

CAN-Interface CPC-PCI/PCle

Highlights

- passive CAN interface for PCI- and for PCIe slots
- one or two CAN controller NXP SJA1000
- optional galvanic separation of the CAN channels
- optional separate power supply of the CAN channels with integrated DC/DC converter
- supports 11 bit frames and 29 bit frames
- development kit for Windows™ and LINUX™ available

Description

The CAN interface boards CPC-PCI and CPC-PCIexpress were designed for industrial series and has a robust and cost efficient construction. CPC-PCI/PCle supports either one or two CAN channels that can be operated independantly with different data rates. The interface comes with the NXP CAN controller chip SJA1000, that offers good diagnostic attributes.

CPC-PCI/PCle maps the CAN controller(s) directly in the address space of the PC and allows access of the CAN messages with low latencies. Existing software for the supported CAN controller can easily be adapted. The CAN communication both with CPC-PCI and with CPC-PCle may be handled either in interrupt controlled mode or in polled mode, interrupt channels are assigned automatically.

Optionally, both CAN interfaces CPC-PCI and CPC-PCle are available with galvanic separation between PC and CAN bus. A galvanic separation between the CAN channels is also possible by separate DC/DC converters.

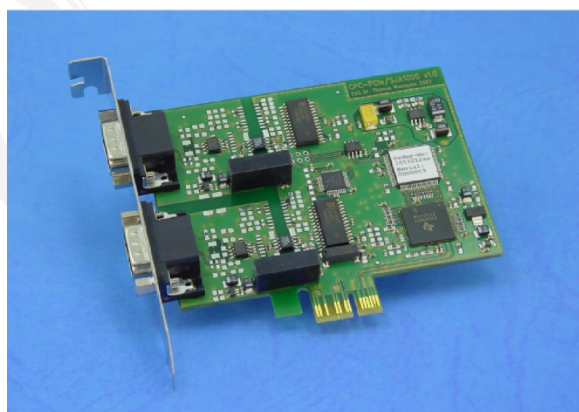
Technical Data

Bus Interface

Pin assignment	Connector DSub 9 complying to CiA DS-102
Type of the phy. connection	ISO 11898 Transceiver PCA82C251
Maximum voltage on bus pins	±30V referring to bus ground
Isolation voltage with galvanic separation	±1000V



picture 1 CPC-PCI Interface



picture 2 CPC-PCIexpress Interface

Programming Interface

Configuration and CAN communication with CPC-PCI and with CPC-PCle are done by accesses to the memory address area of the PC. The appropriate data areas are mapped by CPC-PCI/PCle and "plug & play" software into the memory address space.

The memory used by CPC-PCI/PCle is divided in several sections. The control registers allow the detection of the interface type similar to the interfaces CPC-Card, CPC-XT and CPC-104 and the generation of interrupts for each CAN controller separately. The access to the CAN controllers occurs via a separate memory space for each interface. In these memory spaces, the sending and receiving buffers as well as the control registers of the CAN controllers are accessible.

Scope of Delivery

- Plug in board CPC-PCI/PCIE
- manual
- Sample code
- CPC-drivers for Windows™2000,XP,Vista
LINUX™

Ordering Information

0665/01	CPC-PCI/SJA1000S-GTIS 1-channel
0665/02	CPC-PCI/SJA1000D-GTID 2-channels
0669/01	CPC-PCIE/SJA1000S-GTIS 1-channel
0669/02	CPC-PCIE/SJA1000D-GTID 2-channels
0690/10	CPC-Serie Development Kit/Windows™
0690/20	CPC-Serie Development Kit/LINUX™

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- CAN and CAN-based protocols: CANopen, J1939, DeviceNet
- Industrial Ethernet Protocols: POWERLINK, EtherNet/IP, EtherCAT
- Implementation of devices according to CANopen device profiles
- VHDL based solutions for industrial applications
- application specific implementations or enhancements
- embedded LINUX projects

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