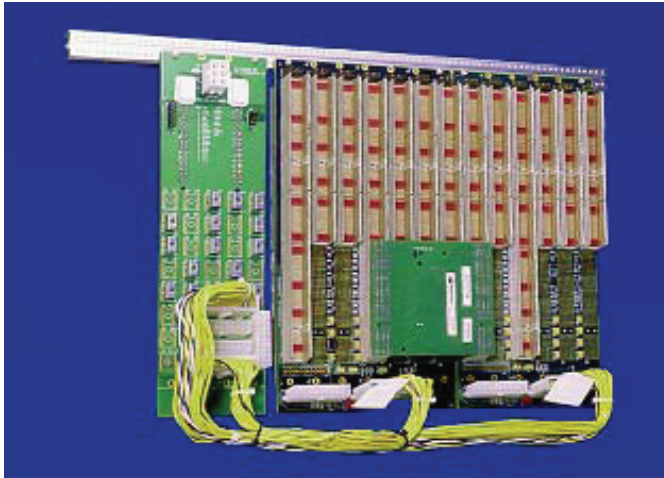


Backplanes, technical specifications



Pixus offers an extensive range of powerful backplanes for CompactPCI.

- Modular construction facilitates expansion up to a maximum of 21 slots
- Connection between segments via cPCI and/or H.110 bridge modules
- Power input via ATX-compatible connectors or screw terminal
- Additional 2 x 3 Mate-N-Lock connector for 48 V with H.110 backplane
- Optional development of customer-specific Monolithic backplanes
- 8 layer
- System slot on right (left upon request)

Modular assembly

The Ripac backplanes in 32 or 64 bit versions allow the configuration of cPCI systems from 2 – 21 slots. This is possible due to the modular design of the backplanes and connection of the individual segments via cPCI or H.110 bridge modules. Each backplane segment contains between 2 and 8 slots and operates in stand-alone mode in conjunction with a CPU board and a power supply unit.

For assembling larger systems, several segments may be joined together via PCI bridge modules fitted at the rear. In such cases, only one of the segments will run in the system slot with a CPU board. The remaining segments will have a subordinate status without CPU boards. However, the first slot on the right of the backplane is available for a standard 32 or 64 bit CompactPCI host CPU.

Technical specifications

CPU slot

A single 3 U or 6 U CPU board with 32 or 64 bits is required for each system. The system slot on the right-hand side ensures that 2-slot or wider system boards do not conceal other slots, thus rendering them unusable.

Available slots

Each backplane contains two to eight 3 U or 6 U slots (32 or 64 bit).

Data transfer rate

132/264 MBytes for 32/64 bit version
 +5 V, 33 MHz PCI bus interface
 264/512 MBytes for 32/64 bit version
 +3.3 V, 66 MHz (max. 5 slots) PCI bus interface

PCI bridges

Single backplanes do not require bridges. For each additional backplane, however, a bridge fitted at the rear is required.

Power supply

Voltage supply via one or more ATX connectors.

Control connector

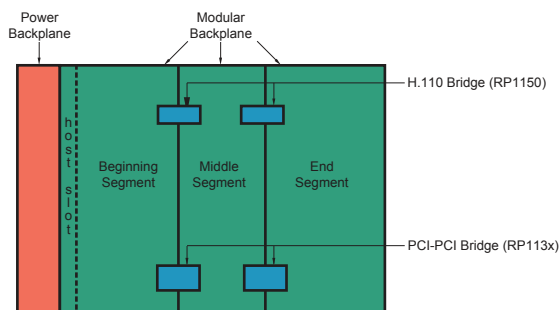
Each backplane has a control connector where +3.3, +5, ±12 V voltages may be picked off, e.g. for the connection of power LEDs.

I/O modules for J3 – J5

I/O modules can be connected at the rear of each slot.

Standards

- PCI 2.1 (PCI specification)
- PICMG 2.0 (CompactPCI spec.)
- PICMG 2.1 (hot swap spec.)
- IEEE 1101.1, mechanics
- IEEE 1101.10, mechanics
- IEEE 1101.11, mechanics



As viewed from rear of subrack

Backplanes, technical specifications

32-bit pin assignment

P2 connector⁹⁾

Pin	Z ⁶⁾	A	B	C	D	E	F
22	GND	GA4 ⁵⁾	GA3 ⁵⁾	GA2 ⁵⁾	GA1 ⁵⁾	GA0 ⁵⁾	GND
21	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
20	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
19	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
18	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
17	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
16	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
15	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
14	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
13	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
12	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
11	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
10	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
9	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
8	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
7	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
6	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
5	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
4	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
3	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
2	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND
1	GND	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	BP(I/O)	GND

32-bit and 64-bit backplane – Technical specifications:

The cPCI specifications define both 32-bit and 64-bit versions. Both versions may be implemented on a 3 U daughterboard. However, the 32-bit version allows the complete P2/J2 connector to be used for user-defined I/O signals (slots 2 – 8). Slot 1 (system slot) uses separate P2/J2 pins for functions such as clock, arbitration, (grant/requests) and other system functions. These pins are printed in bold in the table. In 32-bit systems the P2/J2 connector may optionally be populated at the rear with 16 mm long pins and a transfer frame. Signals can be picked off or I/O boards connected at the rear.

64-bit pin assignment

P2 connector⁹⁾

Pin	Z ⁷⁾	A	B	C	D	E	F
22	GND	GA4 ⁶⁾	GA3 ⁶⁾	GA2 ⁶⁾	GA1 ⁶⁾	GA0 ⁶⁾	GND
21	GND	CLK6	GND	RSV	RSV	RSV	GND
20	GND	CLK5	GND	RSV	GND ⁸⁾	RSV	GND
19	GND	GND	GND ⁸⁾	RSV	RSV	RSV	GND
18	GND	BRSVP2A18	BRSVP2B18	BRSVP2C18	GND	BRSVP2E18	GND
17	GND	BRSVP2A17	GND ⁸⁾	PRST#	REQ6#	GNT6#	GND
16	GND	BRSVP2A16	BRSVP2B16	DEG#	GND ⁸⁾	BRSVP2E16	GND
15	GND	BRSVP2A15	GND	FAL#	REQ5#	GNT5#	GND
14	GND	AD(35)	AD(34)	AD(33)	GND	AD(32)	GND
13	GND	AD(38)	GND	V(I/O) ³⁾	AD(37)	AD(36)	GND
12	GND	AD(42)	AD(41)	AD(40)	GND	AD(39)	GND
11	GND	AD(45)	GND	V(I/O) ³⁾	AD(44)	AD(43)	GND
10	GND	AD(49)	AD(48)	AD(47)	GND	AD(46)	GND
9	GND	AD(52)	GND	V(I/O) ³⁾	AD(51)	AD(50)	GND
8	GND	AD(56)	AD(55)	AD(54)	GND	AD(53)	GND
7	GND	AD(59)	GND	V(I/O) ³⁾	AD(58)	AD(57)	GND
6	GND	AD(63)	AD(62)	AD(61)	GND	AD(60)	GND
5	GND	C/BE(5)#	GND	V(I/O) ³⁾	C/BE(4)#	PAR64	GND
4	GND	V(I/O) ³⁾	BRSVP2B4	C/BE(7)#	–	C/BE(6)#	GND
3 ³⁾	GND	CLK4	GND	GNT3#	–	GNT4#	GND
2 ³⁾	GND	CLK2	CLK3	SYSEN#⁴⁾	–	REQ3#	GND
1 ³⁾	GND	CLK1	GND	REQ1#	–	REQ2#	GND

The signals printed in bold are only assigned in the system slot

¹⁾ "Early mate" pin ²⁾ "Late mate" pin ³⁾ +3.3 V or 5 V ⁴⁾ Earthed with system slot ⁵⁾ GND for 33 MHz backplane, bussed in 66 MHz systems

⁶⁾ Each slot may have its own address code (see cPCI specifications) ⁷⁾ Not for daughtercards ⁸⁾ Not for cPCI cards after version 1.0

⁹⁾ All Pixus standard cPCI backplanes are designed for 64-bit applications on the layout side. With 32-bit versions, the P2/J2 connectors are populated on request.

P1 connector⁹⁾

Pin	Z ⁶⁾	A	B	C	D	E	F
25	GND	5 V	REQ64#	ENUM#	3.3 V	5 V	GND
24	GND	AD(1)	5 V	V(I/O) ³⁾	AD(0)	ACK64#	GND
23	GND	3.3 V	AD(4)	AD(3)	5 V	AD(2)	GND
22	GND	AD(7)	GND	3.3 V	AD(6)	AD(5)	GND
21	GND	3.3 V	AD(9)	AD(8)	M66EN ³⁾	C/BE(0)#	GND
20	GND	AD(12)	GND	V(I/O) ³⁾	AD(11)	AD(10)	GND
19	GND	3.3 V	AD(15)	AD(14)	GND	AD(13)	GND
18	GND	SERR#	GND	3.3 V	PAR	C/BE(1)#	GND
17	GND	3.3 V	SDONE	SBQ#	GND	PERR#	GND
16	GND	DEVSEL	GND	V(I/O) ³⁾	STOP#	LOCK#	GND
15	GND	3.3 V	FRAME#	IRDY	GND ³⁾	TRDY#	GND
12 – 14			KEY AREA				GND
11	GND	AD(18)	AD(17)	AD(16)	GND	C/BE(2)#	GND
10	GND	AD(21)	GND	3.3 V	AD(20)	AD(19)	GND
9	GND	C/BE(3)#	IDSEL	AD(23)	GND	AD(22)	GND
8	GND	AD(26)	GND	V(I/O) ³⁾	AD(25)	AD(24)	GND
7	GND	AD(30)	AD(29)	AD(28)	GND	AD(27)	GND
6	GND	REQ#	GND	3.3 V	CLK	AD(31)	GND
5	GND	BRSVP1A5	BRSVP1B5	RST#	GND	GNT#	GND
4	GND	BRSVP1A4	GND	V(I/O) ³⁾	INTP	INTS	GND
3	GND	INTA#	INTB#	INTC#	5 V	INTD#	GND
2	GND	TCK	5 V	TMS	TDO	TDI	GND
1	GND	5 V	–12 V	TRST#	+12 V	5 V	GND

64-bit CompactPCI pin assignments – Technical specifications:

With the 64-bit CompactPCI, both P1 and P2 connectors are fully assigned with signals. User-defined I/O signal pins are not available. I/O signals are only available with 6 U boards on connectors P3, P4 and P5.

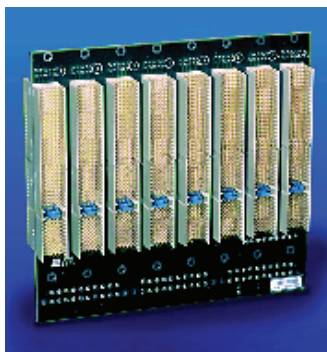
P1 connector⁹⁾

Pin	Z ⁷⁾	A	B	C	D	E	F
25	GND	5 V	REQ64#	ENUM#	3.3 V	5 V	GND
24	GND	AD(1)	5 V	V(I/O) ³⁾	AD(0)	ACK64#	GND
23	GND	3.3 V	AD(4)	AD(3)	5 V	AD(2)	GND
22	GND	AD(7)	GND	3.3 V	AD(6)	AD(5)	GND
21	GND	3.3 V	AD(9)	AD(8)	M66EN ⁴⁾	C/BE(0)	GND
20	GND	AD(12)	GND	V(I/O) ³⁾	AD(11)	AD(10)	GND
19	GND	3.3 V	AD(15)	AD(14)	GND	AD(13)	GND
18	GND	SERR#	GND	3.3 V	PAR	C/BE(1)#	GND
17	GND	3.3 V	SDONE	SBO#	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O) ³⁾	STOP#	LOCK#	GND
15	GND	3.3 V	FRAME#	IRDY#	GND ³⁾	TRDY#	GND
12 – 14			KEY AREA				
11	–	AD(18)	AD(17)	AD(16)	GND	C/BE(2)#	GND
10	GND	AD(21)	GND	3.3 V	AD(20)	AD(19)	GND
9	GND	C/BE(3)#	IDSEL	AD(23)	GND	AD(22)	GND
8	GND	AD(26)	GND	V(I/O)	AD(25)	AD(24)	GND
7	GND	AD(30)	AD(29)	AD(28)	GND	AD(27)	GND
6	GND	REQ#	GND	3.3 V	CLK	AD(31)	GND
5	GND	BRSVA5	BRSVB5	RST#	GND	GNT#	GND
4	GND	BRSVA4	GND	V(I/O)	INTP	INTS	GND
3	GND	INTA#	INTB#	INTC	5 V	INTD#	GND
2	GND	TCK	5 V	TMS	TDO	TDI	GND
1	GND	5 V	–12 V	TRST#	+12 V	5 V	GND

Backplanes



Front view 3.5U



Rear view 3.5U

Backplanes 3U, 3.5U

Number of layers	8, 10 (with 3U)
Layer structure	2 GND layers
PCB thickness	3.2 mm
Data transfer rate	132/264 Mbytes/ 32, 64-bit version
Power inlets	3.5U: 2 – 4 slots: 1 x ATX connector 5 – 7 slots: 2 x ATX connector 8 slots: 3 x ATX connector 3 U: via screws and busbars
Control connector	+3.3 V, +5 V, +12 V, -12 V
VI/O (3 U)	May be set to +5 V or +3.3 V
CPU slot	on right, left upon request
Standards	PCI 2.1 (PCI specification) PICMG 2.0 (CompactPCI) PICMG 2.1 (hot swap) IEEE 1101.1/10/11
Installation height	3.5U (150.9 mm), 3U
Distance between slots	4 HP
Connectors	J1, J2 32 or 64 bit No rear I/O
Operating temperature range	0° – 70°C
Relative humidity	90 %, non-condensing
Geographic addressing	64-bit versions

Material:

Fibreglass epoxy to IEC 60 249 (type FR4)

Supply includes:

Backplane, fully populated.

Backplanes 3U for low profile bridge

Slots	Version	Model No. RP	
		32 bit	64 bit
2	S	3689.300 ¹⁾	3689.307
3	SE	3689.301 ¹⁾	3689.308
4	SBME	3689.302 ¹⁾	3689.309
5	SBME	3689.303	3689.310
6	SBME	3689.304 ¹⁾	3689.311
7	SBE	3689.305 ¹⁾	3689.312
8	S	3689.306 ¹⁾	3689.313

¹⁾ Delivery times available on request.

Backplanes 3.5U

Slots	Version	Model No. RP	
		32 bit	64 bit
2	SBE	–	3687.864
3	SE	3687.865	3686.578
4	SE	3687.863	3686.576
5	SE	3687.862	3686.575
6	SBME	3687.861	3686.548
7	SBE	3687.860	3686.547
8	S	3687.859	3686.546

S = Stand alone

M = Middle segment

B = Beginning segment

E = Ending segment



Accessories:

cPCI/cPCI bridge, RP 3686.571

(for 3.5U backplanes)

cPCI/cPCI low profile bridge

(for 3U backplanes)

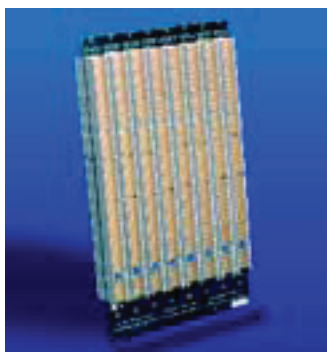
Accessories for backplane mounting:

Conductive strips

Insulating strips



Front view 6.5U



Rear view 6.5U

Backplanes 6U, 6.5U

Number of layers	8, 10 (with 6U)
Layer structure	2 GND layers
PCB thickness	3.2 mm
Data transfer rate	132/264 Mbytes/ 32, 64-bit version
Power inlets	6.5U: 2 – 4 slots: 1 x ATX connector 5 – 7 slots: 2 x ATX connector 8 slots: 3 x ATX connector 6 U: via screws and busbars
Control connector	+3.3 V, +5 V, +12 V, -12 V
VI/O (6U)	May be set to +5 V or +3.3 V
CPU slot	on right (left upon request)
Standards	PCI 2.1 (PCI Spec) PICMG 2.0 (CompactPCI) PICMG 2.1 (hot swap) IEEE 1101.1/10/11
Installation height	6.5U (284.3 mm), 6U
Distance between slots	4 HP
Connectors	J1, J2 32 or 64 bit J3, J4, J5 for rear I/O (64 bit only)
Operating temperature range	0° – 70°C
Relative humidity	90 %, non-condensing
Geographic addressing	64-bit versions

Material:

Fibreglass epoxy to IEC 60 249 (type FR4)

Supply includes:

Backplane, fully populated.

Backplanes 6U for low profile bridge

Slots	Version	Model No. RP	
		32 bit	64 bit
2	S	3689.314 ¹⁾	3689.321
3	SE	3689.315 ¹⁾	3689.322
4	SBME	3689.316 ¹⁾	3689.323
5	SBME	3689.317 ¹⁾	3689.324
6	SBME	3689.318 ¹⁾	3689.325
7	SBE	3689.319 ¹⁾	3689.326
8	S	3689.320 ¹⁾	3689.327

¹⁾ Delivery times available on request.

Backplanes 6.5U for low profile bridge

Slots	Version	Model No. RP
		64 bit
3	SE	3689.209
4	SE	3689.208
5	SBE	3689.207
6	SBME	3689.206
7	SBE	3689.205

S = Stand alone

M = Middle segment

B = Beginning segment

E = Ending segment



Accessories:

cPCI/cPCI low profile bridge

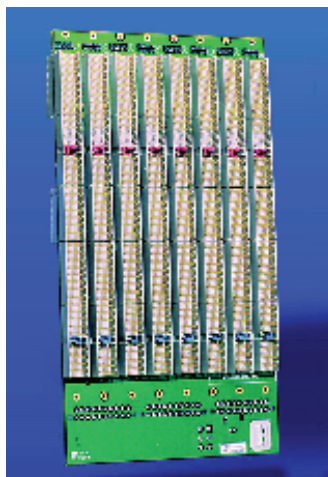
Accessories for backplane mounting:

Conductive strips

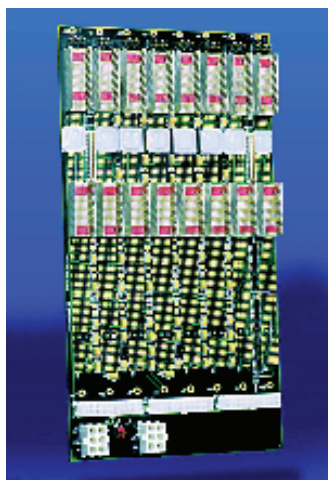
Insulating strips

Stiffening kit: RP 3688.088.

Backplanes



Front view



Rear view

Backplanes 7U with H.110

Number of layers	10
Layer structure	2 GND layers
PCB thickness	3.2 mm
Data transfer rate	132/264 MBytes/32, 64-bit (for cPCI)
Power inlets	up to 4 slots 1 x ATX connector 5 – 7 slots: 2 x ATX connector 8 slots: 3 x ATX connector
CPU slot	Right
Standards	PCI 2.1 (PCI specification) PICMG 2.0 (CompactPCI) PICMG 2.1 (hot swap) PICMG 2.5 (cPCI Computer Telephony) IEEE 1101.1/10/11
Installation height	7U
Distance between slots	4 HP
Connectors	J1, J2 64 bit J3 rear I/O J4 H.110
Operating temperature range	0° – 70°C
Relative humidity	90 %, non-condensing
Geographic addressing	Yes

Material:

Fibreglass epoxy to IEC 60 249 (type FR4)

Supply includes:

Backplane, fully populated.

H.110 connected to system slot

Slots	cPCI version	H.110 version	Model No. RP
3	SE	SE	3688.508
4	SE	SBME	3688.507
5	SE	SBME	3687.875
6	SBME	SBME	3687.874
7	SBE	SBME	3687.873
8	S	SBME	3687.877

H.110 not connected to system slot

Slots	cPCI version	H.110 version	Model No. RP
3	S	S	3688.427
4	S	SB	3688.426
5	S	SB	3688.506
6	SB	SB	3688.505
7	SBE	SB	3688.504
8	S	SB	9805.494

Extendible with low profile bridge.

S = Stand alone
B = Beginning segment
M = Middle segment
E = Ending segment

J4 pin assignment

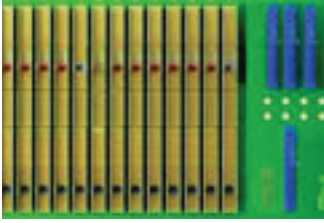
No.	Row Z	Row A	Row B	Row C	Row D	Row E	Row F
25	NP	SGA4	SGA3	SGA2	SGA1	SGA0	FG
24	NP	GA4	GA3	GA2	GA1	GA0	FG
23	NP	+12 V	/CT reset	/CT EN	-12 V	CT_MC	FG
22	NP	PFSO#	RSVD	RSVD	RSDV	RSDV	FG
21	NP	-SEL Vbat	PFS1#	RSDV	RSDV	SEL VbatRtn	FG
20	NP	NP	NP	NP	NP	NP	NP
19	NP	NP	NP	NP	NP	NP	NP
18	NP	VRG	IN/C	IN/C	IN/C	VRGRtn	NP
17	NP	NP	NP	NP	NP	NP	NP
16	NP	NP	NP	NP	NP	NP	NP
15	NP	-Vbat	IN/C	IN/C	IN/C	Vbat Rtn	NP
14	KEY AREA						
13							
12							
11	NP	CT_D29	CT_D30	CT_D31	V(I/O)	/CT_FRAME	GND
10	NP	CT_D27	+3.3 V	CT_D28	+5 V	/C_FRAME B	GND
9	NP	CT_D24	CT_D25	CT_D26	GND	/FR_COMP	GND
8	NP	CT_D21	CT_D22	CT_D23	+5 V	CT_C8 A	GND
7	NP	CT_D19	+5 V	CT_D20	GND	CT_C8 B	GND
6	NP	CT_D16	CT_D17	CT_D18	GND	CT_NETREF	GND
5	NP	CT_D13	CT_D14	CT_D15	+3.3 V	CT_NETREF	GND
4	NP	CT_D11	+5 V	CT_D12	+3.3 V	SCLK	GND
3	NP	CT_D8	CT_D9	CT_D10	GND	SCLK-D	GND
2	NP	CT_D4	CT_D5	CT_D6	CT_D7	GND	GND
1	NP	CT_D0	+3.3 V	CT_D1	CT_D2	CT_D3	GND

Key to J4 pin assignment

CT_name	= H.110 TDM bus signals
+5 V	= +5 V power
+3.3 V	= +3.3 V power
GND	= logic ground
V(I/O)	= I/O cell power
FG	= frame ground
RSVD	= reserved for future use
NP	= a pin and pad REQUIRED to be not populated to meet safety regulations
IN/C	= no connect required for safety agency insulation requirements

-SELVbat	= short loop battery
SELVbatRtn	= short loop battery return
-Vbat	= telecom power distribution bus
VbatRtn	= return bus pin for -Vbat
SGA0-SGA4	= shelf enumeration bus signals
GA0-GA4	= slot ID signals: not bussed
VRG	= bus for ringing voltage
VRGRtn	= bus for ringing voltage
PFSO#-PFS1#	= busses for power fail sense
KEY AREA	= area utilized for key

Backplanes



Backplanes 7U, Switch Fabric to PICMG 2.16

The "Switch Fabric" backplanes comply with PICMG specification 2.16. They support telephony applications and a high level of system availability in which cPCI is combined with Ethernet for high-speed applications.

Power inlets	Positronic 47-pole, or ATX
CPU slot	Right
Standards	PCI 2.1 (PCI specification) PICMG 2.0 (CompactPCI) PICMG 2.1 (hot swap) PICMG 2.5 (cPCI Computer Telephony) IEEE 1101.1/10/11 PICMG 2.16
Installation height	7U (6U for RP 3686.396 and RP 3689.186)
Distance between slots	4 HP
Operating temperature range	0° – 70°C
Relative humidity	90 %, non-condensing
Geographic addressing	Yes

Material:
Fibreglass epoxy to IEC 60 249 (type FR4)

Supply includes:
Backplane, fully populated.

Technical specifications:

- 7U, 84 HP/32 HP
- Comply with PICMG 2.1, fully hot swap-compatible
- Selectable voltage V (I/O) (3.3 V or 5 V) where configured for 33 MHz CompactPCI
- Integral Schottky diode bus terminator
- Prepared for up to four backplane reinforcements to avoid bending during card insertion
- H.110 CT bus complies with specification PICMG 2.5 at all node slots
- Support 8 HP CPU boards when one node slot is relinquished
- Twin redundant support for Switch Fabric (2 fabric and 12 basic nodes), as specified in PICMG 2.16
- Support rear transition modules with all board slots
- Configurable for power supply with either two 6U x 8 HP, three 6U x 4 HP, three 3U x 4 HP, three 3U x 8 HP or four 3U x 4 HP
- All power supply slots conform to PICMG 2.11
- Power supply connectors for H.110-Vbat, -SELVbat and VRG power signals
- ATX power connector for auxiliary power inlet/outlet
- Two fan power connectors for 12 V and system management support
- System control bus (SMBus) complies with PICMG 2.9 and supports all boards, power supplies, power entry modules, fans and alarm cards
- Support of I²C bridge function on the alarm card for >19 SMBus nodes

Width	Number of slots	Description of slots	Model No. RP
32 HP	8	1 Fabric slot 6 node slots with cPCI and H.110 1 host slot	3689.188
		see RP 3689.188, but without H.110	3686.414
64 HP	16	1 Fabric slot 6 node slots with cPCI and H.110 1 host slot 1 Fabric slot 6 node slots with cPCI and H.110 1 host slot 3 slots for power supplies	3686.396
		see RP 3686.396, but without H.110	3689.186
84 HP	21	7 node slots with cPCI and H.110 1 host slot 1 node slot with H.110 without cPCI 1 Fabric slot 7 node slots with cPCI and H.110 1 host slot 1 node slot with H.110 without cPCI 1 Fabric slot 1 Alarm slot	3686.397
		see RP 3686.397, but without H.110	3689.190
		see RP 3686.397, but without cPCI	3689.191

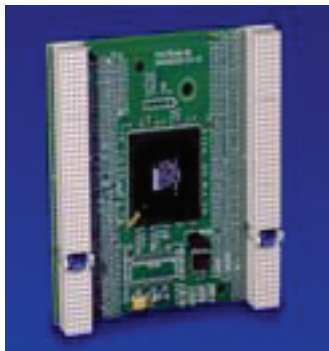
Front

1	System (CPU) card	12	Node card
2	Node card	13	Node card
3	Node card	14	Node card
4	Node card	15	Node card
5	Node card	16	Fabric card B
6	Node card	17	Blank
7	Node card	18	Power supply 1
8	Fabric card A	19	Power supply 2
9	System (CPU) card	20	Power supply 3
10	Node card	21	Blank
11	Node card		

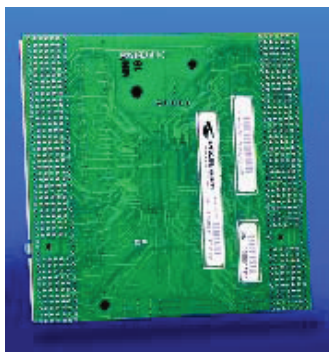
Rear

1	System RTC	12	Node RTC
2	Node RTC	13	Node RTC
3	Node RTC	14	Node RTC
4	Node RTC	15	Node RTC
5	Node RTC	16	Fabric B RTC
6	Node RTC	17	Alarm card
7	Node RTC	18	PEM 1
8	Fabric A RTC	19	
9	System RTC	20	PEM 2
10	Node RTC	21	
11	Node RTC		

Backplanes



1



2

Modular cPCI bridge

cPCI bridge may be connected to the rear to extend the bus by a maximum of 7 additional slots. The cPCI bridge handles all communications between the individual bus segments. The front slots are freely available for cPCI boards. It supports the 64-bit PCI bus and may be used in conjunction with cPCI backplanes 3.5 U and 6.5U.

Technical specifications:

- May be connected to the rear of cPCI backplanes
- PCI bridge
- 64 bit "high performance" Intel 21 154
- For use with Pixus cPCI backplanes (not with low profile backplanes)
- Corresponding to PCI specifications 2.1
- Conforms to cPCI
- cPCI bridge connects cPCI backplanes from right to left (as viewed from the front) – i.e. the "left-hand" connector accommodates the host board

Material:

Fibreglass epoxy to IEC 60 249 (FR4)

Supply includes:

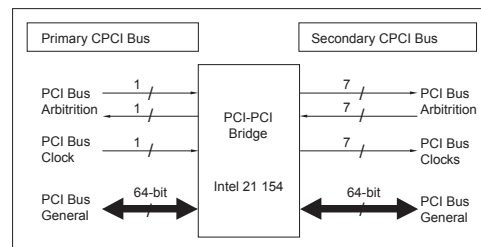
Bridge, fully populated.

1 Front view

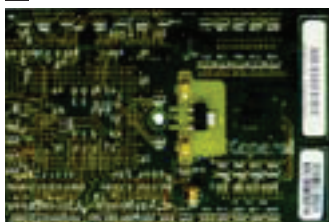
2 Rear view

Description	Model No. RP
64-bit cPCI bridge	3686.571

Extended delivery times.



1



2

Modular low profile bridge

cPCI bridge may be connected to the rear to extend the bus by a maximum of 7 additional slots, without any loss of slots: Optionally available as a 32-bit or 64-bit version. Only suitable for use in conjunction with low profile backplanes.

Material:

Fibreglass epoxy to IEC 60 249 (FR4)

Supply includes:

Bridge, fully populated.

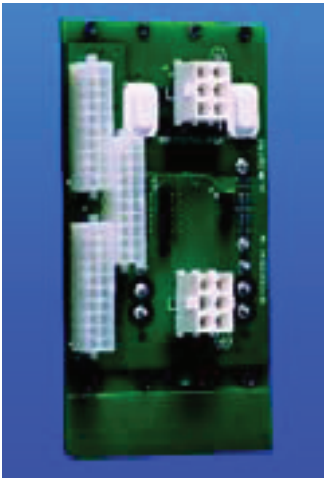
1 32-bit version

2 64-bit version

Version	Bit	Model No. RP
left-right	32	3689.210
right-left	32	3689.211
left-right	64	9810.637
right-left	64	9812.625
right-left	64	3687.880 ¹⁾

¹⁾ For backplane H.110

Backplanes



Power supply board 3U/3.5U

- Board 3U/3.5U (0.5U may be broken off), 8HP, 16H, 24HP
- For use in conjunction with cPCI backplanes
- Accommodation of 1/2/3 power supplies with up to 250 W
- AC/DC connection is made via two 3-pole connectors
- Outgoing voltages to supply one or more cPCI backplanes are available at ATX-compatible connectors
- Complies with PICMG 2.0, PICMG 2.11
- **Technical specifications:**
Accommodation of 1/2/3 cPCI power supplies with up to 250 W.
The second power supply unit may be used for redundancy (with power distribution) or, via parallel connection, to increase the current.

Input voltages:

- AC input via 2 x 3-pole AMP Mate-N-Lock (AMP # 350732-1), connector J12
Connected via pin 45, 46, 47, type Positronic
- Maximum current load per pin is 25 A,
- matching counter-connector for cable harness AMP # 350715
- DC input via 2 x 3-pole AMP
- Mate-N-Lock (AMP # 350732-1), connector J5 connected via pin 46, 47, type Positronic
- Maximum current load per pin is 25 A,
- matching counter-connector for cable harness AMP # 350715
- Output voltage:
Three 20-pole ATX-compatible connectors for ATX cable harness (connection of power supply board to cPCI backplane)

Description	HP	Model No. RP
3U for 1 x plug-in power supply with Positronic connector, 47-pin	8	9905.105
3U board for 3 x plug-in power supplies with Positronic connector, 47-pin	24	9904.131
3.5U board for 2 x plug-in power supplies with Positronic connector, 47-pin	16	3688.603
ATX (12") cable harness		9810.337
ATX (16") cable harness		3686.570
ATX (20") cable harness		9810.338

Material:

Fibreglass epoxy to IEC 60 249 (FR4)

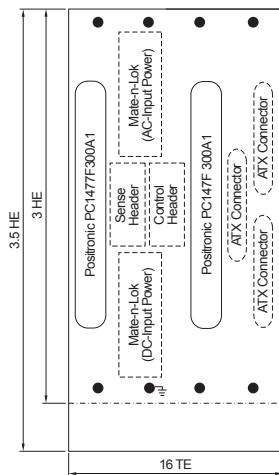
Supply includes:

Board, fully populated.

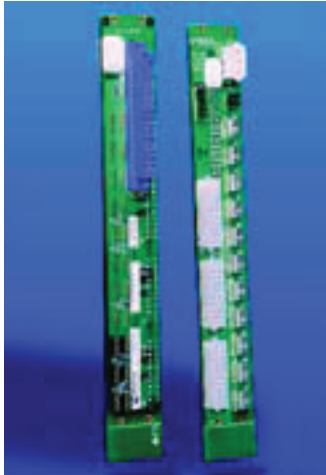
Note:

Plug-in power supplies

RP 3688.603



Backplanes



Power supply board 6U/6.5U, 8HP

- Board 6U/6.5U (0.5U may be broken off), 8 HP
- For use in conjunction with cPCI backplanes 3.5U, 6.5U, H.110
- Accommodation of a power supply of up to 500 W
- AC/DC connection is made via 3-pole connectors
- Outgoing voltages to supply one or more cPCI backplanes are available at 3 ATX-compatible connectors or at special power terminals
- Complies with PICMG 2.0, PICMG 2.11

Technical specifications:

Accommodation of a 6U cPCI power supply with up to 500 W.

Input voltages:

- AC input via 3-pole AMP Mate-N-Lock connector
Max. current capacity per pin 25 A
- DC input via 3-pole AMP Mate-N-Lock connector
Max. current capacity per pin 25 A

Output voltage:

- Three 20-pole ATX-compatible connectors for ATX cable harness (connection of power supply board to cPCI backplane) and/or special power terminals

Description	Model No. RP
1 x plug-in power supply with Positronic connector, 47-pin	3688.607
ATX (12") cable harness	9810.337
ATX (16") cable harness	3686.570
ATX (20") cable harness	9810.338

Extended delivery times.

Material:

Fibreglass epoxy to IEC 60 249 (FR4)

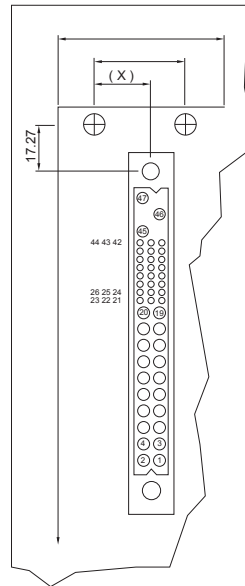
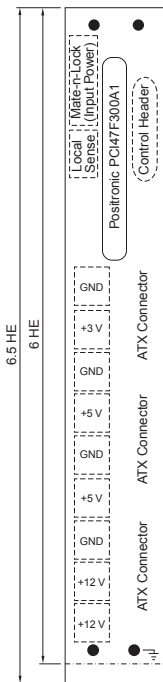
Supply includes:

Board, fully populated.

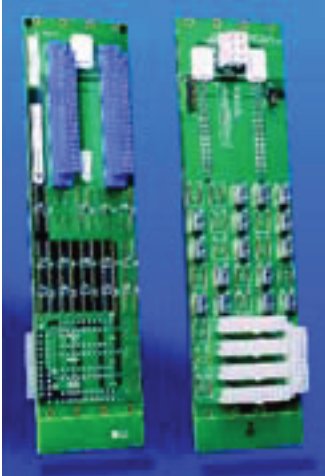
Note:

Plug-in power supplies

RP 3688.607



Power supply boards



Power supply board 6U/6.5U, 16HP

- Board 6U/6.5U (0.5U may be broken off), 16HP
- For use in conjunction with Pixus cPCI backplanes
- Accommodation of two power supplies with up to 500 W
- AC/DC connection is made via two 2 x 3-pole connectors
- Outgoing voltages to supply one or more cPCI backplanes are available at 5 ATX-compatible connectors or at special power terminals
- Complies with PICMG 2.0, PICMG 2.11

Technical specifications:

Accommodation of 2 x 6U cPCI power supplies of up to 500 W

Input voltages:

- AC input via 2 x 3-pole AMP Mate-N-Lock connector
Max. current capacity per pin 25 A
- DC input via 2 x 3-pole AMP Mate-N-Lock connector
Max. current capacity per pin 25 A

Output voltage:

- Five 20-pole ATX-compatible connectors for ATX cable harness (connection of power supply board to cPCI backplane) and/or special power terminals

Description	Model No. RP
Board for 2 x plug-in power supplies with Positronic connector, 47-pin	3688.608
ATX (12") cable harness	9810.337
ATX (16") cable harness	3686.570
ATX (20") cable harness	9810.338

Extended delivery times.

Material:

Fibreglass epoxy to IEC 60 249 (FR4)

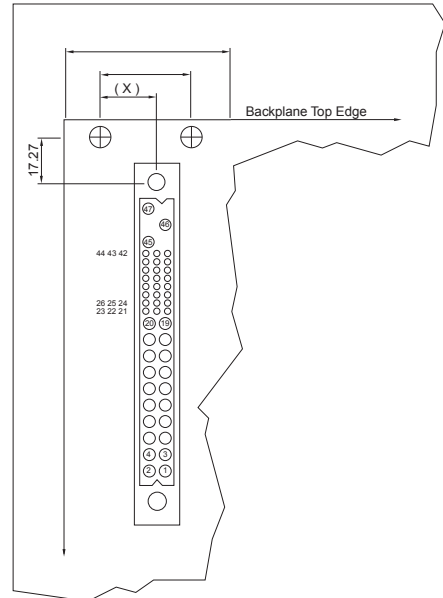
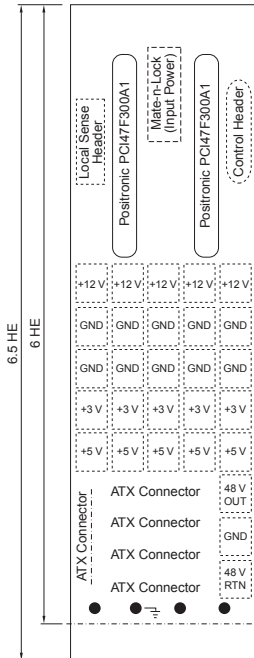
Supply includes:

Board, fully populated.

Note:

Plug-in power supplies

RP 3688.608



Backplanes, horizontal



Backplane 9U Monolithic with power supply connector

Material:
Fibreglass epoxy to IEC 60 249 (FR4)

Supply includes:
Board, fully populated.

S = Stand alone
B = Beginning segment
M = Middle segment
E = Ending segment

Slots	Connector Positronic 47-pin	ATX	Model No. RP
2 ¹⁾	1	0	3689.329
4	2	1	3689.330
6	3	1	3689.331
8	4	1	3689.332

System slot on right 64 bit with rear I/O, V I/O: +5.0 V.
H.110 not connected to system slot.

¹⁾ Without H.110