

# Tracewell 6U Backplane for *CompactPCI*<sup>™</sup>

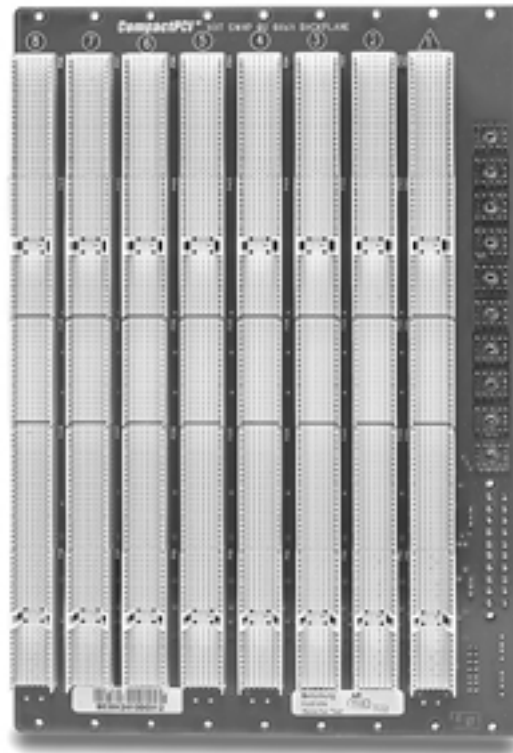
## 6U 32/64 bit *CompactPCI*<sup>™</sup> hot-swap backplane

### Description

Tracewell Systems Inc. has combined our extensive experience in standard architecture backplanes and high-frequency telecommunications design. The result is a line of high-performance backplanes for CompactPCI that meet the needs of a wide range of industrial, data and telecommunication applications. By utilizing the latest in design and manufacturing technology, Tracewell Systems provides a unique combination of performance, quality and value to its CompactPCI customers.

Tracewell Systems 6U CompactPCI backplanes provide a 64-bit CompactPCI bus and hot swap compatibility. The 8-layer design is fully optimized for signal and power distribution and uniform impedance. Matched clock lines minimize skew while ground guarding reduces line-to-line crosstalk. A right-justified system slot is available allowing use of all slots even with multi-slot CPU boards. Left-justified versions are also available. Power terminals are positioned adjacent to the system slot to provide more efficient power distribution and wiring. This orientation allows a 6U overall board height while providing full access for rear plugging boards. Power connections utilize a combination of ATX and high current power taps to support a wide range of power harness configurations. A 14-position system header also provides access to PRST#, DEG#, FAL# signals, as well as logic return and remote sense. To help eliminate the problem of bent pins during installation of rear I/O boards, type-AB shrouds are installed on both P3 and P5 in all slots. Other conveniences include two auxiliary power connectors for peripherals.

Tracewell Systems 6U CompactPCI backplanes address the needs of high-technology computing applications for today and tomorrow.



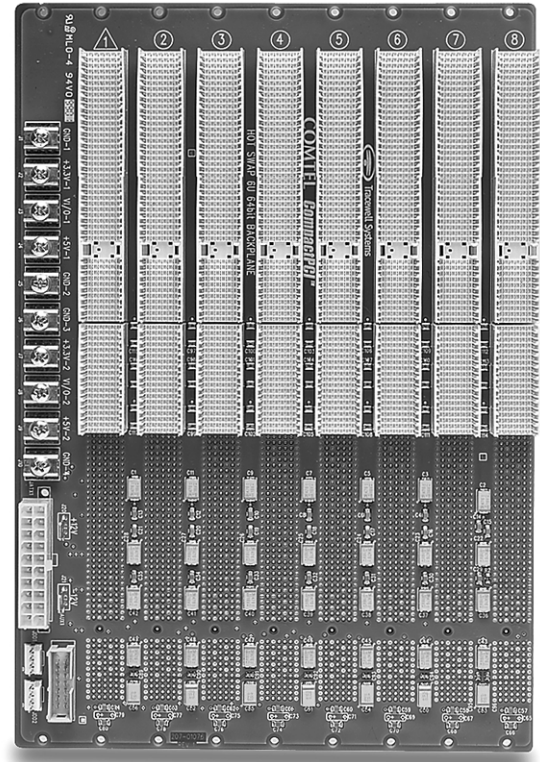
### Features

- Fits within standard 6U aperture
- Hot swap compatible per PICMG 2.1
- P3 and P5 'AB' connector shrouds eliminate bent pins
- 8 layer all-stripline, SMT/ press-fit assembly
- Matched clock lines and ground guarding
- Universal I/O for +3.3V or +5.0V
- System header for PRST#, DEG#, FAL#, and remote sense
- Flexible power using screw terminals and ATX connections
- Fully compliant to PICMG 2.0 R2.1



## Specifications

- Bus structure:** cPCI 32/64 bit with hot swap compatibility
- Dimensions:** Width (inches) = (# slots x 0.08) + 0.75;  
Height 10.32" (262mm)
- Weight:** 1.72 lbs. (0.78 kg; 8 slot)
- Assembly:** SMT/press-fit assembly
- Layer count:** 8 layers
- Control:** System header for PRST#, DEG#, FAL#, return and remote sense for +5, +3.3, +/-12VDC
- PCB :** FR4 epoxy-glass laminate, multilayer, all-stripline, SMOBC, silkscreen on two sides, 1oz. copper signal and power planes minimum, UL 94V-0, 0.150" (3.8 mm) thickness
- Impedance:** 65 Ohms nominal, non-loaded pcb
- Termination:** N/A
- Decoupling:** SMT decoupling per PCMIIG 2.0 R2.1
- Rear shrouds:** Extended 16mm tails and AB compatible shrouds on all P3 – P5 connectors
- DC distribution:** Screw terminals for +5, +3.3, return and V I/O (35A per terminal), 20 position ATX for +5, +3.3, +/-12VDC, and return (9A per pin), 0.250 spade terminals for +/-12VDC (15A per terminal)
- Compliance:** PICMG 2.0 R2.1, PCMIIG Draft 2.5, hot swap compatible per PCMIIG 2.1
- Warranty:** 1 year limited warranty



### Connector pin-outs:

System Connector (14 position)

2	V(I/O)	GND	GND	5V	3.3V	5VSTDBY	-5V	14
1	FAL#	DEG#	PRST#	PS-ON	PWROK	+12V	-12V	13

Auxiliary Connector (4 position; JDD1, JDD2)

1	5V	GND	GND	-12V	4
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ATX Power Connector (20 position; JATX1)

1	3.3V	3.3V	GND	5V	GND	5V	GND	PWROK	5VSTDBY	+12V	10
11	3.3V	-12V	GND	PS-ON	GND	GND	GND	-5V	5V	5V	20

## Ordering Information

Tracewell Systems 6U 32/64 bit backplane is available in the following standard configurations:  
(Consult factory for other slot sizes and configurations)

### Part number

070-4208-000-0B  
070-4210-000-0B

### Description

6U, 8 slot, 32/ 64 bit, hot-swap compatible, P1-P5 populated all slots, AB shrouds P3 & P5, system slot right  
6U, 8 slot, 32/ 64 bit, hot-swap compatible, P1-P5 populated all slots, AB shrouds P3 & P5, system slot left

### Accessories

070-9936-K00-00 Kit, logic keys, 5V brilliant blue (bag of 8)  
070-9937-K00-00 Kit, logic keys, 3.3V cadmium yellow (bag of 8)

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[www.tracewellsystems.com](http://www.tracewellsystems.com)  
or call toll free: 1.800.848.4525