



CAN Plug-In Board CPC–XT

Special Features

- Passive CAN interface for ISA slots
- CAN controller NXP SJA1000 or Intel AN82527
- Galvanic separation, power supply through integrated DC/DC converter
- Support for 11 bit frames and 29 bit frames
- Development kits for SJA1000 equipped version for Windows 2000/XP and Linux available

Description

CPC–XT is a short plug-in board for the CAN bus. Due to the possibility of application in 8 bit slots and the compact structure CPC–XT can also be used in space restricted conditions. CPC–XT was designed for industrial series application and has a robust a cost efficient construction. CPC–XT supports different types of CAN controllers, the full CAN controller Intel AN82527 as well as the basic CAN controller NXP SJA1000.

CPC–XT maps the CAN controller registers directly into the PC address space and thus allows access to CAN messages with low latency. Existing software for the supported CAN controllers can easily be adapted. The CAN communication with CPC–XT may be handled either in interrupt controlled mode or in polled mode, interrupt channels 3 – 7 are available.

CPC–XT can optionally be delivered with galvanic separation to the CAN bus. In this case the power supply for the transceiver runs across the CAN bus (option GTB) or a DC/DC converter (option GTI).

Technical Data

Bus Interface

Pin assignment	Connector D-Sub 9 complying to CiA DS-102
Type of the physical connection	ISO 11898 / Transceiver PCA82C251
Maximum voltage on bus pins	±30V referring to bus ground
Isolation voltage with galvanic separation	±500V

Configuration

The configuration of the address space and the interrupt channel is done by jumpers:

Resource	Parameter
Base address in PC memory	1 kByte in the range C0000h –FFFFh, adjustable in steps of 1kByte
PC Interrupt channel	One interrupt within range 3 – 7

Programming Interface

CPC–XT is mapped into the memory space of the PC with a base address in the area from C0000h to DE000h and occupies 512 bytes. Through the availability of the CAN controller in the memory address space the CAN communication takes place directly and with low latency time.

The memory occupied by CPC–XT is divided into two subranges. The first subrange encloses the configuration registers of the card and begins at the base address. The second subrange allows the access to the CAN controller and has 100h bytes offset to the base address.

Scope of Delivery

- Plug in board CPC–XT
- User Manual
- Sample application for MS-DOS
- proCANtool CAN-Monitor for operating systems Windows 2000/XP