



PC/104 CAN-Interface CPC-104M

Special Features

- Passive CAN interface for PC/104 systems
- 1, 2 or 4 CAN channels, equipped with CAN controller NXP SJA1000
- Optional galvanic separation of CAN controller to host system
- Optional galvanic separation between CAN channels
- Development kits for Windows 2000/XP/Vista/7 and Linux available
- Extended temperature range

Description

CPC-104M is a passive CAN interface module for PC/104 based systems. Designed for industrial series applications CPC-104M has a robust and cost efficient construction. CPC-104M supports up to four NXP SJA1000 CAN controllers.

CPC-104M maps the CAN controller into the PC address space and thus allows access to CAN messages with low latency. Existing software for the supported CAN controller can easily be adapted. For the operating systems Windows and Linux software development kits with identical API are available.

CPC-104M can optionally be delivered with galvanic decoupling to the CAN bus. In this case power for the DC/DC converter is derived from the +5V PC/104 line.

CPC-104M is available in different configurations regarding CAN channel count and galvanic decoupling.

Technical Data

Bus Interface

Pin assignment	Connector DSub 9, complying to CiA DS-102
Type of the physical connection	ISO 11898 / Transceiver PCA82C251

Limiting Values

Parameter	Minimal	Maximal	Unit
Voltage on bus connections	-30	+30	V
Isolation voltage with galvanic separation	-500	+500	V
Operating temperature	-40	+85	°C

Any (also temporary) stress in excess of the limiting values may cause permanent damage on CPC-104M and other connected devices. Exposure to limiting conditions for extended periods may affect the reliability and shorten the life cycle of the device.

Configuration

The configuration of the used address space and interrupt is done by jumper settings.

Resource	Parameter
Base address	1536 Bytes in the range of 0C0000h - 0DFFFFh, adjustable in steps of 1 kByte
Interrupt	One interrupt within the range of 3-7, 10-12, 14-15

Programming Interface

CPC-104M is mapped into the memory space of the PC with a base address in the area of C0000h to DE000h and occupies 1536 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-104M is divided into two subranges. The first subrange encloses the configuration registers of the card and begins with the base address. The second subrange allows the access to the CAN controller.

Scope of Delivery

- CAN Interface CPC-104M
- User Manual
- proCANtool CAN-Monitor for operating systems Windows 2000/XP/Vista/7