# eBP-5A4B0

4-Slot PCI Passive Backplane

kontron ... always a Jump ahead!

Board Rev. 0

## QUICK REFERENCE

Document version 1.3

## Connectors

| | | | |
|---|---|---|---|
| J1 | ATX Power-Supply | J12 | Power Button Connector |
| J5 | Multifunction Connector | J13 | Hard Drive LED |
| J6 | Power Connector | J14 | Fan |
| J7-10 | PCI Connectors | J15 | Keyboard |
| J11 | Reset Button Connector | J16 | Mouse |
| P1-P2 | ePCI-X SHB Connectors | J17 | Speaker |
| DS1 | Power ON LED | DS2 | Power Good LED |

## JUMPER SETTINGS

(* : Default Setting)

**JP1 - Power Supply Mode**

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

**JP2 & JP3 - ID SEL Slot 0**

| | JP2 | JP3 |
|---|---|---|
| * ID SEL 27 | IN | OUT |
| ID SEL 31 | OUT | IN |

**JP4 & JP5 - ID SEL Slot 1**

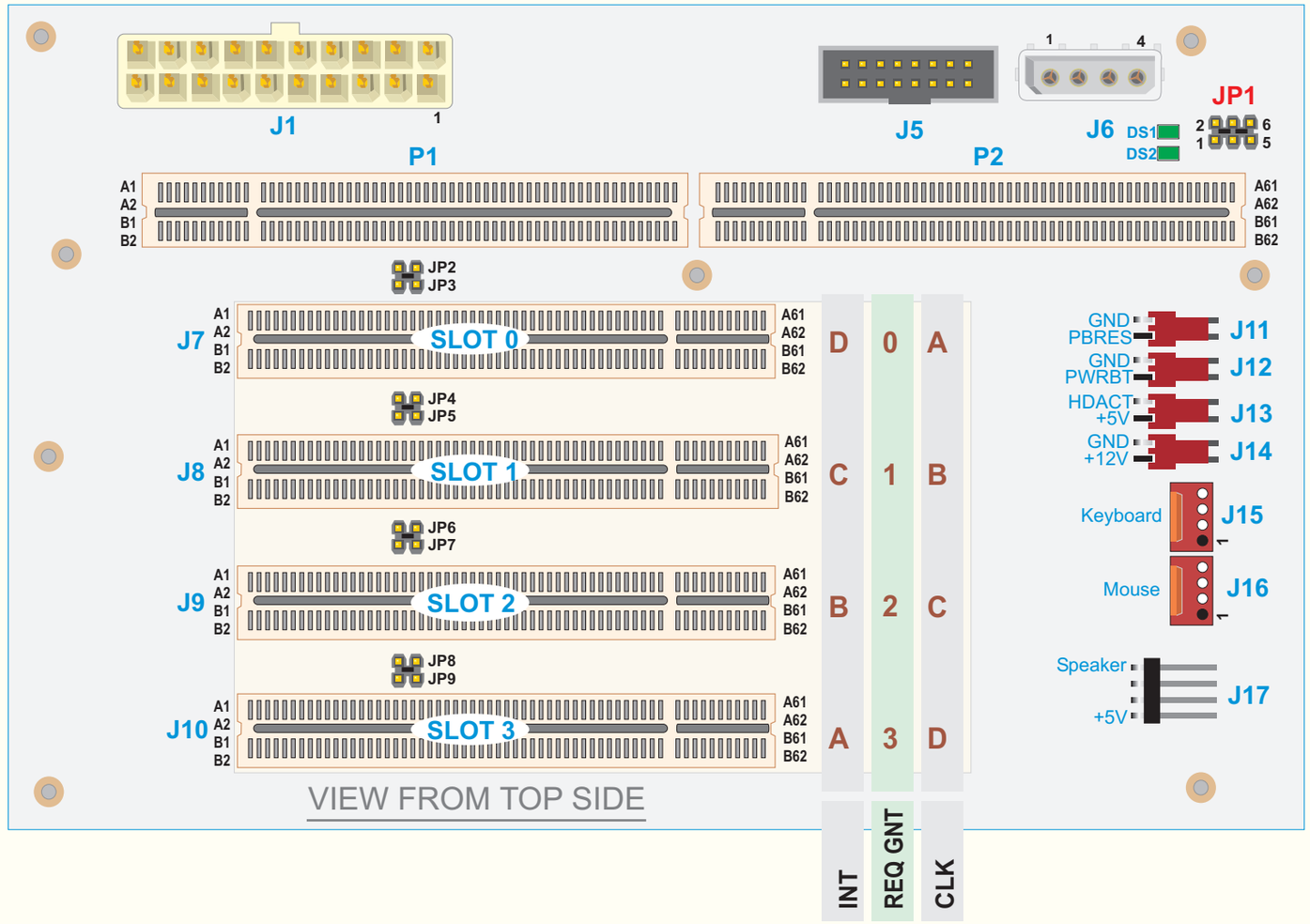
| | JP4 | JP5 |
|---|---|---|
| * ID SEL 26 | IN | OUT |
| ID SEL 30 | OUT | IN |

**JP6 & JP7 - ID SEL Slot 2**

| | JP6 | JP7 |
|---|---|---|
| * ID SEL 25 | IN | OUT |
| ID SEL 29 | OUT | IN |

**JP8 & JP9 - ID SEL Slot 3**

| | JP8 | JP9 |
|---|---|---|
| * ID SEL 24 | IN | OUT |
| ID SEL 28 | OUT | IN |




## Required ID SEL settings for JP2 to JP9

| SHB \ Slot | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| ePCI-100 | 31 | 30 | 29 | 28 |
| ePCI-101 | 27 | 26 | 25 | 24 |
| ePCI-102 | 27 | 26 | 25 | 24 |

### First Level Debugging

1 . Remove all peripheral boards and the SHB.

2 . Remove all cables from backplane except the power supply cable.

3 . Make sure that the Power Good LED is on.

# Connector Pinouts

# eBP-5A4B0

QR Ver. 1.3
Board Rev. 0

### J1 - 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

### J1 - 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 |

### J5 - Multifunction

| | | | |
|---|---|---|---|
| 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 |

### J6 - Power

| | |
|---|---|
| 1 | + 12V |
| 2 | GND |
| 3 | GND |
| 4 | + 5V |

### J11 - RESET Button

| | |
|---|---|
| 1 | PBRST# |
| 2 | GND |

### J12 - Power ON Switch

| | |
|---|---|
| 1 | PWR_BUTTON# |
| 2 | GND |

### J13 - Hard Drive LED

| | |
|---|---|
| 1 | VCC |
| 2 | HDACT# |

### J14 - Fan Connector

| | |
|---|---|
| 1 | + 12V |
| 2 | GND |

### J15 - PS/2 Keyboard

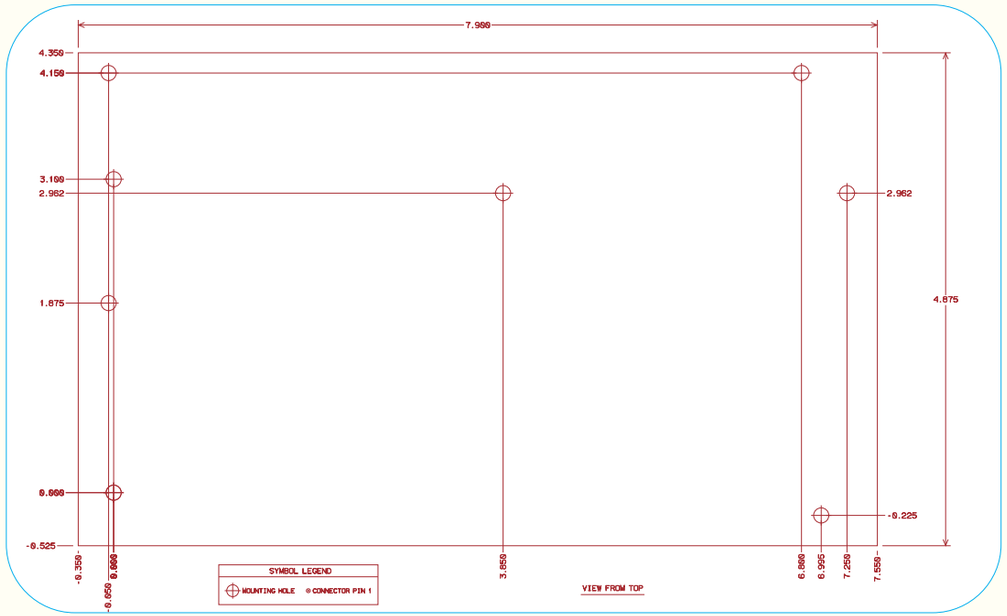
| | |
|---|---|
| 1 | Keyboard Clock |
| 2 | GND |
| 3 | Keyboard Data |
| 4 | VCC |

### J16 - PS/2 Mouse

| | |
|---|---|
| 1 | Mouse Clock |
| 2 | GND |
| 3 | Mouse Data |
| 4 | VCC |

### J17 - Speaker

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




### PCI 32-BIT

**J7-J10 5V Environment**

| | ROW B | ROW A | | ROW B | ROW A |
|---|---|---|---|---|---|
| 1 | -12V | TRST# | 32 | AD[17] | AD[16] |
| 2 | TCK | +12V | 33 | C/BE[2]# | +3.3V |
| 3 | Ground | TMS | 34 | Ground | FRAME# |
| 4 | TDO | TDI | 35 | IRDY# | Ground |
| 5 | +5V | +5V | 36 | +3.3V | TRDY# |
| 6 | +5V | INTA# | 37 | DEVSEL# | Ground |
| 7 | INTB# | INTC# | 38 | Ground | STOP# |
| 8 | INTD# | +5V | 39 | LOCK# | +3.3V |
| 9 | PRSNT1# | Reserved | 40 | PERR# | SMBCLK |
| 10 | Reserved | +5V (I/O) | 41 | +3.3V | SMBDAT |
| 11 | PRSNT2# | Reserved | 42 | SERR# | Ground |
| 12 | Ground | Ground | 43 | +3.3V | PAR |
| 13 | Ground | Ground | 44 | C/BE[1]# | AD[15] |
| 14 | Reserved | 3.3Vaux | 45 | AD[14] | +3.3V |
| 15 | Ground | RST# | 46 | Ground | AD[13] |
| 16 | CLK | +5V (I/O) | 47 | AD[12] | AD[11] |
| 17 | Ground | GNT# | 48 | AD[10] | Ground |
| 18 | REQ# | Ground | 49 | Ground | AD[09] |
| 19 | +5V (I/O) | PME# | 50 | Key Area | |
| 20 | AD[31] | AD[30] | 51 | | |
| 21 | AD[29] | +3.3V | 52 | AD[08] | C/BE[0]# |
| 22 | Ground | AD[28] | 53 | AD[07] | +3.3V |
| 23 | AD[27] | AD[26] | 54 | +3.3V | AD[06] |
| 24 | AD[25] | Ground | 55 | AD[05] | AD[04] |
| 25 | +3.3V | AD[24] | 56 | AD[03] | Ground |
| 26 | C/BE[3]# | IDSEL | 57 | Ground | AD[02] |
| 27 | AD[23] | +3.3V | 58 | AD[01] | AD[00] |
| 28 | Ground | AD[22] | 59 | +5V (I/O) | +5V (I/O) |
| 29 | AD[21] | AD[20] | 60 | ACK64# | REQ64# |
| 30 | AD[19] | Ground | 61 | +5V | +5V |
| 31 | +3.3V | AD[18] | 62 | +5V | +5V |

*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:**

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*3. Fax : (450) 437-8053*
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### P1 - P2 , ePCI-X SHB

| | P1 ROW B | P1 ROW A | P2 ROW B | P2 ROW A | |
|---|---|---|---|---|---|
| 1 | -12V | +12V | GND | a_AD04 | 1 |
| 2 | PWRGD | PWRBT# | a_AD05 | +3.3V | 2 |
| 3 | PSON# | +5Vaux | a_AD03 | a_AD02 | 3 |
| 4 | TRST# | GND | GND | a_AD00 | 4 |
| 5 | TMS | TCK | a_AD01 | GND | 5 |
| 6 | TDO | TDI | Reserved | a_REQ64# | 6 |
| 7 | Reserved | a_PRSNT# | +5V | a_ACK64# | 7 |
| 8 | +5V | Reserved | Reserved | +5V | 8 |
| 9 | a_INTB# | +5V | a_VIO | Reserved | 9 |
| 10 | a_INTD# | a_INTA# | GND | Reserved | 10 |
| 11 | +5V | a_INTC# | Reserved | GND | 11 |
| 12 | Key Area | | | | 12 |
| 13 | | | | | 13 |
| 14 | +3.3Vaux | +5V | Reserved | Reserved | 14 |
| 15 | GND | Reserved | +5V | Reserved | 15 |
| 16 | Reserved | a_GNT3# | Reserved | GND | 16 |
| 17 | +3.3V | GND | Reserved | Reserved | 17 |
| 18 | a_REQ3# | a_GNT2# | GND | Reserved | 18 |
| 19 | a_REQ2# | a_GNT1# | Reserved | +3.3V | 19 |
| 20 | GND | +3.3V | Reserved | Reserved | 20 |
| 21 | a_REQ1# | a_RST# | GND | Reserved | 21 |
| 22 | a_REQ0# | a_GNT0# | Reserved | GND | 22 |
| 23 | +3.3V | GND | Reserved | Reserved | 23 |
| 24 | a_CLKFO | a_CLKFI | +5V | Reserved | 24 |
| 25 | GND | +3.3V | Reserved | GND | 25 |
| 26 | a_CLKC | a_CLKD | Reserved | Reserved | 26 |
| 27 | +3.3V | GND | GND | Reserved | 27 |
| 28 | a_CLKA | a_CLKB | Reserved | +3.3V | 28 |
| 29 | GND | +3.3V | Reserved | Reserved | 29 |
| 30 | a_AD31 | PME# | GND | Reserved | 30 |
| 31 | a_AD29 | GND | Reserved | GND | 31 |
| 32 | +5V | a_AD30 | Reserved | Reserved | 32 |
| 33 | a_AD27 | a_AD28 | +5V | Reserved | 33 |
| 34 | a_AD25 | GND | Reserved | GND | 34 |
| 35 | GND | a_AD26 | Reserved | Reserved | 35 |
| 36 | a_C/BE3# | a_AD24 | GND | Reserved | 36 |
| 37 | a_AD23 | +3.3V | Reserved | +3.3V | 37 |
| 38 | GND | a_AD22 | Reserved | Reserved | 38 |
| 39 | a_AD21 | a_AD20 | GND | GND | 39 |
| 40 | a_AD19 | GND | Reserved | Reserved | 40 |
| 41 | +5V | a_AD18 | +3.3V | GND | 41 |
| 42 | a_AD17 | a_AD16 | Reserved | Reserved | 42 |
| 43 | a_C/BE2# | GND | GND | +3.3V | 43 |
| 44 | GND | a_FRAME# | Reserved | Reserved | 44 |
| 45 | a_IRDY# | a_TRDY# | GND | GND | 45 |
| 46 | a_DEVSEL# | +5V | Reserved | Reserved | 46 |
| 47 | +3.3V | a_PCIXCAP | Reserved | Reserved | 47 |
| 48 | a_LOCK# | a_STOP# | +5V | GND | 48 |
| 49 | a_PERR# | GND | Reserved | Reserved | 49 |
| 50 | +5V | SER_SDA | Reserved | Reserved | 50 |
| 51 | a_SERR# | SER_SCL | GND | +5V | 51 |
| 52 | a_PAR | GND | Reserved | Reserved | 52 |
| 53 | GND | a_C/BE1# | Reserved | Reserved | 53 |
| 54 | a_AD15 | a_AD14 | +5V | GND | 54 |
| 55 | a_AD13 | +3.3V | Reserved | Reserved | 55 |
| 56 | GND | a_AD12 | +5V | Reserved | 56 |
| 57 | a_AD11 | a_AD10 | Reserved | GND | 57 |
| 58 | a_AD08 | GND | Reserved | Reserved | 58 |
| 59 | +5V | a_AD09 | GND | Reserved | 59 |
| 60 | a_AD07 | a_C/BE0# | Reserved | +3.3V | 60 |
| 61 | a_M66EN | GND | Reserved | Reserved | 61 |
| 62 | RESERVED | a_AD06 | GND | Reserved | 62 |