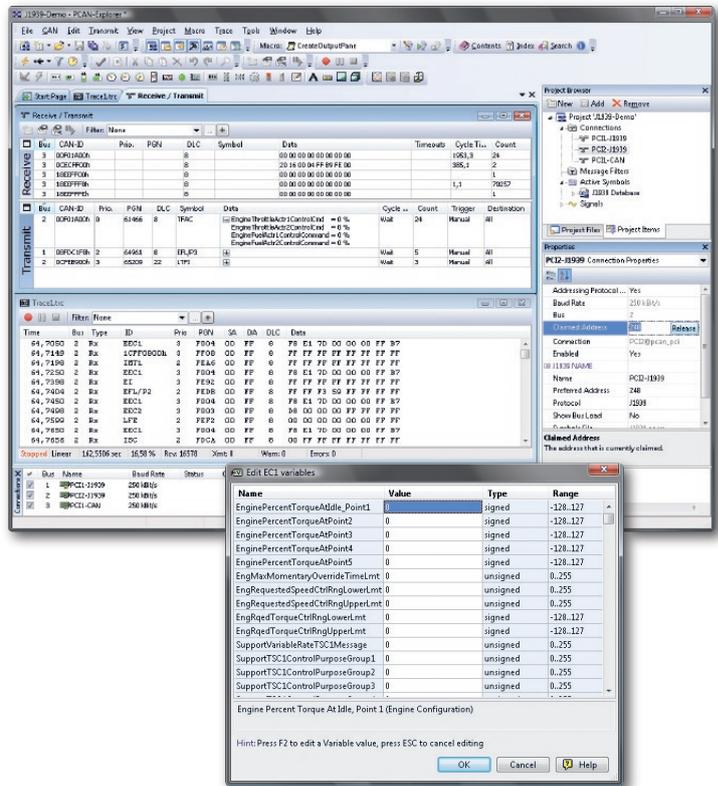
## J1939 Add-in

The SAE J1939 network protocol describes communication on a CAN bus in utility vehicles for the transmission of diagnostics data and control information. It contains a complete network definition using 29-bit CAN-IDs (CAN 2.0B Extended Frame).

The J1939 add-in for PCAN-Explorer 5 supports all definitions established by the standard's parameter groups and provides a simple means of accessing the parameters. A complete database of all the definitions and the parameters contained is also supplied.

## Features

- Support for all functions of the SAE J1939 network protocol
- CAN messages can be sent in broadcast form or targeted to individual control units (ECUs)
- Addressing of up to 254 ECUs
- Supports multi-packet messages



## Ordering information

Designation	Art. No.	Price [€]
J1939 Add-in	IPES-005089	290,00

(All prices are net prices)

## Scope of supply

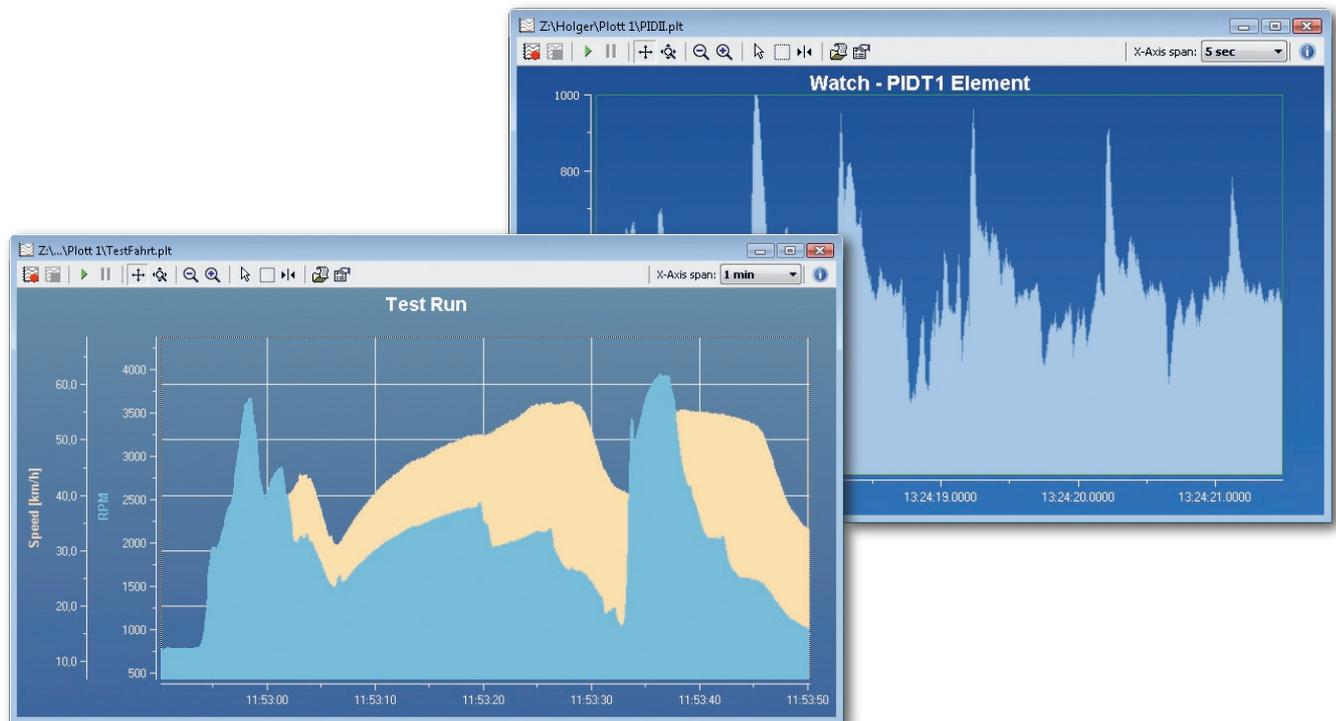
- J1939 Add-in software
- Documentation in HTML help format

## System requirements:

PCAN-Explorer from version 5  
Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-Explorer Add-ins

Optional function upgrades for PCAN-Explorer



## Plotter Add-in 2

The plotter allows the graphical representation of CAN data using any number of channels.

### Features

- Real-time display
- Unlimited number of channels
- Unlimited number of Y-axes
- X-axis and Y-axes can be zoomed and scrolled quite freely, even during recording
- Labelling of time axis with absolute or relative time stamps
- Facility for automatic adaptation of axes to plots
- Reversible Y-axes
- Logarithmic scales
- Cursor display for plot measurement
- Export to EMF-, PNG-, BMP-, JPG graphical formats
- Data import from the PCAN-Explorer Tracer
- Representation of limiting values and value ranges

- Comprehensive formatting options for representing the curves, axes and the plotter layout

### Ordering information

Designation	Art. No.	Price [€]
Plotter Add-in 2	IPES-005087	150,00

(All prices are net prices)

### Scope of supply

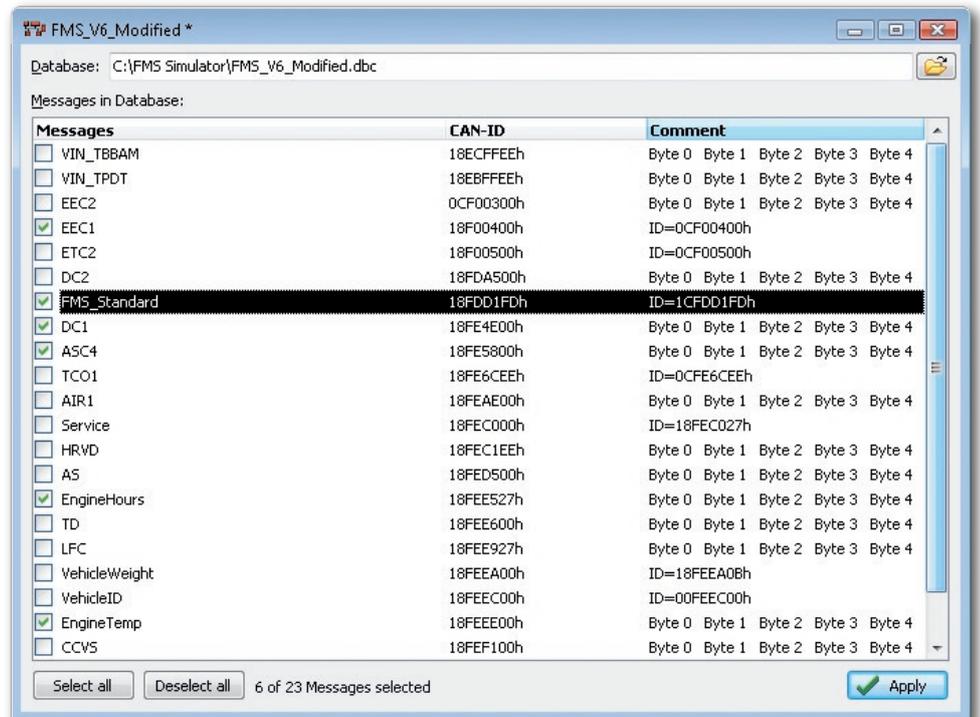
- PCAN-Plotter Add-in software

### System requirements:

PCAN-Explorer from version 5  
 Windows Vista/XP/2000  
 at least 512 MB RAM - from 1 GHz CPU

# PCAN-Explorer Add-ins

Optional function upgrades for PCAN-Explorer



## CANdb Import Add-in 3

The CANdb format is a common data description format for CAN-bus information in the car industry.

CANdb Import allows the import of CANdb files. This is a useful function for all those who do not want to manually transcribe their database into the PCAN-Explorer symbol file format.

### Features

- Opening of CANdb files (.dbc)
- Selecting of the messages for importing in a CANdb file
- Saves date using the project administration function in PCAN-Explorer
- Storing in the PCAN-Explorer symbol file format

### Ordering information

Designation	Art. No.	Price [€]
CANdb Import Add-in 3	IPES-005086	80,00

(All prices are net prices)

### Scope of supply

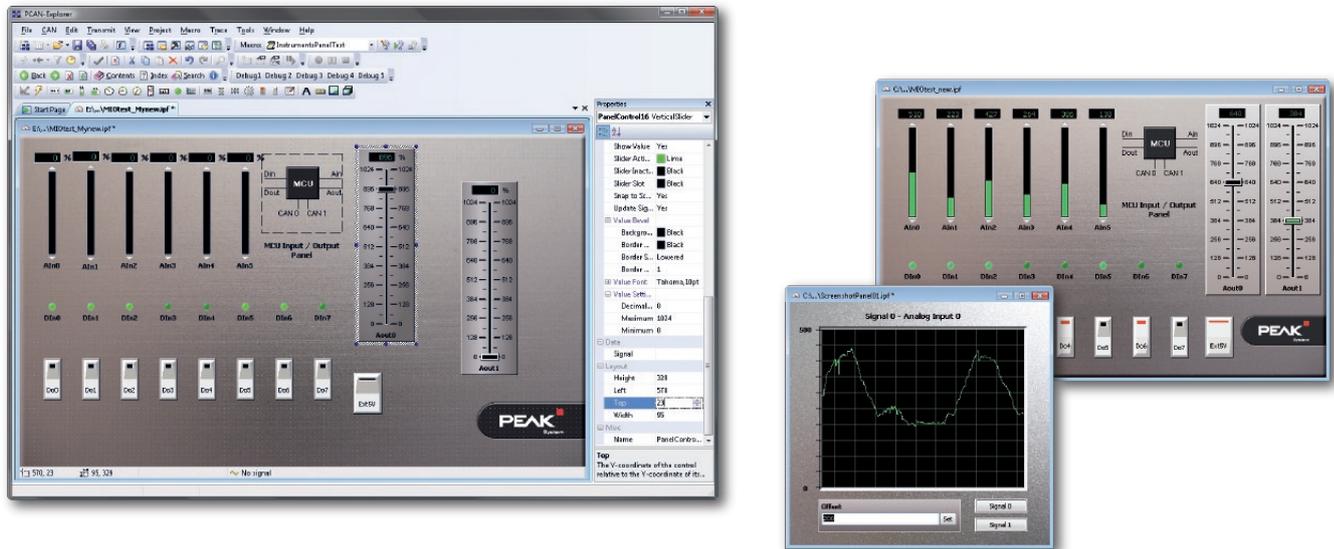
- CANdb Import Add-in software
- Documentation in HTML help format

### System requirements:

PCAN-Explorer from version 5  
Windows Vista/XP/2000  
at least 512 MB RAM - from 1 GHz CPU

# PCAN-Explorer Add-ins

Optional function upgrades for PCAN-Explorer

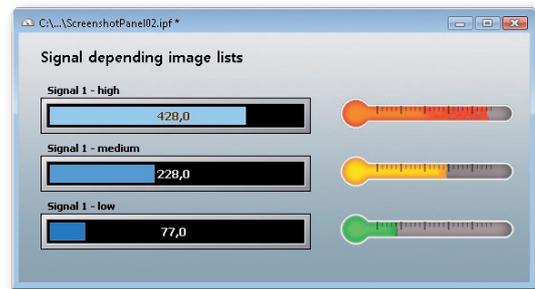


## Instruments Panel Add-in 3

The Instruments Panel Add-in allows the graphic representation of digital and analog signals using different display instruments. The integrated enter options and controllers mean that signals can also be produced on the CAN-bus, allowing easy simulation of complex CAN applications.

### Features

- \_\_\_ Representation of analog and digital signals from received CAN messages using different display instruments
- \_\_\_ In addition to potentiometers, switches, and sliding controllers input fields can be used to generate CAN messages
- \_\_\_ Selection and configuration of multiple elements at the same time
- \_\_\_ Extensive configuration of the properties of one or more elements using the new Property Window
- \_\_\_ The new Instruments Panel object model enables complete automation using COM and scripts
- \_\_\_ Representation of different scenes on the same panel during running time
- \_\_\_ Signal-dependent display of image lists and scenes
- \_\_\_ Free positioning of the instruments using drag & drop, or numerical inputs for spot-on positioning



- \_\_\_ Loading and storing of complete panel configurations

### Ordering information

Designation	Art. No.	Price [€]
Instruments Panel Add-in 3	IPES-005088	150,00

(All prices are net prices)

### Scope of supply

- \_\_\_ Instruments Panel Add-in software
- \_\_\_ Documentation in HTML help format

### System requirements:

PCAN-Explorer from version 5  
 Windows Vista/XP/2000  
 at least 512 MB RAM - from 1 GHz CPU

# Accessories . . .

Cables

Adapters

- └ Helpful CAN accessories
- └ Ideal for test layouts and small batch runs
- └ Special CAN cables supplied
- └ Special manufacture possible at any time

# Accessories

Accessories

# Adapters

## Test interface for PC/104 and PC/104-Plus cards

Using this adapter you can also plug in and operate PC/104 cards in PCs with ISA slots and PC/104-Plus cards in PCs with PCI slots. You can also use the adapter to operate multiple PC/104 or PC/104-Plus cards by plugging them in one above the other.

With the PC/104-ISA adapter, you can use terminal screws to tap into the various supply voltages (+5 V, -5 V, +12 V, -12 V) on the card. Four control LEDs show the relevant status. The contacts for the multipoint connector on the PC/104 bus are also fed out on the underside of the motherboard.

The PC/104-Plus adapter has slots for 0-Ohm resistances, which you can use to influence the duration of the signals.



### ISA-PC/104 adapter

#### Specifications

- Two-layer motherboard with gold plated ISA contacts
- PC voltages may be tapped into using screw terminals
- LED status display
- PC/104 contacts fed out on underside

### PCI-PC/104-Plus adapter

#### Specifications

- Two-layer motherboard with gold plated PCI contacts

### Ordering information

Designation	Art. No.	Price [€]
ISA-PC/104 adapter	IPEH-002078	100,00
PCI-PC/104-Plus adapter	IPEH-003028-XL	100,00

(All prices are net prices)

#### Scope of supply

- ISA-PC/104 adapter

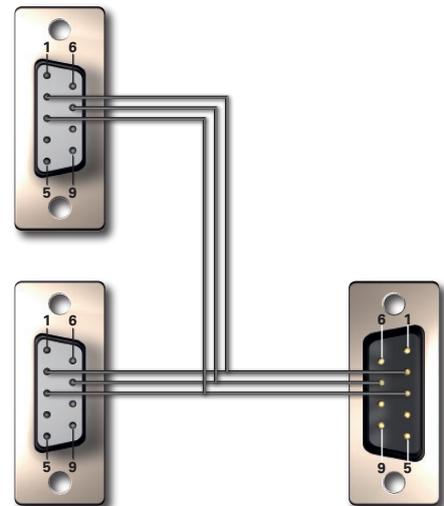
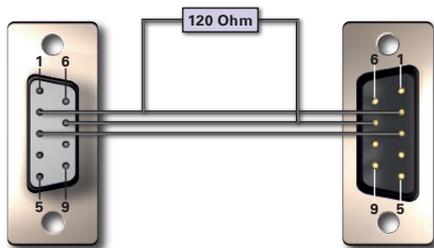
#### Scope of supply

- PCI-PC/104-Plus adapter

# Adapters

## CAN termination adapter & T-adapter CAN tapping switch

The PCAN term adapter terminates a high-speed CAN bus (ISO 11898-2) at one end. It is used if a CAN hub is connected without internal termination or no CAN hub is connected.



The PCAN-T adapter creates a branch connection to the data cables and the earth within a CAN bus in order to be able to connect a CAN hub. In this case, the CAN hub is not terminated.

### PCAN-Term Specifications

- 9-pin D-Sub socket to 9-pin D-Sub connector (to CiA DS102-1)
- with 120 Ohm termination resistor

### PCAN-T-Adapter Specifications

- 9-pin D-Sub socket to 9-pin D-Sub connector and D-Sub socket (to CiA DS102-1)
- Unterminated

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Term	IPEK-003002	10,00
PCAN-T-Adapter	IPEK-003003	20,00

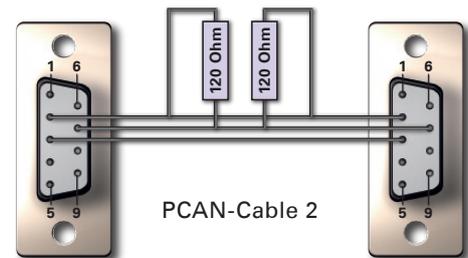
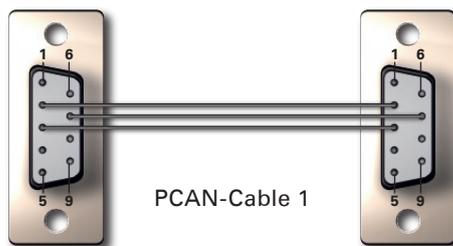
(All prices are net prices)

Special cable makeup on request

# PCAN-Cable 1 & 2

## CAN connection cable

These cables are needed to set up a CAN bus and are specially designed to be used in a CAN environment. If two high-speed CAN hubs need a simple direct connection between them, the PCAN cable 2 with integrated termination can be used. The PCAN cable 2 is suitable for putting together a CAN bus which is to contain branch connections and separate termination (PCAN-T adapter and PCAN-Term products).



### Specifications

- 9-pin D-Sub sockets (to CiA DS102-1) at both ends
- Length 2.0 m
- Shield connect to GND
- PCAN-Cable 1 without termination resistors
- PCAN-Cable 2 with 120 Ohm termination resistors

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Cable 1	IPEK-003000	15,00
PCAN-Cable 2	IPEK-003001	18,00

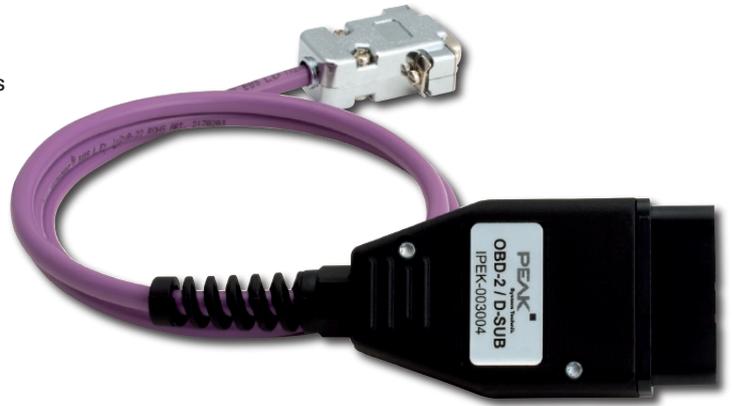
(All prices are net prices)

Other lengths on request

# PCAN-Cable OBD-2

## CAN-OBD-2 diagnostics cable

Many modern motor vehicles have an OBD-2 interface for connecting various diagnostics and testing tools. This adapter cable can be used to access the CAN lines included.



### Specifications

- 9-pin D-Sub socket (to CiA DS102-1)
- OBD-2 connector – assigned for CAN only on:
  - Pin 6: CAN High (J-2284)
  - Pin 14: CAN Low (J-2284)
- Length 1.0 m
- Without termination resistors
- All ODB-2 pins are mounted in the plug and can be assigned as desired

### Ordering information

Designation	Art. No.	Price [€]
PCAN-Cable OBD-2	IPEK-003004	35,00

(All prices are net prices)

Other lengths on request



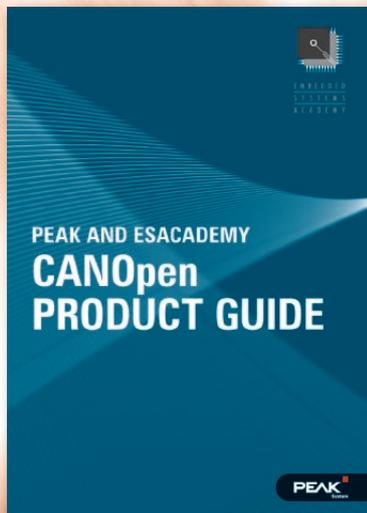
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**www.peak-system.com**,  
section Contact-Distributors

Additional products for the CANopen sector are  
listed in our CANopen catalog and on our  
homepage: **www.peak-system.com**



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