eBP-6A4B1

6-Slot ePCI Passive Backplane

kontron

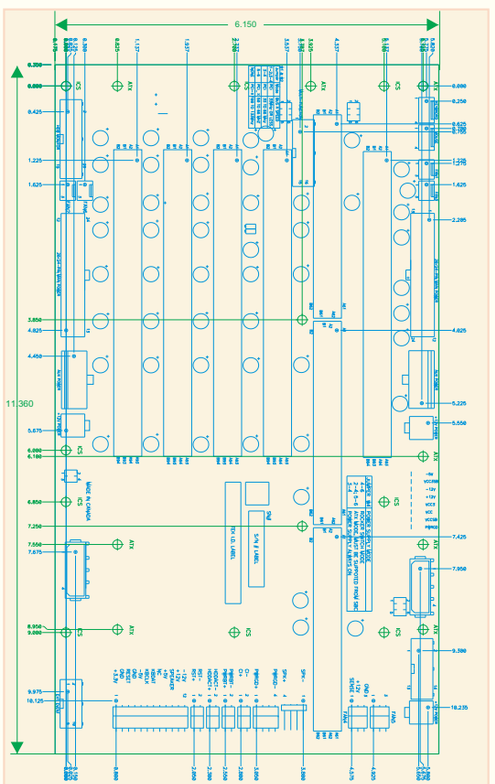
Board Rev. 0

QUICK REFERENCE

Version 1.2

First Level Debugging

1. If ATX +12V power supply is used on SHB, make sure that the +12V power cable (J19) is connected in SHB and +12V power supply cable mated in J17.
2. Remove all peripheral boards and SBCs.
3. Remove all cables from backplane.
4. Make sure that all the Power Good LEDs are on.



Connectors

J1	PS/2 Keyboard	J20A	Power Connector
J2	SBC KCI Monitor	J21	External Event I/O
J3	PS/2 Mouse	J22,23,31	Fans
J4	Multifunction	J24	Speaker
J5	3.3V PCI 64-BIT	J25	Power LED
J6-9	5V PCI 64-BIT	J26	Chassis Intrusion Sw
J10-12	FANS	J27	Power-ON Switch
J13	ATX Power-Supply	J28	Hard Drive LED
J16	AUX Power-Supply	J29	RESET Button
J17-J19	+12V ATX Power-Supply	J30	PS/2 Keyboard
J20	Fast Connector I/O		

JUMPER SETTINGS

(* : Default Setting)

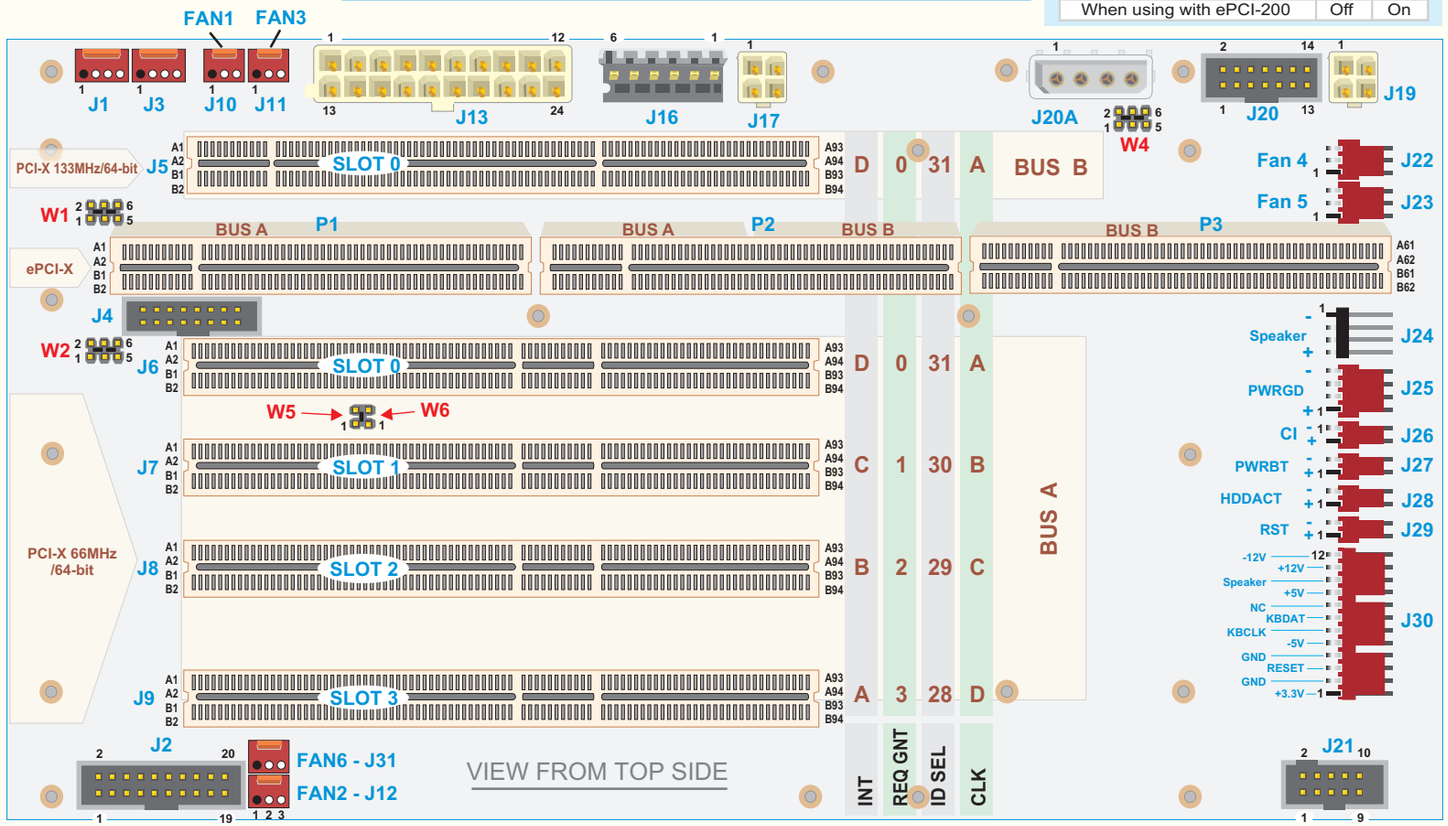
W1 - PCI BUS B Maximum Speed (*none)
W2 - PCI BUS A Maximum Speed (*5-6)

Bus Speed	Mode	Jumper
33MHz or Less	PCI	1-2, 3-4
33 to 66MHz	PCI	3-4
50 to 66MHz	PCI-X	5-6
100 to 133MHz	PCI-X	None

W4 - Power Supply Mode

*ATX Mode PS-ON from SBC	2-4, 5-6
Power Supply always ON	3-4
Rocker Switch Mode	4-6

W5, W6 Bus A, Slot 0 Config	W5	W6
*Standard mode	On	Off
When using with ePCI-200	Off	On



Connector Pinouts

eBP-6A4B1

QR Ver. 1.2
Board Rev. 0

J1 - PS/2 Keyboard

1	K_CLK
2	GND
3	K_DAT
4	VCC

J3 - PS/2 Mouse

1	M_CLK
2	GND
3	M_DAT
4	VCC

J10-J12, 22, 23, 31 FANS 1-6

1	SENSE
2	+12V
3	GND

J25 - Power LED

1	VCC
2	N.C.
3	N.C.
4	PWR_LED#

J2 - SBC KCI System Monitor

GND	1	11	FANFLT#
N.C.	2	12	GND
N.C.	3	13	CHASS_INT
GND	4	14	GND
GPIO1/SMBDAT	5	15	PWRATX1_FANTACH
GPIO2/SMBCLK	6	16	PWRATX2_FANTACH
APFLT#	7	17	FAN TACH3
CPUFLT#	8	18	FAN TACH4
EXTFLT#	9	19	FAN TACH5
GND	10	20	FAN TACH6

J26 - Chassis Intrusion Switch

1	CHSS_INT
2	GND

J27 - Power ON Switch

1	PWR_BUTTON#
2	GND

J28 - Hard Drive LED

1	VCC
2	HDACT#

J13 - ATX Power Supply (20-pins) *

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

* Default configuration

J13 - ATX Power Supply (24-pins)

1	VCC3	13	VCC3
2	VCC3	14	-12V
3	GND	15	GND
4	VCC	16	PS_ON#
5	GND	17	GND
6	VCC	18	GND
7	GND	19	GND
8	PWRO K	20	-5V
9	5VSB	21	VCC
10	12V	22	VCC
11	+12V	23	VCC
12	VCC3	24	GND

J4 - SHB KCI Multi-Function

Keyboard Clock	1	2	GND
Keyboard Data	3	4	GND
VCC	5	6	VCC
Speaker	7	8	VCC
Mouse Clock	9	10	GND
Mouse Data	11	12	GND
Push Button Reset#	13	14	GND
HDD Activity LED#	15	16	VCC

J17-19 +12ATX

1	GND
2	GND
3	+12V CPU
4	+12V CPU

J24 - Speaker

1	SPEAKER
2	N.C.
3	N.C.
4	VCC

J16 - Aux Power

GND	1	4	+3.3V
GND	2	5	+3.3V
GND	3	6	VCC

J29 - RESET Button

1	PBRST#
2	GND

J20 - Fast I/O Connector

1	GND	8	VCC
2	PWR_BUTTON#	9	GND
3	GND	10	N.C.
4	PBRST#	11	CHASSIS INT
5	GND	12	GND
6	PWR GOOD LED	13	SPEAKER
7	HDD_ACT#	14	VCC

J30 - Kontron Amerique I/O Connector

1	VCC3	7	KB_DATA
2	GND	8	N.C.
3	PBRST#	9	VCC
4	GND	10	SPEAKER
5	-5V	11	+12V
6	KB_CLK	12	-12V

J21 - External Event

VCC	1	6	FANFLT#
CPUFLT#	2	7	GND
VCC	3	8	GPIO1/SMBDAT
APFLT#	4	9	GND
EXTFLT#	5	10	GPIO2/SMBCLK

P1 - P3 , ePCI-X SHB

	P1 ROW B	P1 ROW A	P2 ROW B	P2 ROW A	P3 ROW B	P3 ROW A	
1	-12V	+12V	GND	a_AD04	b_VIO	b_AD22	1
2	PWRGD	PWRBT#	a_AD05	+3.3V	b_C/BE3#	GND	2
3	PSON#	+5Vaux	a_AD03	a_AD02	b_AD23	b_AD21	3
4	TRST#	GND	GND	a_AD00	+5V	b_AD20	4
5	TMS	TCK	a_AD01	GND	b_AD19	GND	5
6	TDO	TDI	Reserved	a_REQ64#	b_AD17	b_AD18	6
7	Reserved	a_PRSNT#	+5V	a_ACK64#	GND	b_AD16	7
8	+5V	Reserved	Reserved	+5V	b_C/BE2#	+3.3V	8
9	a_INTB#	+5V	a_VIO	a_C/BE7#	b_IRDY#	b_FRAME#	9
10	a_INTD#	a_INTA#	GND	a_C/BE6#	GND	b_TRDY#	10
11	+5V	a_INTC#	a_C/BE5#	GND	b_DEVSEL#	GND	11
12							12
13		Key Area					13
14	+3.3Vaux	+5V	a_C/BE4#	a_PAR64	+5V	b_PCIXCAP	14
15	GND	Reserved	+5V	a_AD62	b_LOCK#	b_STOP#	15
16	Reserved	a_GNT3#	a_AD63	GND	b_PERR#	GND	16
17	+3.3V	GND	a_AD61	a_AD60	GND	b_PAR	17
18	a_REQ3#	a_GNT2#	GND	a_AD58	b_SERR#	b_AD15	18
19	a_REQ2#	a_GNT1#	a_AD59	+3.3V	b_C/BE1#	+3.3V	19
20	GND	+3.3V	a_AD57	a_AD56	GND	b_AD13	20
21	a_REQ1#	a_RST#	GND	a_AD54	b_AD14	b_AD11	21
22	a_REQ0#	a_GNT0#	a_AD55	GND	b_AD12	GND	22
23	+3.3V	GND	a_AD53	a_AD52	+5V	b_AD09	23
24	a_CLKFO	a_CLKFI	+5V	a_AD50	b_AD10	b_M66EN	24
25	GND	+3.3V	a_AD51	GND	b_AD08	GND	25
26	a_CLKC	a_CLKD	a_AD49	a_AD48	GND	b_C/BE0#	26
27	+3.3V	GND	GND	a_AD46	b_AD07	b_AD06	27
28	a_CLKA	a_CLKB	a_AD47	+3.3V	b_AD05	+3.3V	28
29	GND	+3.3V	a_AD45	a_AD44	GND	b_AD04	29
30	a_AD31	PME#	GND	a_AD42	b_AD03	b_AD02	30
31	a_AD29	GND	a_AD43	GND	b_AD01	GND	31
32	+5V	a_AD30	a_AD41	a_AD40	+5V	b_AD00	32
33	a_AD27	a_AD28	+5V	a_AD38	b_ACK64#	b_REQ64#	33
34	a_AD25	GND	a_AD39	GND	b_C/BE7#	GND	34
35	GND	a_AD26	a_AD37	a_AD36	GND	b_C/BE6#	35
36	a_C/BE3#	a_AD24	GND	a_AD34	b_C/BE5#	b_PAR64	36
37	a_AD23	+3.3V	a_AD35	+3.3V	b_C/BE4#	+3.3V	37
38	GND	a_AD22	a_AD33	a_AD32	GND	b_AD62	38
39	a_AD21	a_AD20	GND	GND	b_AD63	b_AD60	39
40	a_AD19	GND	b_CLKD	b_CLKC	b_AD61	GND	40
41	+5V	a_AD18	+3.3V	GND	+5V	b_AD58	41
42	a_AD17	a_AD16	b_CLKB	b_CLKA	b_AD59	b_AD56	42
43	a_C/BE2#	GND	GND	+3.3V	b_AD57	GND	43
44	GND	a_FRAME#	b_CLKFO	b_CLKFI	GND	b_AD54	44
45	a_IRDY#	a_TRDY#	GND	GND	b_AD55	b_AD52	45
46	a_DEVSEL#	+5V	b_INTB#	b_INTA#	b_AD53	+3.3V	46
47	+3.3V	a_PCIXCAP	b_INTD#	b_INTC#	GND	b_AD50	47
48	a_LOCK#	a_STOP#	+5V	GND	b_AD51	b_AD48	48
49	a_PERR#	GND	b_GNT3#	b_GNT2#	b_AD49	GND	49
50	+5V	SER_SDA	b_REQ3#	b_REQ2#	+5V	b_AD46	50
51	a_SERR#	SER_SCL	GND	+5V	b_AD47	b_AD44	51
52	a_PAR	GND	b_GNT1#	b_GNT0#	b_AD45	GND	52
53	GND	a_C/BE1#	b_REQ1#	b_REQ0#	GND	b_AD42	53
54	a_AD15	a_AD14	+5V	GND	b_AD43	b_AD40	54
55	a_AD13	+3.3V	b_RST#	b_PRSNT#	b_AD41	+3.3V	55
56	GND	a_AD12	+5V	b_AD30	GND	b_AD38	56
57	a_AD11	a_AD10	b_AD31	GND	b_AD39	b_AD36	57
58	a_AD08	GND	b_AD29	b_AD28	b_AD37	GND	58
59	+5V	a_AD09	GND	b_AD26	+5V	b_AD34	59
60	a_AD07	a_C/BE0#	b_AD27	+3.3V	b_AD35	b_AD32	60
61	a_M66EN	GND	b_AD25	b_AD24	b_AD33	GND	61
62	RESERVED	a_AD06	GND	Reserved	GND	Reserved	62

PCI 64-BIT — J5 3.3V Environment

	ROW B	ROW A		ROW B	ROW A		ROW B	ROW A
1	-12V	TRST#	49	M66EN	AD[09]	1	-12V	TRST#
2	TCK	+12V	50	Ground	Ground	2	TCK	+12V
3	Ground	TMS	51	Ground	Ground	3	Ground	TMS
4	TDO	TDI	52	AD[08]	C/BE[0]#	4	TDO	TDI
5	+5V	+5V	53	AD[07]	+3.3V	5	+5V	+5V
6	+5V	INTA#	54	+3.3V	AD[06]	6	+5V	INTA#
7	INTB#	INTC#	55	AD[05]	AD[04]	7	INTB#	INTC#
8	INTD#	+5V	56	AD[03]	Ground	8	INTD#	+5V
9	PRSNT1#	Reserved	57	Ground	AD[02]	9	PRSNT1#	Reserved
10	Reserved	+3.3V (I/O)	58	AD[01]	AD[00]	10	Reserved	+5V (I/O)
11	PRSNT2#	Reserved	59	+3.3V (I/O)	+3.3V (I/O)	11	PRSNT2#	Reserved
12	Key Area		60	ACK64#	REQ64#	12	Ground	Ground
13			61	+5V	+5V	13	Ground	Ground
14	Reserved	3.3Vaux	62	+5V	+5V	14	Reserved	3.3Vaux
15	Ground	RST#		Key Area		15	Ground	RST#
16	CLK	+3.3V (I/O)	63	Reserved	Ground	16	CLK	+5V (I/O)
17	Ground	GNT#	64	Ground	C/BE[7]#	17	Ground	GNT#
18	REQ#	Ground	65	C/BE[6]#	C/BE[5]#	18	REQ#	Ground
19	+3.3V (I/O)	PME#	66	C/BE[4]#	+3.3V (I/O)	19	+5V (I/O)	PME#
20	AD[31]	AD[30]	67	Ground	PAR64	20	AD[31]	AD[30]
21	AD[29]	+3.3V	68	AD[63]	AD[62]	21	AD[29]	+3.3V
22	Ground	AD[28]	69	AD[61]	Ground	22	Ground	AD[28]
23	AD[27]	AD[26]	70	+3.3V (I/O)	AD[60]	23	AD[27]	AD[26]
24	AD[25]	Ground	71	AD[59]	AD[58]	24	AD[25]	Ground
25	+3.3V	AD[24]	72	AD[57]	Ground	25	+3.3V	AD[24]
26	C/BE[3]#	IDSEL	73	Ground	AD[56]	26	C/BE[3]#	IDSEL
27	AD[23]	+3.3V	74	AD[55]	AD[54]	27	AD[23]	+3.3V
28	Ground	AD[22]	75	AD[53]	+3.3V (I/O)	28	Ground	AD[22]
29	AD[21]	AD[20]	76	Ground	AD[52]	29	AD[21]	AD[20]
30	AD[19]	Ground	77	AD[51]	AD[50]	30	AD[19]	Ground
31	+3.3V	AD[18]	78	AD[49]	Ground	31	+3.3V	AD[18]
32	AD[17]	AD[16]	79	+3.3V (I/O)	AD[48]	32	AD[17]	AD[16]
33	C/BE[2]#	+3.3V	80	AD[47]	AD[46]	33	C/BE[2]#	+3.3V
34	Ground	FRAME#	81	AD[45]	Ground	34	Ground	FRAME#
35	IRDY#	Ground	82	Ground	AD[44]	35	IRDY#	Ground
36	+3.3V	TRDY#	83	AD[43]	AD[42]	36	+3.3V	TRDY#
37	DEVSEL#	Ground	84	AD[41]	+3.3V (I/O)	37	DEVSEL#	Ground
38	PCIXCAP	STOP#	85	Ground	AD[40]	38	Ground	STOP#
39	LOCK#	+3.3V	86	AD[39]	AD[38]	39	LOCK#	+3.3V
40	PERR#	SMBCLK	87	AD[37]	Ground	40	PERR#	SMBCLK
41	+3.3V	SMBDAT	88	+3.3V (I/O)	AD[36]	41	+3.3V	SMBDAT
42	SERR#	Ground	89	AD[35]	AD[34]	42	SERR#	Ground
43	+3.3V	PAR	90	AD[33]	Ground	43	+3.3V	PAR
44	C/BE[1]#	AD[15]	91	Ground	AD[32]	44	C/BE[1]#	AD[15]
45	AD[14]	+3.3V	92	Reserved	Reserved	45	AD[14]	+3.3V
46	Ground	AD[13]	93	Reserved	Ground	46	Ground	AD[13]
47	AD[12]	AD[11]	94	Ground	Reserved	47	AD[12]	AD[11]
48	AD[10]	Ground				48	AD[10]	Ground

PCI 64-BIT — J6-J9 5V Environment

	ROW B	ROW A		ROW B	ROW A
1	-12V	TRST#	49	Ground	AD[09]
2	TCK	+12V	50	Key Area	
3	Ground	TMS	51		
4	TDO	TDI	52	AD[08]	C/BE[0]#
5	+5V	+5V	53	AD[07]	+3.3V
6	+5V	INTA#	54	+3.3V	AD[06]
7	INTB#	INTC#	55	AD[05]	AD[04]
8	INTD#	+5V	56	AD[03]	Ground
9	PRSNT1#	Reserved	57	Ground	AD[02]
10	Reserved	+5V (I/O)	58	AD[01]	AD[00]
11	PRSNT2#	Reserved	59	+5V (I/O)	+5V (I/O)
12	Ground	Ground	60	ACK64#	REQ64#
13	Ground	Ground	61	+5V	+5V
14	Reserved	3.3Vaux	62	+5V	+5V
15	Ground	RST#		Key Area	
16	CLK	+5V (I/O)	63	Reserved	Ground
17	Ground	GNT#	64	Ground	C/BE[7]#
18	REQ#	Ground	65	C/BE[6]#	C/BE[5]#
19	+5V (I/O)	PME#	66	C/BE[4]#	+5V (I/O)
20	AD[31]	AD[30]	67	Ground	PAR64
21	AD[29]	+3.3V	68	AD[63]	AD[62]
22	Ground	AD[28]	69	AD[61]	Ground
23	AD[27]	AD[26]	70	+5V (I/O)	AD[60]
24	AD[25]	Ground	71	AD[59]	AD[58]
25	+3.3V	AD[24]	72	AD[57]	Ground
26	C/BE[3]#	IDSEL	73	Ground	AD[56]
27	AD[23]	+3.3V	74	AD[55]	AD[54]
28	Ground	AD[22]	75	AD[53]	+5V (I/O)
29	AD[21]	AD[20]	76	Ground	AD[52]
30	AD[19]	Ground	77	AD[51]	AD[50]
31	+3.3V	AD[18]	78	AD[49]	Ground
32	AD[17]	AD[16]	79	+5V I/O	AD[48]
33	C/BE[2]#	+3.3V	80	AD[47]	AD[46]
34	Ground	FRAME#	81	AD[45]	Ground
35	IRDY#	Ground	82	Ground	AD[44]
36	+3.3V	TRDY#	83	AD[43]	AD[42]
37	DEVSEL#	Ground	84	AD[41]	+5V I/O
38	Ground	STOP#	85	Ground	AD[40]
39	LOCK#	+3.3V	86	AD[39]	AD[38]
40	PERR#	SMBCLK	87	AD[37]	Ground
41	+3.3V	SMBDAT	88	+5V I/O	AD[36]
42	SERR#	Ground	89	AD[35]	AD[34]
43	+3.3V	PAR	90	AD[33]	Ground
44	C/BE[1]#	AD[15]	91	Ground	AD[32]
45	AD[14]	+3.3V	92	Reserved	Reserved
46	Ground	AD[13]	93	Reserved	Ground
47	AD[12]	AD[11]	94	Ground	Reserved
48	AD[10]	Ground			

J20A - Power

1	+12V_CPU
2	GND
3	GND
4	VCC

Note

For Technical Support please contact:

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

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