

VMICPCI-P303 Telephony H.110 CompactPCI Backplanes with ATX Power Connector

- Up to 16 slots, 6U single wide (4 HP) CompactPCI® (CPCI) slots
- +5 V, 33 MHz PCI bus interface
- 32-/64-bit buses
- User-settable geographic address for each physical slot
- ATX-compliant power connectors
- Host slot on the right
- H.110 bus available on J4 of all slots
- PICMG 2.0 R2.1 CompactPCI
- PICMG 2.1 R1.0 CompactPCI hot swap specification compliant
- PICMG 2.5 R1.0 CompactPCI computer telephony specification compliant

INTRODUCTION — VMIC provides Telephony H.110 backplane assemblies to allow customers to customize their CompactPCI systems. These backplanes may be used with VMIC's line of modular CompactPCI power plane assemblies (VMICPCI-7458). Figure 1 depicts the outline of an 8-slot H.110 backplane.

MECHANICAL — The backplanes are attached to the subrack using a series of screws along the top and bottom edges of the backplanes. Approximately every other mounting hole along the top and bottom is connected to digital ground. These holes provide a return to the subrack from the digital PCI ground planes. They are identified by a ground symbol on the rear of the backplane. In situations where connecting digital ground to the subrack is not desired, the grounded mounting screws can be left uninstalled. On all backplanes, the mounting holes in the four corners of the board are not grounded, so these screws may always be installed.

POWER INPUTS — Each of the backplanes has at least one ATX header for providing power and measuring voltages on the backplane. The backplanes may either be used with a standard **PC ATX** supply, or they may be used with the modular series of power backplanes.

REAR CARD I/O — Additional connectors have been loaded for each slot of the backplanes to provide rear I/O capability. J3, J4, and J5 have contacts that extend through the backplane for user I/O. J3, J4, and J5 are not routed, except for the pins in rows \mathbf{Z} and \mathbf{F} which are grounded.



PHOTO NOT AVAILABLE

16-SLOT BACKPLANE — The VMICPCI-P303-109 is a 16-slot backplane configuration consisting of two 6-slot, one 4-slot backplane, and two bridges. The beginning and middle backplanes are the two 6-slot backplanes. The ending segment is the 4-slot backplane. The system host is the far right slot of the 6-slot backplane. The two bridges connect the backplanes on the rear-side of the backplane (see Figure 2).

The bridge module is always mated to the rear side of the backplanes in a parallel fashion. The bridge module covers the rear side of the J1 and J2 connectors of the CompactPCI backplanes.

The bridge plugs into the long tail connectors on the rear side of the backplanes. It will only allow the user to install it in the correct fashion.





The bridge allows front slots to be operational. There are no dead slots when the bridge is used. The bridge is compliant for use with a 32- or 64-bit backplane. Rear I/O on J3-J5 connectors on the VMICPCI-P303 is not obstructed by the bridge; however, the mechanical specification of the 1101.xx series of the specifications for rear mating cards may be violated.

Backplanes are butted tightly (1 mm of space) together when using multiple backplanes. There is no lost slot width, 16 electrical slots would use 16 physical slot widths.

H.110 BUS — The H.110 bus provides H.110 signals on J4 of all slots. J5 has contacts that extend through the backplane to interface with a rear card. None of the pins of J5 are connected on the backplane except for the pins in row \mathbf{F} which are grounded.

H.110 POWER INPUTS — In addition to CompactPCI power, -48 V power must be supplied to the H.110 -48 V power buses. Two 2 x 3 Mate-N-Lok connectors have been incorporated on the backplane for the user to connect -48 V supplies. The three H.110 power buses are split between three separate supply rails to provide the user the flexibility of using single or multiple power sources with these backplanes.

SPECIFICATIONS

Electrical:

PCI Local Bus Specification Rev. 2.1 PICMG 2.0 R2.1 CompactPCI Specification PICMG 2.1 R1.0 CompactPCI Hot Swap Specification PICMG 2.5 R1.0 CompactPCI Computer Telephony Specification

Mechanical:

IEEE 1101.1-1991 IEEE 1101.10-1996

TRADEMARKS

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VMICPCI-P303



1. Solid shapes are on the top side

2. Grev shapes are on both sides.

3. Dotted shapes are on the bottom side.

L Digital ground plane

Chassis ground plane

Figure 1. VMICPCI-P303-108 Backplane 8-Slot, 7U, 64-bit, H.110





Figure 2. Backplane Configurations with Bridging