cPCI-3720 Series

Features

- PICMG 2.0 CompactPCI Specification R2.1 Compliant
- PICMG 2.1 CompactPCI Hot Swap Specification R1.0 Compliant
- Standard 3U form factor
- Design for Intel Lower Power BGA2 Pentium-III or Celeron
- 1-slot width version available for low power applications
- Support Pentium-III CPU at 1G, 850M, 700M Hz with 256KB on-die L2 cache
- Support Celeron CPU at 700, 400MHz with 128KB on-die L2 cache
- One 144-pin SO-DIMM socket supports up to 256MB RAM
- Internal CompactFlash IDE interface
- Supports 7 bus-master PCI devices on CompactPCI bus
- Dual 10/100Mb Ethernet port by Intel 82559ER controller, single Ethernet version is also available for big quantity OEM project
- Build-in one USB port, one serial port, integrated PS/2 type keyboard and mouse connector
- Support remote console via the serial port
- Modularize low profile 2.5 inches HDD mechanism for 2-slot version
- Modularize slim-type FDD mechanism for 3-slot version

Preliminary

Specifications

General CompactPCI Features
- PICMG 2.0 CompactPCI Rev. 2.1 compliant.
- PICMG 2.1 CompactPCI Hot-swap specification Rev.1.0 compliant

Form factors
- Standard 3U CompactPCI board size: 100 mm x 160 mm
- cPCI-3720A Series: 1-slot (4TE/HP) wide
- cPCI-3720B Series: 2-slot (8TE/HP) wide, with HDD housing and front plate FDD interface
- A slim-type FDD kit support 3-slot (12TE/HP) wide version

CPU/Cache
- Intel BGA2 Low Power Pentium-III with 256KB on-die L2 cache at full-core speed
- Intel BGA2 Low Power Celeron with 128KB on-die L2 cache at full-core speed
- Front side bus (FSB) frequency: 100MHz

Chipset
- Intel 440MX Chipset (in EIA Roadmap)

BIOS
- Award PnP BIOS with 2Mb (256KB) Flash ROM
- BIOS write protection, provide anti-virus capability
- Customized power-on screen (for OEM project)
- DMI BIOS Support: Desktop Management Interface (DMI) allows users to download system hardware-level information such as CPU type, CPU speed, internal/external frequencies and memory size.
- Remote console support

Host Memory
- One 144-pin SO-DIMM socket, support maximum 256MB un-buffered SDRAM module

IDE Ports
- Bus Master IDE controller: one 44-pin EIDE interface supports two IDE devices.
- With mezzanine card, provide one CompactFlash socket and 44-pin IDE connectors
- Support CompactFlash storage disk from 8MB up to 512MB

- For 2-slot version, a mechanism supports to build-in 2.5" ATA HDD

USB Interface
- Two USB ports, USB-A is on both front and rear I/O. USB-B is on the rear I/O only.
- USB Specification Rev. 1.1 compliant
- 500 mA over-current protection

On Board Supper I/O
- Winbond W83977EF
- One high-speed bi-directional SPP/EPP/ECP parallel port on J2 rear I/O
- One FDD interface, support slim type floppy drive
- Two 16C550 UARTs compatible COM ports, COM1 is on rear I/O, COM2 is designed for using on both front faceplate (via RJ-45 connector) and rear I/O.
- One PS2 integrated keyboard and mouse connector Watchdog Timer
- Programmable I/O Port 3F0h and 3F1h to configure watchdog timer, which can be programmable to be 1~255 seconds or 1~255 minutes
- Watchdog timer time out will generate interrupt to NMI or RESET, which is BIOS selectable.
- Bundled easy-programming library for DOS and Windows 98/NT/2000

Hardware Monitoring
- Winbond W83782D, monitoring CPU temperature, system temperature and DC Voltages

On-board Ethernet
- Two Ethernet ports: LAN 1 support both front and rear I/O. LAN 2 support front I/O only
- Intel 82559ER high performance Ethernet controller
- IEEE 802.3 10Base-T/100Base-TX compatible
- IEEE 802.3u auto-negotiation support
- IEEE 802.3x 100Base-TX flow control support

PCI Bus Bridge
- Supports up to 7 PCI bus mastering devices on CompactPCI bus for peripheral slots

Flash Disk Supporting
- Support Flash2000TM (from 32MB to 512MB) flash-storage drive on 2.5" IDE interface

- Support CompactFlash flash-storage drive (from 32MB to 512MB)

Front Panel LEDs and Switch

- Active LED (Green), HDD LED (Red), WDT LED (Amber), General Purpose LED (Blue)
- Flush tact switch for system reset

Special Feature

- Support hot-swappable I/O
- SBC can be hot-swappable when operate under single SBC operation environment (no peripheral)

Environment

- Operating ambient temperature: 0 to 55°C
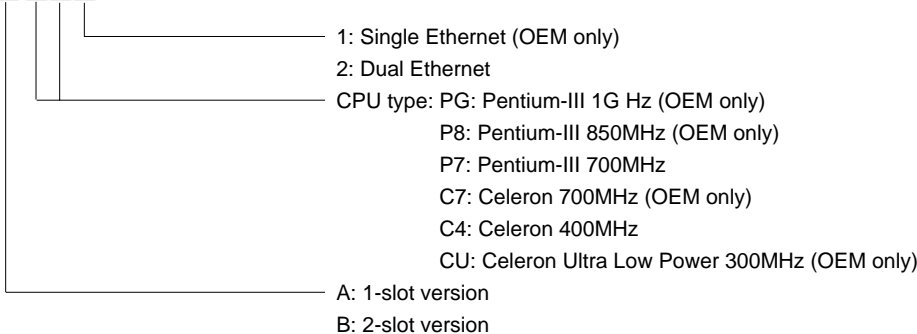- Storage temperature: -20 to 80°C

- Humidity: 5% to 95% non-condensed
- Shock: 15G peak-to-peak, 11 ms duration, non-operation
- Vibration:
  Non-operation: 1.88Grms, 5~500Hz, each axis
  Operation: 0.5Grms, 5~500Hz, each axis, with 2.5" HDD

Safety Certificate and Test

- CE, FCC
- HALT (temperature and vibration stress)

Peripheral Connectivity

I/O	Front Faceplate	On-board Front Board	Rear I/O Connector
Serial Port (COM1)	---	---	J2
Serial Port (COM2)	Y (RJ-45)	---	J2
Parallel Port	---	---	J2
Keyboard & Mouse	Y (PS-2)	---	---
Floppy	---	Y	---
Ultra DMA 33 IDE 1	---	Y	---
CompactFlash	---	Y (Mezzanine)	---
USB A	Y(USB)	---	J2(Pin reserved)
USB B	---	---	J2(Pin reserved)
10/100Mb Ethernet Port #1	Y (RJ-45)	---	J2(Pin reserved)
10/100Mb Ethernet Port #1	Y (RJ-45)	---	
LEDs	Y	---	
Reset button	Y	---	

Ordering Information

cPCI-3720 series

All models of the cPCI-3720 series are mounted with on-board CPU, 2S1P, USB, CompactFlash Socket. The RAM or HDD are not included.

cPCI-3720☐/☐☐☐

1: Single Ethernet (OEM only)

2: Dual Ethernet

CPU type: PG: Pentium-III 1G Hz (OEM only)

P8: Pentium-III 850MHz (OEM only)

P7: Pentium-III 700MHz

C7: Celeron 700MHz (OEM only)

C4: Celeron 400MHz

CU: Celeron Ultra Low Power 300MHz (OEM only)

A: 1-slot version

B: 2-slot version

The above table shows many configurations for OEM version. The following table shows the standard models. Please contact ADLINK for the OEM projects.

Standard Model Numbers	Description / Configuration
cPCI-3720A/P72	1-slot version, Low Power Pentium-III 700MHz, dual Ethernet
cPCI-3720A/C42	1-slot version, Low Power Celeron 400MHz, dual Ethernet
cPCI-3720B/P72	2-slot version, Low Power Pentium-III 700MHz, dual Ethernet
cPCI-3720B/C42	2-slot version, Low Power Celeron 400MHz, dual Ethernet
FDD-3720	The FDD kits for cPCI-3720