CTM80-2

Rear Panel I/O

Board Rev. 1

kontron

QUICK REFERENCE

Document version 1.2

CONNECTORS

4HP		8HP	
J3-J5	CompactPCI	J2	PS/2 Mouse
J6, J7	USB2, USB1	J7	HDD 2.5" (Secondary IDE)
J8	Mouse / Keyboard	J10	COM 2
J9	Floppy Drive header	J5	Floppy Drive
J10	IDE header	J12	Floppy Drive header
J11	Video (SVGA)	J14	IDE1 header
J12	Hard Disk Power	J15	PS/2 Mouse & HD Power
J13	SCSI 3 LVD Internal	J19	COM2 header
J14	SCSI 3 LVD External		
J15, J16	LAN 2, LAN 1		
J19	COM 1		
J20	COM 2 Header		

Note:
4HP refers to the Rear I/O Board
8HP refers to the Mezzanine Board

JUMPER SETTINGS

W2
HDD Configuration, on Mezzanine

	Master	Slave
W2	2-3	1-2

Note 1
SCSI-3 LVDS supports Ultra160

Note 2
RTM is compatible with cPCI-DT64, CP6000, CP6010 and CP6011

Note 3
When using the 2.16 backplane, U1, U2, J15 (LAN1) and J16 (LAN2)are removed.

Note 4
For J14, IDE connector in 8HP, use the 7" cable provided with the RTM (Kontron PN: 150-544-00).
Device on the IDE cable connected on J14 should bet set to "Slave" if a 2.5" hard disk is present on the mezzanine.

Note 5
* Populated with PIM option (T6701#B_#-## or T6701#D_#-##)
** Populated with SCSI option (T6701#A_#-## or T6701#C_#-##)

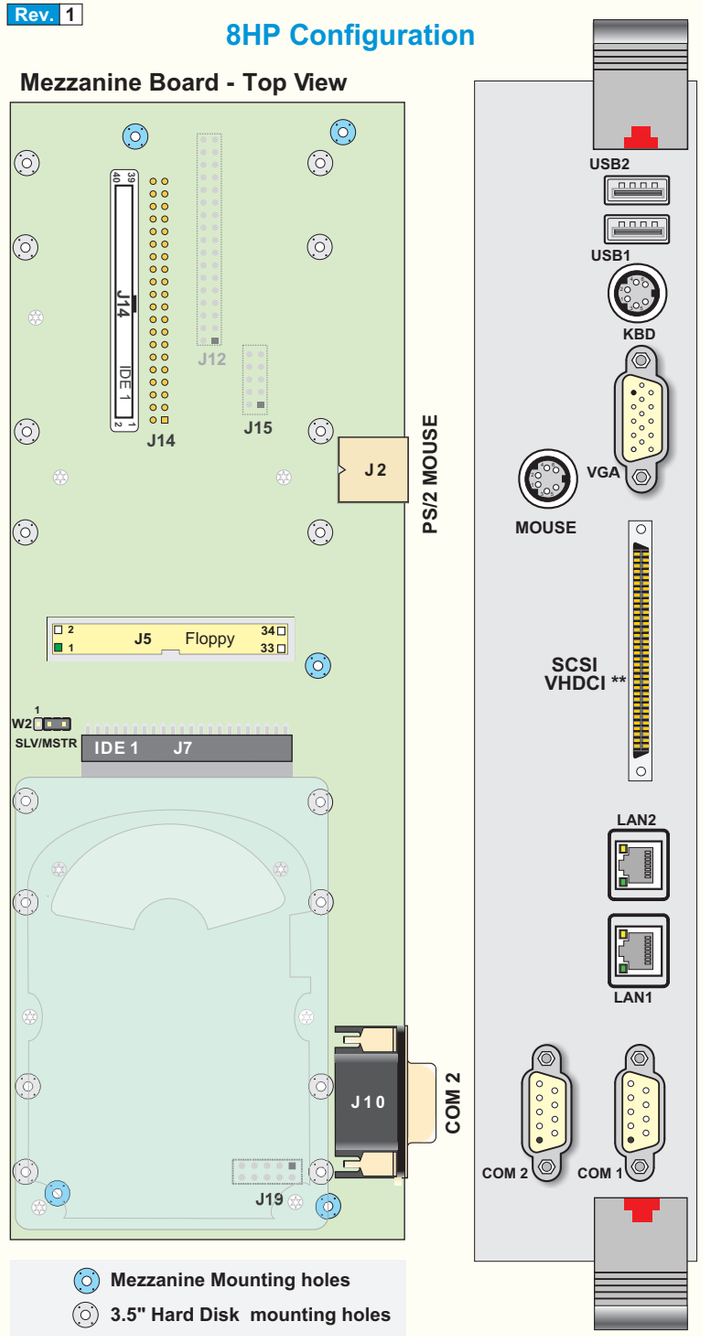
First Level Debugging

HDD IDE is not detected or fails to boot
Check the HDD configuration jumpers (see jumper settings)

Rev. 1

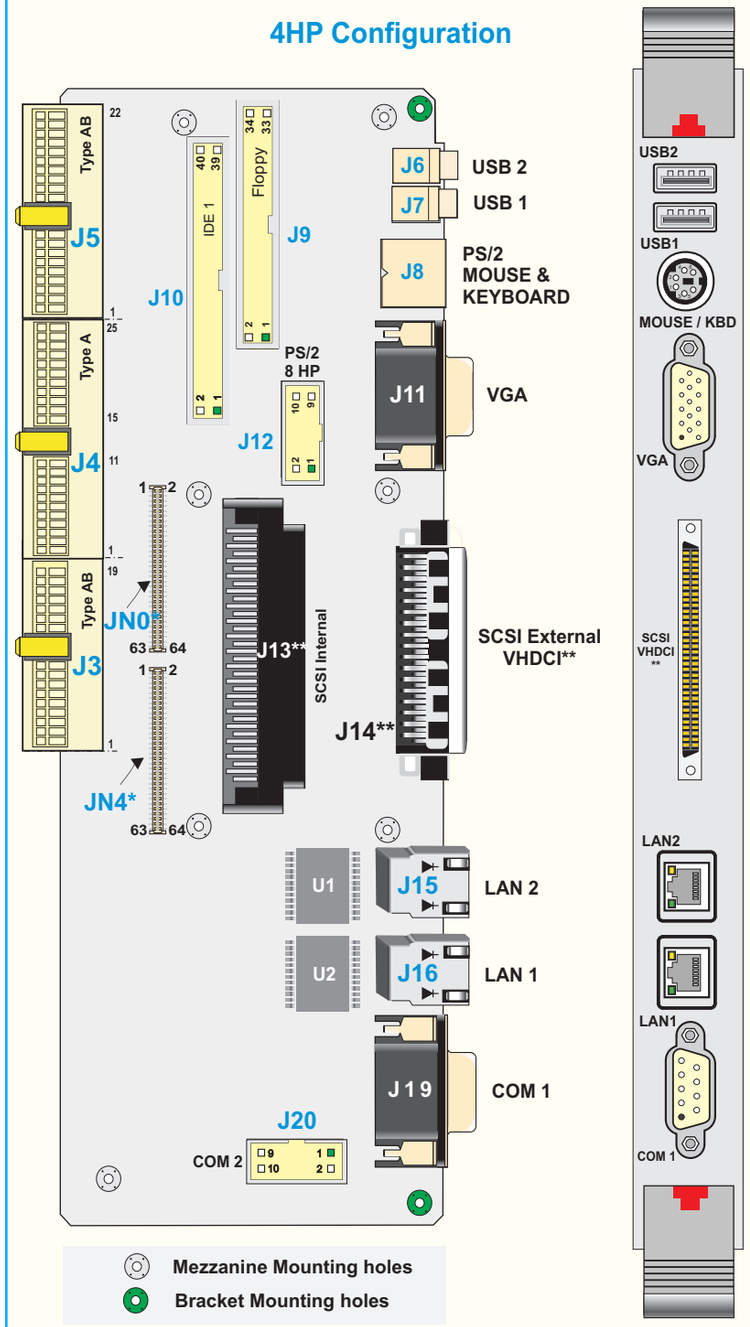
8HP Configuration

Mezzanine Board - Top View



Mezzanine Mounting holes
3.5" Hard Disk mounting holes

4HP Configuration



Mezzanine Mounting holes
Bracket Mounting holes

Connector Pinouts

CTM80-2

Board Rev. 1

Internal

J3 - CompactPCI I/O

	ROW A	ROW B	ROW C	ROW D	ROW E
1	COM1::RTS	COM1::RX	COM1::DSR	COM1::DCD	ID1
2	COM1::RI	COM1::DTR	COM1::CTS	COM1::TX	MOUSE:CLK
3	COM2::RTS	COM2::RX	COM2::DSR	COM2::DCD	MOUSE:DATA
4	COM2::RI	COM2::DTR	COM2::CTS	COM2::TX	KB:DATA
5	VGA:BLUE	VGA:HSYNC	VGA:VSYNC	VGA:SCL	KB:CLK
6	VGA:RED	VGA:GREEN	VGA:SDA	POST:CLK	POST:DATA
7	ID0	ID2	ID3	ID4	SPEAKER
8	USB0:DATA-	USB0:DATA+	RSV	RSV	RSV
9	USB1:DATA-	USB1:DATA+	RSV	RSV	RSV
10	USB1:VCC	USB0:VCC	RSV	RSV	RSV
11	RSV	RSV	RSV	RSV	RSV
12	RSV	RSV	RSV	RSV	RSV
13	LAN0:ACT	LAN1:ACT	RSV	RSV	RSV
14	LAN0:LINK	LAN1:LINK	LAN:CT	RSV	RSV
15	LAN1:DB+	LAN1:DB-	GND	LAN1:DD+	LAN1:DD-
16	LAN1:DA+	LAN1:DA-	GND	LAN1:DC+	LAN1:DC-
17	LAN0:DB+	LAN0:DB-	GND	LAN0:DD+	LAN0:DD-
18	LAN0:DA+	LAN0:DA-	GND	LAN0:DC+	LAN0:DC-
19	VCC	VCC	VCC3	+12V	-12V

J5 - CompactPCI I/O

	ROW A	ROW B	ROW C	ROW D	ROW E
1	RSV	RSV	GND	RSV	RSV
2	RSV	RSV	GND	RSV	RSV
3	RSV	RSV	GND	RSV	RSV
4	RSV	RSV	GND	RSV	RSV
5	RSV	RSV	GND	RSV	RSV
6	RSV	RSV	GND	RSV	RSV
7	RSV	RSV	GND	RSV	RSV
8	RSV	RSV	GND	RSV	RSV
9	RSV	RSV	GND	RSV	RSV
10	FD:MSEN0	FD:MSEN1	GND	RSV	RSV
11	FD: MTR0#	FD: INDEX#	GND	FD: FDEDIN#	FD: DENSEL#
12	FD: DIR#	FD: MTR1#	GND	FD: DSEL0#	FD : DSEL1#
13	FD: TRK0#	FD: WGATE#	GND	FD: WDATA#	FD: STEP#
14	FD: DSKCHG#	FD: HDSEL#	GND	FD: RDATA#	FD: WRPROT#
15	IDE:D6	IDE:D8	GND	IDE:D7	IDE:RESET#
16	IDE:D4	IDE:D10	GND	IDE:D5	IDE:D9
17	IDE:D2	IDE:D12	GND	IDE:D3	IDE:D11
18	IDE:D0	IDE:D14	GND	IDE:D1	IDE:D13
19	IDE:IOR#	IDE:IOW#	GND	IDE:REQ	IDE:D15
20	N.C.	IDE:IRQ	GND	IDE:ACK#	IDE:IORDY
21	IDE:A2	IDE:A0	GND	IDE:A1	IDE:DIAG#
22	IDE:ACT#	IDE:CS3#	GND	IDE:CS1#	RSV

Floppy Disk J9 - 4HP Mezz: J5, J12 - 8HP

Odd Pin Number	
1-3, 7-33	GND
4, 5	N.C.

Even Pin Number	
2	DENSEL0#
6	DENSEL1#

8	INDEX#	22	WDATA#
10	MTR0#	24	WGATE#
12	DSEL1#	26	TRK0#
14	DSEL0#	28	WRPROT#
16	MTR1#	30	RDATA#
18	DIR#	32	HDSEL#
20	STEP#	34	DSKCHG#

J10 - Secondary IDE (4HP)
Mezz : J7, J14 - Secondary IDE (8HP)

Odd Pin Number						Even Pin Number			
1	RST#	25	IOR#	39	ACT#	30	GND	32	N.C.
3-17	D7-D0	27	IOCHRDY			2,22-26	GND	34	DIAG#
19	GND	29	DMACK#			4-18	D8-D15	36	A2
21	REQ	31	IRQ14			20	N.C.	38	CS 3 #
23	IOW#	33, 35	A1, A0			28	CSEL	40	GND
		37	CS1#			41	VCC	42	VCC
				J7 only		43	GND	44	N.C.

J4 - PIM Connections (PMC Rear Access)

	ROW A	ROW B	ROW C	ROW D	ROW E
1	PIM:61	PIM:63	GND	PIM:62	PIM:64
2	PIM:57	PIM:59	GND	PIM:58	PIM:60
3	GND	GND	GND	GND	GND
4	PIM:53	PIM:55	GND	PIM:54	PIM:56
5	PIM:49	PIM:51	GND	PIM:50	PIM:52
6	GND	GND	GND	GND	GND
7	PIM:45	PIM:47	GND	PIM:46	PIM:48
8	PIM:41	PIM:43	GND	PIM:42	PIM:44
9	GND	GND	GND	GND	GND
10	PIM:37	PIM:39	GND	PIM:38	PIM:40
11	PIM:33	PIM:35	GND	PIM:34	PIM:36
12					
13	Key Area				
14					
15	PIM:29	PIM:31	GND	PIM:30	PIM:32
16	PIM:25	PIM:27	GND	PIM:26	PIM:28
17	GND	GND	GND	GND	GND
18	PIM:21	PIM:23	GND	PIM:22	PIM:24
19	PIM:17	PIM:19	GND	PIM:18	PIM:20
20	GND	GND	GND	GND	GND
21	PIM:13	PIM:15	GND	PIM:14	PIM:16
22	PIM:9	PIM:11	GND	PIM:10	PIM:12
23	VCC	VCC	GND	VCC3	VCC3
24	PIM:5	PIM:7	GND	PIM:6	PIM:8
25	PIM:1	PIM:3	GND	PIM:2	PIM:4

J4 - PIM SCSI Ultra 160/320 connections (VHDCI)

	ROW A	ROW B	ROW C	ROW D	ROW E
1	D12+	D12-	GND	D13+	D13-
2	D14+	D14-	GND	D15+	D15-
3	GND	GND	GND	GND	GND
4	DPH+	DPH-	GND	D0+	D0-
5	D1+	D1-	GND	D2+	D2-
6	GND	GND	GND	GND	GND
7	D3+	D3-	GND	D4+	D4-
8	D5+	D5-	GND	D6+	D6-
9	GND	GND	GND	GND	GND
10	D7+	D7-	GND	DPL+	DPL-
11	DIFFSENS	TERMPWR7	GND	TERMPWR8	TERMPWR9
12					
13	Key Area				
14					
15	TERMPWR3	TERMPWR4	GND	TERMPWR5	TERMPWR6
16	TERMPWR1	TERMPWR2	GND	ATN+	ATN-
17	GND	GND	GND	GND	GND
18	BSY+	BSY-	GND	ACK+	ACK-
19	RST+	RST-	GND	MSG+	MSG-
20	GND	GND	GND	GND	GND
21	SEL+	SEL-	GND	CD+	CD-
22	REQ+	REQ-	GND	IO+	IO-
23	VCC	VCC	GND	VCC3	VCC3
24	D8+	D8-	GND	D9+	D9-
25	D10+	D10-	GND	D11+	D11-

PS/2 Mouse, Mezz HD-Power
J12 - (4HP) J15 - (8HP)

1	KB:VCC	6	GND
2	MOUSE:DATA	7	GND
3	MOUSE:CLK	8	VCC
4	VCC	9	VCC
5	VCC	10	GND

* JN4 - PIM

1	P1+	2	P2+
3	P1-	4	P2-
5	P3+	6	P4+
7	P3-	8	P4-
9	P5+	10	P6+
11	P5-	12	P6-
13	P7+	14	P8+
15	P7-	16	P8-
17	P9+	18	P10+
19	P9-	20	P10-
21	P11+	22	P12+
23	P11-	24	P12-
25	P13+	26	P14+
27	P13-	28	P14-
29	P15+	30	P16+
31	P15-	32	P16-
33	P17+	34	P18+
35	P17-	36	P18-
37	P19+	38	P20+
39	P19-	40	P20-
41	P21+	42	P22+
43	P21-	44	P22-
45	P23+	46	P24+
47	P23-	48	P24-
49	P25+	50	P26+
51	P25-	52	P26-
53	P27+	54	P28+
55	P27-	56	P28-
57	P29+	58	P30+
59	P29-	60	P30-
61	P31+	62	P32+
63	P31-	64	P32-

*JN0 - PIM

1	N.C.	2	+12V
3	N.C.	4	N.C.
5	+5V	6	N.C.
7	N.C.	8	N.C.
9	N.C.	10	+3.3V
11	N.C.	12	N.C.
13	GND	14	N.C.
15	N.C.	16	N.C.
17	N.C.	18	GND
19	N.C.	20	N.C.
21	+5V	22	N.C.
23	N.C.	24	N.C.
25	N.C.	26	+3.3V
27	N.C.	28	N.C.
29	GND	30	N.C.
31	N.C.	32	N.C.
33	N.C.	34	GND
35	N.C.	36	N.C.
37	+5	38	N.C.
39	N.C.	40	N.C.
41	N.C.	42	+3.3V
43	N.C.	44	N.C.
45	GND	46	N.C.
47	N.C.	48	N.C.
49	N.C.	50	GND
51	N.C.	52	N.C.
53	+5	54	N.C.
55	N.C.	56	N.C.
57	N.C.	58	+3.3V
59	N.C.	60	N.C.
61	-12	62	N.C.
63	N.C.	64	N.C.

*For PIM Option only

External

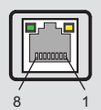
J13, J14 - SCSI 3 LVD (4HP)
J13 - Internal J14 - External

1	D12+	35	D12-
2	D13+	36	D13-
3	D14+	37	D14-
4	D15+	38	D15-
5	DPH+	39	DPH-
6	D0+	40	D0-
7	D1+	41	D1-
8	D2+	42	D2-
9	D3+	43	D3-
10	D4+	44	D4-
11	D5+	45	D5-
12	D6+	46	D6-
13	D7+	47	D7-
14	DPL+	48	DPL-
15	GND	49	GND
16	DIFFSENS	50	DIFFSENS
17	TERMPWR	51	TERMPWR
18	TERMPWR	52	TERMPWR
19	N.C.	53	N.C.
20	GND	54	GND
21	ATN+	55	ATN-
22	GND	56	GND
23	BSY+	57	BSY-
24	ACK+	58	ACK-
25	RESET+	59	RESET-
26	MSG+	60	MSG-
27	SEL+	61	SEL-
28	CD+	62	CD-
29	REQ+	63	REQ-
30	IO+	64	IO-
31	D8+	65	D8-
32	D9+	66	D9-
33	D10+	67	D10-
34	D11+	68	D11-



J15, J16 - Ethernet 1 & 2

1	DA+	5	DC+
2	DA-	6	DC-
3	DB+	7	DD+
4	DC+	8	DD+



J8 - PS/2 KBD / Mouse (4HP)

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

Needs splitter cable to get both devices connected

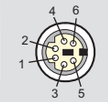
J8 -PS/2 Keyboard (8HP)

1	DATA	4	VCC
2	N.C.	5	CLOCK
3	GND	6	N.C.

No splitter cable needed

J2 - Mezz. PS/2 Mouse (8HP)

1	DATA	4	VCC
2	N.C.	5	CLOCK
3	GND	6	N.C.



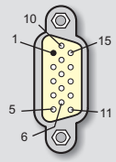
J7 - USB1 / J6 - USB2

USB1:VCC	1	1	USB2:VCC	4 3 2 1
USB1:DATA-	2	2	USB2:DATA-	
USB1:DATA+	3	3	USB2:DATA+	
USB1:GND	4	4	USB2:GND	



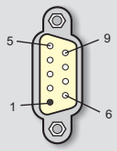
J11 - Video SVGA (4HP)

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



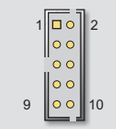
J19 - COM1 (4HP)
J10 - COM2 (8HP)

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



J20 - COM2 (4HP)
J19 - COM2 (8HP)

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



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