



- 6U HT Single Slot width 6U Compact PCI FormFactor Card
- Compliant to PICMG 2.0R3.0 compact PCI Specification

On Card ETX Computer On Module specification:

- 1.0GHz Ultra Low Voltage Intel Celeron M (Dothan)
- Cache- 1MB L2 Cache, FSB - 400 Mhz
- Chipset - Intel 855GME/ECH4M
- System Controller - PC Compatible DMA and Interrupt controller, timers & Watchdog Timer
- DDR SDRAM up to 1GB capacity using SO-DIMM
- Main Flash - IDE
- Compact Flash up to 8 GB
- Three USB 2.0 Ports available on back panel Connectors
- Six RS422 Channels
- One AC'97 Audio Port, One VGA port
- PS2 Keyboard and Mouse Interface
- ISA and PCI (32 bit/33Mhz) Bus interfaces

Additional features on the card:

- Two Dual redundant 1553B Channels programmable as BC /RT/MT
- One 10/100BaseT Gigabit Ethernet Port
- One USB 2.0 port for Auxiliary Flash Disk Interface
- One Virtex 4 LX60 FPGA to handle I/O requirements as per ICD
- 5V TTL/CMOS Differential Inputs - 16 Nos
- 5V TTL/CMOS Differential Outputs - 40 Nos
- 8 x 28V/Open Inputs
- 8 x 28V/Open or GND/Open Outputs
- One 3.125Gbps LVDS Channel
- Rear IO Connectivity to all the interfaces through Rear IO transition Board
- Rugged Version with Heat Sink Metal Plate and Card Wedge Locks
- +5V and +3.3V Back Plane supplied Power

OVERVIEW

The cPCI SBC is an exceptionally high integration, high performance, rugged, and high quality Card, which contains all the component subsystems of an ATX motherboard with cPCI Back Plane Interface. This enables it to be used in systems designed around cPCI Architecture. The cPCI card has a Computer on Module ETX802 plugged into it. ETX802 is based on one of the ultra high performance, high integration Intel Celeron M processors and gives designer the choice of a complete, high performance, rugged, embedded processor based on the ETX form factor that conforms to the ETX V2.7 specification. The module plugs into the card, which has connectors and additional circuitry to meet your application requirements.

PRODUCT SPECIFICATIONS

CPU

- 1.0GHz Ultra Low Voltage (ULV) Celeron M373 (with 512 KB L2 cache) processor
- Front Side Bus (FSB) of 400 MHz

Memory

- Single 200-pin DDR SODIMM socket provided
- Supports a single +2.5V DDR SODIMM up to 1GB
- Supports PC2700 DDR 333 (166 MHz)

PCI Bus/ISA Bus

- PCI 2.2 compliant (32 bit/33Mhz)
- ISA bus speed at 8 Mhz

IDE Interfaces

- Supports two enhanced IDE controllers (4 devices)
- Supports dual bus master mode
- Supports Ultra DMA 33/66/100 modes
- Supports ATA PI and DVD peripherals
- Supports IDE native and ATA compatibility modes

Serial Ports

- Two buffered TTL serial ports with full handshaking (transceiver on baseboard) provided
- Provides two 16550-equivalent controllers, each with a built-in 16-byte FIFO buffer
- Provides programmable word length, stop bits and parity
- Provides 16-bit programmable baud-rate generator
- Provides full modem capability

RS422 Ports

- Provides for Six RS422 ports connected to user IO connector
- Accessible through Rear IO Transition Board

USB Ports

- Supports two root USB hubs
- Supports four USB ports
- Supports USB v2.0 and legacy v1.1
- Supports over-current fuses on baseboard
- Supports USB Boot and the respective USB Boot devices
- Three USB 2.0 ports made available at the connectors
- One USB 2.0 port for access to compact flash in offline mode

AT-cPCI-SBC

MultiProtocolcPCI Single Board Computer

Keyboard/MouseInterface

- SupportsPS/2 keyboard &mouse

Audio Interface

- SupportsAC'97 standard
- AC'97CODEC provided on-board
- Audioamplifier provided on the card

EthernetInterface

- Intel82551QMControllerandoneEthernetportprovided
- Supportsmagnetic and RJ45 connector on baseboard
- SupportsIEEE 802.3 10BaseT/100BaseTX compatible physicallayer
- SupportsAuto-negotiation for speed and duplex mode
- Supportsfull duplex or half-duplex mode
- Full-duplex mode uses IEEE 802.3x flow control to transmitandreceive frames simultaneously
- Half-duplex mode supports enhance proprietary collisionreduction mode
- Intel82540EPbased 10/100/1000 BaseTX port
- BoththeportsroutedtoBackPlaneUserIOConnectorsandaccessibleusing Rear IOTransitionBoard

VideoInterfaces(Crt)

- SupportsCRT(1600x1200)with64MBUMA(Unified MemoryArchitecture)
- Integrated128-bit graphics controller provided

JTAG

- On-boardJTAGchainforFPGA`s
- On-boardJTAGheaderforCPLDprogramming
- On-boardJTAGinterface to the processorfordebuggingand developmentpurposes

Miscellaneous

- Real-TimeClock(RTC)withexternalbatteryprovided
- Supportsbattery-free boot
- WatchdogTimerfeatureprovided

I/O Interfaces

- 40xTTLDifferential/pchannels
- 16xTTLDifferentiali/pChannels

ORDERINGINFORMATION

HardwareSelection

AT-cPCI-2-2-SBC-ETX802-SDRAM-MainFlash–Ruggedization

1= 512 MB
2 =1GB

AT-cPCI-ETX802-RTB

Rear/I/O Board

A=Air-CooledVersion
R=Conduction-CooledVersion

1 =2 GB
2 =4 GB
3 =8 GB

SoftwareSelection

AT-cPCI-SBC-ETX802-BSP

1=VxWorksBSP
2=Windows XP
3=Win CE

- Contactsales for support for other Operating Systems
- Contactsales for configuration of front and rear I/O configuration
- Contactsales for environmental options

- 8x 28V/ Open Inputs
- 8x 28V / Open or GND/Open Outputs

LVDSChannel

- OneLV DSTXChannelofdataratesofupto1.125Gbps
- OneLVDSRXChannelofdataratesofupto1.125Gbps
- Withcombined data rates of up to 3.25Gbps in full Duplex mode
- ProvidedusingexternalLVDStransceiverinterfacedtoFPGA

FPGA

- ProvidesonOn-board Virtex4 LX60FPGA
- FPGAcustomizabletohandlevariousdigitalI/Osaspercustomer LCD
- Interfacedto Processor on North Bridge on PCI Bus

Mechanical

- 6UcompactPCI card
- BoardDimensions: 160mm x 233mm
- Boardthickness: 2.4mm
- RuggedVersionwithHeatSinkMetalPlateandCardWedgeLocks

Power

- Derivedfrom +5.0V and +3.3V of Back Plane
- Allother voltages internally derived
- PowerConsumption20-WattsApprox

Environmental

	Air-Cooled	Conduction-Cooled
OperatingTemperature	0°Cto + 60°C	-40°Cto + 85°C

Operating Systems Support

- VxWorks(Ver6.3workbench2.5)BoardSupportPackage(BSP),Windows CE(Ver 6.0)and WindowsXP

Warranty

- 1Yearlimitedwarranty



Distributor/Reseller

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