

PCE-5B05V-30 (PCE-7B06V-30) Backplane: 5(6)-slot BP for 2U Chassis, 1 PICMIG 1.3, 1(2) PCIe, 3 64-bit PCI-X

Startup Manual

Packing list

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

- 2 Two Port USB Cable p/n: 1700002204
- PCE-5B05V-30 (PCE-7B06V-30) Startup Manual
- M4*6*0.7 Round Screws (5 pcs) p/n: 1939000410
- 2 Year Quality Warranty Card p/n: 2190000902

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

Specifications

Standard Functions

- **PICMIG 1.3 slots:**
PCE-7B06V-30 supports PCE-7xxx CPU boards
PCE-5B05V-30 supports PCE-5xxx CPU boards
- **PCIe slots:**
PCE-7B06V-30 supports 2 PCIe x 8 slot
PCE-5B05V-30 supports one PCIe x 16 slot
- **64-bit PCI-X:**
Two 64 Bit / 100 MHz PCI-X Slots
One 64 Bit / 133 MHz PCI-X Slot
- **USB (2.0) support:** Four Universal Serial Bus ports to Backplane

Mechanical and Environment

- **Dimensions:** 80.01 x 325 mm
- **Power supply voltage:** +12 V, +5 V, -12 V, -5 V, +5 V SBY, +3.3 V
- **Power requirements:** Refer to the CPU Board, add-on Card & Peripherals
- **Operating temperature:** 0 ~ 60° C

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<http://www.advantech.com>

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

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

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This manual is for the PCE-5B05V-30 (PCE-7B06V-30) series

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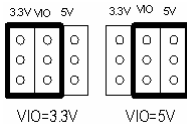
Connectors and Jumpers

Connectors

Label	Function
SHBA1~SHBD1	PICMG1.3 CPU board slot
PPCIE1	PCIe x8 slot
PPCIE2	PCE-7B06V-30: PCIe x8 Slot PCE-5B05V-30: PCIe x16 Slot
P1PCIX1	64-bit / 100 MHz PCI-X Slot
P1PCIX2	64-bit / 100 MHz PCI-X Slot
P2PCIX1	64-bit / 133 MHz PCI-X Slot
EATXPWR1	ATX2.0 24-pin Power Connector
EATX12V1	ATX 12V Auxiliary 8-pin Power Connector
ATX12V1	ATX 12V 4-pin Power Connector
VOLT1	Alarm board / CMM Power Connector
FAN1	FAN Connector (Box Header)
FAN2	FAN Connector (Box Header)
FAN3	FAN Connector (Box Header)
FAN4	FAN Connector (Pin Header)
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
JP1VIO1	P1PCIX1 and P1PCIX2 3.3V / 5V VIO Selection
JP2VIO1	P2PCIX1 3.3V / 5V VIO Selection



Label	Function
J1	Primary 1 PCI-X bus frequency selection
J4	Primary 2 PCI-X bus frequency selection
J2	Primary 1 PCI bus frequency selection
J5	Primary 2 PCI bus frequency selection
J3	Primary 1 PCI/PCI-X bus capability selection
J6	Primary 2 PCI/PCI-X bus capability selection

P1PCIX1, P1PCIX2 PCI-X Bus Capability and Frequency Setting When They Are Set To PCI-X Mode

PCI-X (MHz)	J1	J3	J2
66	(2-3)	(1-2)	PCI-X mode is backward compatible with
100	(2-3)	OPEN	PCI mode. Please see below for PCI frequency setting when the add-on card has a PCI interface, and P1PCIX1 and P1PCIX2 are set to PCI-X mode. J2 is (2-3): Supports only PCI 33 MHz J2 is (1-2): Supports both PCI 33/66 MHz

E.g. How to set both P1PCIX1 and P1PCIX2 to 64-bit, 100 MHz PCI-X mode:

J1: (2-3)

J3: OPEN

J2: Both (1-2) and (2-3) are okay, (1-2) setting is recommended.

P2PCIX1 PCI-X Bus Capability and Frequency Setting When It Is Set To PCI-X Mode

PCI-X (MHz)	J4	J6	J5
66	(2-3)	(1-2)	PCI-X mode is backward compatible with
100	(2-3)	OPEN	PCI mode. Please see below for PCI frequency setting when the add-on card has a PCI interface and the P2PCIX1 is set to PCI-X mode. J5 is (2-3): Supports only PCI 33 MHz J5 is (1-2): Supports both PCI 33/66 MHz
133	(1-2)	OPEN	

E.g. How to set both P2PCIX1 to 64-bit, 133 MHz PCI-X mode:

J4: (1-2)

J6: OPEN

J5: Both (1-2) and (2-3) are okay, but (1-2) setting is recommended.

P1PCIX1, P1PCIX2 PCI Bus Capability and Frequency Setting When They Are Set To PCI Mode

PCI (MHz)	J1	J3	J2
33	Don't Care	(2-3)	(2-3)
66	Don't Care	(2-3)	(1-2)

E.g. How to set both P1PCIX1 and P1PCIX2 to 32-bit, 66 MHz PCI mode:

J1: Both (1-2) and (2-3) are okay.

J3: (2-3)

J2: (1-2)

P2PCIX1 PCI- Bus Capability and Frequency Setting When It Is Set To PCI Mode

PCI (MHz)	J4	J6	J5
33	Don't Care	(2-3)	(2-3)
66	Don't Care	(2-3)	(1-2)

E.g. How to set both P1PCIX1 and P1PCIX2 to 32-bit, 33 MHz PCI mode:

J4: Both (1-2) and (2-3) are okay.

J6: (2-3)

J5: (2-3)

Connector Pin Definitions

EATXPWER1

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

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 V SBY
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

FANDEC1

Pin	Name
1	FANIO1
2	FANIO2
3	FANIO3
4	FANIO4

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

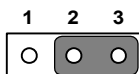
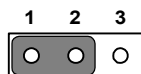
USB34

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

PS0N1: ATX / AT Mode Selection

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

*: Default

**JP1VIO1**

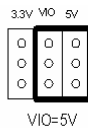
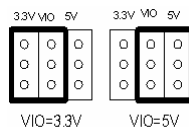
Pin	Name
1	VCC
2	VCC
3	VCC
4	PB_VIO
5	PB_VIO
6	PB_VIO

JP1VIO1

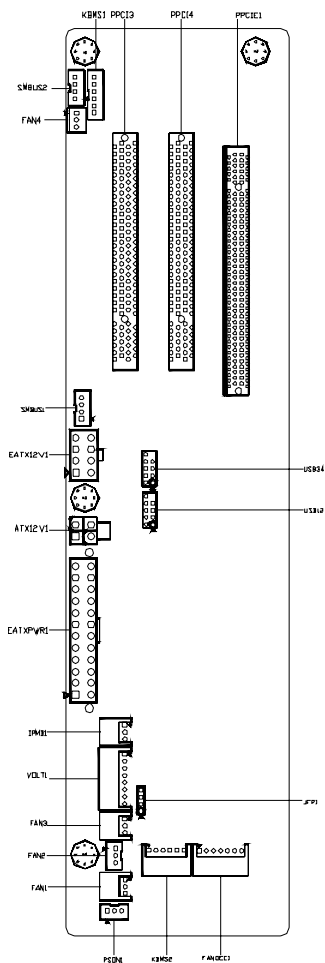
7	VCC3
8	VCC3
9	VCC3

JP2VIO1

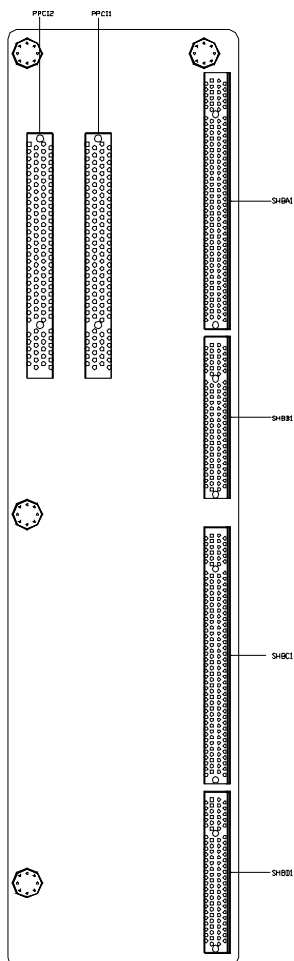
Pin	Name
1	VCC
2	VCC
3	VCC
4	PA_VIO
5	PA_VIO
6	PA_VIO
7	VCC3
8	VCC3
9	VCC3



Locating Connectors and Jumpers

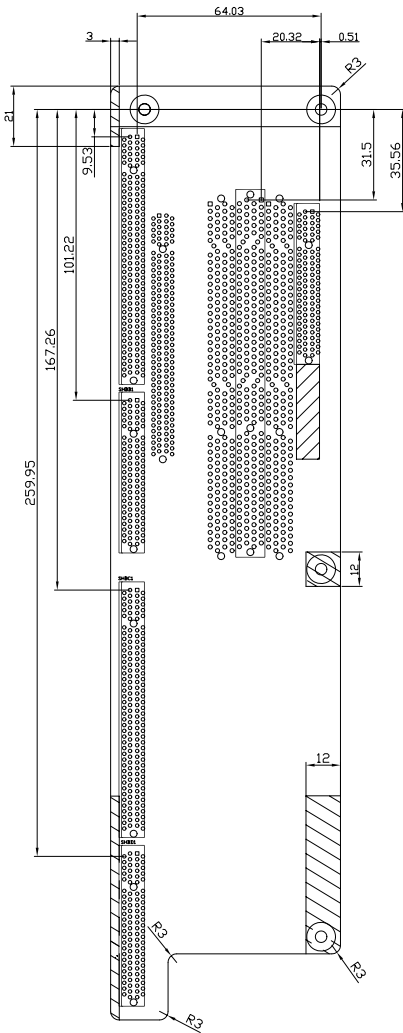


Locating Connectors (component side)

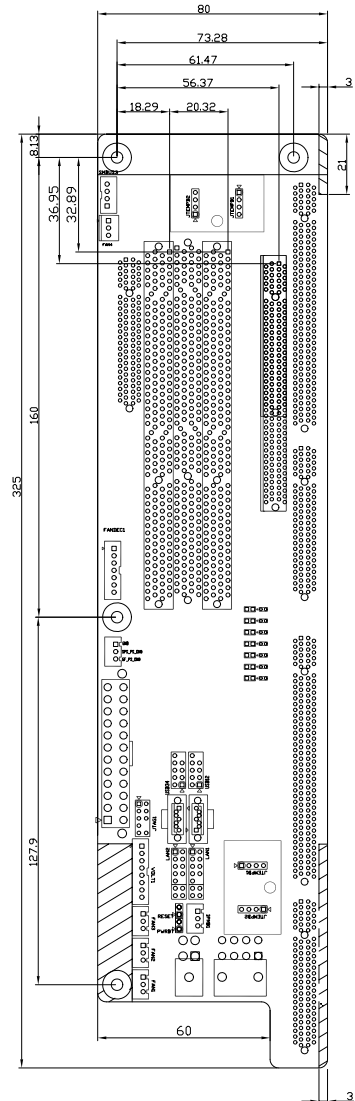


Locating Connectors (solder side)

Board Dimensions

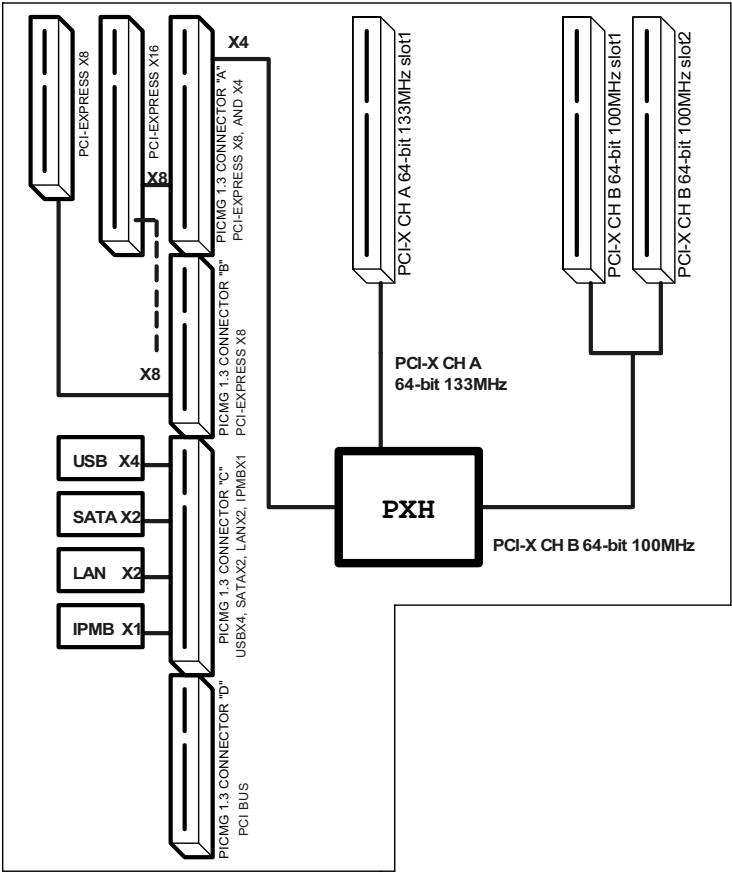


Mechanical Drawing (solder side)



Mechanical Drawing (component side)

Board Diagram



PCI Routing Tables

PCI SLOT	IDSEL	PCI INTERRUPT PIN ROUTE			
		INTA#	INTB#	INTC#	INTD#
P1PCIX1	S1_AD31	IRQD#	IRQA#	IRQB#	IRQC#
P1PCIX2	S1_AD30	IRQC#	IRQD#	IRQA#	IRQB#
P2PCIX1	S2_AD31	IRQD#	IRQA#	IRQB#	IRQC#