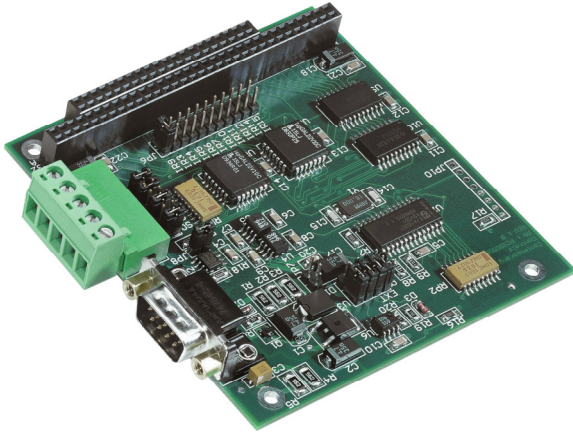


CAN Module for PC/104 Bus



- Interfaces CAN to PC/104-compatible computers
- Highly-featured Philips SJA1000 controller
- Compatible PCA82C200 mode (defaults to BasicCAN mode)
- Extended receive buffer (64-byte FIFO)
- CAN 2.0B protocol compatibility
- Supports both 11-bit and 29-bit identifiers
- 16 MHz clock frequency
- Drivers available for Windows® 98/ME/2000/XP, Linux and DOS
- Choice of either open-style screw terminals or DB-9 connector
- Data rates up to 1 Mbps
- CE Mark
- RoHS

PRODUCT OVERVIEW

To broaden the company's base in Controller Area Network (CAN) technology, the CAN104 adapter was introduced for 16-bit PC/104™ bus computers, supporting the newer SJA1000 controller. The adapter supports 8-bit transfers and takes advantage of the additional interrupts on the expanded bus.

The Philips SJA1000 CAN stand-alone controller chip provides new degrees of functionality for the CAN104 at a low cost. By not incorporating a co-processor, the CAN104 is a cost-effective and high-performance solution for automotive and industrial applications.

The SJA1000 keeps pace with the industry with its many capabilities — more than its predecessor, the older 82C200. It is backward compatible with the 82C200. The 82C200 is restricted to BasicCAN (11-bit identifiers) while the SJA1000 operates in either BasicCAN or PeliCAN which supports the CAN 2.0B specification (29-bit identifiers). The SJA maintains extended frame passivity while in the BasicCAN mode.

The controller chip is designed with a 16 MHz clock, a larger receive buffer and a better acceptance-filtering — including the ability to extend the acceptance mask to the data field. It has the ability to operate at data rates up to 1 Mbps.

The PeliCAN mode has these features: error counters with read/write access; programmable error warning limit; last error code register; error interrupt for each CAN-bus error; arbitration lost interrupt with detailed bit position; single-shot transmission (no retransmission); listen-only mode (no acknowledge, no active error flags); acceptance-filter extension (4-byte mask); and reception of "own" messages (self-reception request).

The CAN104 adapter incorporates the DeviceNet physical layer with optically-isolated transceiver, reverse-voltage and short-circuit protection. Field connectors include the DeviceNet 5-position open-style and DB-9 as defined by CAN in Automation (CiA).

Source code for our DOS driver, written in "C," is available to software developers by submitting an e-mail request to: techsupport@ccontrols.com.

This code supports the PeliCAN mode. To download an application called *CAN Talk* (similar to a chat program) for demonstrating how the drivers function under DOS or Windows, select the "*CAN Talk Utility*" link in the column below.

An open source LINUX driver for the CAN104 can be obtained at the following site:

http://home.wanadoo.nl/arnaud/supported_hardware.html.

Specifications

Environmental

Operating temperature	0°C to +60°C
Storage temperature	-40°C to +85°C

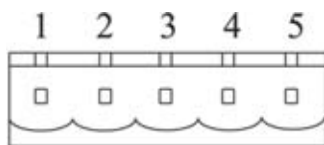
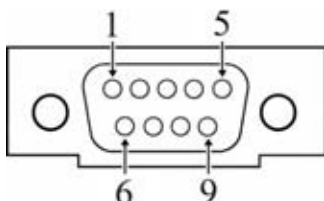
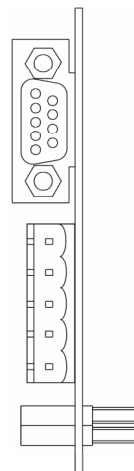
Power requirements

+5 V, 150 mA

Functionality

Data rate	Up to 1 Mbps
Dimensions	3.55" x 3.775" (90 mm x 95 mm)
Connectors	Male DB-9 and 5-position screw terminals are provided for CAN connection
Shipping weight	1 lb. (0.45 kg)
I/O mapping — BasicCAN	In BasicCAN mode, the CAN104 can occupy any of the following 32-byte blocks of I/O space 000 020 040 060 080 0A0 0C0 0E0 100 120 140 160 180 1A0 1C0 1E0 200 220 240 260 280 2A0 2C0 2E0 300 320 340 360 380 3A0 3C0 3E0
I/O mapping — PeliCAN	In PeliCAN mode, the CAN104 can occupy any of the following 128-byte blocks of I/O space 000 080 100 180 200 280 300 380
Interrupt lines	Supports selection of IRQ2 through IRQ15
Compliance	CAN 2.0A and CAN 2.0B

Connector Diagrams

**5-Pin Connector****9-Pin Connector (male)****CAN104 Connectors**

Connector Pin Assignments

Screw Terminal	Usage	DB-9
1	V-	3, 6
2	CAN_L	2
3	Drain	5
4	CAN_H	7
5	V+	9
-	Not Used	1, 4, 8

Ordering Information

Model	Description
CAN104-DN	SJA1000 CAN PC/104 NIM

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CONTEMPORARY CONTROLS
www.ccontrols.com

Contemporary Control Systems, Inc.
2431 Curtiss Street
Downers Grove, Illinois 60515 USA

Telephone (630) 963-7070
Fax (630) 963-0109