



USB/CAN Interface CPC-USB/embedded

Special Features

- Powerful Cortex M3 microcontroller with internal CAN controller
- Extended temperature range
- Supports CAN protocols 2.0A and 2.0B
- Supply over USB
- Galvanic isolation
- Firmware flashable over USB
- Development kits for Windows 2000/XP/Vista/7/8.x and Linux available
- Linux socketCAN is supported

Description

CPC-USB/embedded is a CAN interface for internal USB ports. Due to its compact size it is eminently suitable for applications in embedded PCs. It is installed directly at a SUB-D9 case opening or a slot panel and wired with the included cable to a pin connector of an internal USB interface of the mainboard.

The interface is equipped with a Cortex M3 microcontroller providing onChip CAN and USB controllers. By combining the powerful CPU with internal peripherals low latencies can be achieved. The interface is powered via USB, a separate supply for the CAN side is not needed. CPC-USB/embedded provides galvanic decoupling between CAN and USB and has an extended operating temperature range. It supports 11-Bit and 29-Bit CAN identifiers.

Application development kits for the operating systems Windows and Linux are offered additionally. Linux socketCAN is supported as well.

Technical Data

Layout and Connection

CPC-USB/embedded includes a CAN segment connected by a male plug of type D-Sub 9, the pin assignment is complying to CiA DS-102 standard. In addition, the interface includes a USB connector that also carries the supply for CPC-USB/embedded.

The following table shows the assignment of the CAN connector:

Pin	Name	Function
2	CAN_L	CAN data line (dominant low)
3	GND	Ground
7	CAN_H	CAN data line (dominant high)

Limiting Values

Parameter	Minimal	Maximal	Unit
Storage temperature	-40	+80	°C
Operating temperature	-30	+70	°C
Supply voltage	0	+6	V
Voltage on bus connections	-30	+30	V

Any (also temporary) stress in excess of the limiting values may cause permanent damage on CPC-USB/embedded and other connected devices. Exposure to limiting conditions for extended periods may affect the reliability and shorten the life cycle of the device.

Nominal Values

Parameter	Minimal	Typical	Maximal	Unit
Current consumption	-	100	500	mA
Supply voltage	4,0	5,0	5,5	V

All values, unless otherwise specified, refer to a supply voltage of 5V and an environmental temperature of 20°C.

Scope of Delivery

- CAN Interface CPC-USB/embedded
- USB Connection Cable
- User Manual
- proCANtool CAN-Monitor for operating systems Windows 2000/XP/Vista/7/8.x