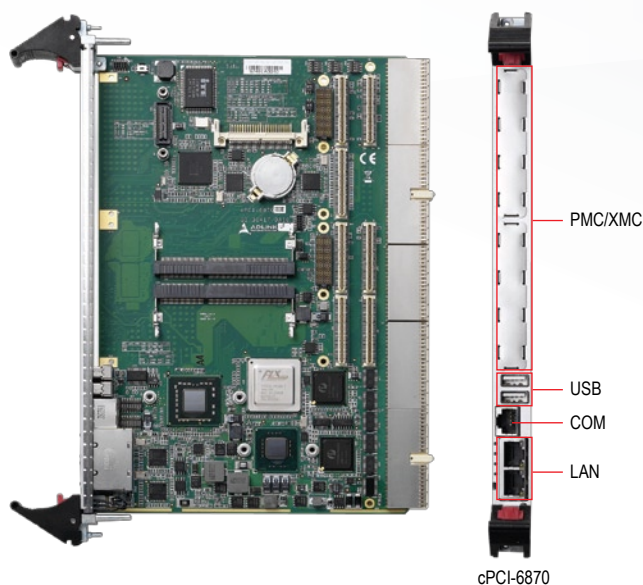


# cPCI-6870 Series

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



## 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

**EXTENDED  
TEMPERATURE**

## 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, 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)
PICMG Standards	<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® 82574L 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> <p>Two additional 10/100/1000BASE-T ports from Intel® 82576EB on RTM cPCI-R6101</p>
Graphics	<p>Integrated in Intel® GS45, powered by Gen-5.0 Graphics Architecture</p> <p>Analog VGA signal to rear</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>Up to three 16C550 compatible serial ports from Super IO</p> <p>One RJ45 COM port on front panel</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 (Standard temperature range support only)</p>
RTM*	<p>Up to 3 SATA ports</p> <p>CF (x1) and SD (x1) sockets</p> <p>Eight SAS ports by LSI SAS1068E with hardware RAID by two mini SAS x4 connectors</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>Wind River VxWorks 6.8</p> <p>Wind River VxWorks 5.5.1</p> <p>Wind River VxWorks 6.7</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
Watchdog Timer	System Reset and NMI, with programmable interval, 1-65535 seconds or minutes
Hardware Monitor	Monitors CPU temperature, system temperature, Vcore and DC voltages

### Mechanical & Environmental

Form Factor	6U 4HP CompactPCI®												
Operating Temperature	0°C to +60°C standard -20°C to +70°C extended temperature (cPCI-ET6870)												
Storage Temperature	-40°C to +85°C												
Rel. Humidity	95% non-condensing												
Shock	15G peak-to-peak, 11ms duration, non-operating												
Vibration	1.88 Grms random vibration, 5-500Hz, each axis, operating												
Power Consumption	Intel® Core™2 Duo SP9300, 2GB DDR3-1066, 80GB SAS onboard HDD under Windows® XP with 100% CPU loading												
	<table><tr><td></td><td>Current (A)</td><td>Power (W)</td></tr><tr><td>5V</td><td>6</td><td>30</td></tr><tr><td>3.3V</td><td>3.59</td><td>11.85</td></tr><tr><td>Total</td><td></td><td>41.85</td></tr></table>		Current (A)	Power (W)	5V	6	30	3.3V	3.59	11.85	Total		41.85
	Current (A)	Power (W)											
5V	6	30											
3.3V	3.59	11.85											
Total		41.85											
Weight	Net weight 831g with heatsink												

### Safety & EMI

Certifications	CE/ FCC
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## I/O Table

		GbE	USB 2.0	COM	VGA	PMC/XMC	SATA	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
<b>SBC</b>													
<b>cPCI-6870</b>	<b>Faceplate</b>	2	2	1 (RJ-45)									
	<b>Onboard</b>					2	1 <sup>(1)</sup>	1					
<b>RTM</b>													
<b>cPCI-R6101</b>	<b>Faceplate</b>	4	4	1(RJ-45)	1						1		
	<b>Onboard</b>						1 (7-pin)	1 <sup>(4)</sup>				1	
<b>cPCI-R6111</b>	<b>Faceplate</b>	2	4		1						1		
	<b>Onboard</b>						1 (for 2.5" HDD)	1 <sup>(4)</sup>				1	
<b>cPCI-R6201</b>	<b>Faceplate</b>	2	5	1(DB-9)	1				1	1	1		4 (SFF-8088)
	<b>Onboard</b>		1 (5-pin)	1 <sup>(2)</sup> (10-pin)			2 <sup>(3)</sup>	1 (optional) <sup>(3)</sup>					4 (SFF-8087)

(1) For 2.5" HDD direct connection. 2.5" HDD share the same space with outer PMC site and cannot be installed simultaneously.

(2) Tx, Rx signals only

(3) One 7-pin signal connector onboard for external HDD and one direct connector for onboard 2.5" SATA HDD. Optional CompactFlash slot is supported by replacing SATA connector adapter with CompactFlash adapter. SATA HDD and CF cannot be used simultaneously.

(4) Converted from USB

## Ordering Information

Model Number	Description/Configuration
<b>Processor Blades</b>	
cPCI-6870/SP93/M4G	6U CompactPCI® blade with Core™2 Duo 2.26 GHz (SP9300) processor and 2x 2GB 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 Modules</b>	
cPCI-R6101	4HP Rear I/O module with GbE x4, COM, USB x4, SATA, VGA, PS/2, CF, SD socket
cPCI-R6111	4HP Rear I/O module with GbE x2, USB x4, SATA, VGA, PS/2, CF, SD socket
cPCI-R6201	8HP Rear I/O module with GbE x2, USB x6, VGA, SATA x2, Mic-in, Line-out, PS/2 KB/MS, SAS x8

### Mezzanines

DB-CF-SA

CompactFlash socket adapter card  
(for cPCI-R6111 and cPCI-R6201)

