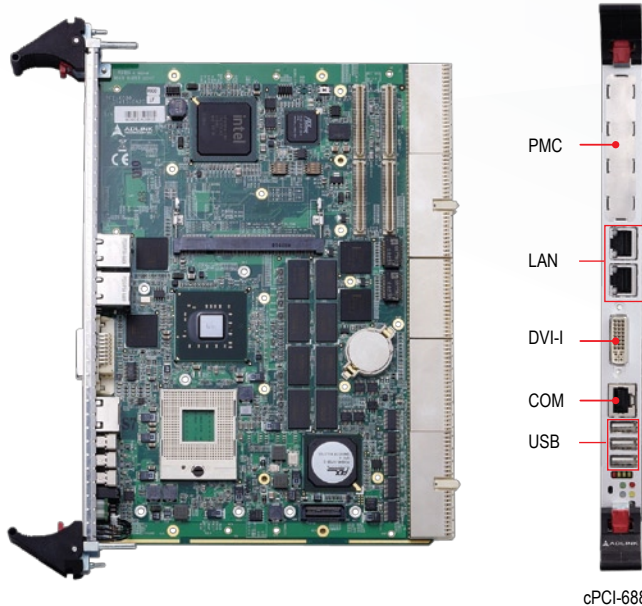


# cPCI-6880 Series

## 6U CompactPCI® 45nm Intel® Core™2 Duo Processor Blade



cPCI-6880

### Features

- 45nm Intel® Core™2 Duo 2.53GHz, 6MB L2 cache
- Up to 8GB DDR2-800 memory (soldered + SO-DIMM)
- DVI + VGA display interfaces
- Four PCI-Express GbE ports
- Supports system/peripheral operation

**CompactPCI®**



## Specifications

### Processor & System

CPU	<p>µFC-PGA Intel® Core™2 Duo Processor SV 2.53GHz (T9400), 6MB L2, FSB 1066MHz, TDP 35W</p> <p>µFC-PGA Intel® Core™2 Duo Processor LV 2.26GHz (P8400), 3MB L2, FSB 1066MHz, TDP 25W</p> <p>µFC-PGA Intel® Core™2 Duo Processor 2.2GHz (T7500), 4MB L2, FSB 800MHz, TDP 35W</p> <p>µFC-PGA Intel® single-core Celeron® M 2.0GHz (575), 1MB L2, FSB 667MHz, TDP 31W</p> <p>µFC-PGA Intel® dual-core Celeron® 1.9GHz (T3100), 1MB L2, FSB 800MHz, TDP 35W</p> <p>Intel® GM45 with ICH9M</p>
Chipset	Intel® GM45 with ICH9M
Memory	<p>Dual channel DDR2-667/800 SDRAM, up to 8GB</p> <p>One channel for soldered memory, up to 4GB; one channel for SO-DIMM socket</p>
BIOS	<p>AMIBIOS®8 dual 16Mbit SPI Flash memory</p> <p>Supports failover</p>
CompactPCI Bus	<p>PCI 64bit/ 66MHz, 3.3V or 5V universal V (I/O)</p> <p>Supports operation in system slot and peripheral slot (cPCI-6880P cannot be installed in a peripheral slot with CT bus backplane)</p>
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 v1.5 R1.0</p> <p>PICMG® 2.16 Packet Switching Backplane R1.0</p>

### Connectivity

PMC	One PCI 64bit/66MHz PMC site
Ethernet	<p>Four PCI-Express Intel® 82573L 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-R6100</p>
Graphics	<p>Integrated in Intel® GM45, powered by Gen-5.0 Graphics Architecture</p> <p>One DVI-I (digital+analog) port on front panel (Contact ADLINK if need DVI support on RTM)</p> <p>Analog VGA signal routed to RTM (mirror of VGA)</p> <p>Additional discrete ATI/AMD E4690 GPU supporting two DVI-I ports on RTM cPCI-R6700</p> <p>Analog monitor supports up to QXGA</p>
USB	<p>Three USB 2.0 front panel ports</p> <p>Six USB ports routed to RTM</p>
PS/2	PS/2 Keyboard Mouse port routed to RTM
Serial Port	<p>Max. three 16C550 compatible serial ports</p> <p>One RJ45 port on front panel, two serial ports routed to RTM</p>

### Storage

SBC	<p>Built in 4GB USB NAND flash onboard (Standard temperature range support only)</p> <p>One removable SATA direct connector for 2.5" onboard HDD</p> <p>Optional CF socket to replace SATA direct connector (Standard temperature range support only)</p>
RTM*	<p>Up to 3 SATA ports</p> <p>CF (x1) and SD (x1) sockets</p> <p>*Available interfaces dependent on RTM model selected</p>

### Operating System

OS	<p>Microsoft Windows® XP Professional</p> <p>Microsoft Windows® XP x64 Edition</p> <p>Microsoft Windows® Vista x64 Edition</p> <p>Microsoft Windows® 7</p> <p>Red Hat Enterprise Linux 5.1</p> <p>Wind River VxWorks 6.8, 6.6, 5.5.1</p> <p>(Please contact ADLINK for other OS support)</p>
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### Miscellaneous

LED	Power, WDT, Hot Swap, Hard Disk
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 & system temperatures, Vcore and DC voltages

### Mechanical & Environmental

Form Factor	<p>6U 4HP CompactPCI®</p> <p>233.33mm x 160mm (LxW)</p> <p>cPCI-6880: equipped with CompactPCI connectors J1,J2,J3,J5</p> <p>cPCI-6880P: equipped with CompactPCI connectors J1,J2,J3,J4,J5</p>												
Operating Temp.	<p>0°C to +60°C standard</p> <p>-20°C to +70°C extended temperature (cPCI-ET6880)</p>												
Storage Temp.	-40°C to +85°C												
Rel. Humidity	95% @60°C, non-condensing												
Shock	15G peak-to-peak, 11ms duration, non-operating												
Vibration	1.88 Grms, 5-500Hz, each axis, operating (with CF card)												
Power Consumption	<p>Single Core™2 Duo T9400, 4GB DDR2-800, 100GB SATA HDD onboard under Windows® XP with 100% CPU loading</p> <table border="1"> <thead> <tr> <th></th> <th>Current (A)</th> <th>Power (W)</th> </tr> </thead> <tbody> <tr> <td>5V</td> <td>8.46</td> <td>42.3</td> </tr> <tr> <td>3.3V</td> <td>2.20</td> <td>7.26</td> </tr> <tr> <td>Total</td> <td></td> <td>49.56</td> </tr> </tbody> </table>		Current (A)	Power (W)	5V	8.46	42.3	3.3V	2.20	7.26	Total		49.56
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5V	8.46	42.3											
3.3V	2.20	7.26											
Total		49.56											
Weight	Net weight 858g with heatsink												
Certifications	CE, FCC												

## I/O Table

		GbE	USB 2.0	COM	DVI	VGA	PMC	SATA	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
<b>SBC</b>														
cPCI-6880	Faceplate	2	3	1 (RJ-45)	1 (DVI-I)									
	Onboard						1	1 <sup>(1)</sup>	1 <sup>(1)</sup>					
<b>RTM</b>														
cPCI-R6002	Faceplate	2	2	1 (DB-9)		1								
	Onboard		1 (5-pin)	1 <sup>(2)</sup> (10-pin)				2 (7-pin)						
cPCI-R6000P	Faceplate	2	2	1 (DB-9)		1								
	Onboard		1 (5-pin)	1 (10-pin)			1 (PIM)	2 (7-pin)						
cPCI-R6100	Faceplate	4	4	1 (RJ-45)		1						1		
	Onboard							2 (7-pin)	1 <sup>(4)</sup>				1	
cPCI-R6110	Faceplate	2	4			1						1		
	Onboard							3 <sup>(3)</sup>	1 <sup>(4)</sup>				1	
cPCI-R6200	Faceplate	2	5	1 (DB-9)		1				1	1	1		4 (SFF-8088)
	Onboard		1 (5-pin)	1 <sup>(2)</sup> (10-pin)				3 <sup>(3)</sup>	1 (optional) <sup>(3)</sup>					4 (SFF-8087)
cPCI-R6700	Faceplate	2	3	1 (DB-9)	2 (DVI-I)									
	Onboard		2	1 <sup>(2)</sup> (10-pin)				3 (7-pin)			1 (10-pin)	1 (10-pin)		

(1) Removable SATA connector adapter for onboard 2.5" HDD. Optional CompactFlash socket is supported by replacing SATA connector adapter with CompactFlash adapter. 2.5" HDD and CF share the same space and cannot be installed 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. 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
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### Processor Blades

cPCI-6880/T94/M2-0	6U CompactPCI® blade with Core™2 Duo 2.53GHz (T9400) processor and 2GB soldered DDR2-800 memory
cPCI-6880/T94/M0-2	6U CompactPCI® blade with Core™2 Duo 2.53GHz (T9400) processor and 2GB DDR2-800 SODIMM
cPCI-6880/T94/M4-0	6U CompactPCI® blade with Core™2 Duo 2.53GHz (T9400) processor, 4GB soldered DDR2-667 memory
cPCI-6880/P84/M0-2	6U CompactPCI® blade with Core™2 Duo 2.26GHz (P8400) processor and 2 GB DDR2-800 SODIMM memory
cPCI-6880/T31/M0-2	6U CompactPCI® blade with dual core Celeron® 1.9GHz (T3100) processor and 2GB DDR2-800 SODIMM memory
cPCI-6880P/T94/M0-2	6U CompactPCI® blade with Core™2 Duo 2.53GHz (T9400) processor and 2GB DDR2-800 SODIMM memory with PIM support

SATA adapter is included in package of CPU board

### Rear Transition Modules

cPCI-R6002	4HP Rear I/O module with GbE x2, COM x2, USB x3, SATA x2, VGA
cPCI-R6000P	4HP Rear I/O module with GbE x2, COM x2, USB x3, SATA x2, PIM, VGA (for cPCI-6880P)
cPCI-R6100	4HP Rear I/O module with GbE x4, COM, USB x4, SATA x2, VGA, PS/2, CF, SD
cPCI-R6110	4HP Rear I/O module with GbE x2, USB x4, SATA x3, VGA, PS/2, CF, SD
cPCI-R6700	4HP Rear I/O module with discrete GPU ATI/AMD E4690, DVI-I x2, GbE x2, USB x3, COM x2, KB/MS header, SATA x3, audio header

### Mezzanines

DB-CF-SB	CompactFlash socket adapter kit for cPCI-6880
DB-CF-SA	CompactFlash socket adapter kit for cPCI-R6002D, cPCI-R6200

Contact your ADLINK representative for different CPU, memory combinations. See 6U RTM selection guide for more options.

