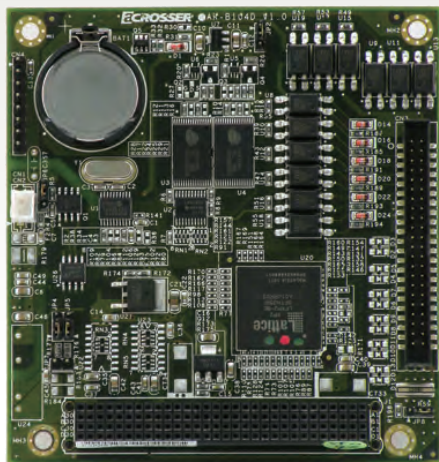


## PC/104 Module

## AR-B104D

AR-B104D 24 Channel Super Digital I/O, SRAM &amp; CAN Bus PCI-104 Module

Embedded SBC


 ITS/Telematics  
Excellent 100

### Features

- ✓ 12x optical isolated digital inputs. Support counter mode
- ✓ 12x 500 mA current sink digital outputs. Support pulse generator mode.
- ✓ 1MB battery backup SRAM disk. Supports disk and memory modes.
- ✓ CAN bus Support 2.0A and 2.0B protocol.
- ✓ Time stamp of CAN message
- ✓ Linux and Windows 2000, XP Software Development Kit (SDK).

## Specification

### General

#### Bus interface

PCI 104  
PCI 2.0 Compliant

#### SRAM disk

- Capacity: 1M Bytes
- Battery backup
- Operation mode:  
A.Memory Mode  
B.Disk Mode (Support in Linux only)

#### Digital Input

- 12 optical isolated channels
- Operating mode:  
A.General digital input  
B.Counter mode
- Programmable de-bounce time (0 ms to 255ms, 1 ms resolution).
- Change of State interrupt
- Response time: 20 uS + de-bounce time
- Trigger: rising trigger or falling trigger
- Signal Type:  
A.Open/Ground switch input  
B.Digital Logic.  
Logic High: 3V to 28V  
Logic Low : 0V to 1.5V8.
- Maximum input frequency 10KHz.

#### Counter

- All digital input support counter mode
- 12 x independent 16-bit counters

#### Digital Output

- 12 channels
- Output Type: Open drain MOSFET driver
- Output voltage range: 5V to 30V
- Sink Current: maximum 500mA each channel

#### Pulse Generator

- All digital outputs support pulse generator mode
- 12 x End of pulses interrupt capable counters
- Programmable cycle time, duty cycle and number of cycles.
- Maximum 65535 cycles
- RUN & STOP command
- Programmable time unit: 1 ms, 100ms and 1 second

### General

#### Timer

- 12 x independent 16-bit timers
- Support Time Out Interrupt
- Programmable time unit: 1 ms and 100ms

#### CAN bus

- 1 x CAN bus
- 2KV isolation
- Support both CAN 2.0A and 2.0B protocol
- Programmable baud rate: from 5K bps Maximum 1M bps or user-defined baud rate
- Time stamp of CAN message
- API library for user development
- CAN bus device status query
- Device driver for Windows 2000/XP/XPe and Linux

#### Maximum card

Maximum 2 cards can be stacked up in one system

#### Software

- Windows XP, XPe and Linux device driver and API
- Windows XP, XPe and Linux demo program
- User interface for DIO, SRAM and CAN bus in Linux and Windows XP embedded

### Mechanical

#### Dimension

90.17 x 95.89mm (3.55"x3.775")

#### Operating Temp.

0°C to 60°C (32~140°F) without air flow

#### Storage Temp.

-20~80°C (-4~176°F)

#### Relative Humidity

0 to 90% @ 40°C, non-condensing

## Assured Systems

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