

# CAN



## Application Controller CAN-AC2-PCI

### APPLICATION

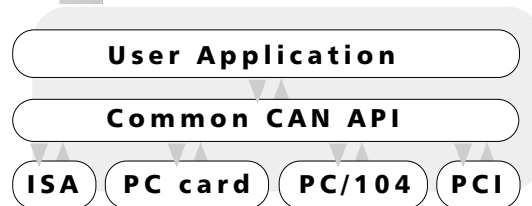
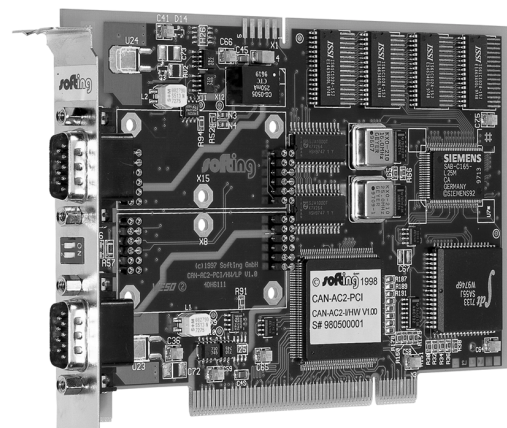
The CAN Application Controller CAN-AC2-PCI (Peripheral Component Interconnect), along with its powerful hardware and software interfaces, allows easy interfacing of PC applications to CAN-based networks. Thus, automation or measurement processes can be effectively controlled, operated and visualized. Furthermore, new PC architectures and the increasing displacement of ISA (Industry Standard Architecture) demand advanced PC plug-in boards such as CAN-AC2-PCI featuring PCI bus technology.

### HARDWARE PROFILE

Together with the 32-bit PCI bus and matching Plug&Play technology, CAN-AC2-PCI represents true, state-of-the-art technology. Because CAN-AC2-PCI is equipped with its own microcontroller, CAN data streams can be pre-processed and buffered, thereby relieving the PC significantly. As a result, the real-time requirements of PC applications can be reduced drastically. CAN-AC2-PCI offers access to two independent, opto-isolated CAN networks. Unconcealed, externally accessible DIP switches allow CAN bus terminators to be activated separately for each channel without having to open the PC.

### DRIVER SUPPORT

The 32-bit driver libraries for Windows 9x and NT facilitate easy integration of CAN accesses in PC-based applications. Moreover, sample programs are available for integration in numerous off-the-shelf applications.



### PROGRAMMING INTERFACE

Thanks to the Common CAN Application Programming Interface (API), CAN-AC2-PCI harmonizes excellently in the existing CAN product line. Therefore, migration to another hardware platform is possible at any time.

The Common CAN Application Programming Interface provides two operating modes:

#### ■ CAN object memory

- Exchange of CAN messages via an object buffer which reserves memory space for send and receive objects
- Static mode (11-bit identifiers, only channel 1) with 2048 send and 2048 receive objects
- Dynamic mode (11- and 29-bit identifiers) with 200 send and 200 receive objects per channel
- Allows remote-controlled and cyclic transmission with a minimum cycle time of 1ms

- Always holds a current image of the CAN distributed database, as applications for measurement and visualization frequently demand

## ■ FIFO operation

- Sequential storage of up to 255 send and receive messages
- De-coupling of CAN communication and PC application
- Message history containing time stamps with a resolution in microseconds

## TECHNICAL DATA

### Hardware

CAN interfaces      2 separate network interfaces according to CAN specification 2.0 B with CAN Controller SJA1000

Physical interfaces      2 CAN high-speed interfaces in accordance with ISO 11898 up to 1Mbit/s or customer-specific via piggyback, 2 D-sub 9-pin connectors according to the CiA (CAN in Automation) standard (at least 200 insertion cycles)

Electrical isolation      Opto-isolated physical CAN interfaces

Microcontroller      16-bit microcontroller SAB C165, 25 MHz

Code/data memory      256-Kbyte SRAM

PC interface      PCI interface with DPRAM

PC memory area for DPRAM      Automatically assigned

PC interrupt      Automatically assigned

Dimensions      Short PC plug-in board, 100 x 160 mm

Temperature range      Operation: 0...55 °C, Storage: -25...85 °C

EMC      ■ CE conformity according to EN 55022:1994, class B, and EN 50082-2:1995 (residential and industrial area)  
■ FCC part 15, subpart B, limit B (residential and industrial area)

### Software

CAN-AC2-PCI driver library      32-bit DLLs and drivers for Windows 9x or Windows NT

### System requirements

IBM-compatible PC with PCI interface V2.1 or higher

### Scope of delivery

- CAN-AC2-PCI hardware
- CAN-AC2-PCI 32-bit DLL for MS-Windows 9x
- MS-Windows 9x VxD driver
- CAN-AC2-PCI 32-bit DLL for MS-Windows NT (CAN-AC2-PCIN only)
- MS-Windows NT kernel mode driver (CAN-AC2-PCIN only)
- Sample software
- English user manual

On request, application examples showing how to link the programming interface in off-the-shelf applications

### Additional software (optional)

CANalyzer bus analysis software

### Ordering information

- CAN-AC2-PCI (with driver library for Windows 9x)
- CAN-AC2-PCIN (with driver library for Windows 9x and NT)

Please ask for more information and assistance



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