GAOLIN ELECTRONICS

CPCI 3U8SLOT BACKPLANE

Technology Specification

CB3108011-100

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CPCI 3U8Slots Backplane Technology Specification

DESIGN ACCORDING TO:

- CPCI Specification PICMG 2.0 R3.0 (October 1, 1999)
- CPCI Hot Swap Specification PICMG 2.1 R1.0 (August 3, 1998)
- CPCI System Management Specification PICMG 2.9 R1.0 (February 2, 2000)
- Keying of CPCI Boards and Backplanes PICMG 2.10 R1.0 (October 1, 1999)
- CPCI Power Interface Specification PICMG 2.11 R1.0 (October1, 1999)

BUS STRUCTURES:

<table>
<tr><td>P2</td><td colspan="8" rowspan="2">32bit/33MHz CPCI</td><td rowspan="4">DUAL ATX PSU Receptacle</td></tr>
<tr><td>P1</td></tr>
<tr><td>Slot</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>SPEC</td><td colspan="7">Peripheral</td><td>System</td></tr>
</table>

TECHNICAL DATA:

- 8 Slots: 1 System Slot +7 Peripheral slots
- All Peripheral slots support 32bit/33Mhz CPCI bus
- Mechanical dimension: 181.88×128.7×3.8mm (width×height×thickness), support 3U card.
- PCB Type: 10 layers
- Power connector: Two ATX Power Receptacle for Redundant PSU
- Maximum voltage drop on backplane power: <20mV
- V(I/O): +3.3V / +5V selectable
- Impedance: 65ohm ±10% for trace.
- Packets switching: 10M/100M/1000M bps
- Operating temperature: -40℃ ~ +85℃
- Storage temperature: -55℃ ~ +85℃
- MTBF: 700,000h

PIN ASSIGNMENT:

See following tables.

P1 of Slot 8

25	GND	5V	REQ64#	ENUM#	3.3V	5V	GND
24	GND	AD1	5V	V(I/O)	AD0	ACK64#	GND
23	GND	3.3V	AD4	AD3	5V	AD2	GND
22	GND	AD7	GND	3.3V	AD6	AD5	GND
21	GND	3.3V	AD9	AD8	M66EN	C/BE0#	GND
20	GND	AD12	GND	V(I/O)	AD11	AD10	GND
19	GND	3.3V	AD15	AD14	GND	AD13	GND
18	GND	SERR#	GND	3.3V	PAR	C/BE1#	GND
17	GND	3.3V	IPMB_SCL	IPMB_SDA	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	3.3V	FRAME#	IRDY#	GND	TRDY#	GND
14	**KEY AREA**						
13							
12							
11	GND	AD18	AD17	AD16	GND	C/BE2#	GND
10	GND	AD21	GND	3.3V	AD20	AD19	GND
9	GND	C/BE3#	GND	AD23	GND	AD22	GND
8	GND	AD26	GND	V(I/O)	AD25	AD24	GND
7	GND	AD30	AD29	AD28	GND	AD27	GND
6	GND	REQ#	GND	3.3V	CLK	AD31	GND
5	GND	BRSVP1A5	BRSVP1B5	PCI_RST#	GND	GNT#	GND
4	GND	IPMB_PWR	HEALTHY1#	V(I/O)	INTP	INTS	GND
3	GND	INTA#	INTB#	INTC#	5V	INTD#	GND
2	GND	TCK	5V	TMS	TDO	TDI	GND
1	GND	5V	-12V	TRST#	+12V	5V	GND
Pin	**Z**	**A**	**B**	**C**	**D**	**E**	**F**

P1 of Slot 1~7

25	GND	5V	REQ64#	ENUM#	3.3V	5V	GND
24	GND	AD1	5V	V(I/O)	AD0	ACK64#	GND
23	GND	3.3V	AD4	AD3	5V	AD2	GND
22	GND	AD7	GND	3.3V	AD6	AD5	GND
21	GND	3.3V	AD9	AD8	M66EN	C/BE0#	GND
20	GND	AD12	GND	V(I/O)	AD11	AD10	GND
19	GND	3.3V	AD15	AD14	GND	AD13	GND
18	GND	SERR#	GND	3.3V	PAR	C/BE1#	GND
17	GND	3.3V	IPMB_SCL	IPMB_SDA	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	3.3V	FRAME#	IRDY#	BD_SEL#	TRDY#	GND
14							
13			**KEY AREA**				
12							
11	GND	AD18	AD17	AD16	GND	C/BE2#	GND
10	GND	AD21	GND	3.3V	AD20	AD19	GND
9	GND	C/BE3#	IDSEL	AD23	GND	AD22	GND
8	GND	AD26	GND	V(I/O)	AD25	AD24	GND
7	GND	AD30	AD29	AD28	GND	AD27	GND
6	GND	REQ0#	GND	3.3V	CLK0	AD31	GND
5	GND	BRSVP1A5	BRSVP1B5	PCI_RST#	GND	GNT0#	GND
4	GND	IPMB_PWR	HEALTHY1#	V(I/O)	INTP	INTS	GND
3	GND	INTA#	INTB#	INTC#	5V	INTD#	GND
2	GND	TCK	5V	TMS	TDO	TDI	GND
1	GND	5V	-12V	TRST#	+12V	5V	GND
Pin	**Z**	**A**	**B**	**C**	**D**	**E**	**F**

P2 of Slot 8

22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND	CLK6	GND				GND
20	GND	CLK5	GND				GND
19	GND	GND	GND	SMB_SD	SMB_SCL	SMB_ALER	GND
18	GND						GND
17	GND			PRST#	REQ6#	GNT6#	GND
16	GND			DEG	GND		GND
15	GND			FAL#	REQ5#	GNT5#	GND
14	GND						GND
13	GND						GND
12	GND						GND
11	GND						GND
10	GND						GND
9	GND						GND
8	GND						GND
7	GND						GND
6	GND						GND
5	GND						GND
4	GND						GND
3	GND	CLK4	GND	GNT3#	REQ4#	GNT4#	GND
2	GND	CLK2	CLK3	SYSEN#	GNT2#	REQ3#	GND
1	GND	CLK1	GND	REQ1#	GNT1#	REQ2#	GND
Pin	**Z**	**A**	**B**	**C**	**D**	**E**	**F**

P2 of Slot 1～7

22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND						GND
20	GND						GND
19	GND						GND
18	GND						GND
17	GND						GND
16	GND						GND
15	GND						GND
14	GND						GND
13	GND						GND
12	GND						GND
11	GND						GND
10	GND						GND
9	GND						GND
8	GND						GND
7	GND						GND
6	GND						GND
5	GND						GND
4	GND						GND
3	GND						GND
2	GND						GND
1	GND						GND
Pin	**Z**	**A**	**B**	**C**	**D**	**E**	**F**

VI/O Taps (JP1):

设置 CPCI 总线的 VI/O 电压：+3.3V / +5V 可选，**出厂默认+5V**。

RESET:

系统硬件复位插座。

POW_ON :

1. 出厂默认 POW_ON 短接，AXT 电源直接工作； 若用此作输出开关，需去除电阻 R1 后直接接 POW_ON 插座。

2. 客户使用 CPCI 电源，需去除电阻 R1 电源正常； 若使用输出开关，直接接 POW_ON 插座。

IPMB:

System Management.

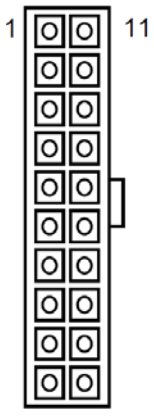
Pin	Signal	Pin	Signal
1	IPMB_PWR	**2**	SMB_ALERT
3	IPMB_SDA	**4**	SMB_SDA
5	IPMB_SCL	**6**	SMB_SCL
7	GND	**8**	GND
9	GND	**10**	GND

Volt:

All the alarm signals and various power supply are connected to it. It is used to connect external monitor module.

Pin	Signal	Pin	Signal
1	-12V	**2**	PRST#
3	+12V	**4**	DEG#
5	3.3V	**6**	FAL#
7	5V	**8**	GND
9	INH#	**10**	GND

XP1&XP2：



Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS_ON_L
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	POWER GOOD	18	-5V
9	5V STB	19	+5V
10	+12V	20	+5V

BACKPLANE TOP VIEW