

CONTINUON™

IBC 2706

6U CompactPCI™ Rear Transition Card

User's Guide

IBUS
Infini-Availability™

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CE Notification

The IBC 2706 has passed the CE test for environment specifications when shielded cables are used for external wiring. We recommend the use of shielded cables.

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1 General Information

1.1 Introduction

The IBC 2706 is a CompactPCI 6U-sized rear transition board. It provides access to the rear panel for the I/O function of the IBC 2606 CompactPCI CPU board.

1.2 Specification

1.2.1 Standard functions

- **Ethernet:** Two LAN ports with RJ-45 connectors
- **VGA connector:** One DB-15 VGA connector
- **Serial port:** Two DB-9 RS-232 ports
- **USB interface:** One USB connectors
- **EIDE interface:** Two connectors for IDE channels(Primary and Secondary channels)
- **FDD interface:** Supports one on-board slim-type floppy connector.
- **CompactFlash™ interface:** Supports one on-board CompactFlash™socket
- **Keyboard connector:** One 6-pin mini-DIN connector on rear panel
- **Mouse connector:** One 6-pin mini-DIN connector on rear panel

1.2.2 Mechanical and environmental specifications

- **Board size:** 233.35 x 80 mm (6U), one slot (4TE) wide
- **Max. power requirements:** +5 V (4.75 ~ 5.25 V) @ 1 A
- **Operating temperature:** 0 ~ 60 ° C (32 ~ 140 ° F)
- **Storage temperature:** -20 ~ 70 ° C (-4 ~ 158 ° F)
- **Humidity (operating and storage):** 5 ~ 95% (non-condensing)
- **Board weight:** 0.8 Kg
- **Shock:** 20 G (operating); 50 G (storage/transit)
- **Random vibration:** 5~500Mhz Operating: 1.5Grms Non-operating: 2Grms

1.3 Indicator and Connector Location

The IBC 2706 provides jumpers and connectors for users specific applications.

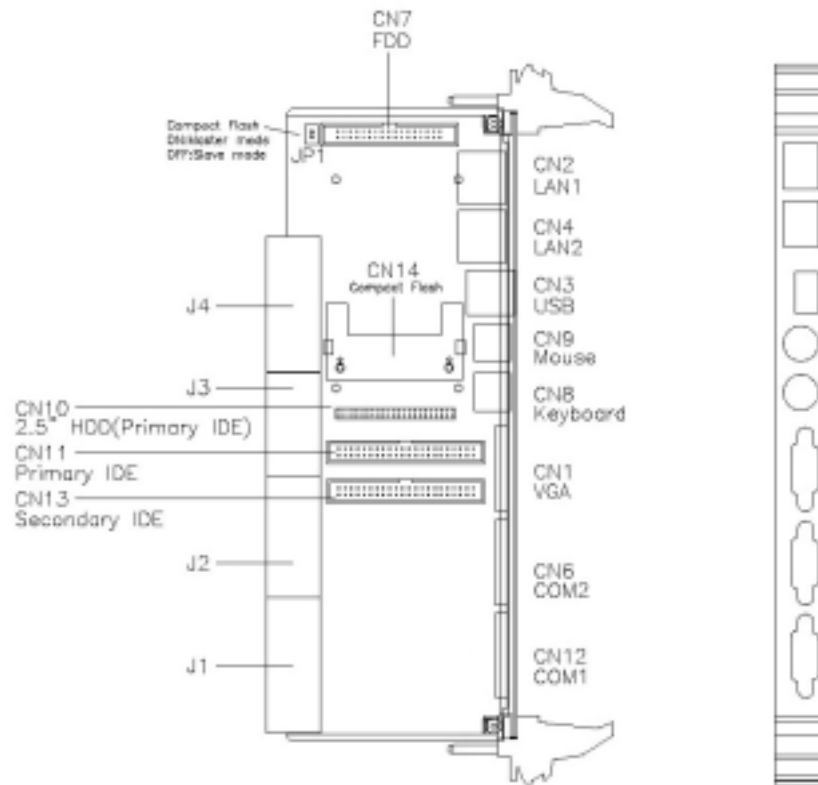


Figure 1-1: IBC 2706 connector and jumper locations

Table 1-1: IBC 2706 connector and jumper descriptions

Number	Function
JP1	CompactFlash master/slave selection
CN1	VGA connector
CN2	LAN 1 connector
CN3	USB 1 connector
CN4	LAN 2 connector
CN6	COM2 port
CN7	Floppy disk connector
CN8	PS/2 keyboard connector
CN9	PS/2 mouse connector
CN10	44-pin IDE channel-1 connector
CN11	IDE channel-1 connector
CN12	COM1 port
CN13	IDE channel-2 connector
CN14	50-pin CompactFlash connector

Note:

The CompactFlash interface (CN14) uses a primary IDE channel. Users need to set it as master or slave via jumper JP1 when another device is connected on the primary IDE channel.

2 Hardware Installation

2.1 Card installation

2.1.1 Card Installation and Removal

The CompactPCI™ connectors are firm and rigid, and require careful handling while plugging and unplugging. Improper installation of a card can easily damage the backplane of the chassis.

The system card can be installed only in the system slot. Do not insert the system card into the other slot, or insert a peripheral card into the system slot. The system slot is marked by a triangle enclosing the slot number.

Note: Another easy way to distinguish the system slot is that the system slot uses red guide rails while the peripheral slots use gray ones.

The insert/eject handles on CompactPCI™ cards help users to install and remove the cards easily and safely. Follow the procedures below to install a card into a chassis:

To install a card:

1. Hold the card horizontally. Be sure that the card is oriented correctly. The components of the card should be pointing to the upper side.
2. Be sure that the handles of the card are not latched. Release the handles if they are latched. Handles from different vendors may have different latch designs.

Caution: Keep your fingers away from the latch hinges to prevent your fingers from getting pinched.

3. Insert the card into the chassis by sliding the both edges of the card into the card guides.
4. Push the card into the slot gently by sliding the card along the card guide rails until the handles meet the rectangular holes of the handle locker rails.

Note: If the card is correctly positioned and has been slid all the way into the chassis, the handles should match the rectangular holes. If not, remove the card from the card guide and repeat step 3 again. Do not try to install a card by forcing it into the chassis.

5. Left-pull the right handle and right-pull the left handle to push the card into place.
6. Secure the card by locking the handles into place.

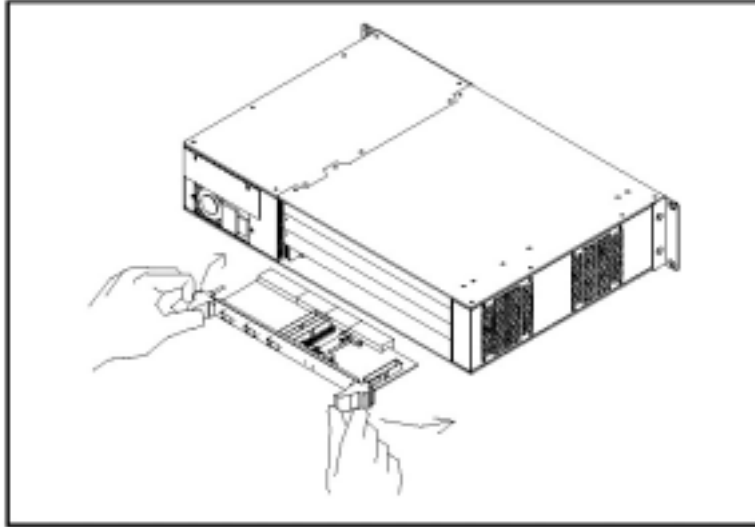


Figure 2-1: Installing a card into the chassis

To remove a card:

1. Release the locking latches on the handles.
2. Push the both handles out to release the card from the backplane.
3. Slide the card out.

APPENDIX A.

Pin Assignments

A.1. Pin Assignment

A.1.1. J3 Connector Pin Assignment

Table A-1.1: J3 Connector Pin Assignment

Pin	Row A	Row B	Row C	Row D	Row E
19	SID3	SID6	SID2	SID10	SID14
18	SID8	SID5	SID1	SID11	SID15
17	SID9	SID4	SID0	SID12	SID13
16	SID7	SCS1#	SIOR#	SCS3#	SRDY
15	SDRQ#	SACK#	SDA2	SIRQ	SIOW
14	NRTS1	NDSR1	SDA1	GND	SDA0
13	NRI1	NCTS1	NTX1	NRX1	NRLSD1
12	PID0	PID2	PID4	PID7	NDTR1
11	PID1	PID3	PID8	PID6	PID12
10	PID5	PID9	PID10	PID11	PID13
9	PID15	PID14	PDRQ#	PCS3#	PIOR#
8	PIRQ	PACK#	+5V	PDA2	PIOW#
7	N/C	GND	PRST#	PRDY	PCS1#
6	N/C	+5V	GND	PDA0	PDA1
5	+5V	GPIO5	S66DET	N/C	N/C
4	KDAT	KCLK	MDTA	MCLK	P66DET
3	DSKCHG#	MOA#	STEP#	HEAD#	TRAK0#
2	DSA#	MOB#	RWC#	RDATA#	WP#
1	INDEX#	DSB#	DIR#	WE#	WD#

Low active

Note:

The IBC 2706 supports DMA/66 HDD.

A.1.2. J4 Connector Pin Assignment

Table A-1-2 : J4 Connector Pin Assignment

Pin	Row A	Row B	Row C	Row D	Row E
25	LanTx2-	LanTx1-	USBV1	USBV0	USBD1+
24	LanTx2+	LanTx1+	N/C	USBD1-	USBD0-
23	GND	GND	N/C	N/C	USBD0+
22	LanRx2-	LanRx1-	N/C	N/C	NDTR2
21	LanRx2+	LanRx+	N/C	GND	NRTS2
20	GND	GND	N/C	N/C	NCTS2
19	N/C	N/C	N/C	N/C	NTX2
18	N/C	N/C	N/C	N/C	NRLSD2
17	N/C	N/C	N/C	N/C	NDSR2
16	N/C	N/C	N/C	N/C	NRI2
15	N/C	N/C	N/C	N/C	NRX2
12-14	KEY AREA				
11	+5V	N/C	N/C	N/C	N/C
10	+5V	N/C	N/C	N/C	N/C
9	+5V	N/C	N/C	N/C	N/C
8	+5V	N/C	N/C	N/C	N/C
7	N/C	N/C	N/C	N/C	N/C
6	N/C	N/C	N/C	N/C	N/C
5	N/C	N/C	N/C	N/C	N/C
4	N/C	N/C	N/C	VSYNC	N/C
3	N/C	N/C	HSYNC	N/C	N/C
2	BLUE	GREEN	RED	N/C	N/C
1	N/C	N/C	N/C	N/C	N/C

A.2. VGA Display Connector (CN1)

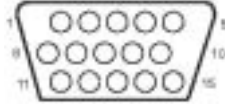


Table A-2: IBC 2706 CRT display connector

Pin	Signal	Pin	Signal
1	RED	9	VGAVCC
2	GREEN	10	GND
3	BLUE	11	N/C
4	N/C	12	SDA
5	GND	13	HSYNC
6	GND	14	VSYNC
7	GND	15	SCL
8	GND		

A.3. Keyboard and Mouse Connector (CN8,CN9)



Table A-3: IBC 2706 keyboard and mouse connector

Pin	Keyboard	Mouse
1	KDAT	MDAT
2	GND	GND
3	VCC	VCC
4	KCLK	MCLK
5	N/C	N/C
6	N/C	N/C

A.4. COM1 and COM2 Serial Port (CN12, CN6)

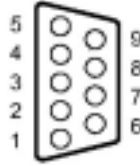


Table A-4: IBC 2706 COM1 and COM2 serial port

Pin	COM1 Signal	COM2 Pin	Signal COM2
1	NRLSD1	1	NRLSD2
2	NRX1	2	NRX2
3	NTX1	3	NTX2
4	NDTR1	4	NDTR2
5	GND	5	GND
6	NDSR1	6	NDSR2
7	NRTS1	7	NRTS2
8	NRTS1	8	NCTS2
9	NRI1	9	NRI2

A.5. USB Connector (CN3)

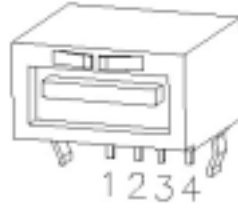


Table A-5: IBC 2706 USB1 connector

Pin	USB Signal
1	VCC
2	USBD0-
3	USBD0+
4	GND

A.6. Ethernet RJ-45 Connector (CN2,CN4)

Table A-6: IBC 2706 Ethernet RJ-45 connector

Pin	Signal	Lan2 (CN4)
1	TX+	TX2+
2	TX-	TX-
3	RX+	RX+
4	N/C	N/C
5	N/C	N/C
6	RX-	RX-
7	N/C	N/C
8	N/C	N/C

A.7. CompactFlash Socket (CN14)

Table A7: IBC 2706 CompactFlash socket

Pin	Signal	Pin	Signal
1	GND	26	N/C
2	PID3	27	PID11
3	PID4	28	PID12
4	PID5	29	PID13
5	PID6	30	PID14
6	PID7	31	PID15
7	PCS1#	32	PCS3#
8	GND	33	N/C
9	GND	34	PIOR#
10	GND	35	PIOW#
11	GND	36	N/C
12	GND	37	PIRQ
13	VCC	38	VCC
14	GND	39	SANDISK
15	GND	40	N/C
16	GND	41	PRST#
17	GND	42	PRDY
18	PDA2	43	N/C
19	PDA1	44	N/C
20	PDA0	45	PLED
21	PID0	46	N/C
22	PID1	47	PID8
23	PID2	48	PID9
24	N/C	49	PID10
25	N/C	50	GND

A.8. Floppy Disk Drive Connector (CN7)

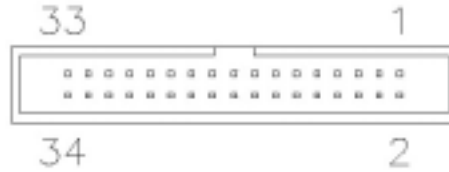


Table A-8: Floppy Disk Drive Connector

Pin	Signal	Pin	Signal
1	PRST#	2	GND
3	PID7	4	PID8
5	PID6	6	PID9
7	PID5	8	PID10
9	PID4	10	PID11
11	PID3	12	PID12
13	PID2	14	PID13
15	PID1	16	PID14
17	PID0	18	PID15
19	GND	20	N/C
21	PDRQ#	22	GND
23	PIOW#	24	GND
25	PIOR#	26	GND
27	PRDY	28	Pull low
29	PACK#	30	GND
31	PIRQ	32	N/C
33	PDA1	34	Pull low
35	PDA0	36	PDA2
37	PCS1#	38	PCS3#
39	HDD_LED	40	GND

low active

A.9. Hard Disk Drive Connector (CN11,CN13)

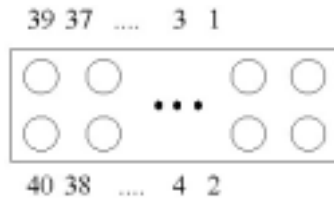


Table A-9: Hard Disk Drive Connector

Pin	Signal	Pin	Signal
1	PRST#	2	GND
3	PID7	4	PID8
5	PID6	6	PID9
7	PID5	8	PID10
9	PID4	10	PID11
11	PID3	12	PID12
13	PID2	14	PID13
15	PID1	16	PID14
17	PID0	18	PID15
19	GND	20	N/C
21	PDRQ#	22	GND
23	PIOW#	24	GND
25	PIOR#	26	GND
27	PRDY	28	Pull low
29	PACK#	30	GND
31	PIRQ	32	N/C
33	PDA1	34	Pull low
35	PDA0	36	PDA2
37	PCS1#	38	PCS3#
39	HDD_LED	40	GND

low active

A.10. Hard Disk Drive Connector (CN10)

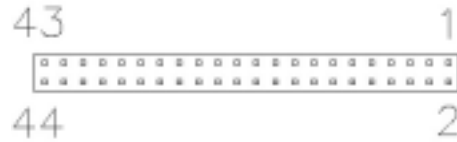


Table A-10: Hard Disk Drive Connector

Pin	Signal	Pin	Signal
1	PRST#	2	GND
3	PID7	4	PID8
5	PID6	6	PID9
7	PID5	8	PID10
9	PID4	10	PID11
11	PID3	12	PID12
13	PID2	14	PID13
15	PID1	16	PID14
17	PID0	18	PID15
19	GND	20	N/C
21	PDRQ#	22	GND
23	PIOW#	24	GND
25	PIOR#	26	GND
27	PRDY	28	Pull low
29	PACK#	30	GND
31	PIRQ	32	N/C
33	PDA1	34	Pull low
35	PDA0	36	PDA2
37	PCS1#	38	PCS3#
39	HDD_LED	40	GND

low active