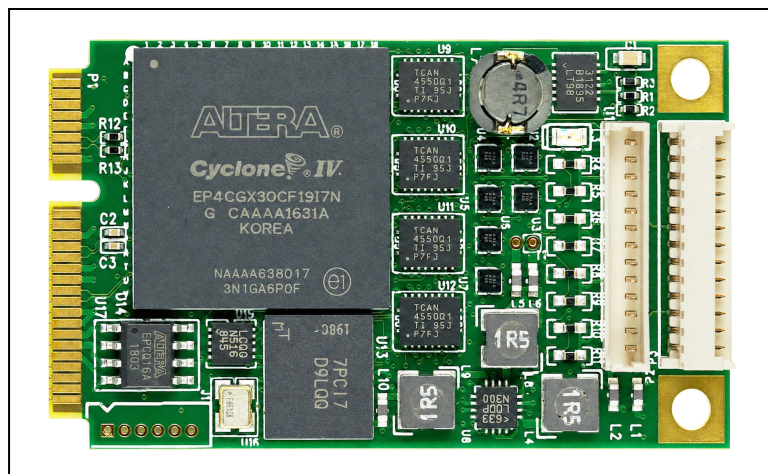


PCie Mini CAN Controller – PCI Express x1

Features

CAN Bus

- Four channel CAN controller
- Supports classic CAN and CAN FD
- Complies with
 - ISO11898-1:2015
 - M_CAN Revision 3.2.1.1
- Meets requirements of ISO11898-2:2016
- Data rates from 40Kbps to 8Mbps
- Software programmable speed selection
- Independent Software controlled
 - 120 Ohm Termination
 - Internal External Power Source
- CAN bus robustness
 - $\pm 42V$ bus fault protection
 - Failsafe mode
 - Internal dominant state timeout
 - Timeout watchdog
- IRIG-B input
- $\pm 15KV$ ESD protection
- PCI Express x1 interface

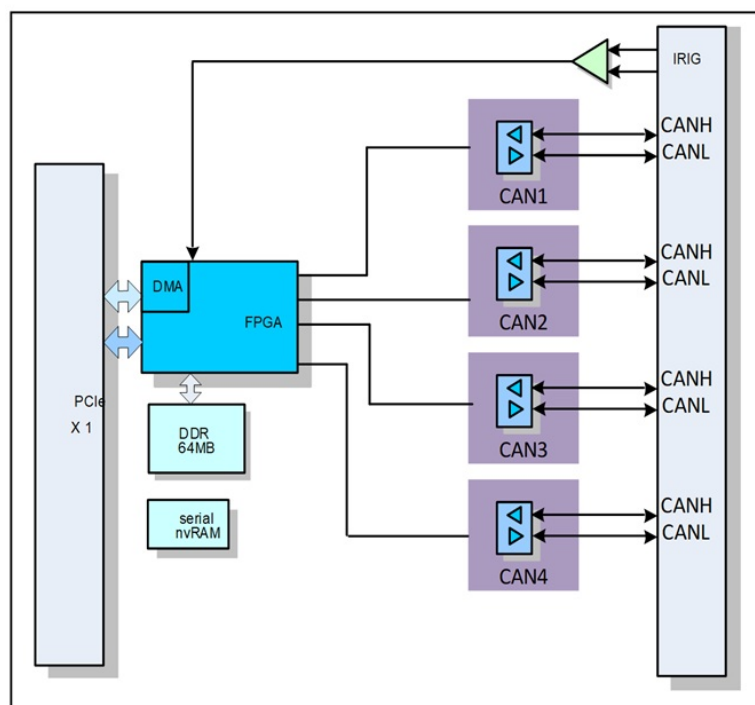


Block Diagram and Operational Overview

The **PCie-Mini-CAN-FD** is PCIexpress controller with an integrated CAN FD transceiver supporting data rates up to 8 Mbps. The CAN FD controller meets the specifications of the ISO11898-1:2015 high speed controller area network (CAN) data link layer and meets the physical layer requirements of the ISO11898-2:2016 high speed CAN specification.

The **PCie-Mini-CAN-FD** provides an interface between the CAN bus and the system processor that support both classical CAN and CAN FD. The **PCie-Mini-CAN-FD** provides CAN FD transceiver functionality – differential transmit-receive capability from the bus. It also supports local wake up (LWU) and bus wake up (WUP).

The **PCie-Mini-CAN-FD** device includes many protection features providing device and CAN bus robustness. These features include failsafe mode, internal dominant state timeout, wide bus operating range and a timeout watchdog as examples.



Applications

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

- Automotive
- Avionics equipment
- Avionic data communication systems
- Medical systems
- Industrial Transportation and controls

Available Software Drivers

- Linux® SocketCAN drivers
- Windows® drivers

Mechanical

- Size: Mini PCIe Module
30mm x 50.95mm
- Power: tbd
- Front panel I/O
- Vibration: 0.5G, 20-2000Hz rand
- Shock: 20G, 11ms, ½ sine
- Weight: tbd
- MTBF: >250,000 hours

Operating Environment

- Operating temperature
Commercial: 0 to +70°C
Industrial: -40°C to +85°C
- Non-operating: -60°C to +120°C
- Humidity: 5 to 90% (non-cond)
- Altitude: 0 to 10,000 feet

Ordering information

PCie-Mini-CAN-FD: Four-channels CAN Bus on Mini PCIe

PCie-Mini-CAN-FD-I: Same as above with -40°C to +85°C

Optional Accessories

CBL-Mini-CANFD-12-OPEN: CAN Cable, 12 Inch Micro- Pigtail

CBL-Mini-CANFD-12-DB9: CAN Cable, 12 Inch Micro to DB9