PCM-36E81

PC/104 Dual CAN Module

User Manual

Rev 0.1

Contents

Introduction

The PCM-36E81 is a special purpose communication card that brings the Controller Area Network to your PC. With the built-in CAN controller, the PCM-36E81 provides bus arbitration and error detection with automatic transmission repeat function. This drastically avoids data loss and ensures system reliability. The on-board CAN controllers are located at different positions in the memory. You can run both CAN controllers at the same time, independently. The PCM-36E81 operates at baud rates up to 1 Mbps and can be installed directly into the expansion slot of your PC.

Controller Area Network
The CAN (Controller Area Network) is a serial bus system especially suited for networking "intelligent" I/O devices as well as sensors and actuators within a machine or plant. Characterized by its multi-master protocol, real-time capability, error correction, high noise immunity, and the existence of many different silicon components, the CAN serial bus system, originally developed by Bosch for use in automobiles, is increasingly being used in industrial automation.

Direct Memory Mapping
The PCM-36E81 is assigned with memory address, which allows direct access to the CAN controller. This is the simplest and fastest way of programming any board in a PC because the board is regarded as standard RAM.

Optical Isolation Protection
On-board optical isolators protect your PC and equipment against damage from ground loops, increasing system reliability in harsh environments.

Features

- **Ports**: 2
- **CAN controller**: 82C200
- **CAN transceiver**: 82C250
- **Signal support**: CAN-L, CAN-H
- **Memory address**: From C800H to EF00H
- **IRQ**: 3, 4, 5, 6, 7, 9, 10, 11, 12, 15
- **Isolation voltage**: 1000 VDC
- **Power consumption**: +5 V @ 400 mA typical, 950 mA max.
- **Connectors**: Dual DB-9 male connectors
- **Operating temperature**: 32 to 122° F (0 to 50° C)
- **PC/104 form factor**: 3.6" x 3.8" (90 mm x 96 mm)
- **Shipping weight**: 0.9 lb (0.4 kg)