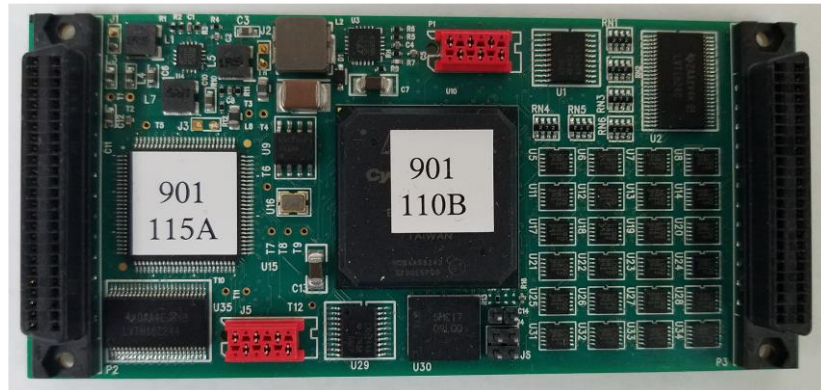


## Summary

- Altera Cyclone IV
- Altera 484 Pins Options: CE30,55,75,115
- Compatible upgrade of Alphi IP-CycloneII
- 32 Mbytes DDR
- SRAM is dual ported
- Separate logic for the IP interface
- Reconfigurable I/O
- 48 I/O lines, 24 pair
- RS-422/485 drivers
- User configurable IO by groups of 4, 2 pair
- 120 ohm termination software programmable
- Programmable via IP bus or bit/byte blaster
- Local serial EPROM
- Internal / External clock
- 8/32 Mhz IP clock support
- Vita 4 compliant



## USER RECONFIGURABLE ALTERA CYCLONE IV 64MBYTES DUAL-PORTED DDR RS-422/485, TTL OR COMBINATION I/O DRIVERS



IP-CYCLONE IV PIO

### Features

- Altera Cyclone IV FPGA EP4CE30, 55, 75,115
- Stand alone possibility
- Single wide Industry Pack
- 20 Mbps RS485
- Logic-Selectable 120Ω Termination Resistor
- Optional User clock oscillator

### Memory

- 64 Mbyte external DDR
- Dual ported between the Altera and IP bus with arbitration

### I/O Level

- 24 pair RS-422/485 or 48 TTL or a combination
- 20 Mbps RS485
- High Input Impedance Supports 256 Nodes
- Software-Selectable, Half-/Full-Duplex
- Enhanced ESD protection allows to withstand ±15kV
- Logic-Selectable 120Ω Termination Resistor

### CycloneIV Programmable via

- Bit / Byte Blaster
- Serial EPROM
- IP Bus

### IP interface

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

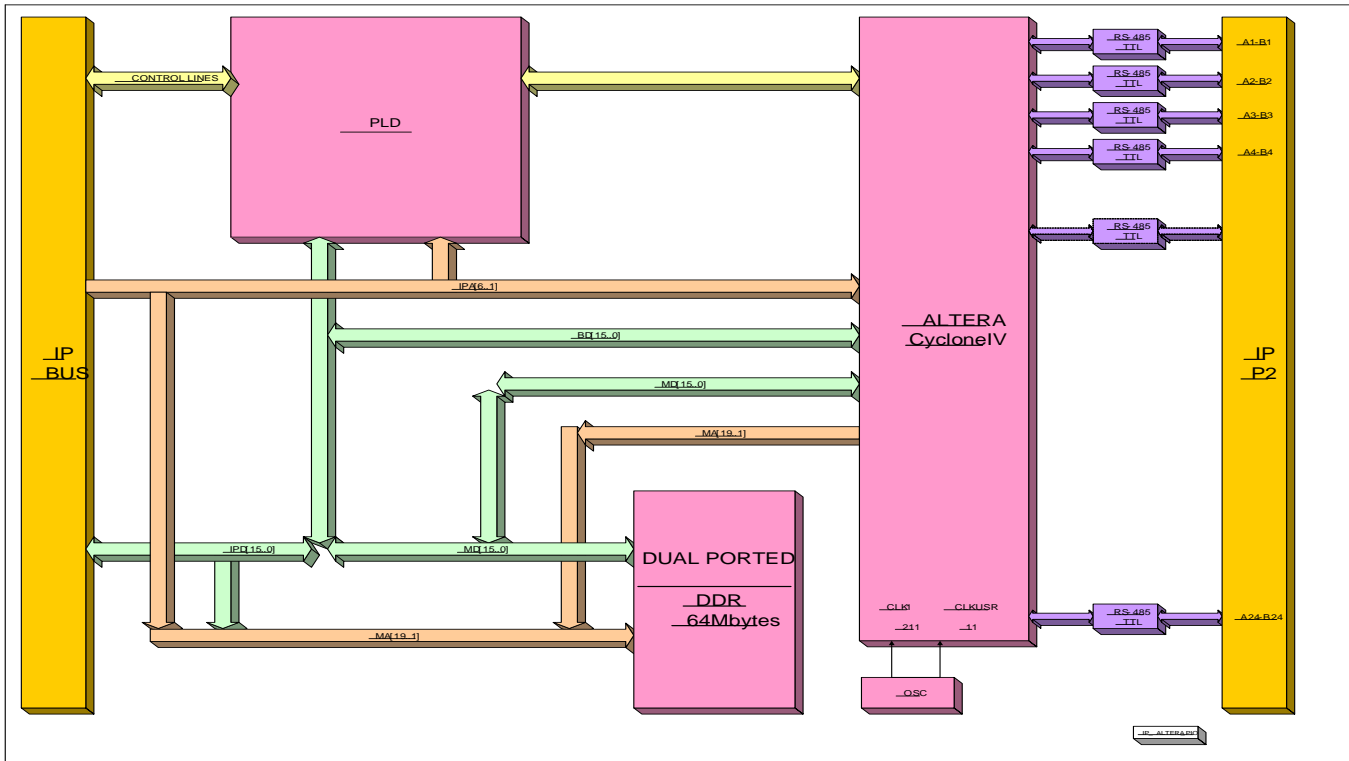
### Operating: Environmental

- Operating temperature  
Commercial: 0 to +55 °C  
Optional: -40°C to +85°C

- Airflow requirement: .5 CFM
- Humidity: 5 to 90% (non-cond.)
- Altitude: 0 to 10'000 ft

### Mechanical: Environmental

- Size: Vita 4 Type 1 IP 1.8" x 3.9"
- Power: 1 watt
- Vibration: 0.5G RMS 20-2000 Hz rand
- Shock: 20 G, 11 ms, ½ sine
- Weight: tbd
- MTBF: >250000 hours



Functional Block Diagram

### Ordering Information

Part Number :  
 IP-CIV-CE30-x RS-485/422 ALTERA EP4CE30 Industry Pack module  
 IP-CIV-CE55-x RS-485/422 ALTERA EP4CE55 Industry Pack module  
 IP-CIV-CE75-x RS-485/422 ALTERA EP4CE75 Industry Pack module  
 IP-CIV-CE115 -x RS-485/422 ALTERA EP4CE115 Industry Pack module  
 - x : C Commercial : 0°C to 70°C  
 : I Industrial : -40°C to 85°C

### Optional Accessories

Part Number : TB-50-HDR 50 pin terminal block and 1meter flat ribbon cable  
 Part Number : CBL-50-HDR 50 pin,1meter flat ribbon cable, IDC header connector

### Alphi Technology Corporation

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 Fax: (480) 838 4477

834-11-001-4100

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