cPCI-DT64

6U CompactPCI® Dual Processor
System / Peripheral 64-bit board

kontron

Board Rev. 1

QUICK REFERENCE

Document version 1.5

CONNECTORS

J1-J5	CompactPCI	J17	IDE Mezzanine
J6-J9	DIMM Sockets	JN1-JN4	64-bit PCI Mezzanine
J10	VGA Video	SW1	Reset Button
J11	COM1 (faceplate)	BT1	Battery
J12	Ethernet LAN2	DS1	LEDs (HDD activity and Ready to Swap)
J13	Ethernet LAN1		
J14	PS/2 Keyboard/Mouse		
J15	Hot Swap Switch		
J16	Compact Flash		

JUMPER SETTINGS (● Default Setting)

W1 Battery

Connected	in
● Disconnected	out

W2 VT-100 / Access

		in	out
Reserved	1-2		
User defined	3-4		
VT-100	5-6	Enabled	Disabled

W3 Bridge Enable

Stand Alone	in
● Enabled	out

W4 Onboard Video

Disabled	in
● Enabled	out

W5 Clear CMOS

● Normal	in
Clear CMOS	out

W6 CompactFlash Disk

Master	in
● Slave	out

W7, W8 COM2 Terminations

	W7	W8
RS-422/485 modes only		
With termination	in	in
● Without termination	out	out

W9 Onboard BMC

● Reset	in
Enable	out

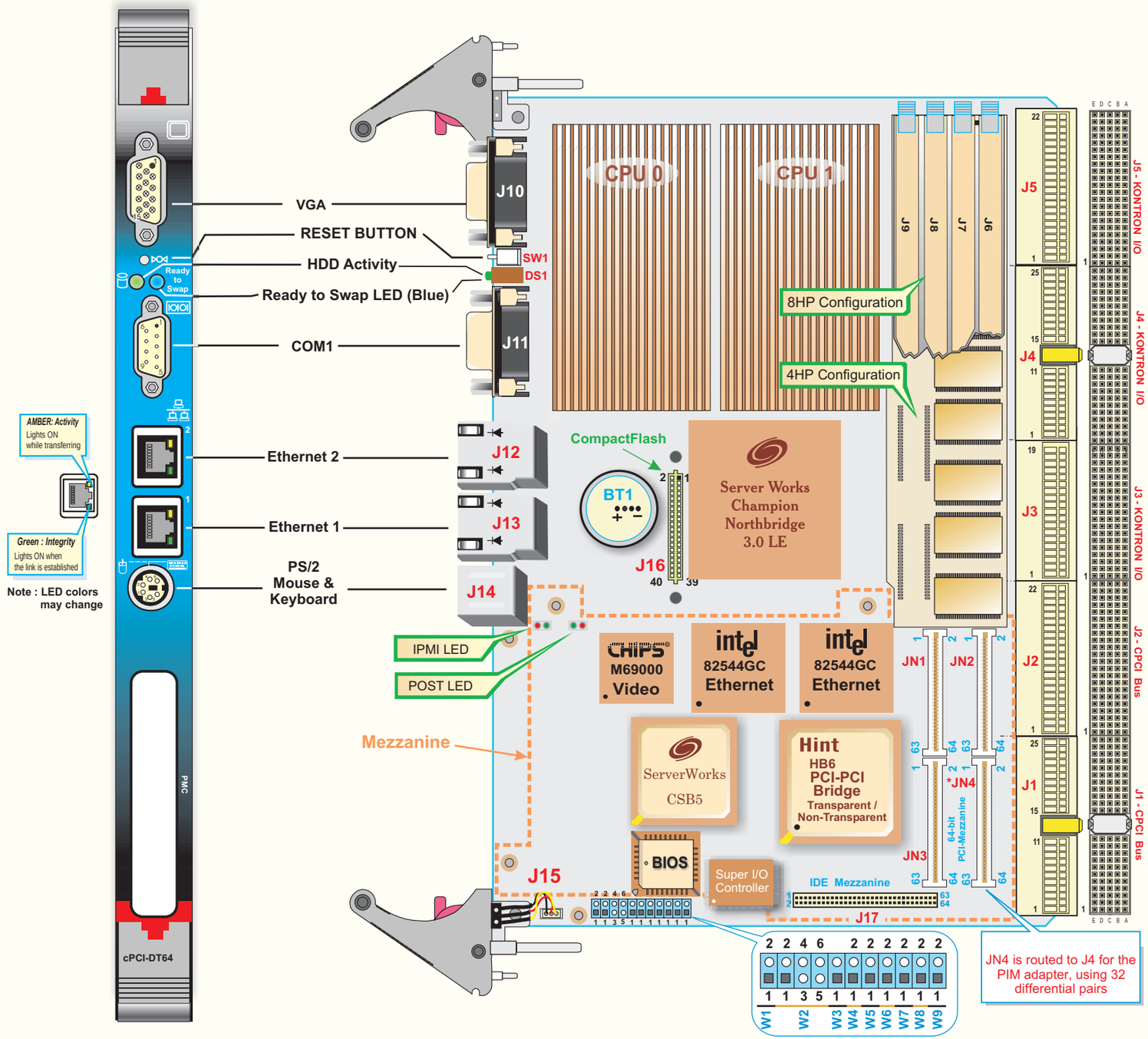
First Level Debugging

Blue LED always ON

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

Blue LED OFF

1. Check the jumper settings
2. Check the memory



Connector Pinouts

cPCI-DT64

6U cPCI® Dual Processor
System / Peripheral 64-bit board

Board Rev. 1

Document version 1.5

J1 - CompactPCI Bus

	ROW A	ROW B	ROW C	ROW D	ROW E
1	VCC5E	-12VE	RSV	+12VE	VCCE
2	RSV	VCCE	RSV	RSV	RSV
3	INTA#	INTB#	INTC#	VCCE	INTD#
4	IPMB0_PWR	HEALTHY#	VI/O	INTP	INTS
5	RSV	RSV	RST#	GND	GNT0#
6	REQ0#	PCI_PRESENT#	VCC3E	CLK0	AD31
7	AD30	AD29	AD28	GND	AD27
8	AD26	GND	VI/O	AD25	AD24
9	CBE3#	IDSEL	AD23	GND	AD22
10	AD21	GND	VCC3E	AD20	AD19
11	AD18	AD17	AD16	GND	CBE2#
12 13 14	Key Area				
15	VCC3E	FRAME#	IRDY#	BD_SEL#	TRDY#
16	DEVSEL#	PCIXCAP	VI/O	STOP#	LOCK#
17	VCC3E	IPMB0_SCL	IPMB0_SDA	GND	PERR#
18	SERR#	GND	VCC3E	PAR	CBE1#
19	VCC3E	AD15	AD14	GND	AD13
20	AD12	GND	VI/O	AD11	AD10
21	VCC3E	AD9	AD8	M66EN	CBE0#
22	AD7	GND	VCC3E	AD6	AD5
23	VCC3E	AD4	AD3	VCCE	AD2
24	AD1	VCCE	VI/O	AD0	ACK64#
25	VCCE	REQ64#	ENUM#	VCC3E	VCCE

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#	REQ4#	GNT4#
4	VI/O	RSV	CBE7#	GND	CBE6#
5	CBE5#	64_EN#	VI/O	CBE4#	PAR64
6	AD63	AD62	AD61	GND	AD60
7	AD59	GND	VI/O	AD58	AD57
8	AD56	AD55	AD54	GND	AD53
9	AD52	GND	VI/O	AD51	AD50
10	AD49	AD48	AD47	GND	AD46
11	AD45	GND	VI/O	AD44	AD43
12	AD42	AD41	AD40	GND	AD39
13	AD38	GND	VI/O	AD37	AD36
14	AD35	AD34	AD33	GND	AD32
15	RSV	GND	FAL#	REQ5#	GNT5#
16	RSV	RSV	DEG#	GND	RSV
17	RSV	GND	PRST#	REQ6#	GNT6#
18	RSV	RSV	RSV	GND	RSV
19	GND	GND	IMPB1_SDA	IMPB1_SCL	IMPB1_ALERT#
20	S_CLK5	GND	RSV	GND	RSV
21	S_CLK6	GND	RSV	RSV	RSV
22	GA4	GA3	GA2	GA1	GA0

J3 - Kontron I/O

	ROW A	ROW B	ROW C	ROW D	ROW E
1	COM1:RTS	COM1:RXD	COM1:DSR	COM1:DCD	Id1
2	COM1:RI	COM1:DTR	COM1:CTS	COM1:TXD	MOUSE:CLK
3	COM2:RTS	COM2:RXD	COM2:DSR	COM2:DCD	MOUSE:DATA
4	COM2:RI	COM2:DTR	COM2:CTS	COM2:TXD	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

J4 - Kontron I/O (PIM)

	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 14	Key Area				
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	NC	VCC	GND	N.C.	VCC3
24	PIM:5	PIM:7	GND	PIM:6	PIM:8
25	PIM:1	PIM:3	GND	PIM:2	PIM:4

* 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-

J17 - IDE Mezzanine

1	P64GNT#_MEZ2	2	IPMB0_SDA
3	GND	4	IPMB0_SCL
5	CLK66_MEZ	6	GND
7	GND	8	CLK66_PMC_8HP
9	P64REQ#_MEZ	10	GND
11	P64GNT#_MEZ	12	INTB_P64MEZZ#
13	INT_BRDG_MEZ	14	INTA_P64MEZZ#
15	INTD_P64MEZZ#	16	MEZZ_ENUM#
17	INTC_P64MEZZ#	18	IDE0:MS#/SLV
19	P64REQ#_MEZ2	20	IDE0:ACT#
21	IDE0:CS1#	22	GND
23	IDE0:DA2	24	IDE0:CS0#
25	GND	26	IDE0:DA0
27	IDE0:PDIAG#	28	GND
29	IDE0:DA1	30	IDE0:IRQ
31	GND	32	IDE0:DMACK#
33	IDE0:IORDY	34	GND
35	IDE0:IOR#	36	IDE0:IOW#
37	BD_SEL_MEZZ#	38	IDE0:DMARQ
39	IDE0:D0	40	HEALTHY#_BP
41	IDE0:D1	42	IDE0:D15
43	VCC	44	IDE0:D14
45	IDE0:D2	46	VCC
47	IDE0:D3	48	IDE0:D13
49	VCC	50	IDE0:D12
51	IDE0:D4	52	VCC
53	IDE0:D5	54	IDE0:D11
55	VCC	56	IDE0:D10
57	IDE0:D6	58	VCC
59	IDE0:D7	60	IDE0:D9
61	VCC	62	IDE0:D8
63	IDE:RESET#	64	VCC

J10 - Video (SVGA)

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

J11 - Serial 1 - RS-232

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

ETHERNET

J13, J12 - LAN 1, LAN2

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

J14 -PS/2 Keyb. & Mouse

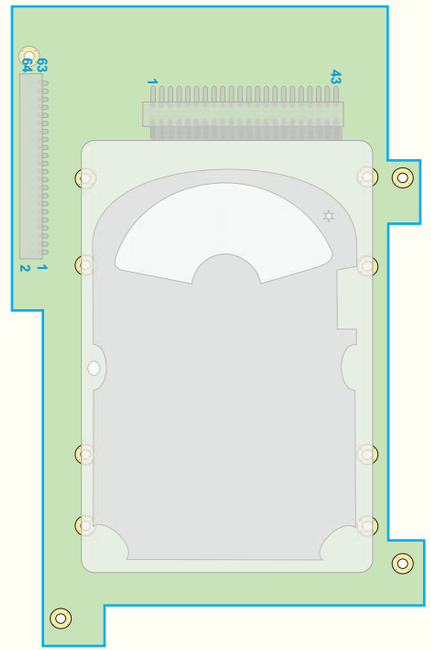
1	KB:DATA	4	VCC
2	MOUSE:DATA	5	KB:CLK
3	GND	6	MOUSE:CLK

J15 - Hot Swap Switch

1	VCC3E
2	SW_OPEN#
3	SW_CLOSE#

SW1 Reset Button

1	GND
2	RESET#



IDE Mezzanine

J5 - Kontron 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	IDE1:D6	IDE1:D8	GND	IDE1:D7	IDE:RESET#
16	IDE1:D4	IDE1:D10	GND	IDE1:D5	IDE1:D9
17	IDE1:D2	IDE1:D12	GND	IDE1:D3	IDE1:D11
18	IDE1:D0	IDE1:D14	GND	IDE1:D1	IDE1:D13
19	IDE1:IOR#	IDE1:IOW#	GND	IDE1:DMARQ	IDE1:D15
20	IDE1:IOCS16#	IDE1:IRQ	GND	IDE1:DMACK#	IDE1:IORDY
21	IDE1:A2	IDE1:A0	GND	IDE1:A1	IDE1:PDIAG#
22	IDE1:ACT#	IDE1:CS1#	GND	IDE1:CS0#	RSV

: Active low

J4 - Kontron I/O (SCSI)

	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 14	Key Area				
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	N.C.	VCC	GND	N.C.	VCC3
24	D8+	D8-	GND	D9+	D9-
25	D10+	D10-	GND	D11+	D11-

J16 - CompactFlash (IDE0)

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	DIOR#
17	PDIAG#	18	DIOW#
19	IRQ14	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

Voltages

VCC = +5V
VCCE = +5V Early
VCC3 = +3.3V
VCC3E =+3.3V Early
+12VE = +12V Early
-12VE = -12V Early

* Note

1 • JN1-JN3 as per PMC standard pinout. See manual for pinout description.

2 • JN4 is routed to J4 for the PIM adapter, using 32 differential pairs (100V differential, 50V single ended)

The Technical Reference Manual and the Quick Reference Sheet can be downloaded from Kontron web site at:
http://www.kontron.com
or from our FTP site at:
ftp://ftp.kontron.ca/Support/

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

M6006_QR_1