

## PCE-5B13(7B14)-03 Backplane: 13(14)-slot BP for 14-Slot Chassis, 1 x PICMIG 1.3, 9 (10) x PCIe, 3 x 32-bit/33-MHz PCI

### Packing List

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

- One 2 port USB cable P/N: 1700002204
- PCE-5B13(7B14)-03 startup manual
- M4\*6\*0.7 round screws (20 pieces) P/N: 1939000410
- 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

- **PICMG 1.3 Slot:**  
PCE-5B13-03 supports PCE-5xxx CPU Cards  
PCE-7B14-03 supports PCE-7xxx CPU Cards
- **PCIe Slots:**  
PCE-5B13-03: 1 x PCIe x16, 8 x PCIe x4  
PCE-7B14-03: 2 x PCIe x8, 3 x PCIe x4
- **32-bit PCI Slots:**  
PCE-5B13-03: 3 32-bit/33-MHz PCI  
PCE-7B14-03: 3 32-bit/33-MHz PCI
- **USB (2.0) Support:** Four Universal Serial Bus ports to Backplane

**Note:** Some add-on cards installed on this backplane may cause CPU card BIOS resource allocation problems, if this occurs please contact Advantech technical support staff for help in solving the problems.

#### Mechanical and Environment

- **Dimensions:** 327.66 x 315.45 mm
- **Power supply voltage:** +12 V, +5 V, -12 V, -5 V, +5 V SBY, +3.3 V
- **Power requirements:** Depends on the CPU board, add-on card & peripherals
- **Operating temperature:** 0 ~ 60° C

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://www.advantech.com/support>

This manual is for the PCE-5B13-03A1E(PCE-7B14-03A1E) series.

Part No. 20015B1300  
Printed in China

1st Edition,  
Jan. 2018

## Connectors and Jumpers

This table shows the function of each jumper and connector:

Connectors	
Label	Function
SHBA1~SHBD1	PICMG1.3 CPU board slot
PPCIE2	PCIe x 16 slot (Only on PCE-5B12-07)
PPCIE1, PPCIE2	PCIe x8 slots (Only on PCE-7B13-07)
P1PCIE1~P1PCIE3	PCIe x4 slots
PPC1~ PPC3	32 Bit / 33 MHz PCI Bus slots
EATXPWR1	ATX2.0 24-pin Power Connector
EATX12V1	ATX 12V Auxiliary 8-pin Power Connector
ATX12V1	ATX 12V 4-pin Power Connector
PWR3V1	3.3V Auxiliary Power Connector
PWR3V2	3.3V Auxiliary Power Connector
VOLT1	Alarm board / CMM Power Connector
FAN1~5	FAN Connector (Horizontal Type)
FAN6~7	FAN Connector (Vertical Type)
FANDEC1	FAN speed detector Connector (Optional)
SMBUS1~SMBUS2	System Management Bus (Optional)
JFP1	Power and Reset button Connector
IPMB1	IPMB Connector (Optional)
USB12	Two USB port pin header
USB34	Two USB port pin header

**Note:** In this backplane's default configuration, FAN-DEC1, SMBUS1~SMBUS3, IPMB1 pin-headers are NOT populated, those footprints are reserved for customization.

Jumpers	
Label	Function
PSON1	ATX / AT Mode Selection

## Connectors and Jumpers (Cont.)

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 and Jumpers (Cont.)

### EATX12V1

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

### PWR3V1 & PWR3V2

Pin	Name
1	3.3V
2	3.3V
3	3.3V
4	GND
5	GND
6	GND

### 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~FAN7

Pin	Name
1	GND
2	12 V
3	FANIO1~FANIO7

## Connectors and Jumpers (Cont.)

### FANDEC1

Pin	Name
1	FANIO1
2	FANIO2
3	FANIO3
4	FANIO4
5	FANIO5
6	FANIO6
7	FANIO7

### SMBUS1~SMBUS3

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

## Connectors and Jumpers (Cont.)

### USB34

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

## Connectors and Jumpers (Cont.)

### PSO1: ATX / AT Mode Selection

Setting	Function
1-2	AT Mode
2-3*	ATX Mode

\* Default



### JFP1

Pin	Name
1	VCC
2	PWRBTN
3	RESET#
4	GND

## Board Layout

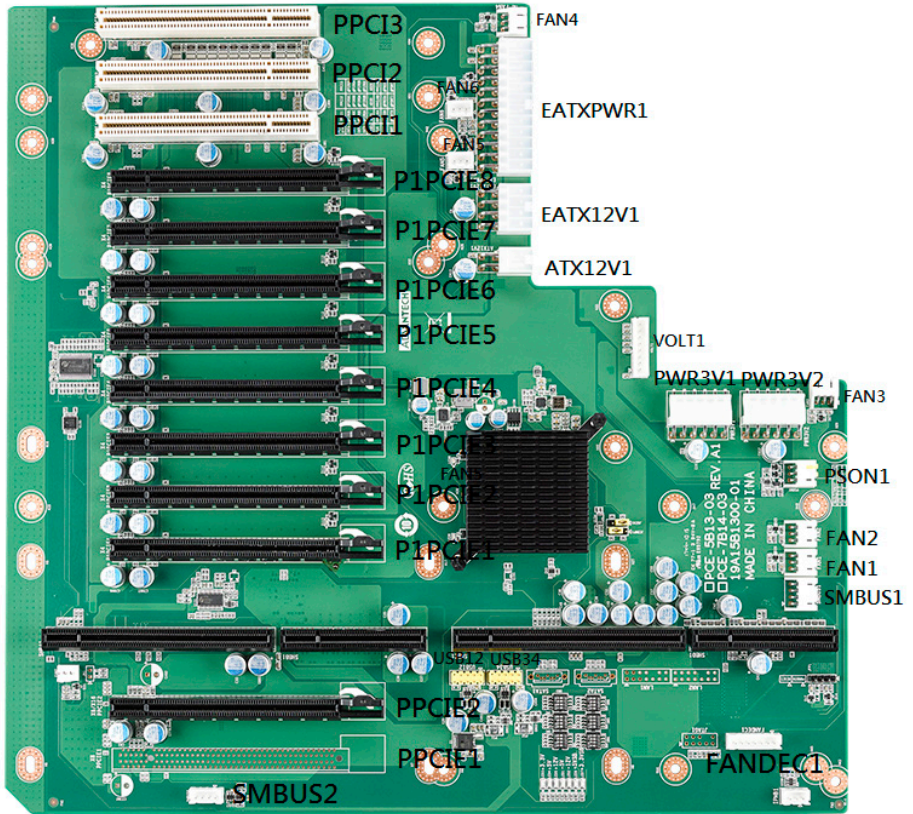


Figure 1: Board Layout

- Note:**
1. Some add-on cards installed on this backplane may cause CPU card BIOS resource allocation problems, if this occurs please contact Advantech technical support staff for help in solving the problems.
  2. In this backplane's default configuration, FANDEC1, SMBUS1~SMBUS2, IPMB1 pin-headers are NOT populated, those footprints are reserved for customization.

# Board Dimensions

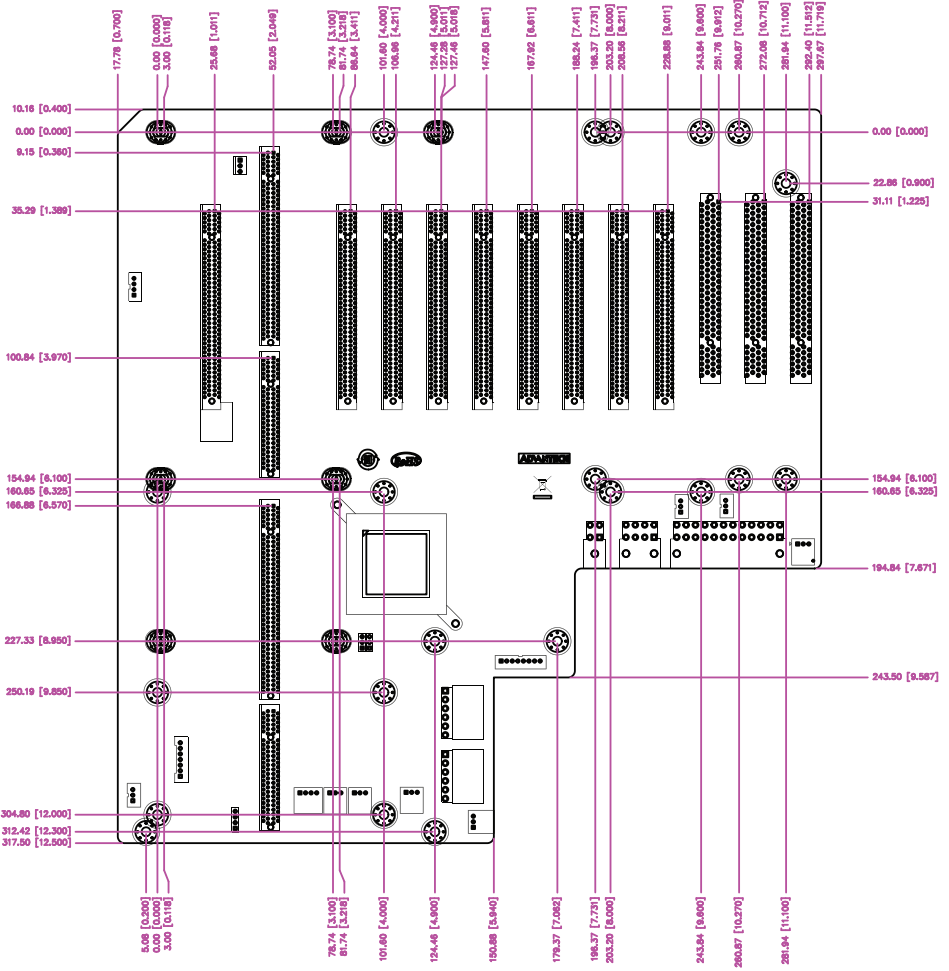


Figure 2: Board Dimensions

## Board Diagram

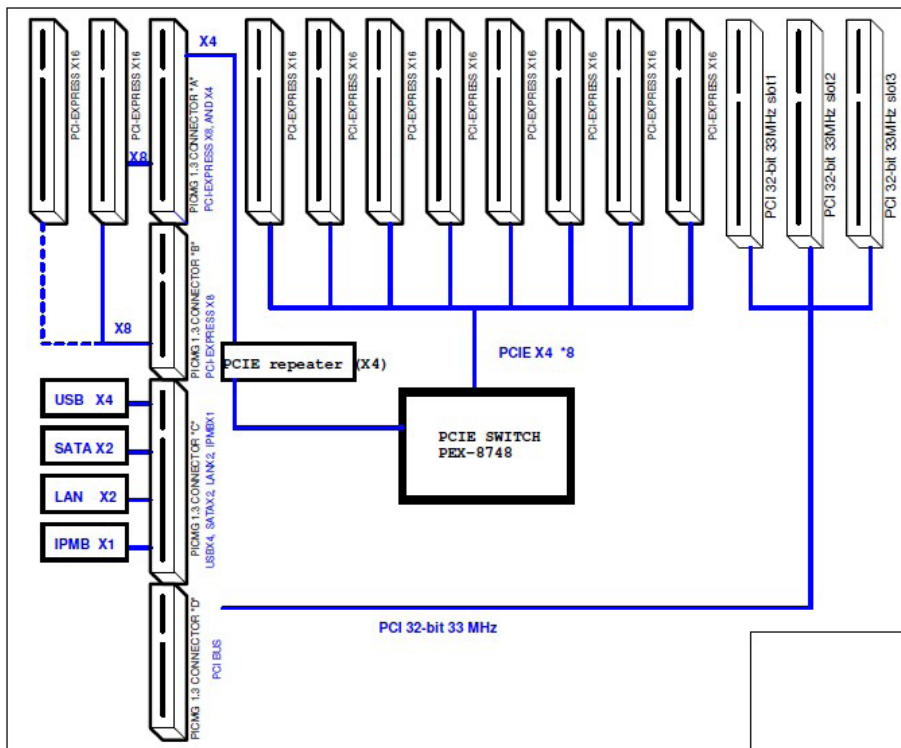


Figure 3: Board Diagram

## PCI Routing Table

### PCI 32-bit from ICH

	PCI Slot	PPCI1	PPCI2	PPCI3
PCI Interrupt Pin Route	IDSEL	AD31	AD30	AD29
	INTA	INTB	INTC	INTD
	INTB	INTC	INTD	INTA
	INTC	INTD	INTA	INTB
	INTD	INTA	INTB	INTC