

GAOLIN ELECTRONICS

CPCI POWER SOCKET 6U14SLOTS BACKPLANE

Technology Specification

CB61141B0-300

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CPCI+POWER SOCKET 6U14SLOTS 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 (October 1, 1999)

BUS STRUCTURES:

P5	I/O														C M M	S i x P o w e r S o c k e t 4 7
P4	I/O															
P3	I/O															
P2	64bit/33MHz CPCI with Bridge															
P1																
Slot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
SPEC	System	Peripheral														

TECHNICAL DATA:

- 14 Slots: 1 System Slot +13Peripheral slots
- All Peripheral slots support 64bit/33Mhz CPCI bus
- Mechanical dimension: 425.72 × 262.05 × 4.0mm (width × height × thickness), support 6U card.
- PCB Type: 10 layers
- Power connector: Six CPCI Power Receptacle for Redundant PSU
- Maximum voltage drop on backplane power: <20mV
- V(I/O): +3.3V / +5V selectable
- Impedance: 65ohm ±10% for trace
- Operating temperature: -40℃ ~ +85℃
- Storage temperature: -55℃ ~ +85℃
- MTBF: 700,000h

PIN ASSIGNMENT:

See following tables.

P1 of Slot1, 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	GND	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	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	REQO#	GND	3.3V	CLK0	AD31	GND
5	GND	BRSVPA15	BRSVP1B5	RST#	GND	GNT0#	GND
4	GND	IPMB_PWR	HEALTHY#	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 Slot2~7,9~14

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	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	BRSVPA15	BRSVP1B5	RST#	GND	GNT#	GND
4	GND	IPMB_PWR	HEALTHY#	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 Slot15 (CMM 插槽)

25	GND	5V				5V	GND
24	GND		5V				GND
23	GND	3.3V			5V		GND
22	GND		GND	3.3V			GND
21	GND	3.3V					GND
20	GND		GND				GND
19	GND	3.3V			GND		GND
18	GND		GND	3.3V			GND
17	GND	3.3V			GND		GND
16	GND		GND				GND
15	GND	3.3V			GND		GND
14	KEY AREA						
13							
12							
11	GND				GND		GND
10	GND		GND				GND
9	GND				GND		GND
8	GND		GND				GND
7	GND				GND		GND
6	GND		GND				GND
5	GND				GND		GND
4	GND						GND
3	GND				5V		GND
2	GND		5V				GND
1	GND	5V	-12V		+12V	5V	GND
Pin	Z	A	B	C	D	E	F

P2 of Slot1, 8

22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND	CLK6	GND	RSV	RSV	RSV	GND
20	GND	CLK5	GND	RSV	GND	RSV	GND
19	GND	GND	GND	SMB_SDA	SMB_SCL	SMB_ALERT	GND
18	GND	BRSVP2A18	BRSVP2B18	BRSVP2C18	GND	BRSVP2E18	GND
17	GND	BRSVP2A17	GND	PRST#	REQ6#	GNT6#	GND
16	GND	BRSVP2A16	BRSVP2B16	DEG#	GND	BRSVP2E16	GND
15	GND	BRSVP2A15	GND	FAL#	REQ5#	GNT5#	GND
14	GND	AD35	AD34	AD33	GND	AD32	GND
13	GND	AD38	GND	V(I/O)	AD37	AD36	GND
12	GND	AD42	AD41	AD40	GND	AD39	GND
11	GND	AD45	GND	V(I/O)	AD44	AD43	GND
10	GND	AD49	AD48	AD47	GND	AD46	GND
9	GND	AD52	GND	V(I/O)	AD51	AD50	GND
8	GND	AD56	AD55	AD54	GND	AD53	GND
7	GND	AD59	GND	V(I/O)	AD58	AD57	GND
6	GND	AD63	AD62	AD61	GND	AD60	GND
5	GND	C/BE5#	GND	V(I/O)	C/BE4#	PAR64	GND
4	GND	V(I/O)	BRSVP2B4	C/BE7#	GND	C/BE6#	GND
3	GND	CLK4	GND	GNT3#	REQ4#	GNT4#	GND
2	GND	CLK2	CLK3	GND	GNT2#	REQ3#	GND
1	GND	CLK1	GND	REQ1#	GNT1#	REQ2#	GND
Pin	Z	A	B	C	D	E	F

P2 of Slot2~7, 9~14

22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND						GND
20	GND				GND		GND
19	GND						GND
18	GND	BRSVP2A18	BRSVP2B18	BRSVP2C18	GND	BRSVP2E18	GND
17	GND	BRSVP2A17	GND				GND
16	GND	BRSVP2A16	BRSVP2B16		GND	BRSVP2E16	GND
15	GND	BRSVP2A15	GND				GND
14	GND	AD35	AD34	AD33	GND	AD32	GND
13	GND	AD38	GND	V(I/O)	AD37	AD36	GND
12	GND	AD42	AD41	AD40	GND	AD39	GND
11	GND	AD45	GND	V(I/O)	AD44	AD43	GND
10	GND	AD49	AD48	AD47	GND	AD46	GND
9	GND	AD52	GND	V(I/O)	AD51	AD50	GND
8	GND	AD56	AD55	AD54	GND	AD53	GND
7	GND	AD59	GND	V(I/O)	AD58	AD57	GND
6	GND	AD63	AD62	AD61	GND	AD60	GND
5	GND	C/BE5#	GND	V(I/O)	C/BE4#	PAR64	GND
4	GND	V(I/O)	BRSVP2B4	C/BE7#	GND	C/BE6#	GND
3	GND		GND				GND
2	GND						GND
1	GND		GND				GND
Pin	Z	A	B	C	D	E	F

P3 of Slot1~14

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

P4 of Slot1~14

25	GND						GND
24	GND						GND
23	GND						GND
22	GND						GND
21	GND						GND
20	GND						GND
19	GND						GND
18	GND						GND
17	GND						GND
16	GND						GND
15	GND						GND
14	KEY AREA						
13							
12							
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

P4 of Slot15 (CMM 插槽)

25	GND		TEMP2			Speed1	GND
24	GND		TEMP3			Speed2	GND
23	GND		TEMP1			Speed3	GND
22	GND		TEMP5			Speed4	GND
21	GND		TEMP8			Speed5	GND
20	GND		TEMP4			Speed6	GND
19	GND		TEMP7			Speed7	GND
18	GND		TEMP6			Speed8	GND
17	GND					Speed9	GND
16	GND					Speed10	GND
15	GND					Speed11	GND
14	KEY AREA						
13							
12							
11	GND					Speed12	GND
10	GND					Speed13	GND
9	GND					Speed14	GND
8	GND					Speed15	GND
7	GND					Speed16	GND
6	GND					Speed17	GND
5	GND					Speed18	GND
4	GND					Speed19	GND
3	GND					Speed20	GND
2	GND			INH#			GND
1	GND						GND
Pin	Z	A	B	C	D	E	F

P5 of Slot1~14

22	GND						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

Backplane Connector Description

Optional Power Taps :

The optional power taps are for +5V, 3.3V, +12V, GND.

Optional VI/O Taps (JP1、JP2):

设置 CPCI 总线的 VI/O 电压: +3.3V / +5V selectable, 出厂默认+5V.

PWR_ON:

This connector is used for ATX power supply by shorting it with cap.

RESET:

This connector can reset the system board by shorting the headers of it.

I2C:

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:

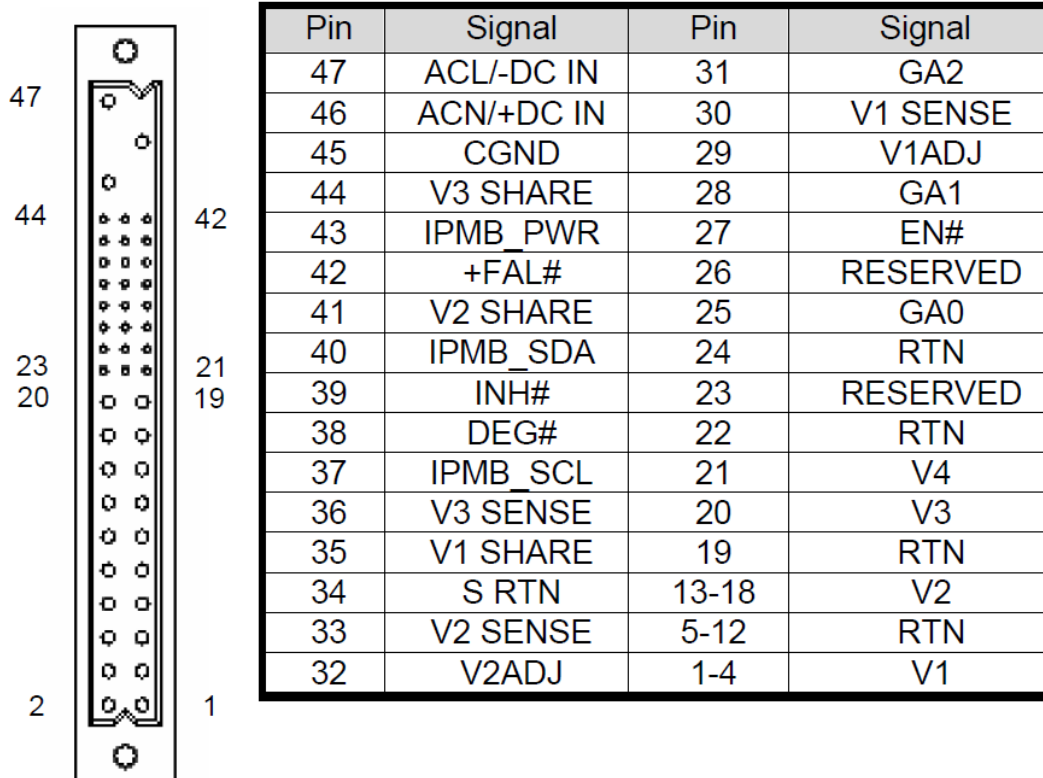
All the alarm signals and various power supply are connected to it. It is used to connect external monitor module.

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

IN PUT1&IN PUT2: 输入端

Pin	Signal	Pin	Signal	Pin	Signal
1	ACL/-DC	2	ACN/+DC	3	CGND

POWER_1&POWER_2&POWER_3&POWER_4&POWER_5&POWER_6:Modular Power 47P Connector



机箱温度检测接口 T1: Temp1~Temp3, T2: Temp4~Temp6

风扇速度检测接口 J1: Speed1~Speed10, J2: Speed11~Speed20

第 15 槽是预留 CMM（监控模块）插槽。

NOTE:

The position from slot 5 to slot 8 can't support rear-plane I/Os , as the segment is occupied by the bridge.

BACKPLANE TOP VIEW

