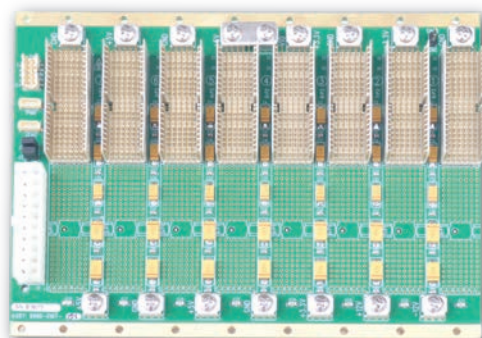
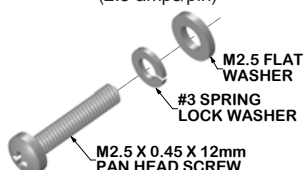

 3U cPCI backplane  
 8 slots, left system slot,  
 front view

 6U cPCI backplane,  
 8 slots, right system slot,  
 front view

 3U cPCI backplane  
 8 slots, right system slot, rear view

 Power Bug  
 (2.5 amps/pin)

 Backplane Mounting Hardware  
 Each Set includes:

 M2.5 X 12MM Screw  
 #3 Lockwasher  
 M2.5 (DIN#125) Flat Washer  
 HD56-1 42 sets  
 HD56 12 sets


## cPCI® Backplanes, 3U and 6U

The specification for PCI based industrial computers is called CompactPCI. It is electrically a superset of desktop PCI with IEEE 1101.10 mechanical form factor. Vector offers RoHS compliant 3U and 6U cPCI backplanes sold separately or integrated into any VectorPak™ subrack or chassis. Designed to meet PICMG 2.0 Rev 3, Hot-swap PICMG 2.1 Rev 1 and available in 2 to 8 slots.

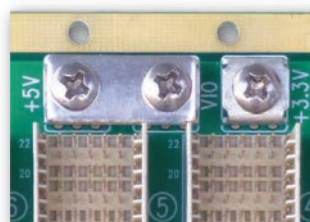
### Features :

- Slot Count : 2-8 slot options
- Size : 3U or 6U
- Version with left or right system slot, right slot version with ATX connector
- 33MHz (2-8 slots), 66MHz (2-5 slots)
- Easily changeable +3.3V (cadmium yellow) or +5V (brilliant blue) V I/O with movable bus bar
- IPMB, JTAG and P1 utility connectors
- 10-layer FR-4 construction, UL94V-0, RoHS compliant
- Excellent power distribution, best signal integrity, virtually zero cross talk, and minimum clock skew
- EMI shielding
- Controlled impedance
- Screw terminal (power bug) or Faston input power connections
- 4.05mm thick PCB eliminates need for backplane stiffner rail
- Compatible with IEEE 1101.10 subracks and accessories, pages 26-33
- Conformal coating available on request
- Custom configurations available, please contact factory
- Fully assembled and tested

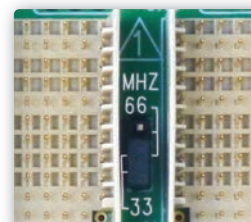
### Connectors:

The CompactPCI connectors are shielded 2mm pitch, 5+2 row connector, compliant to IEC 61076-4-101. Main features of this connectors are the pin staging for hot swap and shielding for EMI/RFI protection.

cPCI connector pin assignments see pages 82-85.



V I/O busbar


 33 or 66 MHz jumper  
 2-5 slots backplanes

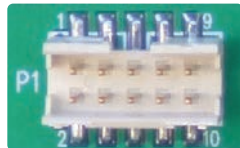
# Vectorbord® Backplanes cPCI®

**VECTOR**  
ELECTRONICS & TECHNOLOGY, INC.

## cPCI® Backplanes, 3U and 6U

### Technical Data :

<b>PCB design :</b>	FR-4 epoxy glass, 10 layer
<b>Assembly :</b>	SMT/ press-fit assembly
<b>Impedance of bare PCB :</b>	65 ohm +/- 10%
<b>Resistance of signal lines:</b>	< 1.5 ohm
<b>Current loading :</b>	+5V up to 8A per slot +3.3V up to 10A per slot
<b>Clock frequency :</b>	33MHz (2-8 slots) 66MHz (2-5 slots)
<b>PCI bus width :</b>	32 bit (3U), 64 bit (6U)
<b>V I/O :</b>	+5V blue key, +3.3V yellow key, field changeable
<b>Operating temperature :</b>	-40°C to +85°C
<b>Humidity :</b>	95% non condensing
<b>Flammability :</b>	UL 94V-0



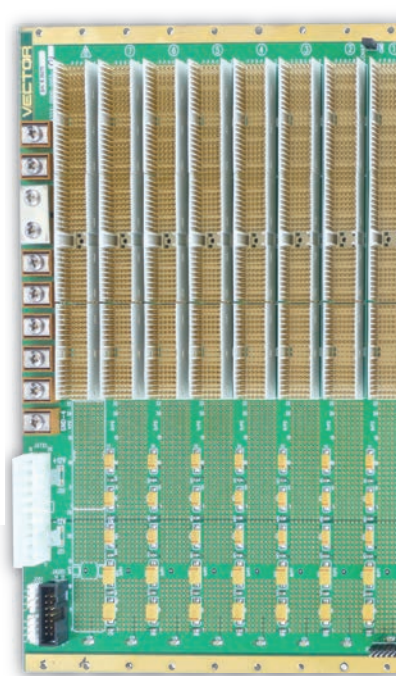
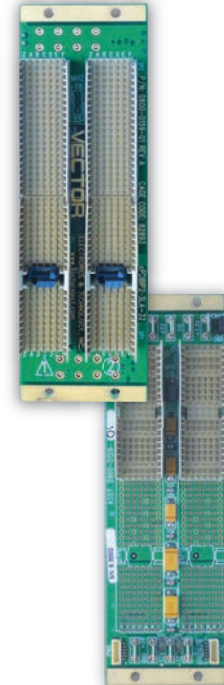
Utility Connector, P1



IPMB Connector



JTAG Connector

6U cPCI backplane  
with 8 slots, rear view3U cPCI backplane with  
2 slots, front & rear view

Backplanes

### CompactPCI utility connectors pin assignments

PIN #	10-PIN UTILITY CONNECTOR (P1)	IPMB CONNECTOR	JTAG CONNECTOR
1	PRST#	IPMB_SCL	GND
2	FAL#	GND	TCK
3	DEG#	IPMB_SDA	TMS
4	+3.3V SENSE	IPMB_PWR	TRST#
5	+3.3V	SMB_RSV	TDI
6	GND SENSE (3.3V)	GND	TDO
7	+5V		
8	+5V SENSE		
9	GND		
10	GND SENSE (5V)		

### CompactPCI ATX connector pin assignments

PIN #	ATX CONNECTOR	PIN #	ATX CONNECTOR
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS_ON OR INH# (NOTE 2)
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	PW_OK OR FAL# (NOTE 1)	18	-5V
9	+5V SB	19	+5V
10	+12V	20	+5V

NOTE 1 : Via jumper J1 to DEG#

NOTE 2 : Via jumper J2 to GND

### cPCI Backplane Ordering Information

<u>CPCI</u>	<u>BP</u>	<u>2</u>	<u>-</u>	<u>3</u>	<u>LA</u>	<u>-</u>	<u>32</u>	<u>-</u>	<u>0</u>
No of Slots									
2 = 2-slot									
3 = 3-slot									
4 = 4-slot									
5 = 5-slot									
6 = 6-slot									
7 = 7-slot									
8 = 8-slot									
Height									
3 = 3U									
6 = 6U									
System slot									
LA = Left system slot									
RB = Right system slot									

#### Clock Frequency & V(I/O)

0 = 33MHz, V(I/O) +5V (coding key blue)

3 = 33MHz, V(I/O) +3.3V (coding key yellow)

6 = 66MHz, V(I/O) +3.3V (coding key yellow), up to 5-slots only

#### Bus width

32 = 32-bit (for 3U version)

64 = 64-bit (for 6U version)



# Mouser Electronics

Authorized Distributor

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Vector:

[1100136-15A](#) [UM21A3U-00](#) [CPCIBP4-3RB-32-0](#)