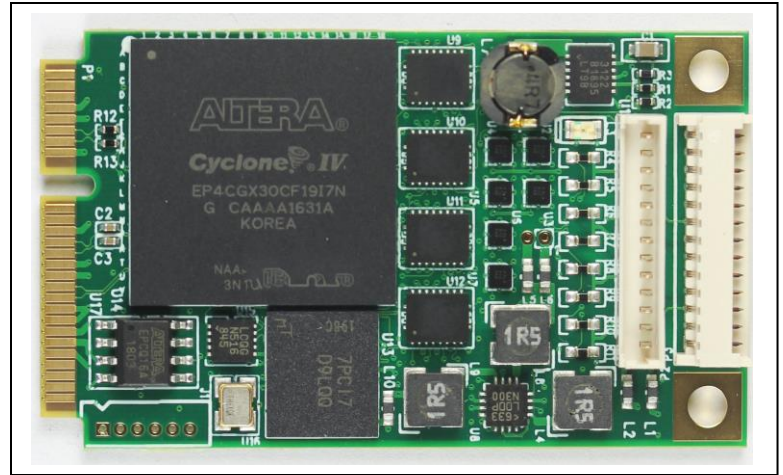


**PCie Mini CAN Controller – PCI Express x1**

**Features**

**CAN Bus**

- Four channel CAN controller
- Supports classical 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
  - 120Ω Termination
  - Internal or External Power Source
- CAN bus robustness
  - ±42V bus fault protection
  - Failsafe mode
  - Internal dominant state timeout
  - Timeout watchdog
- IRIG-B input
- ±15KV ESD protection
- PCI Express x1 interface

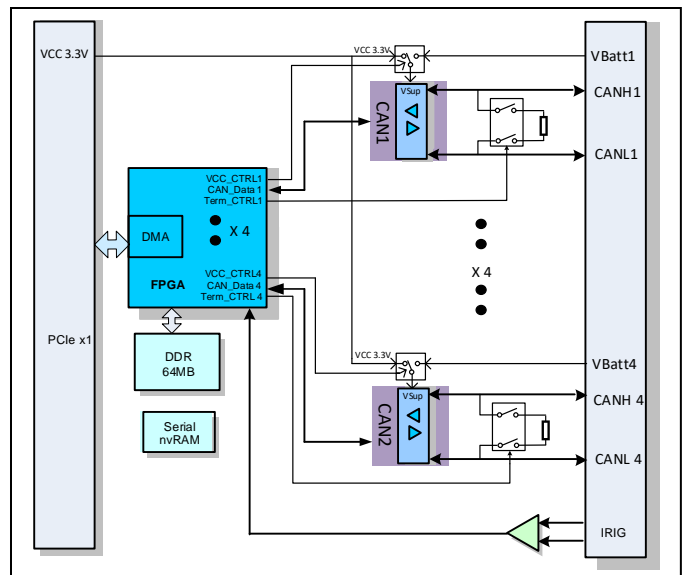


**Block Diagram and Operational Overview**

The **PCie-Mini-CAN-FD** is a PCI express controller with an integrated CAN FD transceiver supporting data rates up to 8Mbps. 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 supports 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. Examples include failsafe mode, internal dominant state timeout, wide bus operating range and a timeout watchdog.



## 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