

PEAK-System Technik

New products for 2010 / 2011

Hardware

Software

Accessories

PCAN-PCI/104-Express

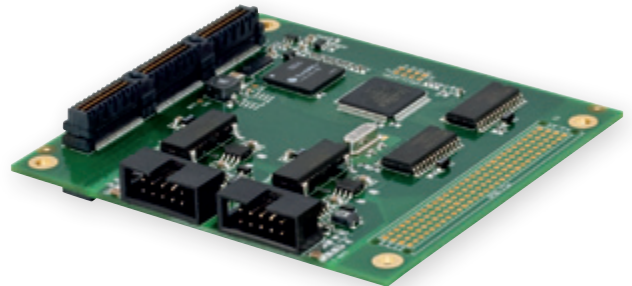
PCI/104-Express to CAN Interface

The PCAN-PCI/104-Express card allows the connection of two CAN networks to a PCI/104-Express-System. Up to three cards can be stacked together. The CAN bus is connected using a 9-pin D-Sub plug on the slot bracket 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-Basic.

Availability scheduled for Q2 2010




Specifications

- PCI/104-Express card, 1 lane (x1)
- Form factor PC/104
- Up to 3 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)
- CAN bus connection via D-Sub, 9-pin (in accordance with CiA® 102)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- NXP PCA82C251 CAN transceiver
- 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
- PCI-104 stack-through connector

- PCI-Express-PCIe/104 Adapter** to fit and operate PCI/104-Express cards in PCs with PCI Express slots.

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

Scope of supply

- PCAN-PCI/104-Express card
- Slot bracket with D-Sub connectors for the CAN bus
- Device drivers for Windows® 7/Vista/XP/Linux (32/64-bit)
- Device driver for Windows® CE 6.x (x86 and ARMv4 processor support)
- PCAN-View CAN monitor for Windows® 7/Vista/XP (32/64-bit)
- PCAN-Basic programming interface consisting of an interface DLL, examples, and header files for all common programming languages
- Manual in PDF format

PCAN-ExpressCard

ExpressCard to CAN Interface

The PCAN-ExpressCard provides a connection between a CAN bus and a laptop or desktop PC with an ExpressCard slot.

The card is available in single and dual channel versions. There are also galvanically separated versions which guarantee galvanic separation up to a maximum of 300 Volts between the PC and CAN sides.

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

Availability scheduled for Q2 2010




Specifications

- Slot-in card for the ExpressCard slot
- Form factor ExpressCard/54
- 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 (in accordance with CiA® 102)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- NXP PCA82C251 CAN transceiver
- Software option to switch a 5-Volts supply to the CAN connection, e.g. for external transceiver

Optionally available:

- Galvanic isolation on the CAN connection up to 300 V, separate for each CAN channel
- Also available as a dual 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

Scope of supply

- PCAN-ExpressCard CAN interface
- Device drivers for Windows® 7/Vista/XP (32/64-bit)
- PCAN-View CAN monitor for Windows® 7/Vista/XP (32/64-bit)
- PCAN-Basic programming interface consisting of an interface DLL, examples, and header files for all common programming languages
- CAN Linux driver available as of the third quarter of 2010
- Manual in PDF format

PCAN-GPRS Link

Platform for Telematic Applications

PCAN-GPRS Link is a hardware and firmware platform for the recording and forwarding of vehicle data. There are two freely programmable microcontrollers within the unit which process internal vehicle data.

The PCAN-GPRS Link is provided as a development platform for telematic applications. An API allows simple integration within a specific application environment. The PCAN-GPRS Link supports the evaluation of FMS and Bus FMS data (Fleet Management System). This produces consumption-related vehicle data. The DTCO info interface also allows the connection and processing of a digital tachograph with access to information such as driver identification and driver working time. The GPS module can be used to determine location and output the direction of travel. There is an optional expansion to allow any volume of additional data to be processed, output and recorded. These include temperature and movement sensors, barcode scanners, RFID readers, displays and WiFi or Bluetooth connections.

Availability scheduled for Q2 2010



Specifications

- Dualcore ARM7 (core) and ARM9 (GPRS) system
- Recording of all data to internal flash memory (maximum 2 GB)
- Operating voltage: 6 – 32 V DC
- Extended temperature range of -40 to +85 °C
- U-blox 5 GPS module with 50 channels and over 1 million correlators. Position accuracy 2.5 m CEP at -130 dBm
- Data transfer via GPRS or CSD
- Wavecom GPRS class 10 quad-band modem
- Handling of DTCO and FMS data
- Handling of OBD-2 data via CAN (complete PID support not ensured)
- CiA® 447 and J1939 protocol support on request
- Firmware update over the air
- Two High-speed CAN channels (ISO 11898-2) with transfer rates of 40 kbit/s to 1 Mbit/s.
- Two digital inputs and one digital output
- One UART V.24

Scope of supply

- PCAN-GPRS Link
- Tyco mating connector including crimp contacts
- Manual in PDF format

Development kit available on request

PCAN-Diag

Handheld CAN Bus Diagnostics Unit

PCAN-Diag is a handheld diagnostics unit with a wide range of functions to allow investigation of a CAN bus, such as detection of the CAN transfer rate, bus load measurement, and termination measurement. As well as receiving CAN messages, it can transmit either individual messages or entire sequences of them.

The built-in 2-channel oscilloscope allows CAN signals to be displayed. The trigger can be set to frame start or frame end. An explicit trigger frame can also be defined. The CAN frames are decoded based on the analog curve, for example, to detect errors in the frame. In order to allow clear, simple allocation, the CAN messages can be displayed based on a CAN definition file. Output is through a colour display with OLED technology which allows excellent readability even when there is strong ambient light. The individual diagnostics functions can be selected and operated using a rotating push-button. As an alternative to High-speed CAN, the replaceable CAN transceiver module allows a connection to a Low-speed or Single-wire CAN.

Availability scheduled for Q2 2010

Specifications

- ___ High-speed-CAN ISO 11898-2, CAN transceiver module available on request for Low-speed CAN ISO 11898-3 or Single-wire CAN SAE J2411
- ___ CAN connection is D-Sub 9-pin
- ___ OLED display with 320 x 240 pixel resolution
- ___ Power supply via batteries (4 x 1.5 V AA) or using supply unit provided (low-voltage socket on unit)

Overview of functions

- ___ Transmitting individual CAN frames or CAN frame lists
- ___ Symbolic representation of received messages by means of CAN definition files
- ___ Setup of CAN definition files using Windows configuration software. Transfer of data via CAN (PCAN series CAN interface required)
- ___ Measurement of CAN bus load, displayed by means of time diagram
- ___ Measurement of CAN termination for High-speed CAN bus, even while system is running.



- ___ Switchable CAN termination for the connected bus
- ___ Measurement of voltage level of all pins for CAN connection sockets (D-Sub)

Oscilloscope function

- ___ 2-channel oscilloscope with a sample rate of max. 20 MHz per channel.
- ___ Decoding CAN frames from the sample data recorded
- ___ Depiction of raw CAN frames
- ___ Extensive zoom functions
- ___ Triggers can be configured to frame start and frame end
- ___ CAN frames can be used as triggers

Scope of supply

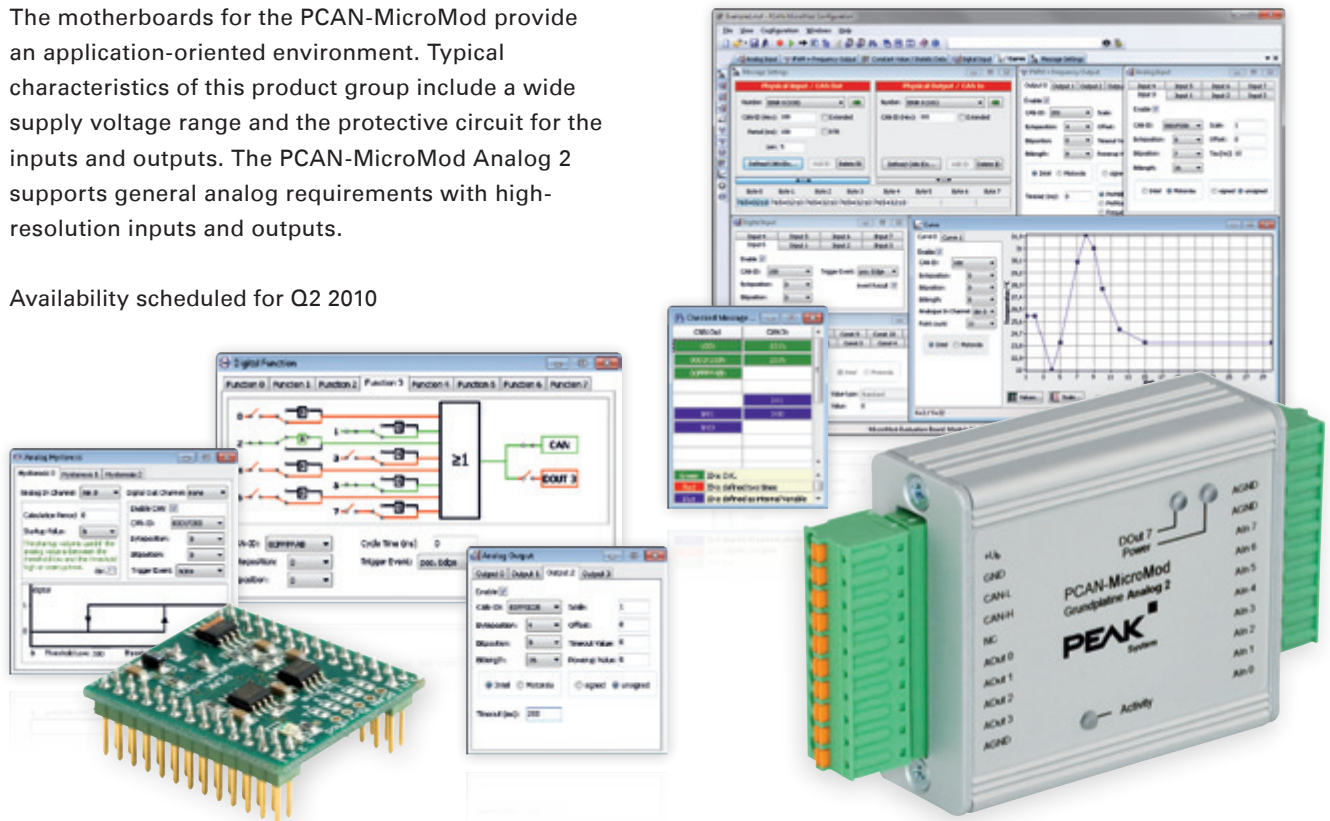
- ___ PCAN-Diag delivered in shockproof plastic box
- ___ PPCAN-Editor configuration software for Windows® 7/Vista/XP (32-bit)
- ___ Batteries (4 x 1.5 V AA), power supply unit, DC connection socket, and manual in PDF format

PCAN-MicroMod Analog 2

Application-specific PCAN-MicroMod Motherboards

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. The PCAN-MicroMod Analog 2 supports general analog requirements with high-resolution inputs and outputs.

Availability scheduled for Q2 2010



Specifications

- Completely configurable using the Windows software PCAN-MicroMod Configuration
- Software low pass filter can be adjusted by means of configuration (1 - 1000 ms)
- Communication through High-speed CAN
- Operating voltage: 11 - 30 V
- Aluminum casing with spring terminal connectors. Optional DIN rail fixing option available

8 analog inputs with the following properties:

- Bipolar measurement range, high-resolution +/-10 V (16-bit)
- Protection against under- and overvoltages

4 analog outputs with the following properties:

- Voltage range 0 - 10 V (based on 12-bit DAC)
- Output current 20 mA per channel
- Short-circuit protection

Scope of supply

- PCAN-MicroMod
- PCAN-MicroMod motherboard including mating connectors
- PCAN-MicroMod Configuration software for Windows® 7/Vista/XP (32-bit)
- Manual in PDF format

Configuration options in the PCAN-MicroMod Configuration software supplied:

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

PCAN-Router Pro

4-Channel CAN Router with Data Logger

The PCAN-Router Pro allows the data traffic from up to four High-speed CAN buses to be connected together.

As well as pure forwarding, the CAN data can be processed, manipulated and, for example, filtered in a number of different ways. To do this, the behaviour of the PCAN-Router Pro can be freely configured using comprehensive Windows software. There are a variety of function blocks and other settings available to the user to allow this kind of configuration to be set up. At the same time, there is a virtual fifth CAN channel which is responsible for recording all the data traffic to a CompactFlash card.

Added to this, the modular bus structure allows flexible adaptation of the CAN channels to the relevant requirements. For example, Low-speed and Single-wire CAN transceivers are also available on request.

Availability scheduled for Q2 2010



Specifications

- 4 High-speed CAN channels by means of plug-on transceiver modules, with alternative Low-speed, Single-wire and opto-decoupled High-speed modules available
- CAN connections are D-Sub 9-pin
- Configuration using PPCAN-Editor Windows software via the CAN bus (PCAN series CAN interface required)
- Various function blocks for data processing and manipulation
- Configurable acoustic signal transmitter
- CAN data recorded to a CompactFlash card
- Conversion of logging data to various output formats using Windows software
- Wake-up function using separate input or CAN bus
- Battery buffered realtime clock (RTC), can also be used for wake-up
- 8 - 30 V power supply, protection against overvoltage and reverse polarity
- Aluminum casing available with flange or optional DIN rail fitting
- Customer-specific firmware available on request

Scope of supply

- PCAN-Router Pro including power supply connector
- PPCAN-Editor configuration software for Windows® 7/Vista/XP (32-bit)
- Conversion software for Windows® 7/Vista/XP (32-bit)
- 1 GB industrial CompactFlash card (2 GB industrial Compact-Flash card available for an additional charge)
- Manual in PDF format

Customization on request

PCAN-USB Pro

High-speed USB 2.0 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 mobile applications.

The PCAN-View and PLIN-View Pro monitor applications supplied and the PCAN-Basic and PLIN programming interfaces round off the range.



Specifications


- ___ Transmitting 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 μ s

CAN operation properties:

- ___ Transfer rates up to 1 Mbit/s
- ___ Fulfills CAN specifications 2.0A and 2.0B
- ___ Each CAN channel is separately opto-decoupled against USB and LIN
- ___ Measurement of bus load including error frames and overload frames (with new PCAN-View version)
- ___ Induced error generation for incoming and outgoing CAN messages (with new PCAN-View version)

LIN operation properties:

- ___ Transfer rates of 1 – 20 kbit/s
- ___ Both LIN channels (common Ground) are opto-decoupled against USB and CAN
- ___ Can be used as a LIN master or slave (1 ms master task resolution)
- ___ Automatic baud rate, frame length, and checksum type recognition (with PLIN-View Pro or PLIN-API)
- ___ Autonomous scheduler with support for unconditional, event, and sporadic frames (with PLIN-View Pro or PLIN-API)
- ___ Hardware can work through a schedule table (up to 8 schedule tables can be configured with a total of 256 slots) (with PLIN-View Pro or PLIN-API)

D-Sub	Pin	Pin assignment
	1	+5V
	2	CAN-L
	3	CAN-GND
	4	LIN
	5	LIN-GND
	6	LIN-GND
	7	CAN-H
	8	Not connected
	9	V _{BAT}

Scope of supply

- ___ PCAN-USB Pro in an aluminum casing
- ___ Device drivers for Windows® 7/Vista/XP (32-bit)
- ___ PCAN-View CAN monitor for Windows® 7/Vista/XP (32/64-bit) (New version scheduled for Q2 2010)
- ___ PLIN-View Pro LIN monitor for Windows® 7/Vista/XP (32-bit) (Availability scheduled for Q2 2010)
- ___ PCAN-Basic programming interface consisting of an interface DLL, examples, and header files for all common programming languages
- ___ PLIN-API programming interface consisting of an interface DLL, an example, and header files for all common programming languages
- ___ CAN Linux driver available as of the third quarter of 2010
- ___ Manual in PDF format

PCAN-View & PLIN-View Pro

Windows® Software for Monitoring CAN & LIN 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 transmitted 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 transmitted manually and periodically. Bus system errors and memory overflows in the CAN hardware being controlled are displayed. The current version of PCAN-View can be found on the installation CD for our PC hardware and on the Internet as a free download.

Features

- Transfer rates up to 1 Mbit/s
- Transmission of CAN messages with a resolution of 10 ms and reception at 1 ms
- Recording CAN messages in trace files
- Arbitrary CAN messages can be compiled to transmit lists, saved and reloaded
- 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

System requirements

- Windows® 7/Vista/XP (32/64-bit)
- At least 512 MB RAM and 1 GHz CPU

Note: ISA, parallel port, and PC Card CAN interfaces only support 32-bit

The PCAN-USB Pro is supplied with the LIN monitor PLIN-View Pro for Windows. Incoming LIN messages can be viewed using this software, with the use of LDF files (LIN Description File) allowing the symbolic depiction of LIN messages. Outgoing LIN frames can be defined depending on the master or slave operation mode. PLIN-View Pro also accesses the LIN functionality of the PCAN-USB Pro hardware, such as the on-board scheduler or automatic transfer rate detection. The current version of PLIN-View Pro can be found on the PCAN-USB Pro installation CD and on the Internet as a free download.

Availability scheduled for Q2 2010

Features

- Display of incoming LIN frames
- Symbolic display of LIN messages (LDF files)
- Master or Slave mode
- Administration and processing of schedule tables
- Recording of LIN frames (trace)

The PCAN-USB Pro is also supplied with the PLIN-API by PEAK-System. It allows the development of own LIN applications or communication with the PCAN-USB Pro. The simple PLIN-View LIN monitor is provided with this API as an example.

Note: PLIN-View Pro and the PLIN-API are designed exclusively to be used with the PCAN-USB Pro.

System requirements

- Windows® 7/Vista/XP (32-bit)
- Microsoft .NET Framework 2.0
- At least 512 MB RAM and 1 GHz CPU

PCAN-Basic

CAN Software API for Windows

The small version of PCAN-API from PCAN-Developer or PCAN-Evaluation package is the free PCAN-Basic API (Application Programming Interface). It allows the development of simple CAN applications for communication with our PCAN PC hardware. The API consists of the actual device driver and an interface DLL, which provides the API functions.

As the successor to PCAN-Light, PCAN-Basic offers increased functionality and extended language support. It provides various functions for developers under C++, C#, C++/CLR, Delphi, VB.NET, Java, and Python 2.6.

Features

- ___ Supports Windows® 7/Vista/XP (32/64-bit) and Windows® CE 6.x operating systems (Note: ISA, parallel port, and PC Card CAN interfaces only support 32-bit)
- ___ Multiple PEAK-System applications and your own can be operated on a physical CAN channel at the same time
- ___ Use of a single DLL for all supported hardware types
- ___ Use of up to 8 channels for each hardware unit (depending on the PEAK CAN interface used)
- ___ Simple switching between channels of a PCAN PC hardware
- ___ Driver-internal buffering of 32,768 messages per CAN channel
- ___ Real-time precision of messages received of down to 1 µs
- ___ Access to some hardware parameters, such as listen-only mode
- ___ Notification through Windows Events when a message is received
- ___ Extended system for debugging operations
- ___ Language support for German, English, French, Spanish, and Italian
- ___ Output language depends on operating system
- ___ Debugging information can be defined individually

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



PCAN-Basic for Windows CE

PEAK-System provides PCAN-Basic API to allow the development of your own CAN applications for Windows CE 6.x. Programmers can also use the languages C++, C# and VB.NET.

Scope of supply

- ___ Interface DLL, examples, and header files for all common programming languages
- ___ Documentation in HTML Help format

System requirements

- ___ Windows® 7/Vista/XP (32/64-bit) or Windows® CE 6.x
- ___ At least 512 MB RAM and 1 GHz CPU

SBS & PLIN-Slave

Products for Education, Demonstrations and Test Structures



The Serial Bus Simulator (SBS) generates data traffic on the CAN, LIN, V24, I²C and SPI bus systems to validate hardware and display the relevant protocol structures.

SBS could be used, for example, in measurement technology for protocol analysis or for educational purposes for demonstrating digital message transfer.

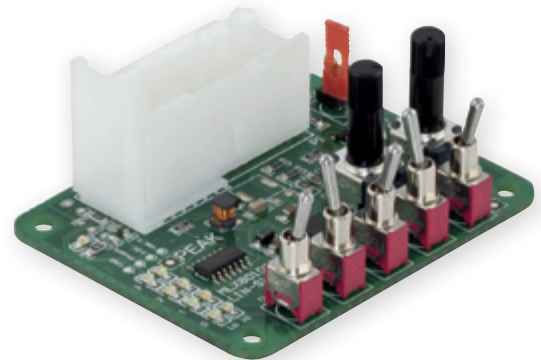
Specifications

- Switchable data frame transmission
- Systematic generation of faulty data frames
- Generation of variable analog voltage for display purposes (e.g. trigger)
- Transfer at two different transfer rates per bus system
- Special connection strip for oscilloscope scanner heads
- 4 mm lab socket for ground connection
- Ergonomic console casing
- USB voltage supply

Scope of supply

- Serial Bus Simulator with 1.5 m USB cable
- Manual in PDF format

Customer-specific models on request.



The PLIN-Slave is an evaluation board with an interface for a LIN 2.0 bus. The device also has comprehensive I/O functionality which is accessible through control and display elements.

The device is used in development and education, for example, for testing purposes or as a teaching aid for handling the LIN protocol.

Specifications

- 1 LIN bus (v2.0), 19200 Baud
- Based on Melexis MLX80103
- 5 digital inputs (low-active)
- 3 analog inputs (up to 18 V)
- 4 digital outputs (low-active), 500 mA each
- 4 digital outputs (high-active), 500 mA each
- Supply voltage: 7 - 18 V
- Temperature range: -40 - +85 °C

Optionally available:

- PLIN-Slave in robust plastic casing (no controls)

Scope of supply

- PLIN-Slave including mating connectors
- Manual in PDF format

Customer-specific models on request.

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PEAK-System Technik GmbH

Otto-Röhm-Str. 69
64293 Darmstadt
Germany

Phone: + 49 6151 8173-20
Fax: + 49 6151 8173-29
Email: info@peak-system.com

www.peak-system.com