

CONNECTORS

J1-J5	CompactPCI	J17	Mouse / Keyboard
J6-J8	DIMMs	J18	CompactFlash
J12	Video (SVGA)	J19	Storage Mezzanine
J13	Serial Port 1	J14, J19	Kontron's Mezzanine
J20, 21	PMC Mezzanine	S1	RESET Button
J15, 16	Ethernet 2 & 1	J24	Hot Swap Switch

JUMPER SETTINGS (* : Default Setting)

W1 • VT-100 / Download Mode			
Enable VT-100 mode	1-2		
Reserved	3-4		
W2 • Board Configuration			
Rear Access	in		
Front Access	out		
W3 • Compact Flash Disk			
Master	in		
* Slave	out		
W4 • Battery			
Connected	in		
* Disconnected	out		
W5 • Remote Reset			
Reset by Com1	1-2		
Reset by Com2	2-3		
* Disable	none		
W6 • SCSI Active Termination			
Software controlled	1-3		
* Hardware controlled	2-4		
Always disabled	None		
W7 • Onboard Video			
Disabled	in		
* Enabled	out		
W8, W9 • COM2 Terminations			
RS-422/485 modes only	W8	W9	
With termination	in	in	
* Without termination	out	out	

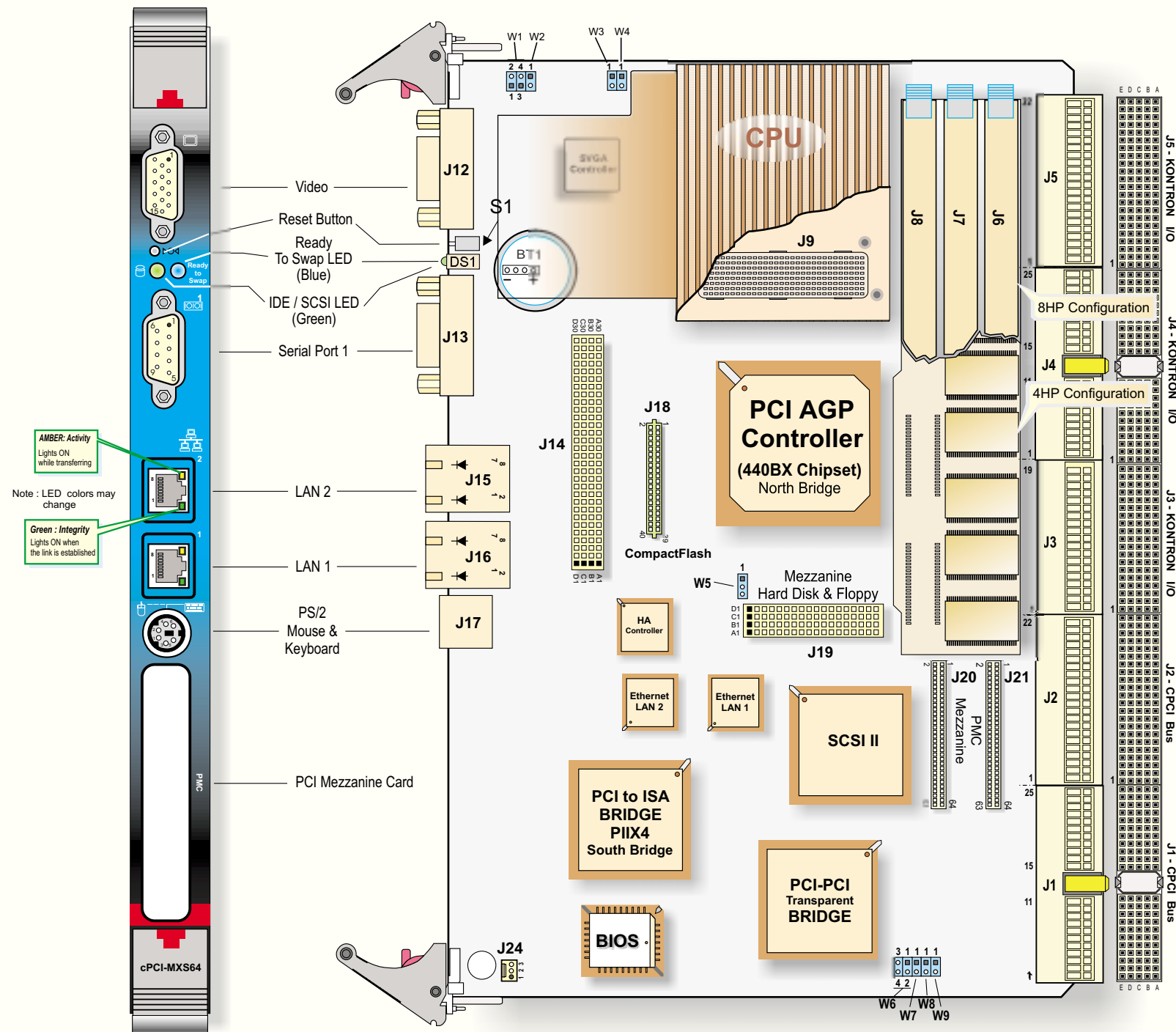
First Level Debugging

Blue LED always ON

Blue LED OFF

1. Remove all peripheral and external connections.
2. Verify if the board is in the correct CPCI slot.
3. Verify the power supply.

1. Check the jumper settings
2. Check the memory



Connector Pinouts

cPCI-MXS64

6U CompactPCI® 64-bit System Processor

Rev. 1

J1 - CompactPCI Bus

ROW A	ROW B	ROW C	ROW D	ROW E
1 VCC3E	-12VE	RSV	+12VE	VCC3E
2 RSV	VCC3E	RSV	RSV	RSV
3 INT#	HEALTHY#	INT#	VCC3E	INT#
4 IPMB_PWR	HEALTHY#	VIO	INTP	INTD
5 BRSVP1A6	BRSVP1B5	RST#	GND	GNT0#
6 REQ0#	GND	VCC3E	CLK0	AD31
7 AD30	AD29	AD28	GND	AD27
8 AD26	GND	VIO	AD25	AD24
9 CBE3#	RSV	AD23	GND	AD22
10 AD21	GND	VCC3E	AD20	AD19
11 AD18	AD17	AD16	GND	CBE2#
12				
13				
14				
15 VCC3E	FRAME#	IRDY#	BD_SEL#	TRDY#
16 DEVSEL#	GND	VIO	STOP#	LOCK#
17 VCC3E	IPMB_SCL	IPMB_SDA	GND	PERR#
18 SERR#	GND	VCC3E	PAR	CBE1#
19 VCC3E	AD15	AD14	GND	AD13
20 AD12	GND	VIO	AD11	AD10
21 VCC3E	AD9	AD8	M66EN	CBE0#
22 AD7	GND	VCC3E	AD6	AD5
23 VCC3E	AD4	VCC3E	VCC3E	AD2
24 AD1	VCC3E	VIO	AD0	ACK64#
25 VCC3E	REQ64#	ENUM#	VCC3E	VCC3E

Key Area

Long Pins

Short Pins

J2 - CompactPCI Bus

ROW A	ROW B	ROW C	ROW D	ROW E
1 S_CLK1	GND	REQ1#	GNT1#	REQ2#
2 S_CLK2	S_CLK3	SYSEN#	GNT2#	REQ3#
3 S_CLK4	GND	GNT3#	GNT4#	REQ4#
4 VIO	BRSV	CBE7	GND	CBE6#
5 CBE5#	RSV	VIO	CBE4#	PAR64
6 AD63	AD62	AD61	GND	AD60
7 AD59	GND	VIO	AD58	AD57
8 AD56	AD55	AD54	GND	AD53
9 AD52	GND	VIO	AD51	AD50
10 AD49	AD48	AD47	GND	AD46
11 AD45	GND	VIO	AD44	AD43
12 AD42	AD41	AD40	GND	AD39
13 AD38	GND	VIO	AD37	AD36
14 AD35	AD34	AD33	GND	AD32
15 BRSV	GND	FAL#	REQ5#	GNT5#
16 BRSV	BRSV	DEG#	GND	BRSV
17 BRSV	GND	PRST#	REQ6#	GNT6
18 BRSV	BRSV	BRSV	GND	BRSV
19 GND	GND	IPMB_SCL	IPMB_SDA	IPMB_ALERT
20 CLK5	GND	RSV	GND	RSV
21 CLK6	GND	RSV	RSV	RSV
22 GA4	GA3	GA2	GA1	GA0

J5 - CompactPCI I/O

ROW A	ROW B	ROW C	ROW D	ROW E
1 IDE0:RST#	IDE0:RST#	IDE0:D7	IDE0:D8	IDE0:D6
2 IDE0:D9	IDE0:D5	IDE0:D10	IDE0:D4	IDE0:D11
3 IDE0:D3	IDE0:D12	IDE0:D2	IDE0:D13	IDE0:D1
4 IDE0:D14	IDE0:D0	USB1:GND	IDE0:D15	IDE0:IRQ14
5 IDE0:REQ	IDE0:IORDY	IDE0:IOV#	IDE0:ACK#	IDE0:IOR#
6 IOCS16	GND	IDE0:DIAG#	IDE0:A0	IDE0:A2
7 IDE0:CS1#	IDE0:CS3#	IDE0:A1	IDE1:DIAG#	FD:DRVEN0#
8 FD:DRVEN1#	FD:INDEX#	FD:MTR0#	FD:DS1#	FD:DS0#
9 FD:MTR1#	FD:DIR#	FD:STEP#	FD:WDATA#	FD:WGATE#
10 FD:TRK0#	FD:WRTPRT#	FD:RDATA#	FD:HSSEL#	FD:DSKCHG#
11 COM2:DCD	GND	COM2:RXD	COM2:DSR	COM2:TXD
12 COM2:RTS	COM2:CTS	COM2:RI	VCC	COM2:DTR
13 COM1:DCD	VCC	COM1:RXD	COM1:DSR	COM1:TXD
14 COM1:RTS	COM1:CTS	COM1:RI	GND	COM1:DTR
15 LPT:SLCT	LPT:PE	LPT:BUSY	LPT:ACK#	LPT:D7
16 LPT:D6	LPT:D5	LPT:D4	LPT:D3	LPT:SLCTIN#
17 LPT:D2	LPT:INI#	LPT:D1	LPT:ERR#	LPT:D0
18 LPT:ALF#	USB1:DATA+	USB1:DATA1+	USB0:GND	USB0:VCC
19 LPT:STB#	USB1:GND	USB1:VCC	USB0:DATA+	USB0:DATA-
20 VCC	SMBDATA	SMBALERT#	GND	SMBCLK
21 KB:DATA	KB:CLK	KB:VCC	MOUSE:DATA	MOUSE:CLK
22 PBRST#	GND	DIAG_OC#	VCC	SPEAKER

J3 - CompactPCI I/O

ROW A	ROW B	ROW C	ROW D	ROW E
1 RSV	SCSI:I/O+	SCSI:I/O+	RSV	GND
2 GND	RSV	GND	RSV	GND
3 RSV	VCC	SCSI:D9+	SCSI:DIFFSENS	RSV
4 RSV	SCSI:D10+	RSV	SCSI:CD+	RSV
5 RSV	GND	RSV	GND	SCSI:SEL+
6 GND	LAN0:SPLED	LAN0:LINKLED	LAN0:ACTLED	LAN1:SPLED
7 LAN1:ACTLED	SD7	SD6	SD5	SD4
8 GND	VCC	VCC	SD3	SD2
9 LAN1:ETX+	LAN1:ETX-	LAN1:ERX+	LAN1:ERX-	GND
10 GND	WR_80#	SD1	+12V	+12V
11 COM4:DCD	GND	COM4:RXD	COM4:DSR	COM4:TXD
12 COM4:RTS	COM4:CTS	COM4:RI	VCC	COM4:DTR
13 COM3:DCD	VCC	COM3:RXD	COM4:DSR	COM3:TXD
14 COM3:RTS	COM3:CTS	COM3:RI	SCSI:D8+	COM3:DTR
15 S2BDSEL#	S3BDSEL#	S3PCIRST#	SD0	S4_BD_SEL#
16 S2HEALTHY#	S3HEALTHY#	RSV	SCSI:REQ+	S4_PCL_RST#
17 S2PCIRST#	RSV	SHHEALTHY#	S4_PCL_RST#	S4_PCL_RST#
18 RSV	EXT_SIDEACT#	HW_ACT#	COM2:IRRX	COM2:IRTX
19 RSV	RSV	RSV	S5_BD_SEL#	RSV

J4 - CompactPCI Bus

ROW A	ROW B	ROW C	ROW D	ROW E
1 I2C:CLK	I2C:DATA	LID	ExtFanFail#	ExtFanFail#
2 SM-BYPASS#	SCSI:D11-	SCSI:D10-	SCSI:D9-	SCSI:D8-
3 SCSI:I/O-	SCSI:REQ-	SCSI:CD-	SCSI:SEL-	SCSI:MSG-
4 SCSI:RST-	SCSI:ACK-	SCSI:BSY-	SCSI:BSY+	SCSI:ATN-
5 SCSI:ACK+	N.C.	SCSI:TERMPWR	SCSI:TERMPWR	SCSI:DP0+
6 SCSI:ATN+	SCSI:DP0-	SCSI:D7-	SCSI:D6-	SCSI:D5-
7 SCSI:DP1-	SCSI:D3-	SCSI:D2-	SCSI:D1-	SCSI:D0-
8 SCSI:DP1+	SCSI:D15-	SCSI:D14-	SCSI:D13-	SCSI:D12-
9 SCSI:RST+	SCSI:MSG+	S6HEALTHY#	VGA:DATA	S6PCIRST#
10 VGA:CLK	VGA:HSYNC	VGA:RED	VGA:GREEN	VGA:BLUE
11 VGA:BLUE	SCSI:D3+	S6BDSEL#	SCSI:D5+	SCSI:D6+
12				
13				
14				
15	SCSI:D0+	VCC	S6HEALTHY#	S6PCIRST#
16	LAN0:ETX+	LAN0:ETX-	LAN0:ERX-	SCSI:D7+
17	BRSTDRV#	SCSI:D15+	IDE1:D7	IDE1:D6
18	IDE1:D9	IDE1:D5	IDE1:D4	IDE1:D11
19	IDE1:D3	IDE1:D12	IDE1:D2	IDE1:D1
20	IDE1:D14	IDE1:D0	IDE1:D15	SCSI:D4+
21	IDE1:REQ	SCSI:D13+	IDE1:IOV#	SCSI:DP1+
22	SCSI:D12+	IDE1:IORDY	IDE1:ACK#	IDE1:IRQ15
23	IDE1:IO16	IDE1:A1	SCSI:D2+	IDE1:A0
24	IDE1:CS1#	IDE1:CS3#	SCSI:D14+	SCSI:D1+
25	STPCIRST#	S8BDSEL#	S8HEALTHY#	S8PCIRST#

J18 - CompactFlash (IDE1)

ROW A	ROW B	ROW C	ROW D	ROW E
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 PDIA#	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			

S1 - RESET Switch

1 RESET#
2 GND

J24 - Hot Swap Switch

1 VCC3E
2 SW_OPEN#
3 GND

~ Note ~

VCC = +5V
VCC3E = +5V Early
VCC3E = +3.3V
VCC3E = +3.3V Early
+12VE = +12V Early
-12VE = -12V Early

J14 - PCI Mezzanine Card

ROW A	ROW B	ROW C	ROW D
1 MS2_BD_SEL#	PBRST#	MS4_BD_SEL#	AD0
2 MS2_HEALTHY#	AD2	AD1	VCC
3 AD5	GND	AD4	AD3
4 C/BE0#	AD7	GND	AD6
5 GND	AD9	AD8	GND
6 AD11	VCC	AD10	MS8_HEALTHY#
7 AD14	AD13	GND	AD12
8 VCC3	C/BE1#	AD15	VCC3
9 SERR#	GND	MS4_HEALTHY#	PAR
10 GND	PERR#	VCC3	MEZ_SDONE
11 STOP#	VCC3	LOCK#	GND
12 VCC3	TRDY#	GND	DEVSEL#
13 FRAME#	GND	IRDY#	VCC3
14 GND	AD16	VCC3	C/BE2#
15 AD18	VCC3	AD17	GND
16 AD21	AD20	GND	AD19
17 VCC3	AD23	AD22	VCC3
18 RSV	GND	MS4_PCL_RST#	MS8_BD_SEL#
19 AD24	C/BE3#	MS5_BD_SEL#	MS7_PCL_RST#
20 GND	AD26	AD25	GND
21 AD29	VCC	AD28	AD27
22 MS2_PCL_RST#	AD30	GND	AD31
23 REQ_MEZ#	GND	MS5_HEALTHY#	VCC
24 GND	MS8_PCL_RST#	MS5_PCL_RST#	VCC
25 MS3_BD_SEL#	VCC	MS6_BD_SEL#	GND
26 MS3_HEALTHY#	PCLK_MEZ	MS6_HEALTHY#	MS7_HEALTHY#
27 MS3_PCL_RST#	VCC	MS6_PCL_RST#	GND
28 GND	INTA#	MS7_BD_SEL#	PCIRST#
29 +12V	INTB#	INTC#	INTD#
30 -12V	ENUM#	SMBCLK	SMBDATA

J19 - Storage Mezzanine (hard disk and floppy)

ROW A	ROW B	ROW C	ROW D
1 VCC	VCC	VCC	VCC
2 VCC	VCC	VCC	IDE0:D0
3 MCLK	MOUSE:DATA	IDE0:D1	IDE0:D2
4 KB:DATA	KB:CLK	IDE0:D3	IDE0:D4
5 KB:VCC	GND	IDE0:D5	IDE0:D6
6 GND	GND	IDE0:D7	IDE0:D8
7 GND	GND	IDE0:D9	IDE0:D10
8 GND	GND	IDE0:D11	IDE0:D12
9 GND	GND	IDE0:D13	IDE0:D14
10 FD:DS1#	FD:DRVEN0#	IDE0:D15	BRSTDRV#
11 FD:DRVEN1#	FD:MTR1#	IOV#	REQ
12 FD:INDEX#	FD:DS0	IORDY	IOR#
13 FD:SKCHG#	FD:ET	IRQ14	IDE0:ACK#
14 FD:MTR0#	FD:DIR	DA0	DA1
15 FD:STEP#	FD:WDATA	DA2	IDE:PD1
16 FD:WGATE#	FD:TRKO-	IDE:ACT#	CS1#
17 FD:WRTPRT#	FD:RDATA	CS3#	DIAG#
18 FD:HSSEL#	+12V	IO16	+12V

J12 - Video (SVGA)

1 RED	9 I.N.C.
2 GREEN	10 GND
3 BLUE	11 N.C.
4 N.C.	12 SDATA
5 GND	13 HSYNC
6 GND	14 VSYNC
7 A_GND	15 SCLK

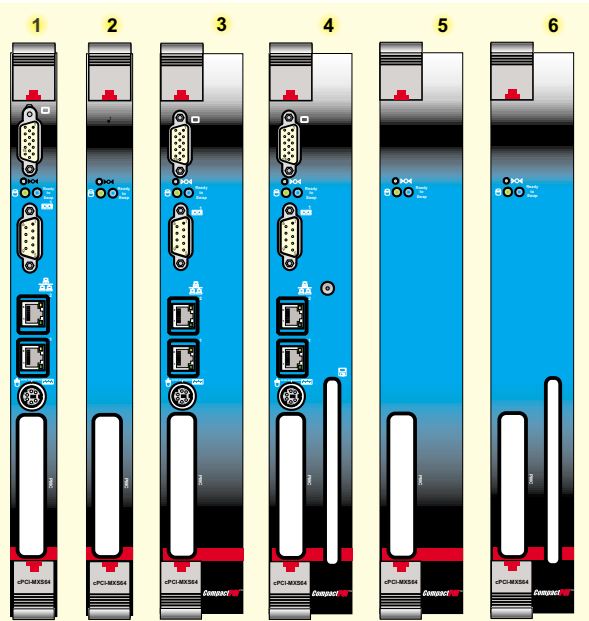
J17 - PS/2 Keyb. & Mouse

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

J13 - Serial 1 - RS-232

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

Faceplate Configurations



- 1. 4HP Front Access
- 2. 4HP Rear Access
- 3. 8HP Front Access
- 4. 8HP Front Access with Floppy
- 5. 8HP Rear Access
- 6. 8HP Rear Access with Floppy

I/O MAPPING

000-01F	DMA Controller 1
020-03F	Interrupt controller 1
040-05F	Timer
060-06F	Keyboard
070-07F	Real Time Clock
080-09F	DMA Page Register
0A0-0BF	Interrupt controller 2
0C0-0DF	DMA controller 2
0F0-0FF	Math Coprocessor
190-19F	Default Value
290-29F	Kontron Control Port
390-39F	
170-177, 376	Secondary IDE
1F0-1F7, 3F6	Primary IDE
278-27A	Parallel Port (option)
2E8-2EF	COM4
2F8-2FF	COM2
370-377	Floppy Disk (option)
378-37A	Parallel Port (LPT1)
3BC-3BE	Parallel Port (option)
3E8-3EF	COM3
3F0-3F7	Floppy Disk
3F8-3FF	COM1
3C0-3CF/3D0	Graphic Controller
3DF/3B0-3BB	

MEMORY MAPPING

00000-9FFF	0-640KB DRAM
A0000-BFFF	Video DRAM
C0000-CBFF	Video BIOS
CC000-FFFF	Optional BIOS
E0000-FFFF	Main BIOS
100000 to top	1MB to top of RAM

The Technical Reference Manual can be downloaded from the Kontron FTP site at:
ftp://ftp.kontron.ca/Support/Product_Manuals/
The Quick Reference can be downloaded from:
ftp://ftp.kontron.ca/Support/Product_Manuals/QuickRef/
To order a hard copy of the Technical Reference Manual, contact Customer Service at (450) 437-5682.

For Technical Support please contact:

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

J21 - PCI Mezzanine Card (PMC)

1 +12V	33 GND	2 N.C.	34 N.C.
3 N.C.	35 IRDY#	4 N.C.	36 VCC3
5 N.C.	37 GND	6 GND	38 STOP#
7 GND	39 PERR#	8 N.C.	40 GND
9 N.C.	41 VCC3	10 N.C.	42 SERR#
11 BMode2#	43 CBE1#	12 VCC3	44 GND
13 PCIRST#	45 AD14	14 BMode3#	46 AD13
15 VCC3	47 GND	16 BMode4#	48 AD10
17 N.C.	49 AD8	18 GND	50 VCC3
19 AD30	51 AD7	20 AD29	52 N.C.
21 GND	53 VCC3	22 AD26	54 N.C.
23 AD24	55 N.C.	24 VCC3	56 GND
25 IDESEL	57 N.C.	26 AD23	58 N.C.
27 VCC3	59 GND	28 AD20	60 N.C.
29 AD18	61 N.C.	30 GND	62 VCC3
31 AD16	63 GND	32 CBE2#	64 N.C.

J20 - PCI Mezzanine Card (PMC)

1	N.C.	33	FRAME#	2	-12V	34	GND
3	GND	35	GND	4	INTA#	36	IRDY#
5	INTB#	37	DEVSEL#	6	INTC#	38	VCC
7	BMode1#	39	GND	8	VCC	40	LOCK#
9	INTD#	41	SDone	10	N.C.	42	SB0#
11	GND	43	PAR	12	N.C.	44	GND
13	PCLK	45	VCC	14	GND	46	AD15
15	GND	47	AD12	16	GNT#	48	AD11
17	REQ#	49	AD9	18	VCC	50	VCC
19	VCC	51	GND	20	AD31	52	CBE0#
21	AD28	53	AD6	22	AD27	54	AD5
23	AD25	56	AD4	24	GND	56	GND
25	GND	57	VCC	26	CBE3#	58	AD3
27	AD22	59	AD2	28	AD21	60	AD1
29	AD19	61	AD0	30	VCC	62	VCC
31	VCC	63	GND	32	AD12	64	N.C.