

PCE-5B04-20A1E (PCE-7B05-20A1E) Backplane: 4(5)-slot BP for 5-slot Chassis, 1 PICMIG 1.3, 1(2) PCIe, 2 64-bit 133-MHz PCI-X

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-5B04-20A1E (PCE-7B05-20A1E) 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-7B05-20A1E supports PCE-7xxx CPU boards
PCE-5B04-20A1E supports PCE-5xxx CPU boards
- **PCIe slots:**
PCE-7B05-20A1E supports two PCIe x 8 slots
PCE-5B04-20A1E supports one PCIe x 16 slot
- **64-bit PCI-X:**
Two 64 Bit / 133 MHz PCI-X Slots
- **USB (2.0) support:**
Four Universal Serial Bus ports to Backplane

Mechanical and Environment

- **Dimensions:** 106.5 x 325 mm²
- **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

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

<http://www.advantech.com>

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

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

<http://service.advantech.com.tw/eservice/>

This manual is for the PCE-5B04-20A1E (PCE-7B05-20A1E) series

Part No. 200K5B0400
Printed in China

1st Edition
June 2008

Connectors & Jumpers

Connectors

Label	Function
SHBA1 ~ SHBD1	PICMG1.3 CPU board slot
PPCIE1	PCE-5B04-20A1E: N/A PCE-7B05-20A1E: PCIe x 8 Slot
PPCIE2	PCE-5B04-20A1E: PCIe x 16 Slot PCE-7B05-20A1E: PCIe x 8 Slot
P1PCIX1	64-bit / 133 MHZ PCI-X Slot
P2PCIX1	64-bit / 133 MHZ PCI-X Slot
EATXPWR1	ATX2.0 24-pin Power Connector
ATX12V1	ATX 12 V 4-pin Power Connector
VOLT1	Alarm board / CMM Power Connector
FAN1	FAN Connector (Box Header)
FAN2	FAN Connector (Box Header)
FAN3	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 3.3 V / 5 V VIO Selection
JP2VIO1	P2PCIX1 3.3 V / 5 V VIO Selection
Label	Function
J1	Primary 1 PCI-X bus frequency selection
J4	Primary 2 PCI-X bus frequency selection
J2	Primary 1 PCI-X bus frequency selection
J5	Primary 2 PCI-X bus frequency selection
J3	Primary 1 PCI/PCI-X bus capability selection
J6	Primary 2 PCI/PCI-X bus capability selection

P1PCIX1, PCI-X Bus Capability and Frequency Setting when it is Set to PCI-X Mode

PCI-X (MHZ)	J1	J3	J2
66	(2-3)	(1-2)	PCI-X mode is backward compatible with 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
100	(2-3)	OPEN	
133	(1-2)	OPEN	

E.g. How to set with P1PCIX1 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 PCI mode. Please see below for PCI frequency setting when the add-on card has a PCI interface, and P2PCIX2 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
100	(2-3)	OPEN	
133	(1-2)	OPEN	

E.g. How to set with 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, PCI Bus Capability and Frequency Setting when it is 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 with P1PCIX1 to 32-bit, 66 MHZ PCI mode:

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

J3: (2-3)

J2: (1-2)

Connectors & Jumpers (Con.)

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 with P2PCIX1 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

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

Connectors & Jumpers (Con.)

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

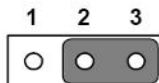
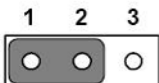
USB34

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

PSON1: ATX / AT Mode Selection

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

*: Default



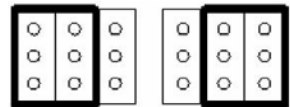
JP1VIO1

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

3.3 V VIO 5 V 3.3 V VIO 5 V



VIO=3.3 V

VIO=5 V

Locating Connectors & Jumpers

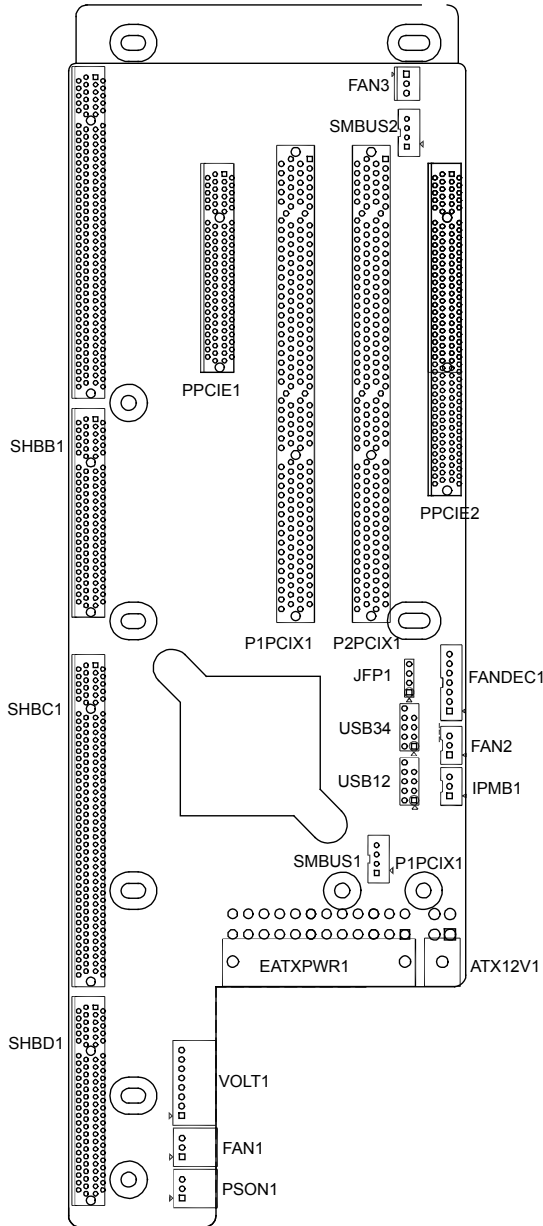


Figure 1: Locating Connectors

Board Dimensions

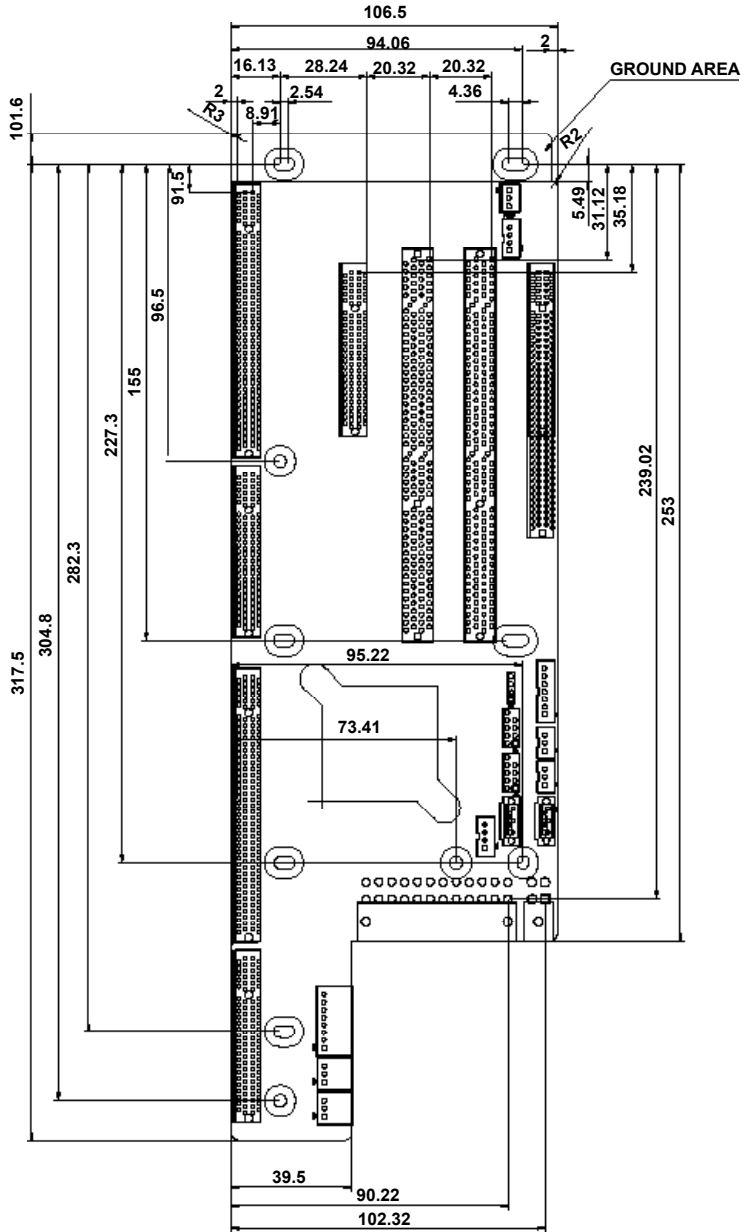
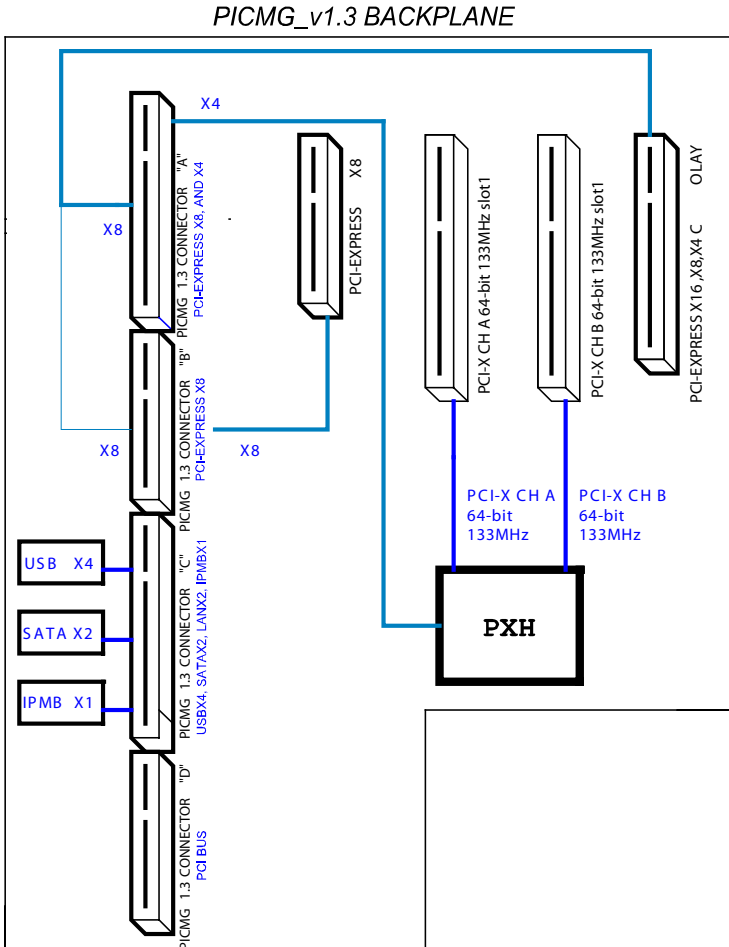


Figure 2: Mechanical Drawing

Board Diagram



PCI Routing Tables

PCI INTERRUPT ROUTE

PCI SLOT	IDSEL	INTA#	INTB#	INTC#	INTD#
P1PCIX1	S1_AD31	INTD#	INTA#	INTB#	INTC#
P2PCIX1	S2_AD31	INTD#	INTA#	INTB#	INTC#