

**3U cPCI Power BACKPLANE**  
**1 Slot – universal voltage**

**PICMG 2.0**  
**PICMG 2.11**



## Key Features:

- Compliant to PICMG 2.0 + 2.11 baseline specification
- 1 Slot 3U P47 Connector
- Input Voltage 85-265VAC, 18-36VDC
- Max Input Current 23A
- Max Output Power 600W
- M3 studs for VS1/5V, VS2/3.3V, VS3/+12V and V4/-12V with current rating max 25 A each
- PCB size 128.40mm x 37.9mm x 3.2 mm
- Fail, Reset and Sense signals
- System Management Interface on the backplane
- Compatible to standard Compact PCI 3U AC and DC PSUs, such as the Hartmann 300W AC Power Supply part num. D575.00361 or the Hartmann 250W DC Power Supply part num. D575.00251
- Current share signals for parallel use of power supplies
- Additional ATX connectors for output voltages
- Operating temperature: -40° - +85°C
- Storage temperature: -55°C - +85°C
- Flammability rating: UL94-V0
- Custom assembly or modification on request

Front side



Back side



▪ **Order number: 33L100014**

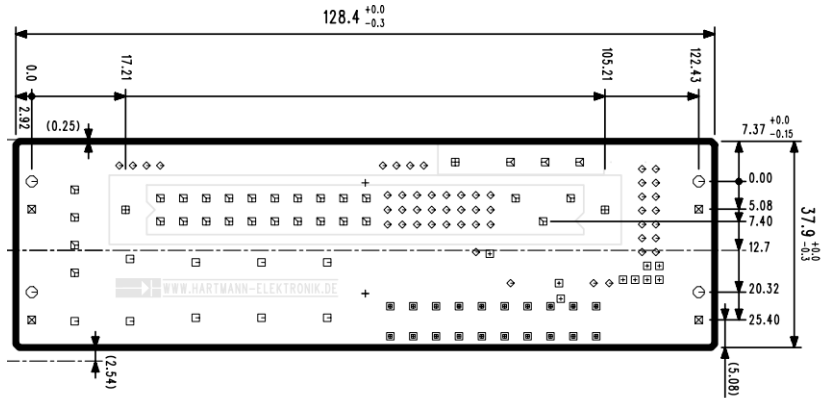
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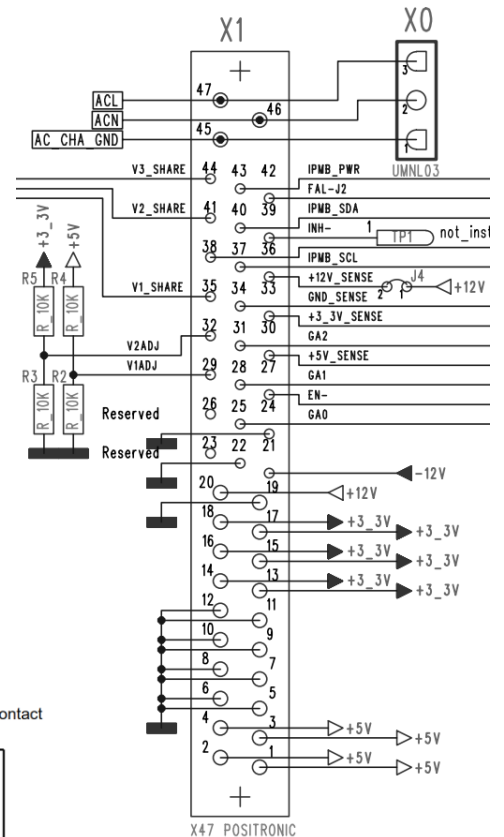
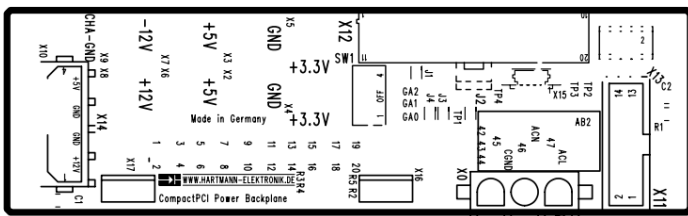


## 1) Drawings

Front side



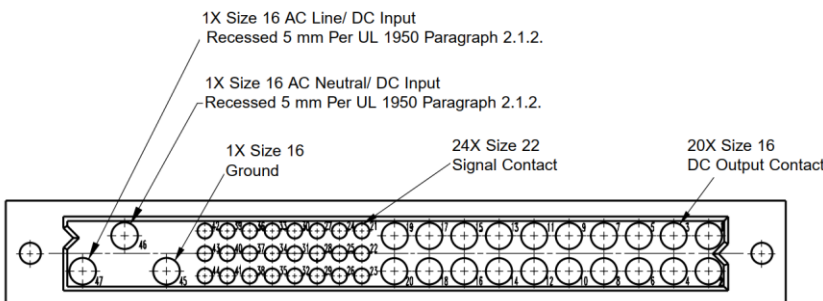
Back side



## 2) P47 Power Connector (X1)

For 3U PSU Plug-In Modules with P47 connector according to PICMG specification.

Connector Conec CPH47W23FGE3SK9X



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### 3) Pinout of P47 Power Connector (X1)

Pin # <sup>(1)</sup>	Staging # <sup>(2)</sup>	Signal Name	Description
1-4	M	V1	V1 Output
5-12	M	RTN	V1 and V2 Return
13-18	M	V2	V2 Output
19	M	RTN	V3 Return
20	M	V3	V3 Output
21	M	V4	V4 Output
22	M	RTN	Signal Return
23	M	RESERVED	Reserved
24	M	RTN	V4 Return
25	M	GA0	Geographic Address Bit 0
26	M	RESERVED	Reserved
27	S	EN#	Enable
28	M	GA1	Geographic Address Bit 1
29	M	V1ADJ	V1 Adjust
30	M	V1 SENSE	V1 Remote Sense
31	M	GA2	Geographic Address Bit 2
32	M	V2ADJ	V2 Adjust
33	M	V2 SENSE	V2 Remote Sense
34	M	S RTN	Sense Return
35	M	V1 SHARE	V1 Current Share
36	M	V3 SENSE	V3 Remote Sense
37	M	IPMB_SCL <sup>3</sup>	Reserved for System Management Bus
38	M	DEG#	Degrade Signal
39	M	INH#	Inhibit
40	M	IPMB_SDA <sup>3</sup>	Reserved for System Management Bus
41	M	V2 SHARE	V2 Current Share
42	M	FAL#	Fail Signal
43	M	IPMB_PWR <sup>3</sup>	Reserved for System Management Bus
44	M	V3 SHARE	V3 Current Share
45	L	CGND	Chassis Ground (safety ground)
46	M	ACN/+DC IN	AC Input – Neutral; +DC Input
47	M	ACL/-DC IN	AC Input – Line; -DC Input

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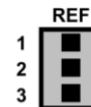
## 4) Power Input Connector (XIN)

3 Pin Mate-N-Lok Connector.

1: CASE GND

2, 3: Input voltage 85-264V (AC), 18-36V (DC)

Connector AMP 350429-1



1	CASE GND
2	-Vin
3	+Vin

Mating with:  
TE 1586849-1

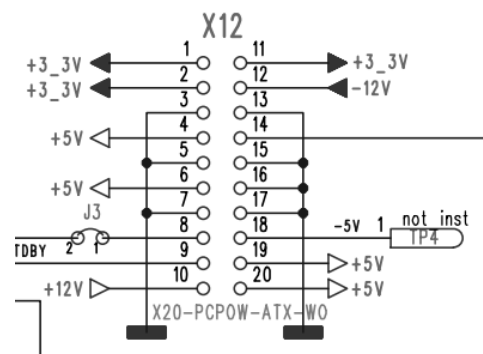
## 5) Current Capability:

▪ VS1: +5V	64A
▪ VS2: +3.3V	64A
▪ VS3: +12V	16A
▪ VS4: -12V	2A

## 6) ATX Connector

Alternatively to the power studs the main voltages 5V, 3.3V and the auxiliary voltages +12V and -12V can be accessed via ATX connector. This way a simple and cost efficient power supply connection to the backplane is possible with keyed and preassembled ATX cables (e.g. Hartmann F006.00225 25cm or F006.00240 40cm)

Connector Würth Elektronik 64902021122



## 7) IMPB Connector

The separate 5-pin connector for IPMB extension is implemented on the backplane.

1,3: Serial clock

4: IPMB-Power

5: Not available from PSU

Connector Molex 53398-0571



1	SCL
2	GND
3	SDA
4	PWR
5	ALERT



Mating with:  
PicoBlade Cable  
Assembly 15134

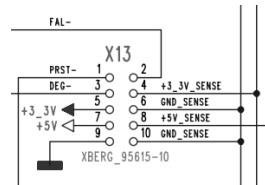
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## 8) Utility Connectors X13

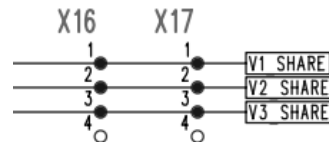
The special signals from the power supply are transferred via connector X13 to the backplane which is powered.



Connector FCI 95615-010TRLF

## 9) Current Share connectors X16 and X17

When multiple power backplanes and PSUs are used the current share signals V1 Share, V2 Share and V3 Share can be passed on to another power backplane with connectors X16 and X17.

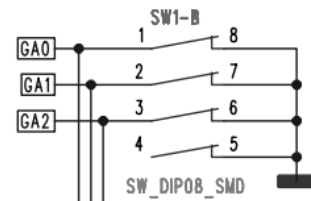


Connector Tyco 171825-4

## 10) Switch SW1 – PSU geographic addressing

With switch SW1 each power backplane in the system can be assigned a unique logical address. Configure GA0-GA2 to set a unique address.

The geographic address is available to the power supply unit which is of great importance when multiple equivalent components are used in regard to HOT-SWAP operations.



Power Supply Slot Number	GA2	GA1	GA0
1	GND	GND	GND
2	GND	GND	Open
3	GND	Open	GND
4	GND	Open	Open
5	Open	GND	GND
6	Open	GND	Open
7	Open	Open	GND
8	Open	Open	Open

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