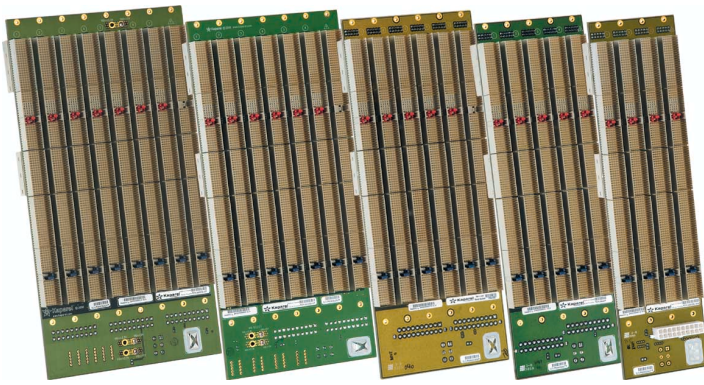


PS4400 Modular Series Backplanes

For 6U CompactPCI Boards With H.110 For Pallet Bridge



PS4402B

PS4422B

PS4432

PS4440

PS4450B

PS4400 Series Overview:

General Description:

The PS4400 series of 6.5U (for use with 6U boards) 64/32-bit backplane components allows the construction (up to 21 slots) of CompactPCI systems with H.110 compatible slots. Each backplane module contains 2 to 8 slots, and can operate in stand-alone mode with a host CPU board and power supply. Multiple backplanes can be linked together using rear-mounting CompactPCI bridge modules (PS1130) and H.110 bridge modules (PS1150). When CompactPCI bridges are used, only the rightmost backplane operates with a host CPU board in the system slot. A bridge module drives the bus of the adjacent backplane, which does not contain a host CPU module. The rightmost slot becomes available for a standard CompactPCI peripheral board. That backplane can, in turn, drive a third backplane via a second bridge module and so on. The H.110 bridge module performs the same function for the H.110 bus segment. Power is supplied to the system through ATX-compliant connectors. CompactPCI power supplies mounted in Kaparel/Rittal's PS1240/50/60 modular power series backplanes, or ATX power supplies may be used.

Features:

- Any slot count is achieved by connecting backplanes with bridge modules (PS1130, PS1150)
- 2 to 8, 6U single wide (4HP) CompactPCI slots
- +5 V, 33 PCI MHz bus interface
- 32-bit or 64-bit busses available
- H.110 bus available on J4 of all slots
- PICMG 2.0 R2.1 CompactPCI and pre-2.1 compatible
- User-definable geographic address for each physical slot
- PICMG 2.1 R1.0 CompactPCI Hot Swap Specification compliant
- ATX-compliant power connectors

Rear Board I/O:

Additional connectors have been loaded for some members of the PS4400 series to provide rear I/O capability. On the PS44X0 backplanes, J3 has contacts that extend through the backplane for user I/O. J3 is not routed, except for the pins in rows "Z" and "F" which are grounded.

Mechanical:

The backplanes are 8-layer PCBs which are 6.5U tall (for use with 6U boards), 0.125" thick (see the configuration table for widths). Two layers have been dedicated as ground layers. 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 when 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.

CompactPCI Bridging:

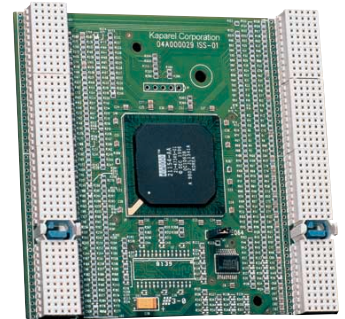
The PS1130 CompactPCI bridge module is used to extend the CompactPCI bus beyond the 8 slots available on any one backplane. Multiple PS1130 bridges may be used to create systems of any slot count up to a maximum of 21, as specified by the PICMG specification. Where low profile bridging is required (due to rear transition boards), the PS4400B series backplanes should be used.

H.110 Bus:

On all PS4400 backplanes, the H.110 bus is available on J4. J5 has contacts that extend through the backplane to interface with a rear board. None of the pins of J5 are connected on the backplane except for the pins in row "F" which are grounded.

H.110 Bridging:

The PS1150 H.110 bridge module is used to extend the H.110 bus beyond the 8 slots available on any one backplane. Multiple PS1150 bridges may be used to create systems of any slot count up to a maximum of 21, as specified by the H.110 standard.



Order No.	Model No.	Physical width	cPCI slots	H.110 slots	PCI bus	ATX pwr. conn.	User I/O	cPCI slot exp.	H.110 slot exp.
3686877	PS4400	32HP	8	8	64-bit	3	Yes	S	SBME
9805404	PS4402	32HP	8	7	64-bit	3	Yes	S	SB
3688406	PS4408	32HP	8	7	64-bit	3	Yes	S	SB
3687873	PS4420	28HP	7	7	64-bit	2	Yes	SBE	SBME
3688504	PS4422	28HP	7	6	64-bit	2	Yes	SB	SB
3687874	PS4430	24HP	6	6	64-bit	2	Yes	SBME	SBME
3688505	PS4432	24HP	6	6	64-bit	2	Yes	SBE	SB
3687875	PS4440	20HP	5	5	64-bit	2	Yes	SBE	SBME
3688507	PS4450	16HP	4	4	64-bit	1	Yes	SBE	SBME
3688407	PS4460	12HP	3	3	64-bit	1	Yes	SE	SE

Legend: S=Stand alone; B=Beginning segment; M=Middle segment; E=Ending segment; 1 HP=0.200" [4HP = 1 single slot width]

PS4400 Series Overview:

General Description:

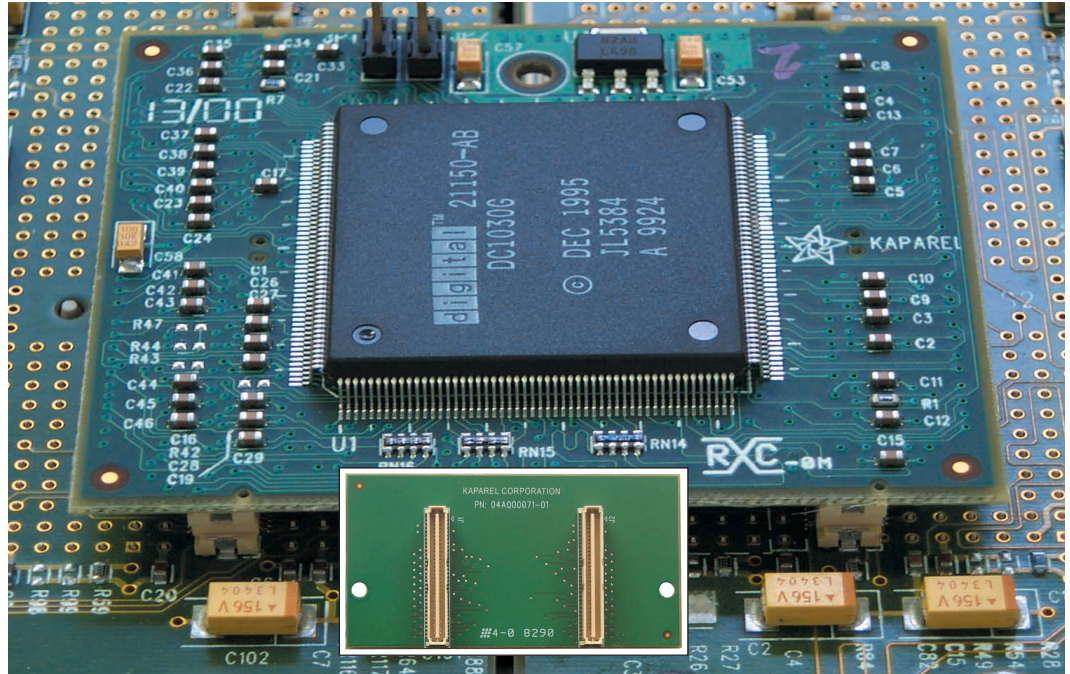
The PS4400B series of 7U (for use with 6U boards) 64/32-bit backplanes are physically quite similar to the PS4400 series, with the exception of fine-pitch bridge connectors on the rear side to enable low profile, CompactPCI and H.110 bridging. The PS4400B series therefore allows the construction (up to 21 slots) of CompactPCI systems with H.110 compatible slots. Each backplane module contains between 2 and 8 slots, and can operate in stand-alone mode with a host CPU board and power supply. Multiple backplanes can be linked together using rear-mounting, low profile, CompactPCI bridge modules (PS1132 and PS1133) and H.110 bridge modules (PS1150). When CompactPCI bridges are used, only the rightmost backplane operates with a host CPU board in the system slot. A bridge module drives the bus of the adjacent backplane, which does not contain a host CPU module. The rightmost slot becomes available for a standard CompactPCI peripheral board. That backplane can, in turn, drive a third backplane via a second bridge module and so on. The H.110 bridge module performs the same function for the H.110 bus segment. Power is supplied to the system through ATX-compliant connectors. CompactPCI power supplies mounted in Kaparel/Rittal's PS1240/50/60 modular power series backplanes, or ATX power supplies may be used.

Features:

- Any slot count is achieved by connecting backplanes with low profile, CompactPCI and H.110 bridge modules (PS1132, PS1133 and PS1150)
- 2 to 8, 6U single wide (4HP) CompactPCI slots
- +5 V, 33 PCI MHz bus interface
- 32-bit or 64-bit busses available
- H.110 bus available on J4 of all slots
- PICMG 2.0 R2.1 CompactPCI and pre-2.1 compatible
- User-definable geographic address for each physical slot
- PICMG 2.1 R1.0 CompactPCI Hot Swap Specification compliant
- ATX-compliant power connectors

Rear Board I/O:

Additional connectors have been loaded for some members of the PS4400 series to provide rear I/O capability. On the PS44X0 backplanes, J3 has contacts that extend through the backplane for user I/O. J3 is not routed, except for the pins in rows "Z" and "F" which are grounded. Although different from the PS4400 series, the PS4400B series use of low profile, CompactPCI bridges enables all rear slots to be used, as per the IEEE specification concerning RTMs.



Order No.	Model No.	Physical width	cPCI slots	H.110 slots	PCI bus	ATX pwr. conn.	User I/O	cPCI slot exp.	H.110 slot exp.
9818080	PS4402B	32 HP	8	7	64-bit	3	P3	S	SB
3688406	PS4407B	32 HP	8	7	64-bit	3	P3	S	SB
3688422	PS4420B	28 HP	7	7	64-bit	2	P3	SBE	SBME
3688423	PS4422B	28 HP	7	6	64-bit	2	P3	SBE	SB
3688924	PS4430B	24 HP	6	6	64-bit	2	P3	SBME	SBME
3688927	PS4432B	24 HP	6	5	64-bit	2	P3	SB	SB
3688925	PS4440B	20 HP	5	5	64-bit	2	P3	SE	SBME
3688424	PS4442B	20 HP	5	4	64-bit	2	P3	S	SB
3688425	PS4450B	16 HP	4	4	64-bit	1	P3	SE	SBME
3688426	PS4452B	16 HP	4	3	64-bit	1	P3	S	SB
3688508	PS4460B	12 HP	3	3	64-bit	1	P3	SE	SE
3688427	PS4462B	12 HP	3	2	64-bit	1	P3	S	S

Legend: S=Stand alone; B=Beginning segment; M=Middle segment; E=Ending segment; 1 HP=0.200" [4HP = 1 single slot width]

Low Profile CompactPCI Bridging:

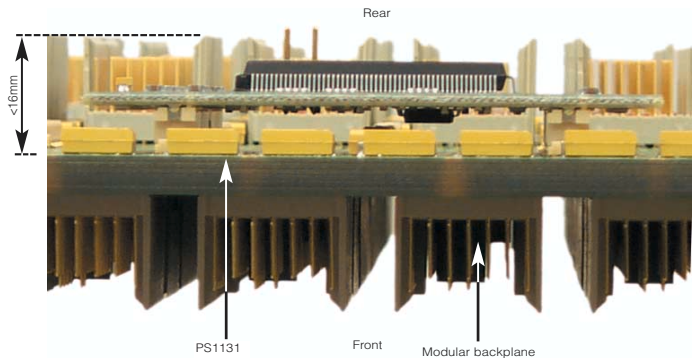
The PS1132 and PS1133 low profile CompactPCI bridge modules are used to extend the CompactPCI bus beyond the 8 slots available on any one backplane, without losing a single rear slot. Multiple PS1132 and PS1133 bridges may be used to create systems of any slot count up to a maximum of 21, as specified by the PICMG specification.

H.110 Bus:

On all PS4400B backplanes, the H.110 bus is available on J4. J5 has contacts that extend through the backplane to interface with a rear board. None of the pins of J5 are connected on the backplane except for the pins in row "F" which are grounded.

H.110 Bridging:

The PS1150 H.110 bridge module is used to extend the H.110 bus beyond the 8 slots available on any one



backplane. Multiple PS1150 bridges may be used to create systems of any slot count up to a maximum of 21, as specified by the H.110 standard. The PS1150 is also a low profile bridge module and therefore does not interfere with rear transition modules.