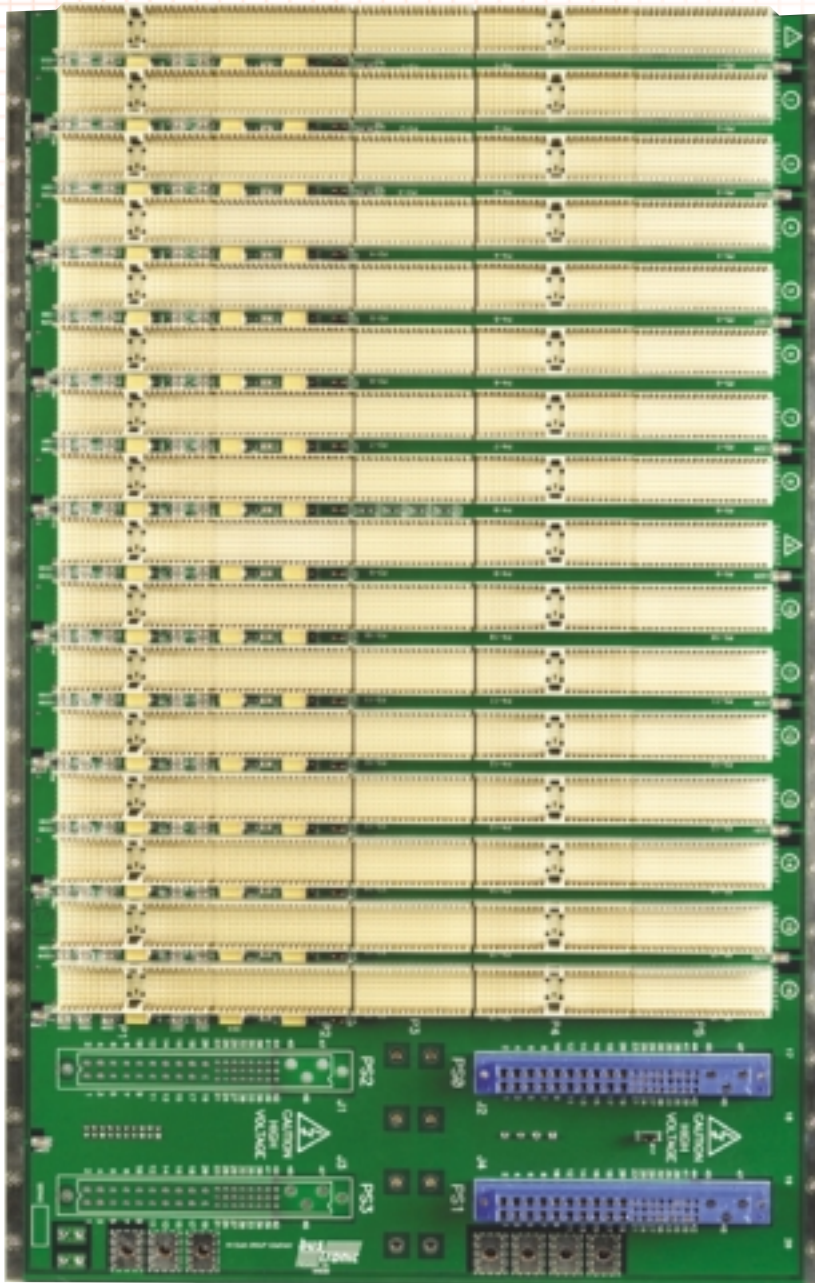


# 6U 16-SLOT CPCI BACKPLANE



## MECHANICAL SPECIFICATIONS

Height: 6U

Physical Size: 20-slot

16 cPCI slots, two separate, bridgeable 8 slot segments

32-bit, 64-bit

## BOARD SPECIFICATIONS

8-layer stripline design

2 oz. copper power and ground

PCB UL-recognized 94V-0

PCB FR-4 or equivalent

PCB .125" thick

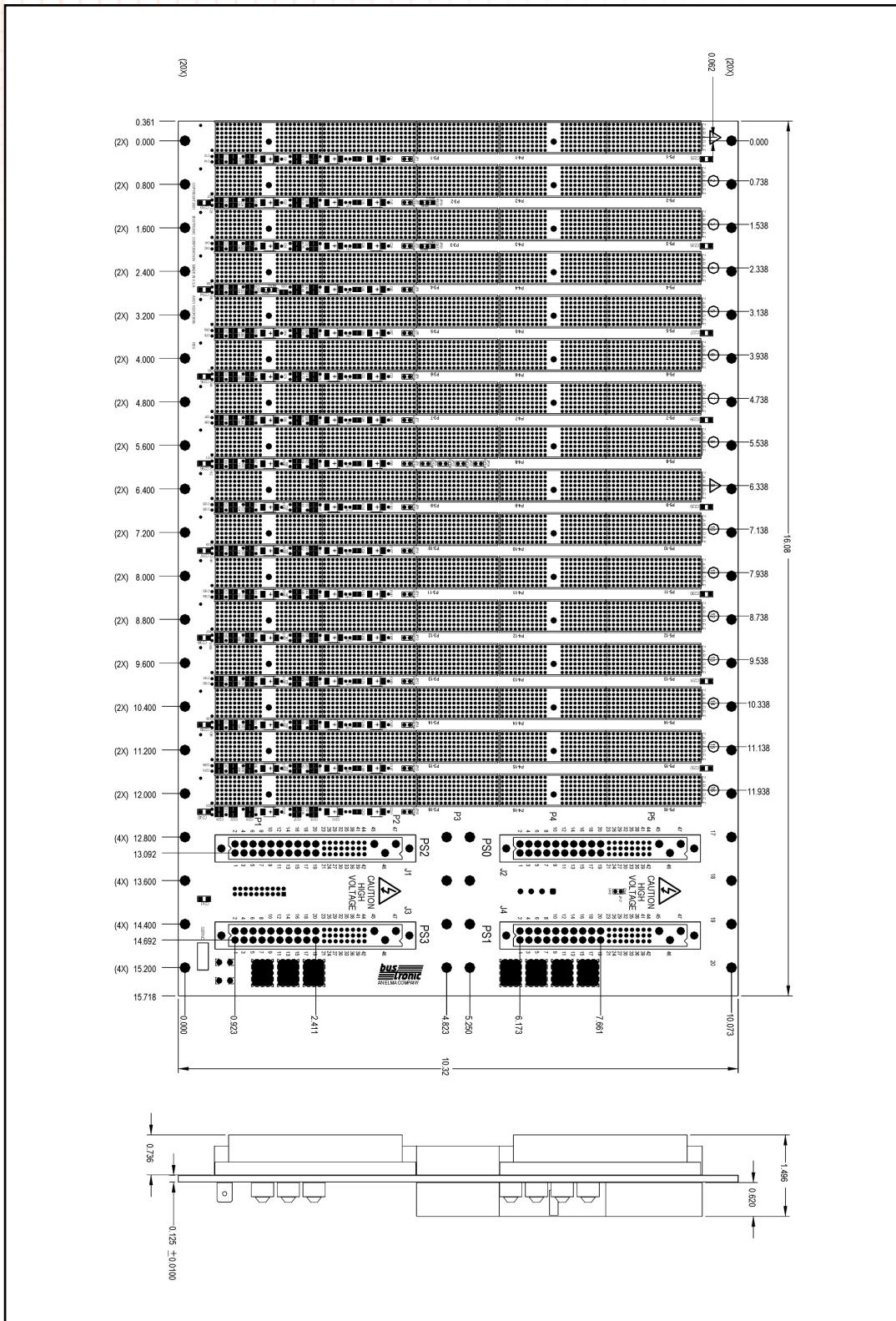
The 16-slot cPCI backplane is comprised of two separate, bridgeable 8-slot segments. It carries two Positronic 47-pin power supply connectors for 700 watts of power (optional four power supply connectors available). There is one power tap each for +3.3V, 5V, and two each for V I/O and GND, with faston blades for +12V, -12V. A version for H.110 for Computer Telephony is also available.

The Bustronic CompactPCI backplane series is designed to be fully compliant with PICMG standards. We provide all standard features required for full compatibility, including all pin connections for bussed signal lines and all defined power and ground pins connected to their respective planes. User-defined V I/O is standard. There are mounting holes for a horizontal extrusion or stiffener in the power supply area. All standard cPCI backplanes conform to the PICMG basic specification 2.0 R3.0 and Hot-Swap specification 2.1 R1.0.

## FEATURES

- Conforms to PICMG basic specification 2.0 R3.0
- PICMG Hot-Swap specification 2.1 R1.0
- H.110 version conforms to PICMG H.110 Computer Telephony specification 2.5 R1.0
- 8-layer controlled impedance stripline design
- Logical slot #1 (system controller) left justified
- Two 47-pin Positronic power supply connectors, four optional
- One power tap each for +3.3V, 5V, and two each for V I/O and GND
- Faston blades for +12V, -12V
- 18-pin utility connectors

All Bustronic backplanes are designed to maximize performance, minimize noise, and give the customer the most reliable, cost-effective products possible. To achieve superior performance, we construct the board in eight layers: three signal layers, five power, and ground planes. We incorporate a full stripline design, generously distributed high and low frequency decoupling capacitors, 2 oz. power and ground planes to minimize noise.



### Ordering Information

Slots	Height		Width		Order Number
	in	mm	in	mm	
16	10.32	262.03	16.08	408.43	103CPCI616
16	10.32	262.03	16.08	408.43	103CTEL616 (H.110 version)

## USER MANUAL

### *Background*

CompactPCI bridging was developed to circumvent the 9-load limitation on 8-slot boards. The CPU board provides two loads and the I/O boards provide one load each. The bridgeboards put an extra load on a slot; therefore, the segments are limited to seven loads.

Bridgeboards provide up to 256 CompactPCI segments in a system. The segment containing the CPU board is called the primary or upstream segment. The segment on the other side of the bridgeboard is called the secondary or downstream segment.

Bustronic's bridgeboard has two configurations, left hand and right hand. Looking at the rear of the backplane, the left hand configuration bridges the primary segment to the secondary segment from right to left. From the same view, the right hand configuration bridges the primary segment to the secondary segment from left to right.

### *Notes*

- The INTA, INTB, INTC, and INTD jumpers are configured at the factory for left hand or right hand operation. Therefore, adjustments by the customer are not necessary.
- P1 contains the general-purpose I/O pins from the 21154 on the odd pins and ground on the even pins.
- JP1 is the jumper for +5V operation and JP2 for +3.3V operation.
- The bridgeboard is 5.5 inches wide by 3.79 inches tall. It is meant to fit in the P1 and P2 area of the backplane and not interfere with P3.
- If the bridgeboard is used in conjunction with Bustronic's 103CPCI616 backplane, only seven slots on each segment are useable due to the bridgeboard requiring a load on each segment.

### *Installation*

The bridgeboard is installed on the rear side of the backplane, covering slots 4 through 9. Place the unit on slot 4 rP1 and rP2 and slot 9 rP1 and rP2.

