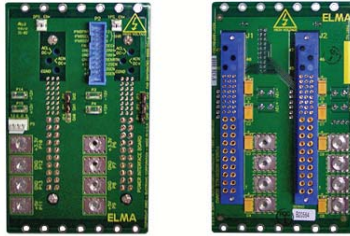


3U POWER INTERFACE BOARDS (PIB)



FEATURES

- Designed to comply with power interface specification PICMG 2.11 Rev. 1.0
- Designed to comply with IEEE 1101.10 mechanical specification
- One or two pluggable 47-pin power connectors
- Interface to backplane via power bugs with 6/32 screws
- Header for voltage sense, current share (2 ps connector version) and IPMB interface compliant to system management specification PICMG 2.9 Rev. 1.0
- Power taps for +5V, 3.3V, GND and faston blades for +12V, -12V
- Utility (20-pin), aux/disk drive, and power switch connectors
- Geographical Addressing on the power supply connector is selectable

BOARD SPECIFICATIONS

- 6-layer stripline design
- 1 oz. copper outer layers, 2 oz. copper inner layers
- PCB UL recognized 94V-0
- PCB FR-4 or equivalent
- PCB .110 - .125" thick

MECHANICAL SPECIFICATIONS

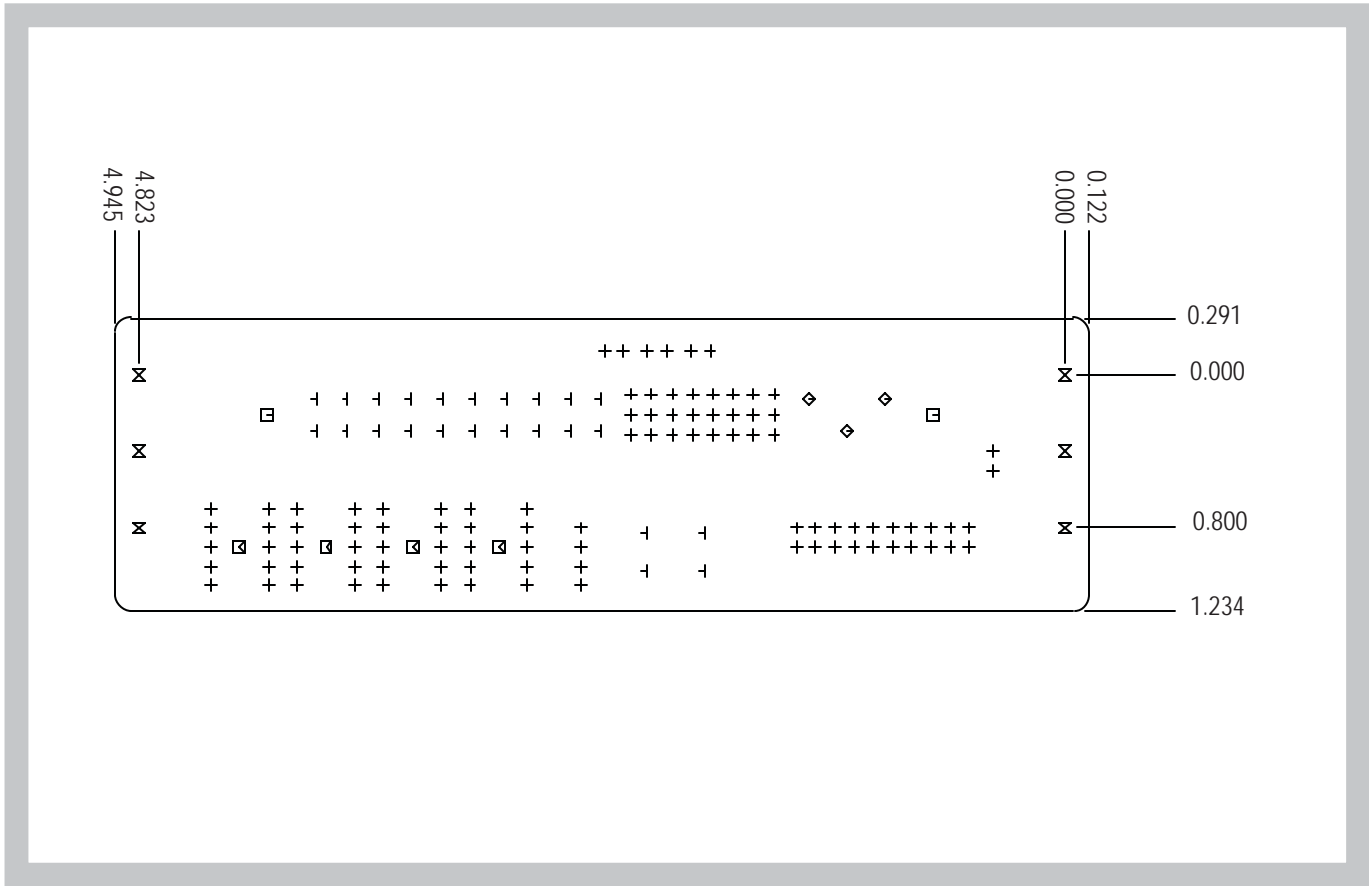
- 3U Height Single or Dual Power Supply PIB
- 5.07" X 1.54" (single ps connector version)
- 5.07" X 3.13" (dual ps connector version)

DESCRIPTION

The Power Interface Boards are separate boards for the power section of the backplane. They are used to facilitate pluggable power supplies, headers, and utility connectors. Elma Bustronic's standard backplane lines utilize power taps and power studs, which are wired to the power supplies. With the PIBs, customers will be able to choose between Elma Bustronic's standard power interface and pluggable modules. The power boards come in standard 3U height (see separate datasheet for 6U versions) and contain one or two 47-pin Positronic hot-pluggable power supply connectors (Positronic PCIH47F9300A1-246.0), and a 20-pin header for voltage sense and IPMB interface (Thomas & Betts 609-2037 or equivalent). Two power taps are for +5V, two for 3.3V, and four for GND. There are also four Fast-on blades each for -12V and +12V (AMP 63650-1 or equivalent). (For the 1 ps connector version, reduce the number of power taps and faston blades listed above in half.) The PIB interfaces to the backplane via power bugs with 6/32 screws. The design also includes mounting holes, allowing the PIB to be securely fixed to the chassis.

3U POWER INTERFACE BOARDS (PIB)

LINE DRAWING



ORDER INFORMATION

Height	Width (in.)	Power Supply Connectors	Part Number
3U	1.54"	1	106PIBM301
3U	3.13"	2	106PIBM302

3U POWER INTERFACE BOARDS (PIB)

OTHER OPTIONS

Other features include an auxiliary/disk drive connector (TYCO 350424-1 or equivalent), and a power switch header (AMP/TYCO 640456-2 or equivalent). The sense lines help the power supply better regulate the power at the load end. The function header allows remote or local sense. For optimal power regulation, remote sense is recommended. The current share lines allow multiple power supplies to share current, either on one PIB (with two power supply connectors) or between multiple PIBs. The current share lines have to be connected if using more than one PIB. The Geographical Addressing is configurable through jumpers, with GAO, GA1, and GA2. (The 2 ps version has two sets of these jumpers.) The IPMB interface is compliant to system management specification PICMG 2.9 Rev. 1.0. The PIB is also designed to comply with the power interface specification PICMG 2.11 Rev. 1.0 and with the IEEE 1101.10 mechanical specification.

CONNECTORS

POWER SWITCH CONNECTORS

Contact Material:	Copper Alloy
Housing Flammability Rating:	UL 94V-0
Housing Material:	Polyester
Current Rating (Amps.):	7 Amperes Max.
Mating Connector Lock Type:	Friction Lock
PCB Thickness (mm [in]):	2.36-3.18 [.093-.125]
Post Size (mm [in]):	1.14 [.045] Sq.
Voltage Rating:	600 VAC
Termination Post Length (mm [in]):	4.45 [.175]

Power Switch 1 Connector

Pin	Signal
01	EN1
02	GND

Power Switch 2 Connector
(2 ps connector PIB only)

Pin	Signal
01	EN2
02	GND

Geographical Addressing Jumpers

Pin	Signal
01	GA2
02	GA1
03	GA0
04	GND
05	GND
06	GND

3U POWER INTERFACE BOARDS (PIB)

CONNECTORS

SENSE/SHARE CONNECTOR

(1 ps. connector PIB only)

Contact Material:	Copper Alloy
Housing Flammability Rating:	UL 94V-0
Housing Material:	Polyester
Mating Connector Lock Type:	Friction Lock
Post Size (mm [in]):	0.64 [.025] Sq.
Voltage Rating:	250 VAC
Termination Post Length (mm [in]):	3.56 [.140]

Pin	Signal	Pin	Signal
01	IPMB PWR	11	12V Share
02	IPMB SCL	12	3V Share
03	IPMB SDA	13	5V Share
04	FAL	14	DEG
05	N/C	15	N/C
06	GND	16	INH
07	GND	17	Sense Return
08	+12V	18	12V Sense
09	+3V	19	3V Sense
10	+5V	20	5V Sense

SENSE/SHARE CONNECTOR

(2 ps. connector PIB only)

Contact Material:	Copper Alloy
Housing Flammability Rating:	UL 94V-0
Housing Material:	Polyester
Mating Connector Lock Type:	Friction Lock
Post Size (mm [in]):	0.64 [.025] Sq.
Voltage Rating:	250 VAC
Termination Post Length (mm [in]):	3.56 [.140]

Pin	Signal	Pin	Signal
01	IPMB PWR	11	12V Share
02	IPMB SCL	12	3V Share
03	IPMB SDA	13	5V Share
04	FAL	14	DEG
05	GND	15	2 INH
06	GND	16	1 INH
07	GND	17	Sense Return
08	+12V	18	12V Sense
09	+3V	19	3V Sense
10	+5V	20	5V Sense