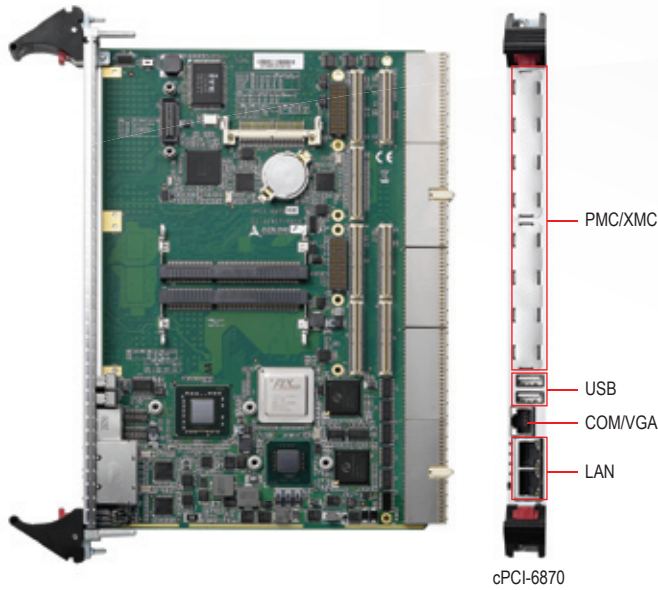


# cPCI-6870 Series

6U CompactPCI Intel® Core™2 Duo  
Universal Blade with two PMC/XMC sites

**Rugged interconnect™**  
TECHNOLOGIES  
WHERE TECHNOLOGY IS KEY - FOR REAL WORLD APPLICATIONS



## Features

- Intel® Core™2 Duo SV, LV, ULV processors, up to 2.26GHz
- Up to 8GB DDR3-1066 memory
- Two 64-bit/133MHz PMC sites or
- Two PCI-Express x8 XMC sites
- Supports system/peripheral universal mode

## Specifications

### Processor System

CPU	<p>µFC-BGA Intel® Core™2 Duo Processor SP9300 2.26GHz, 6MB L2, FSB 1066MHz, TDP 25W</p> <p>µFC-BGA LV Intel® Core™2 Duo Processor SL9400 1.86GHz, 6MB L2, FSB 1066MHz, TDP 17W</p> <p>µFC-BGA ULV Intel® Core™2 Duo Processor SU9300 1.2GHz, 3MB L2, FSB 800MHz, TDP 10W</p> <p>µFC-BGA Intel® Celeron® Processor ULV 723 1.2GHz, 1MB L2, FSB 800MHz, TDP 10W</p>
Chipset	Intel® GS45 with ICH9M-SFF
RAM	Dual channel DDR3-800/1066 SDRAM with two SO-DIMM sockets, up to 8GB capacity
BIOS	AMI® BIOS, dual 16Mbit SPI Flash memory
CompactPCI Bus	PCI 64-bit/66MHz, 3.3V or 5V universal V (I/O) Supports operation in system and peripheral slots with CompactPCI bus communication (Universal mode)
Standard	<p>PICMG® 2.0 CompactPCI R3.0</p> <p>PICMG® 2.1 Hot Swap R2.0</p> <p>PICMG® 2.9 System Management R1.0</p> <p>PICMG® 2.16 Packet Switching Backplane R1.0</p>

### Connectivity

PMC/XMC	Two PCI 64-bit/133MHz PMC sites or two PCI-Express x8 XMC sites
Ethernet	<p>Four PCI-Express Intel® 82574 Gigabit Ethernet controllers</p> <p>Two 10/100/1000BASE-T front panel ports</p> <p>Two 10/100/1000BASE-T PICMG® 2.16 ports</p>
Graphics	<p>Integrated in Intel® GS45, powered by the Gen-5.0 Graphics Architecture</p> <p>Analog CRT signal to rear by default (switchable to front)</p> <p>VGA port on front panel via RJ-45 to DB-15 adapter cable (shared with RJ-45 COM port)</p> <p>Analog monitor support up to QXGA</p>
USB	<p>Two USB 2.0 front panel ports</p> <p>Six USB ports routed to RTM</p>
PS/2	PS/2 Keyboard Mouse port routed to rear
Serial Port	<p>Max. three 16C550 compatible serial ports from Super IO</p> <p>One RJ45 port on front panel (shared with VGA)</p> <p>Two serial ports routed to rear</p>
Audio	High definition audio signals routed to rear

### Storage

SBC	<p>One removable Serial ATA direct connector for 2.5" onboard HDD, occupies outer PMC site</p> <p>CompactFlash socket onboard</p>
RTM*	<p>Two 7-pin SATA signal connectors and one direct connector for 2.5" SATA HDD</p> <p>One SATA to IDE CF socket and one USB to IDE CF socket</p> <p>One SD socket</p> <p>One internal and one external 68-pin SCSI connector by LSI53C1020 SCSI Ultra320 single channel controller, support RAID 1</p> <p>Onboard Floppy pin header</p> <p>*Available interfaces dependent on RTM model selected</p>

### Operating System

OS	<p>Microsoft Windows® XP Professional</p> <p>Microsoft Windows® Vista x64 Edition</p> <p>RedHat Enterprise Linux 5.1</p> <p>(Please contact ADLINK for other OS support)</p>
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### Miscellaneous

LED	Power (green), WDT (red), Hot Swap (blue), Hard Disk (amber)
Battery	Coin cell lithium battery onboard for RTC CMOS RAM for BIOS configuration
Watchdog Timer	System Reset and NMI, with programmable interval, 1-65535 sec or minutes
Hardware Monitor	Monitors CPU temperature, system temperature, Vcore and DC voltages

## Mechanical & Environmental

Form Factor	6U 4HP CompactPCI
Operating Temperature	0° to 60°C standard
Storage Temperature	-40° to 85°C
RH Humidity	95% non-condensing
Shock	15G peak-to-peak, 11ms duration, non-operating
Vibration	1.88 Grms random vibration between 5-500Hz in 3 axis

## Power Consumption

Intel® Core™2 Duo SP300, 2GB DDR3-1066, 80GB SAS onboard HDD under Windows® XP with 100% CPU loading

	Current (A)	Power (W)
5V	6	30
3.3V	3.59	11.85
Total		41.85

## Safety & EMI

Certification CE/ FCC

## I/O Table

		GbE	USB 2.0	COM	DVI	VGA	PMC/XMC	SATA	SCSI	CF	Mic-in	Line-out	PS/2 KB/MS	FDD	SD
<b>SBC</b>															
cPCI-6870	Face-plate	2	2	1 (RJ-45)		1 <sup>(1)</sup> (RJ-45)									
	On-board						2	1		1					
<b>RTM</b>															
cPCI-R6000	Face-plate	2	2	1 (DB-9)	1 (DVI-I)			1	1						
	On-board		1	1 <sup>(2)</sup> (10-pin)				2	1					1	
cPCI-R6000D	Face-plate	2	4	1 (DB-9)	1 (DVI-I)										
	On-board			1 <sup>(2)</sup> (10-pin)				3 <sup>(3)</sup>		1 <sup>(3)</sup>	1	1	1	1	
cPCI-R6000P	Face-plate	2	2	1 (DB-9)	1 (DVI-I)										
	On-board		1	1 (10-pin)			1 (PIM)	2						1	
cPCI-R6100	Face-plate	4	4	1(RJ-45)	1	1							1		
	On-board							2		1					1
cPCI-R6110	Face-plate	2	4			1							1		
	On-board							3 <sup>(3)</sup>		1 <sup>(3)</sup>					1

(1) Shares the same RJ-45 connector with COM port by RJ-45 to DB-15 adapter cable. COM and VGA cannot be used simultaneously.

(2) Tx, Rx signals only.

(3) Two 7-pin signal connectors onboard for external HDDs and one direct connector for onboard 2.5" SATA HDD. SATA direct connector can be replaced by CompactFlash adapter for CF slot.

## Ordering Information

Model Number	Description/Configuration
<b>CPU Board</b>	
cPCI-6870/SP93/M2G	6U CompactPCI blade with Core™2 Duo 2.26 GHz (SP9300) processor and 2x 1GB DDR3-1066 SODIMM
cPCI-6870/SP93/M4G	6U CompactPCI blade with Core™2 Duo 2.26 GHz (SP9300) processor and 2x 2GB DDR3-1066 SODIMM
cPCI-6870/SL94/M2G	6U CompactPCI blade with Core™2 Duo 1.86 GHz (SL9400) processor and 2x 1GB DDR3-1066 SODIMM
cPCI-6870/SU93/M2G	6U CompactPCI blade with Core™2 Duo 1.2 GHz (SU9300) processor and 2x 1GB DDR3-1066 SODIMM
cPCI-6870/723/M2G	6U CompactPCI blade with Celeron® 1.2 GHz (723) processor and 1GB DDR3-1066 SODIMM
<b>Rear Transition Module</b>	
cPCI-R6000	4HP Rear I/O module with GbE x2, COM x2, USB x3, Floppy, SATA x2, SCSI, DVI-I
cPCI-R6000D	8HP Rear I/O module with GbE x2, COM x2, USB x5, Floppy, SATA x2, SCSI, DVI-I, PS/2 and Mic-in, Line-out
cPCI-R6000P	4HP Rear I/O module with GbE x2, COM x2, USB x3, Floppy, SATA x2, PIM, DVI-I
cPCI-R6100	4HP Rear I/O module with GbE x4, COM, USB x4, SATA x2, DVI, VGA, PS/2, CF, SD
cPCI-R6110	4HP Rear I/O module with GbE x2, COM, USB x4, SATA x3, VGA, PS/2, CF, SD

