

# ePCI-201

Pentium 4 SHB



Board Rev. 0

## QUICK REFERENCE

Document version 1.2



An incorrect setting of W3 jumper can damage the CPU and the Board.



There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type. Dispose of used batteries according to the manufacturer's instructions.

### First Level Debugging

1. Remove all peripheral boards and keep only the SHB.
2. Remove all cables from the SHB except the **video cable** and the **CPU Power Cable (connector J22)**.
3. Make sure the memory is working well and is properly inserted.

### JUMPER SETTINGS

(\* : Default Setting)

W1, W2 - COM2 Terminations		
RS-422/485 modes only	W1	W2
* Without termination resistors	Out	Out
With termination resistors	In	In

W3 - CPU Type Selection	
Mobile	1-2
* Desktop	3-4

This jumper is critical

W4 - Reserved	
* Reserved	Out

W5 - Console Redirection	
* Disabled	Out
Enabled	In

W6 - Onboard Video	
* Enabled	Out
Disabled	In

W7 - B_M66EN override	
* Autodetect PCI Mode	Out
Prohibit PCI-66MHz operation	In

W8 - B_PCIXCAP override	
* Autodetect PCI-X Mode	Out
Prohibit PCI-X operation	In

W9, W10 - Reserved		
* Reserved	W9	W10
	Out	Out

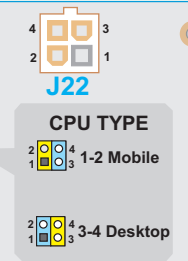
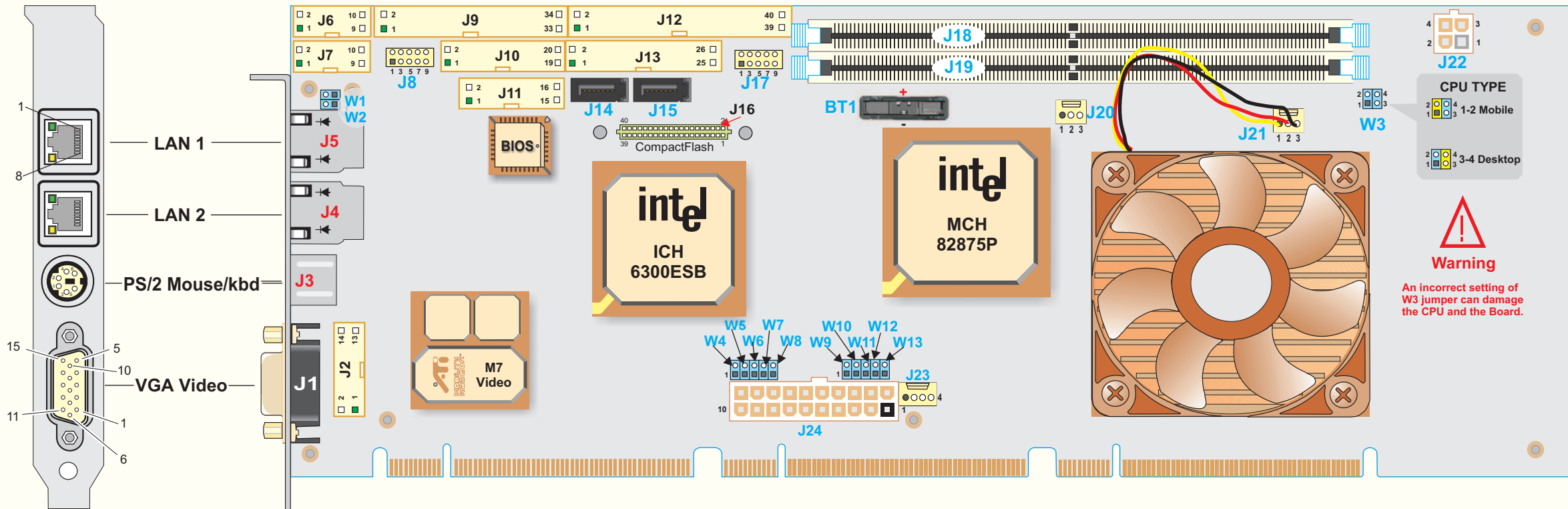
W11 - Clear CMOS	
* Normal Operation	Out
Clear CMOS Memory	In

W12 - Battery Source	
* Battery Disconnected	Out
Battery Connected	In

W13 - ATX Control Override	
* Normal Operation	Out
Bypass ATX	In

### Connectors

- J1 Primary Video
- J2 Secondary Video & TV-OUT
- J3 PS/2 Keyboard/Mouse
- J4 Ethernet LAN2
- J5 Ethernet LAN1
- J6 Serial Port COM1 (header)
- J7 Serial Port COM2 (header)
- J8 USB 0 & 1
- J9 Floppy
- J10 Hardware Monitor
- J11 Multifunction
- J12 Parallel ATA
- J13 Parallel Port
- J14, J15 Serial ATA
- J16 CompactFlash
- J17 USB 2 & 3
- J18-J19 Memory (DIMM)
- J20 MCH Fan
- J21 CPU Fan
- J22 CPU Power
- J23 POST Codes
- J24 ATX Power Supply



**Warning**

An incorrect setting of W3 jumper can damage the CPU and the Board.

# Connector Pinouts

ePCI-201

QR Rev. 1.2

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## J1 - Primary Video

<b>Row 1 (1-5)</b>		9	N.C.
1	RED	10	GND
2	GREEN	<b>Row 3 (11-15)</b>	
3	BLUE	11	N.C.
4	N.C.	12	SDATA
5	Gnd	13	HSYNC
<b>Row 2 (6-10)</b>		14	VSYNC
6-8	A_GND	15	SCLK

## J4, J5 - Ethernet 2 & 1

1	MDIO+	5	MDI2-
2	MDIO-	6	MDI1-
3	MDI1+	7	MDI3+
4	MDI2+	8	MDI3-

\*Pinout from the faceplate view

## J3 - PS/2 Keyb. & Mouse

1	KB:DATA	4	VCC
2	MOUSE:DATA	5	KB:CLK
3	GND	6	MOUSE:CLK

## J2 - TV-Out/Secondary Video (header)

1	(TV-Out composite out) COMP	2	GND
3	(TV-Out S-Video chroma) C	4	Y (TV-Out S-Video luma)
5	GND	6	RED (Secondary CRT)
7	GND	8	GREEN (Secondary CRT)
9	GND	10	BLUE (Secondary CRT)
11	GND	12	HSYNC (Secondary CRT)
13	GND	14	VSYNC (Secondary CRT)

## J6, J7 - Serial 1/2 - RS-232

DCD	1	2	DSR
RXD	3	4	RTS
TXD	5	6	CTS
DTR	7	8	RI
GND	9	10	N.C.

## J7 - Serial Port 2 - RS-485

RSV	1	2	RSV
RX-	3	4	RX+
TX-	5	6	TX+
RSV	7	8	RI
GND	9	10	N.C.

## J8 - USB 0&1

USB0:VCC	1	2	USB1:VCC
USB0:DATA-	3	4	USB1:DATA-
USB0:DATA+	5	6	USB1:DATA+
USB0:GND	7	8	USB1:GND
GND	9	10	GND

## J17 - USB 2&3

USB2:VCC	1	2	USB3:VCC
USB2:DATA-	3	4	USB3:DATA-
USB2:DATA+	5	6	USB3:DATA+
USB2:GND	7	8	USB3:GND
GND	9	10	GND

## J9 - Floppy Disk

1	GND	2	DENSEL#
3	GND	4	N.C.
5	GND	6	N.C.
7	GND	8	INDEX#
9	GND	10	MTR0#
11	GND	12	DSEL1#
13	GND	14	DSEL0#
15	GND	16	MTR1#
17	N.C.	18	DIR#
19	GND	20	STEP#
21	GND	22	WDATA#
23	GND	24	WGATE#
25	GND	26	TRK0#
27	N.C.	28	WRPROT#
29	FDTECT	30	RDATA#
31	GND	32	HDSSEL#
33	N.C.	34	DSKCHG#

## J10 - Hardware Monitor

GND	1	2	PWRBTN#
Reserved	3	4	GND
GPIO1/SMBDATA	5	6	GPIO2/SMBCLK
APFLT#	7	8	CPUFLT#
EXTFLT#	9	10	GND
FANFLT#	11	12	GND
CHASINT#	13	14	GND
FAN_TACH1	15	16	FAN_TACH2
FAN_TACH3	17	18	FAN_TACH4
FAN_TACH5	19	20	FAN_TACH6

## J11 - Multifunction

KB:CLK	1	2	GND
KB:DATA	3	4	GND
VCC	5	6	VCC
SPEAKER	7	8	VCC
MOUSE:CLK	9	10	GND
MOUSE:DATA	11	12	GND
PBRES#	13	14	GND
IDE:ACT#	15	16	VCC

## J12 - Parallel ATA

1	RST#	2	GND
3	D7	4	D8
5	D6	6	D9
7	D5	8	D10
9	D4	10	D11
11	D3	12	D12
13	D2	14	D13
15	D1	16	D14
17	D0	18	D15
19	GND	20	N.C.
21	REQ	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	IORDY	28	PRIMPDI
29	DACK#	30	GND
31	IRQ	32	N.C.
33	A1	34	DIAG#
35	A0	36	A2
37	CS0#	38	CS1#
39	ACT#	40	GND

## J13 - Parallel Port / Standard

1	STB#	2	ALF#
3	D0	4	ERR#
5	D1	6	INIT#
7	D2	8	SLCTIN#
9	D3	10	GND
11	D4	12	GND
13	D5	14	GND
15	D6	16	GND
17	D7	18	GND
19	ACK#	20	GND
21	BUSY	22	GND
23	PE	24	GND
25	SELECT.	26	GND

## J14, J15 - Serial ATA

1	GND	5	RX-
2	TX+	6	RX+
3	TX-	7	GND
4	GND		

## J16 - CompactFlash

1	D11	2	GND
3	D12	4	D3
5	D13	6	D4
7	D14	8	D5
9	D15	10	D6
11	CS1#	12	D7
13	DMACK#	14	CS0#
15	DMARQ	16	IOR#
17	PDIAG#	18	IOW#
19	IRQ15	20	VCC
21	VCC	22	VCC
23	GND	24	GND
25	RESET#	26	GND
27	CSEL	28	A2
29	A1	30	DASP#
31	A0	32	IORDY
33	D0	34	D8
35	D1	36	D9
37	D2	38	D10
39	IOCS16#	40	GND

## J20 - MCH FAN

1	Sense
2	+12V
3	GND

## J21 - CPU FAN

1	Sense
2	+12V
3	GND

## J22 - CPU POWER

1	GND	3	+12
2	GND	4	+12

## J23 - POST CODE

1	+3.3V
2	POST:DATA
3	POST:CLOCK
4	GND

## J24 - ATX Power Supply

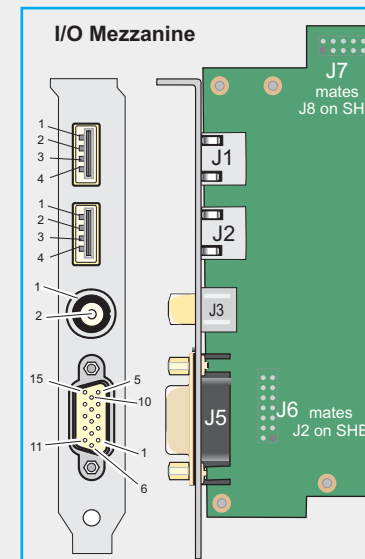
1	VCC3	11	VCC3
2	VCC3	12	-12
3	GND	13	GND
4	VCC	14	PS_ON#
5	GND	15	GND
6	VCC	16	GND
7	GND	17	GND
8	PWRQ K	18	N.C.
9	+5VSB	19	VCC
10	+12V	20	VCC

## For Technical Support please contact:

1. Internet : [www.kontron.com](http://www.kontron.com)
2. E-Mail : [support@ca.kontron.com](mailto:support@ca.kontron.com)
3. Fax : (450) 437-8053
4. Tel : (800) 354-4223

The Technical Reference Manual and the Quick Reference can be downloaded from Kontron web site at:

- <http://www.kontron.com>
- or from Kontron FTP site at:
- <ftp://ftp.kontron.ca/Support/>



## J1, J2 - USB 0 & 1

1	VCC
2	DATA-
3	DATA+
4	GND

## J3 - RCA Connector

1	GND
2	COMPOSITE

## J5 - Secondary Video

<b>Row 1 (1-5)</b>		9	N.C.
1	RED	10	GND
2	GREEN	<b>Row 3 (11-15)</b>	
3	BLUE	11	N.C.
4	N.C.	12	N.C.
5	Gnd	13	HSYNC
<b>Row 2 (6-10)</b>		14	VSYNC
6-8	A_GND	15	N.C.