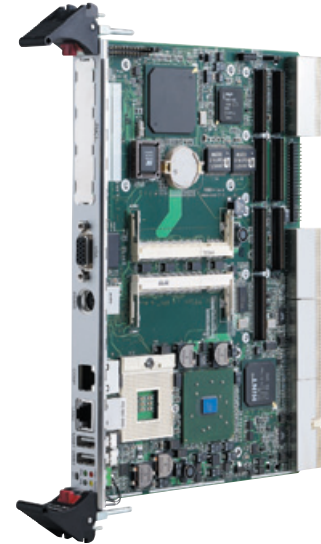


cPCI-6840 Series

6U CompactPCI Highly Integrated Intel® Pentium® M Processor PCI 64-Bit/66MHz Universal Blade

Features

- Low power consumption, support Intel® Pentium® M and Celeron® M Processors
- Universal operation on either system or peripheral slots
- 64-bit/66MHz CompactPCI bus, compliant PICMG 2.1, 2.9 and 2.16
- Two 64-bit/66MHz PMC sites, optional SCSI on PMC2 rear I/O
- Up to 2GB PC2700 DDR SDRAM
- Three Gigabit Ethernet ports
- Multiple storage options: IDE, Serial ATA, CompactFlash, and SCSI
- Display interfaces: CRT, DVI, and LVDS



Introduction

The cPCI-6840 Intel® Pentium® M processor blade is designed with versatile features and options for OEM applications. The CPU options include the low power Intel® Pentium® M 1.6GHz with 1MB cache, the high performance Intel® Pentium® M with 2MB cache or the Ultra Low Voltage Intel® Celeron® processor. The product incorporates the embedded Intel® 855GME chipset, which supports up to 2GB DDR RAM. It also includes CRT, DVI, and LVDS display interface options. Additional features of the cPCI-6840 are three Gigabit Ethernet ports, two 64-bit/66MHz PMC sites, and a PCI 64-bit/66MHz capable universal CompactPCI bus to achieve high communication bandwidth. The cPCI-6840 series offers the best balance between computing performance, communication bandwidth, and power consumption.

Specifications

CPU / Chipset / RAM

- CPU: μ -FCPGA Pentium® M 1.6GHz Processor with 1MB L2 cache. The other LV or ULV versions of the Pentium® M or Celeron® M Processors are available for OEM program.
- FSB: 400MHz
- Chipset: Intel® 855GME with 6300ESB I/O Controller Hub
- RAM: Two 200-pin SODIMM sockets. Up to 2GB PC2700 DDR SDRAM.

Bus

- Standards:
 - PICMG 2.0 R3.0, PICMG 2.1 R2.0, PICMG 2.3 R1.0, PICMG 2.9 R1.0, PICMG 2.16 R1.0
 - PICMG 2.9 System Management Bus with IPMI v1.0
- CompactPCI Bus:
 - 64-bit/66MHz PCI-X to PCI-X bus bridge
 - Support both system and peripheral slots.
- PMC Slot:
 - Two PCI 64-bit/66MHz capable slots
 - The upper PMC2 slot is with J24 rear I/O connection

BIOS

- Chip: Award 4Mb flash memory
- Features:
 - Intel PXE pre-boot on Ethernet
 - Serial Console

I/O Interfaces

- Display: Intel® 855GME Integrated Graphics with 32MB UMA
- Ethernet:
 - Intel® 82546EB Dual Ports Gigabit Ethernet Controller
 - Intel® 82540EM Single Port Gigabit Ethernet Controller
- IDE: ATA-100, dual channels, built-in optional 2.5" HDD
- SCSI: Optional PMC-8631 SCSI card via PMC2 J24 rear I/O to cPCI-R6840 RTM
- SCSI: Optional PMC-8631 SCSI card via PMC2 J24 rear I
- SCSI: Optional PMC-8631 SCSI card via PMC2 J24 rear I
- Serial ATA: Supports two SATA ports on rear board
- USB: USB 2.0, 2 ports on front panel, 2 ports on RTM
- Front Panel I/Os: COM1 (RJ45 type), Gigabit Ethernet x 1, USB 2.0 x 2, VGA x 1 (optional), PS2 Combo x 1 (optional)
- USB: USB 2.0, 2 ports on front panel, 2 ports on RTM
- Backplane I/Os (rear I/O): Display: DVI, CRT, and internal LVDS interface Dual Gigabit Ethernet Ports, USB 2.0 x 2, COM2 (RJ45 type) Internal SATA Ports x 2, 40/44-pin ATA connector, CF Socket x1 Optional ultra-320 SCSI interface

Mechanical and Environmental

- Form Factor: 6U CompactPCI
- Dimensionst: 233.33mm x 160mm (L x W), 1 slot (4HP) wide
- Operating Temp.: 0 to 55°C (CPU type dependant; external air-flow required)
- Storage Temp.: -20 to 80°C
- Shock: 15G peak-to-peak, 11ms duration, non-operation
- Vibration:
 - Non-operation: 1.88Grms, 5-500Hz, each axis
 - Operation: 0.5Grms, 5-500Hz, each axis
- Measured Power Consumption: 8.8A @ +5V, 4.0A @ +3.3V, 0.2A @ +12V (1.6GHz CPU, 512MB DDR-333, HDD, USB, K/B, Mouse are attached)
- Compliance : CE, FCC Class A

Other Features

- Watchdog Timer: 2 stage, SMI/SCI before RESET
- LED: 4 LEDs on the front panel including storage access LED (RED), Power LED (GREEN), Hot-Swap status (Blue), and Watchdog timer LED (Yellow)
- PIM:Support PIM by cPCI-R6841 RTM
- Support Operating: Compatible with Microsoft® Windows 2000, Windows 2003 Server,
- Systems: Windows XP, Red Hat 9.0, Monta Vista Linux Carrier Grade Edition, and VxWorks 5.5 (The device drivers for Windows are included on the ADLINK CD. For VxWorks BSP or MontaVista LSP, please contact ADLINK.)

Peripheral Connectivity

I/O	cPCI-6840		cPCI-6840V		CPCI	cPCI-R6840		cPCI-R6841	
	Faceplate	On-Board	Faceplate	On-Board	J3/J5	On-Board	Faceplate	On-Board	Faceplate
Serial Port (COM1)	RJ-45	--	RJ-45	--	--	--	--	--	--
Serial Port (COM2)	--	--	--	--	J3	--	RJ-45	--	RJ-45
USB (port 0, port 1)	Y	--	Y	--	--	--	--	--	--
USB (port 2, port 3)	--	--	--	--	J5	--	Y	--	Y
Gigabit Ethernet Port 1	--	2.16	--	2.16	J3	--	RJ-45	--	RJ-45
Gigabit Ethernet Port 2	--	2.16	--	2.16	J3	--	RJ-45	--	RJ-45
Gigabit Ethernet Port 3	RJ-45	--	RJ-45	--	--	--	--	--	--
Primary IDE	--	44-pin	--	44-pin	--	--	--	--	--
Secondary IDE	--	--	--	--	J5	40-pin 44-pin, CF	--	40-pin 44-pin, CF	--
General Purpose LED	Y	--	Y	--	--	--	--	--	--
Reset button	Y	--	Y	--	--	--	--	--	--
PMC1 (lower)	--	Y	--	--	--	--	--	--	--
PMC2 (upper)	--	Y	--	Y	J5	--	--	PIM	--
SCSI via PMC2 J24	--	--	Y	--	J5	SCSI	SCSI	--	--
SATA	--	--	--	--	J5	Y	--	Y	--
PS2 Keyboard / Mouse	--	--	Y	--	J3	--	--	--	Y
VGA	--	--	DB-15	--	J3	--	DB-15	--	DB-15
DVI	--	--	--	--	J3	--	DVI	--	--
LVDS	--	--	--	--	J3	Y	--	Y	--
2.5" HDD	--	Mountable on PMC2	--	Mountable on PMC2	--	--	--	Mountable	--

Ordering Information

- **cPCI-6840/P16/M512**
6U cPCI Pentium M 1.6GHz universal blade with 512MB DDR and two PMC
 - **cPCI-6840/P16/M1G**
6U cPCI Pentium M 1.6GHz universal blade with 1GB DDR and two PMC
 - **cPCI-6840V/P16/M512**
6U cPCI Pentium M 1.6GHz universal blade with VGA, KB/MS, 512MB DDR, and one PMC
 - **cPCI-6840V/P16/M1G**
6U cPCI Pentium M 1.6GHz universal blade with VGA, KB/MS, 1GB DDR, and one PMC
 - **cPCI-R6840**
6U cPCI RTM with DVI, SCSI, LVDS, Dual GbE, VGA, USB, SATA, CF, COM, and IDE connectors for cPCI-6840/V
 - **cPCI-R6841**
6U cPCI RTM with PIM LVDS, Dual GbE, VGA, USB, SATA, CF, COM, and IDE for cPCI-6840/V
 - **DB-6840CF**
Compact Flash Daughter Board for cPCI-6840 series
 - **PMC-8631**
Ultra SCSI-320 PMC card
- Note: Contact us for more CPU and memory options.

- 1 Software Solutions
- 2 PXI/CompactPCI Platforms
- 3 PXI-Based Instruments
- 4 PXI/CompactPCI Modules
- 5 PCI DAQ Cards
- 6 PCI DIO Cards
- 7 PC/104-Plus Products
- 8 ISA DAS/DIO Cards
- 9 Wiring Termination Boards
- 10 Motion Vision & COM
- 11 Remote I/O Modules
- 12 Industrial Computers