

PCE-5B05-02A1E Backplane: 5-slot BP for 5-slot Chassis, 1 PICMIG 1.3, 2 PCIe, 2 32-bit PCI Startup Manual

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

- | | |
|----------------------------------|-----------------|
| 1. 2 Two Port USB Cable | p/n: 1700002204 |
| 2. PCE-5B05-02A1E Startup Manual | |
| 3. M4*6*0.7 Round Screws (5 pcs) | p/n: 1939000410 |
| 4. 2 Year Quality Warranty Card | p/n: 2190000902 |

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Specifications

Standard Functions

- **PICMIG 1.3 slots:**
PCE-5B05-02 supports PCE-5xxx CPU boards
- **PCIe slots:**
PCE-5B05-02 supports one PCIe x 16 slot and one PCIe x 4 slot
- **32-bit PCI:**
Two 32 Bit / 33 MHz PCI slots
- **USB (2.0) support:**
Four USB 2.0 ports pin headers

Mechanical and Environment

- **Dimensions:** 106.5 mm x 327.66 mm
- **Power supply voltage:** +12 V, +5 V, -12 V, -5 V, +3.3 V, +5 V SBY
- **Power requirements:** Refer to the CPU Board, add-on Card & Peripherals
- **Operating temperature:** 0 ~ 60° C
- **Weight:** 0.2 KG (weight of board)

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For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the PCE-5B05-02A1E series Rev.A1

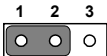
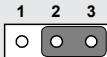
Part No. 200K5B0510
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July 2008

Connectors & Jumpers

The table below lists the function of each of the jumpers and connectors:

Connectors	
Label	Function
SHBA1 ~ SHBD1	PICMG1.3 CPU board slot
PPCIE1	PCE-5B05: PCIe x 4 slot
PPCIE2	PCE-5B05: PCIe x 16 slot
PPCI1 ~ PPCI2	32 Bit / 33 MHZ PCI Bus slot
EATXPWR1	ATX2.0 24-pin Power Connector
ATX12V1	ATX 12 V 4-pin Power Connector
VOLT1	Alarm board / CMM Power Connector
FAN1 ~ FAN3	FAN Connector
FANDEC1	FAN speed detector Connector
SMBUS1	SMBus Connector for chassis monitor
SMBUS2	SMBus Connector for chassis monitor
JFP1	Power and Reset button Connector
IPMB1	IPMB Connector
USB12	Two USB port pin header
USB34	Two USB port pin header

Jumpers	
Label	Function
PSON1	ATX / AT Mode Selection
1-2 closed pins 	AT Mode
2-3 closed pins 	ATX Mode (Default)
J11 & J12	SM Bus Source Selection
Both Open	SM bus source is set to SM bus device connected to the BP's SM bus connectors.
Both Closed	SM bus source is set to CPU card.

EATXPWR1	
Pin	Name
1	3.3 V
2	3.3 V
3	GND
4	5 V
5	GND
6	5 V
7	GND
8	Power OK
9	5 V SBY
10	12 V
11	12 V
12	3.3 V
13	3.3 V
14	-12 V
15	GND
16	PSON#
17	GND
18	GND
19	GND
20	-5 V
21	-5 V
22	5 V
23	5 V
24	GND

ATX12V1	
Pin	Name
1	GND
2	GND
3	12 V
4	12 V

Connectors & Jumpers (Con.)

VOLT1

Pin	Name
1	5 V SBY
2	GND
3	GND
4	-5 V
5	5 V
6	3.3 V
7	-12 V
8	12 V

FAN1 ~ FAN3

Pin	Name
1	GND
2	12 V
3	FANIO1 ~ FANIO3

FANDEC1

Pin	Name
1	FANIO1
2	FANIO2
3	FANIO3

SMBUS1 ~ SMBUS2

Pin	Name
1	5 V
2	C-SMBBUS
3	C-SMBDAT
4	GND

IPMB1

Pin	Name
1	IPMB_CLK
2	IPMB_DAT
3	GND

USB12

Pin	Name
1	USBV0
2	USBV0
3	USBD0-
4	USBD1-
5	USBD0+
6	USBD1+
7	GND
8	GND
9	Null
10	GND

USB34

Pin	Name
1	USBV2
2	USBV2
3	USBD2-
4	USBD3-
5	USBD2+
6	USBD3+
7	GND
8	GND
9	Null
10	GND

JFP1

Pin	Name
1	PWRBTN
2	PWRBTN
3	RESET
4	RESET

Locating Connectors & Jumpers

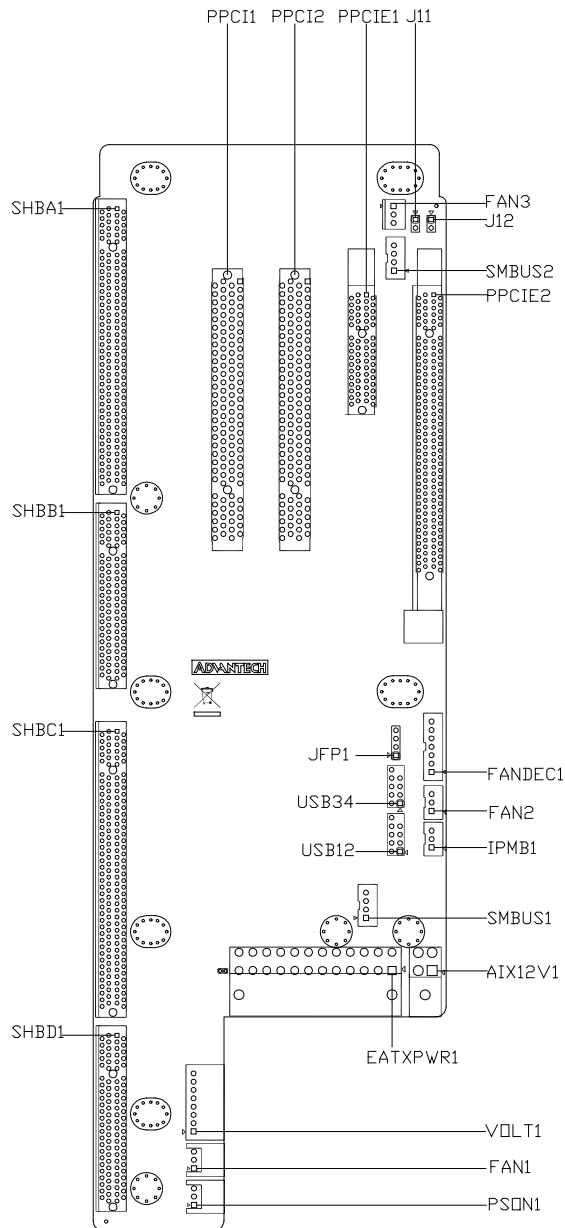


Figure 1: Locating Connectors

Board Dimensions

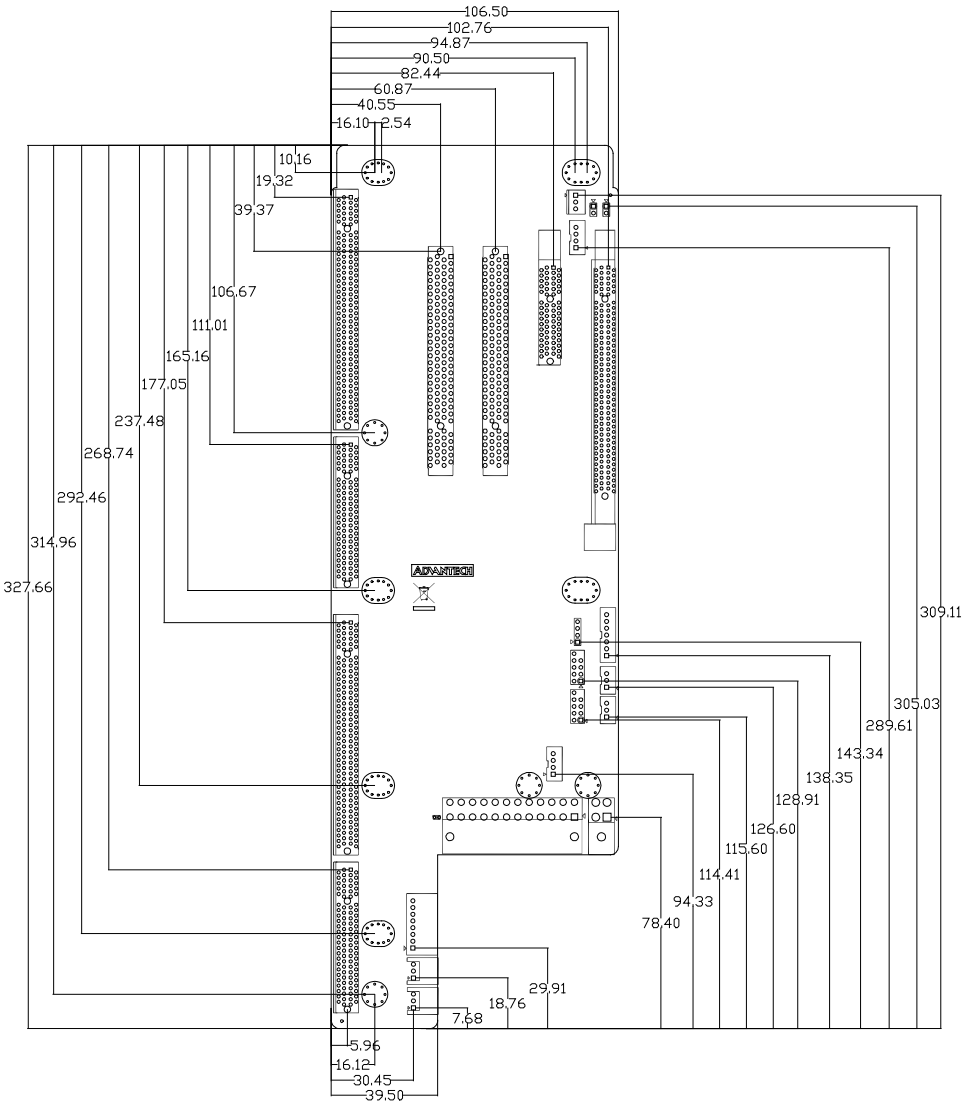


Figure 2: Mechanical Drawing

PCI Routing Tables

PCI 32-bit

PCI Interrupt Pin Route	PCI Slot	PPCI1	PPCI2
	IDSEL	AD 31	AD 30
	INT A	INT B	INT C
	INT B	INT C	INT D
	INT C	INT D	INT A
	INT D	INT A	INT B

Board Diagram

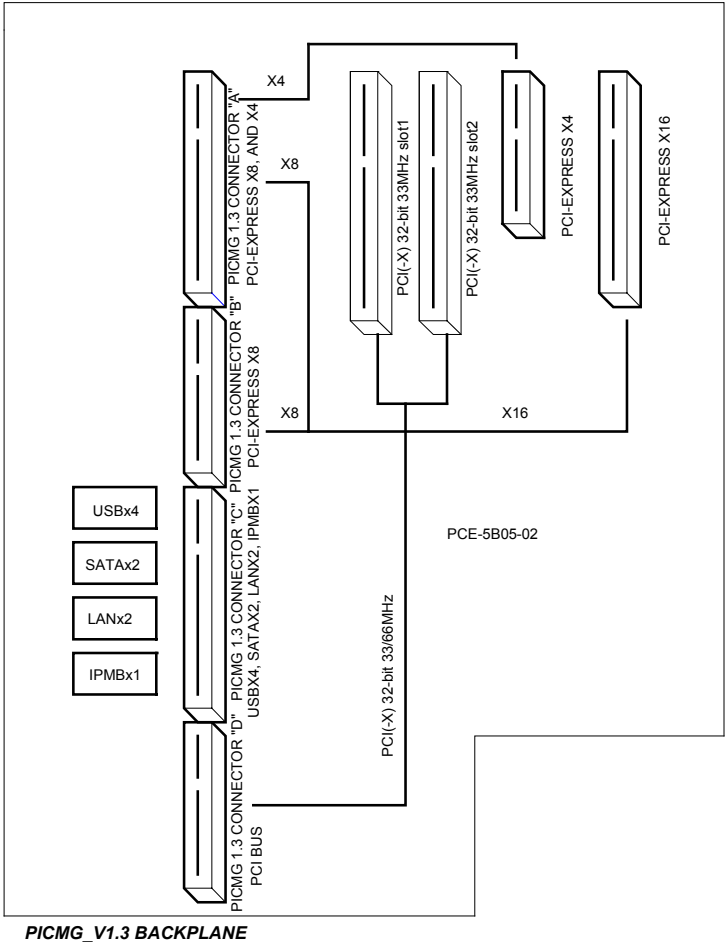


Figure 3: Block Diagram

PCE-5B05-04A1E Backplane: 5-slot BP for 5-slot Chassis, 1 PICMIG 1.3, 4 32-bit PCI

Startup Manual

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

- | | |
|--|-----------------|
| 1. PCE-5B05-04A1E startup manual 1st. ED | p/n: 200K5B0520 |
| 2. M4*6*0.7 round screws (15 pcs.) | p/n: 1939000410 |
| 3. 2 years quality warranty card | p/n: 2190000902 |

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Specifications

Standard Functions

- **PICMIG 1.3 slots:** PCE-5B05-04 backplane supports PCE-5xxx CPU boards
- **32-bit PCI:** Four 32-bit / 33 Mhz PCI slot
- **USB (2.0) support:** Two USB 2.0 port pin headers (supports up to 4 USB port)

Mechanical and Environmental

- **Dimensions:** 106.5 x 327.66 mm
- **Power supply type:** +12 V, +5 V, -12 V, -5 V, +3.3 V, +5 VSB
- **Power requirements:** Refer to the CPU Board , add-on card & peripherals
- **Operating temperature:** 0 ~ 60° C
- **Weight:** 0.3 kg

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://support.advantech.com.tw>

This manual is for the PCE-5B05-04 Series Rev. A1

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Jumpers and Connectors

The backplane has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Jumpers and Connectors

Jumpers	
Label	Function
PSON1	ATX/AT mode selection ATX (Default): 2-3 pin closed AT: 1-2 pin closed

Connectors	
Label	Function
SHBA1 ~ SHBD1	PICMG 1.3 CPU board slot
PPCI1 ~ PPCI4	32 Bit / 33MHz PCI Bus Slot (Primary 3)
EATXPWR1	ATX2.0 24-pin power connector
ATX12V1	ATX 12V 4-pin power connector
VOLT1	Alarm board
FAN1	FAN connector
FAN2	FAN connector
FAN3	FAN connector
FANDEC1	Fan speed detector connector
SMBUS1	SMBus connector for chassis monitor
SMBUS2	SMBus connector for chassis monitor
JFP1	Power and reset button connector
IPMB1	IPMB connector
USB12	Two USB port pin header
USB34	Two USB port pin header
SATA1	SATA connector (reserved)
JTEMPA1	Sensor board connector (reserved)
JTEMPA2	Sensor board connector (reserved)

Jumpers and Connectors

Connector Pin Definition

EATXPWR1	
Pin	Name
1	3.3 V
2	3.3 V
3	GND
4	5 V
5	GND
6	5 V
7	GND
8	Power OK
9	5 VSB
10	12 V
11	12 V
12	3.3 V
13	3.3 V
14	-12 V
15	GND
16	PSON#
17	GND
18	GND
19	GND
20	-5 V
21	5 V
22	5 V
23	5 V
24	GND

Jumpers and Connectors

ATX12V1

Pin	Name
1	GND
2	GND
3	12V
4	12V

EATX12V1

Pin	Name
1	GND
2	GND
3	GND
4	GND
5	12 V
6	12 V
7	12 V
8	12 V

VOLT1

Pin	Name
1	5 VSB
2	GND
3	GND
4	-5 V
5	5 V
6	3.3 V
7	-12 V
8	12 V

FAN1 ~ FAN4

Pin	Name
1	GND
2	12 V
3	FANIO1 ~ FANIO4

Jumpers and Connectors

FANDEC1

Pin	Name
1	FANIO1
2	FANIO2
3	FANIO3
4	N/A
5	N/A
6	N/A
7	N/A

SMBUS1 ~ SMBUS2

Pin	Name
1	5 V
2	C-SMBCLK
3	C-SMBDAT
4	GND

IPMB1

Pin	Name
1	IPMB_CLK
2	IPMB_DAT
3	GND

USB12

Pin	Name
1	USBV0
2	USBV0
3	USBD0-
4	USBD1-
5	USBD0+
6	USBD1+
7	GND
8	GND
9	Null
10	GND

Jumpers and Connectors

USB34

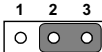
Pin	Name
1	USBV2
2	USBV2
3	USBD2-
4	USBD3-
5	USBD2+
6	USBD3+
7	GND
8	GND
9	Null
10	GND

JFP1

Pin	Name
1	PWRBTN#
2	GND
3	RESET#
4	GND

Jumper Setting

PS0N1: ATX/AT Mode Selection

Jumper Setting	Function
1-2 closed pins 	AT mode
2-3 closed pins 	ATX mode (default)

Jumpers and Connectors

J11/J12: SMBUS source selection

Jumper Setting	Function
Short 	From SHB (ICH)
Open 	From CMM

PCI Routing Table

PCI 32-bit

	PCI Slot	PPCI1	PPCI2	PPCI3	PPCI4
PCI Interrupt Pin Router	IDSEL	AD 31	AD 30	AD 29	AD 28
	INT A	INT D	INT C	INT B	INT A
	INT B	INT A	INT D	INT C	INT B
	INT C	INT B	INT A	INT D	INT C
	INT D	INT C	INT B	INT A	INT D

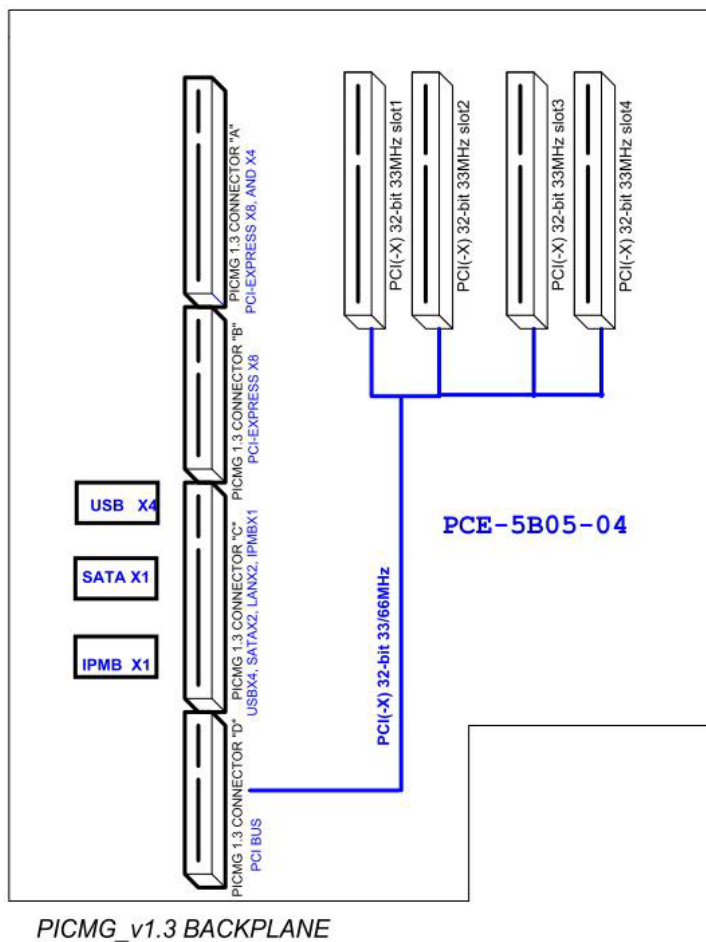


Figure 1: Board Diagram

Board Dimensions

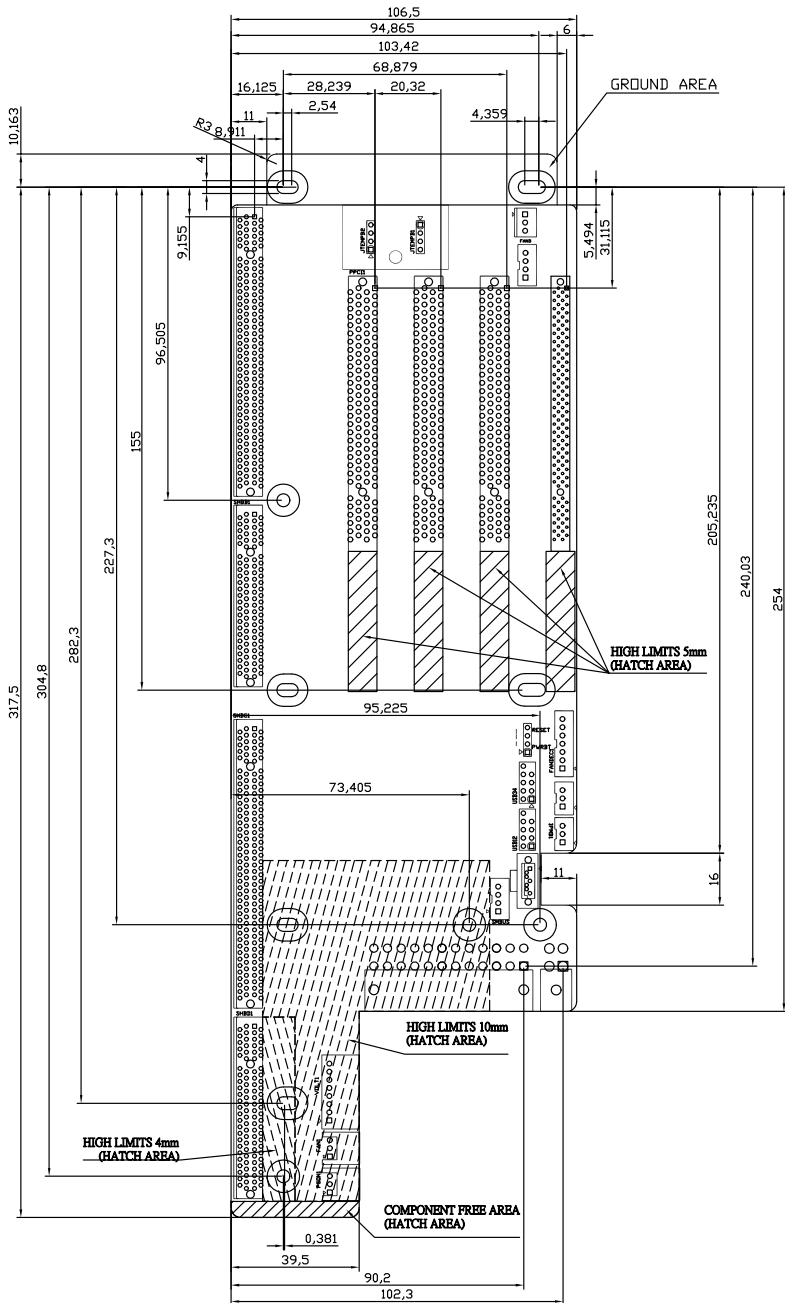


Figure 2: Board Dimensions

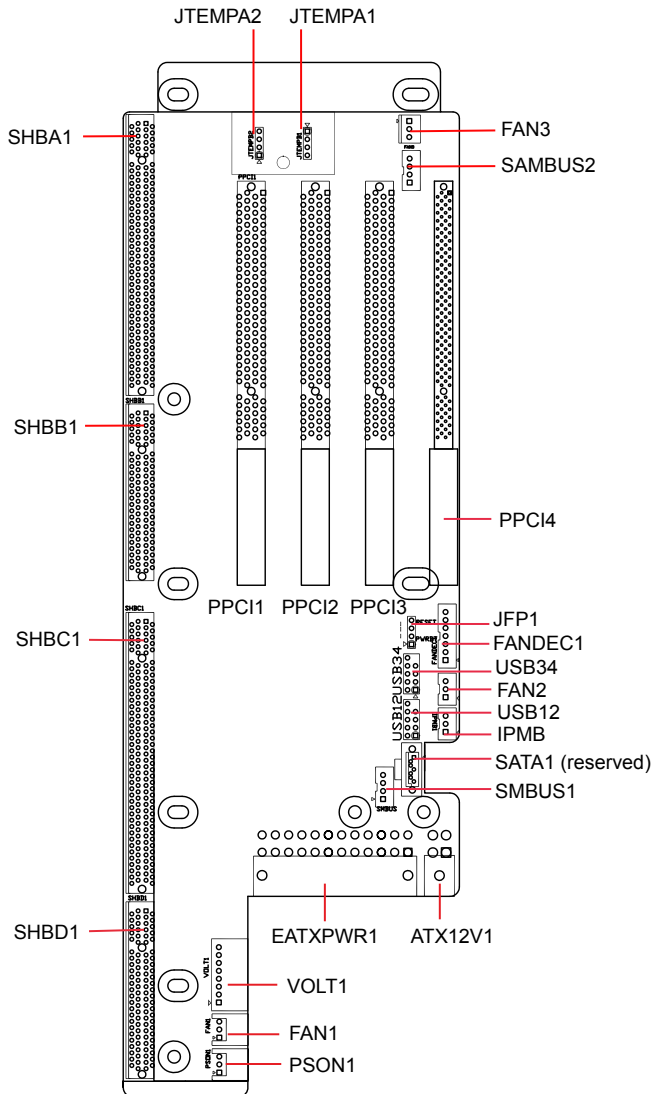


Figure 3: Board Layout