

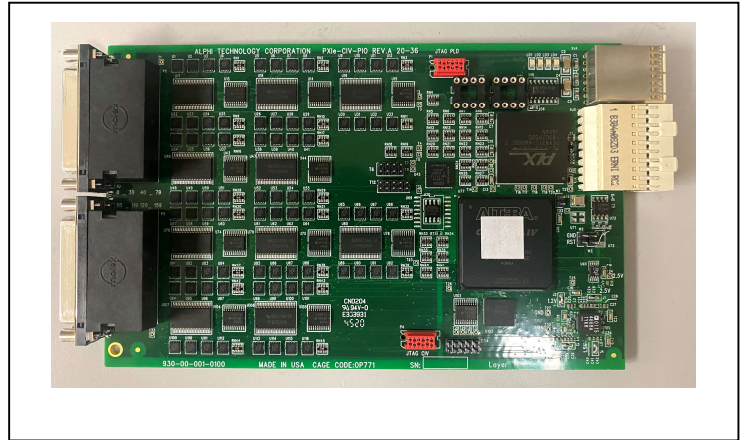
PXl express User-Configurable Altera Cyclone IV

64MB Dual Ported DDR

Up to 80 RS-422/485 or 160 LVTTTL or Combination I/O Sources

Features

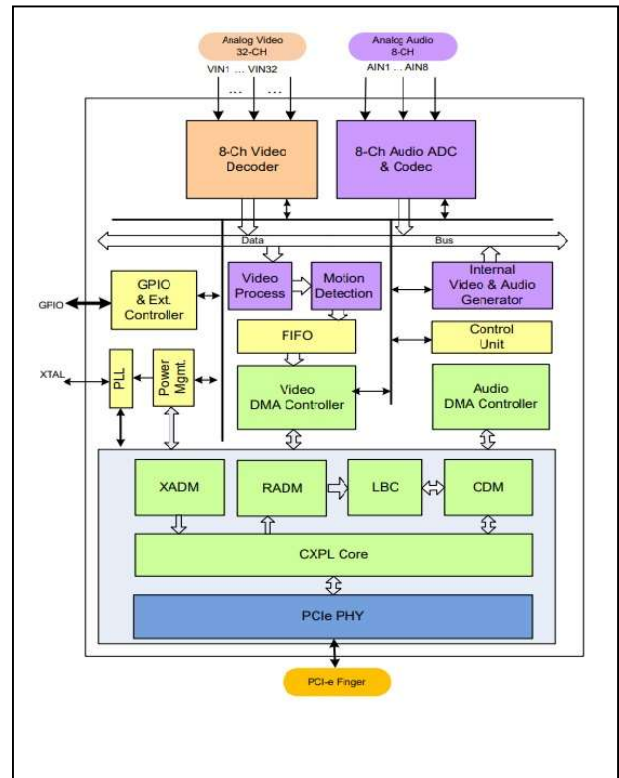
- 3U PXIe form factor
- PXI Express x1 lane
- PCIe Gen-1 capable
- User programmable Altera® Cyclone® IV FPGA (EP4CE30, 682 pins)
- 64MB dual ported DDR
- 20Mbps RS-485
- Logic-selectable 120Ω termination resistor
- On-board XMC JTAG connector
- FPGA I/O bank control to PXI interface, including Trigger and Clock



Block Diagram and Operational Overview

The PXIe-CIV-PIO-160 is a 3U PXIexpress board that performs I/O operations on up to 80 RS-422/485 or 160 LVTTTL sources, or a combination of the two.

Its user-programmable Altera Cyclone IV FPGA and 64MB of dual ported DDR give the user complete control of I/O operations on all sources. RS-485 thruput is 20Mbps on all channels, with software-selectable Half or Full Duplex operation. The operating temperature is -40°C to +85°C.



Input/Output Specifications

- Four VHDCI 68-pin front panel connectors
- 80 pair RS-422/485 or 160 LVTTTL or a combination
- 120Ω logic selectable termination resistor
- High input impedance supports 256 nodes
- Software-selectable Half/Full Duplex
- Enhanced ESD protection to ±15KV

Memory

- 64MB external DDR
- Dual ported between the Altera and PCIe bus with arbitration

Cyclone IV Programmable via

- Bit/Byte Blaster
- Serial EPROM
- JTAG
- PXIe bus

PCIe Interface

- 8/32MHz clock
- 16-bit address
- Interrupts

Operating Environment

- Operating temperature
Industrial: -40°C to +85°C
- Non-operating: -50°C to +90°C
- Airflow requirement: .5CFM
- Humidity: 5 to 90% (non-cond)
- Altitude: 0 to 10,000 feet

Available Software Drivers

- Linux® drivers
- Windows® drivers

Mechanical

- Size: 3U PCI express
5.25" x 13.8" (13.3cm x 34.9cm)
- Power: 2.0W max
- Vibration: 0.5G, 20-2000Hz rand
- Shock: 20G, 11ms, ½ sine
- Weight: 4 oz
- MTBF: >250,000 hours

Ordering information	
Part Number	Description
PXIe-CIV-PIO-160	PXI Express Altera Cyclone IV I/O, 160 sources Option (add following the part number) C (Conformal coat)
Optional Accessories	
CBL-CIV-PIO-160	Four VHDCI 68-pin connector cables, 3ft