MCAN-1020

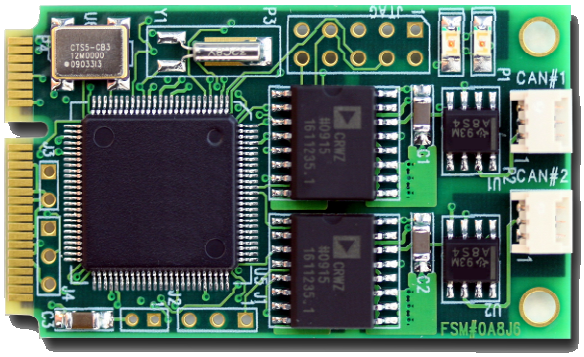
PCI EXPRESS MINI CARD DUAL CAN INTERFACE

PCI Express Mini Card

Features

- Dual CAN interface according to ISO 11898-2
- 5 kV galvanic isolation
- Supports base 11-bit (CAN 2.0A) and extended 29-bit format (CAN 2.0B) identifiers
- Time-stamped CAN messages
- Programmable bit rate from 10 kbps to 1 Mbps
- Supports 11-bit (CAN 2.0A) and 29-bit (CAN 2.0B active) identifiers
- Reliable error handling
- Fully compliant with USB 2.0 specification
- Supports Control, Bulk, interrupt and Isochronous endpoints
- Endpoint Maximum packet size selection by software
- USB OHCI compliant
- Two downstream ports

RoHS 2002/95/EC



MCAN-1020 is engineered around the ARM7 highly integrated microcontroller.

This ARM7TDMI-S processor has very low power consumption and features 512 kB of on-chip high-speed flash memory.

It incorporates several communications ports, specifically a USB full-speed Device/Host/OTG Controller with 4 kB of endpoint RAM, and two Controller Area Network (CAN) channels.

The device controller enables 12 Mbit/s data exchange with a USB host controller. It consists of a register interface, serial interface engine, endpoint buffer memory, and a DMA controller. The serial interface engine decodes the USB data stream and writes data to the appropriate endpoint buffer. The status of a completed USB transfer or error condition is indicated via status registers.

An interrupt is also generated if enabled. When enabled, the DMA controller transfers data between the endpoint buffer and the USB RAM.

The Controller Area Network (CAN) is a serial communications protocol which efficiently supports distributed real-time control with a very high level of security.
Its domain of application ranges from high-speed networks to low cost multiplex wiring.

Applications

This board is optimally suited for communications gateway and protocol coveters. This is a perfect solution for:

- Avionics equipment
- Avionic data communication systems
- Automotive application
- Medical systems
- Industrial controls

Software

Both Linux and Windows drivers are available.

Interface cable

An optional cable is available for external connection to the CAN interface. This cable supports Sub 9-pin connectors.
The part number is CAB-MCAN-1020

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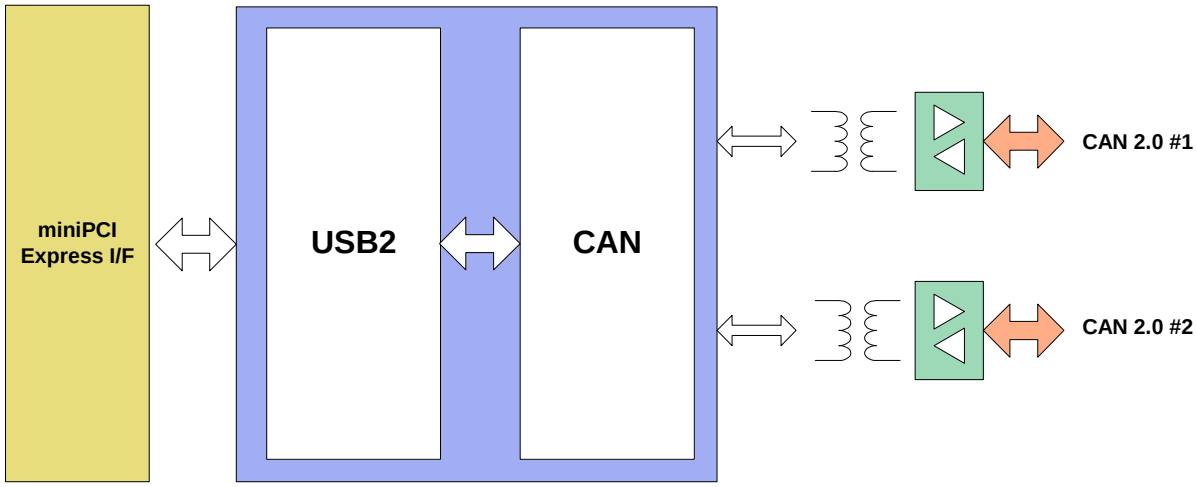
Mini PCI Express Card



CAN Features

- Two CAN controllers and buses
- Data rate up to 1 Mbit/s
- Compatible with CAN 2.0B specification, ISO-11898-1
- Global Acceptance Filter recognizes 11-bit and 29-bit receive identifiers for all CAN
- buses.
- Acceptance Filter can provide FullCAN-style automatic reception for selected
- Standard Identifiers.
- FullCAN messages can generate interrupts

USB Features

- Fully compliant with USB 2.0 Specification (full speed).
- Supports 32 physical (16 logical) endpoints with a 4 kB endpoint buffer RAM.
- Supports Control, Bulk, Interrupt and Isochronous endpoints.
- Scalable realization of endpoints at run time.
- Endpoint Maximum packet size selection (up to USB maximum specification) by software at run time.
- Supports DMA transfers with the DMA RAM of 16 kB on all non-control endpoints.
- Allows dynamic switching between CPU-controlled and DMA modes.
- Double buffer implementation for Bulk and Isochronous endpoints.

Environmental

Industrial	-40 to +85℃
Non-operating	-60 to +120℃
Relative Humidity	5 to 90 % (non-cond.)
Altitude	0 to 10,000 ft
Vibration	0.5G, 20-2000 Hz rand
Shock	20G, 11 msec, ½ sine
MTBF	>250,000 hours

Mechanical specification

Size	Mini PCIe card 30 mm x 50.95 mm
I/O	On front panel
Weight	TBD

Power Requirements

+3.3V	TBD A typ

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