

# Tracewell 6U Backplanes for VME64x

## 6U 32/64-bit VME64x J1/J2/P0 Monolithic

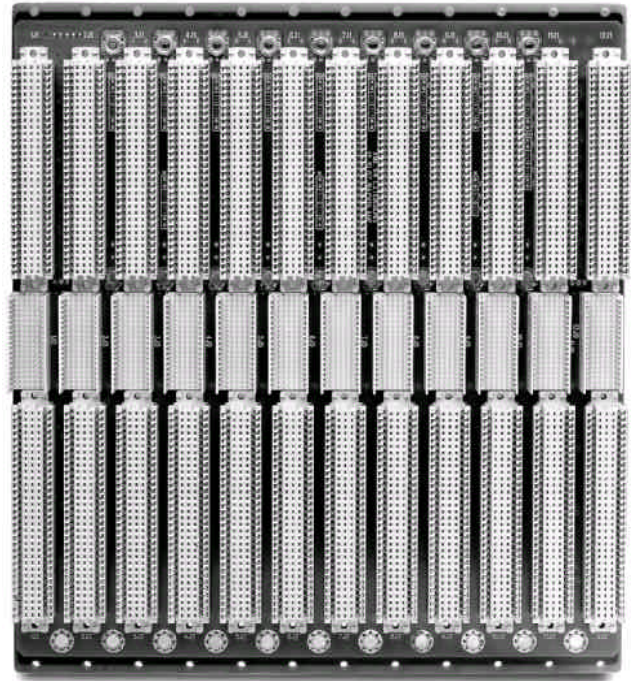
### Description

Tracewell Systems Inc. has combined extensive experience in high-density backplane production and high-frequency design. The result is a line of performance backplanes for VME64 Extensions that meet the needs of a wide range of industrial, military, data and communication real-time applications. By utilizing the latest in design and manufacturing technology, Tracewell Systems provides a unique combination of performance, quality and value to its VME customers.

Tracewell 6U VME backplanes provide ideal signal and power distribution while maintaining a 6U overall height. Building on the success of Tracewell's VME64 surface mount technology (SMT) backplanes, this all-stripline 10-layer design uses advanced SMT for termination, automatic daisy-chain and capacitive decoupling. This advanced design not only allows inboard termination for up to 21 slots but also single-sided surface mount assembly for improved reliability. The use of SMT on the Tracewell VME64 Extensions backplane dramatically reduces the inductance and capacitance associated with component leads, resulting in improved overall impedance and voltage characteristics.

Optimized power and ground planes minimize voltage drop and ground shift, while eliminating the need for busbars. Single-point power connectors are positioned along the top and bottom edge of the backplane. Each connector is capable of up to 70 amps and may be rearranged to support most wiring requirements. A low-profile connector design allows wiring to be routed close to the backplane, providing clearance for rear plugging I/O boards and a 6U overall backplane height. Ground tracking in both J1 and J2 surrounds every signal line with a ground layer, lowers signal-induced noise, crosstalk, and IR losses.

Tracewell 6U VME64 Extensions backplanes address the needs of high-technology computing applications for today and tomorrow.

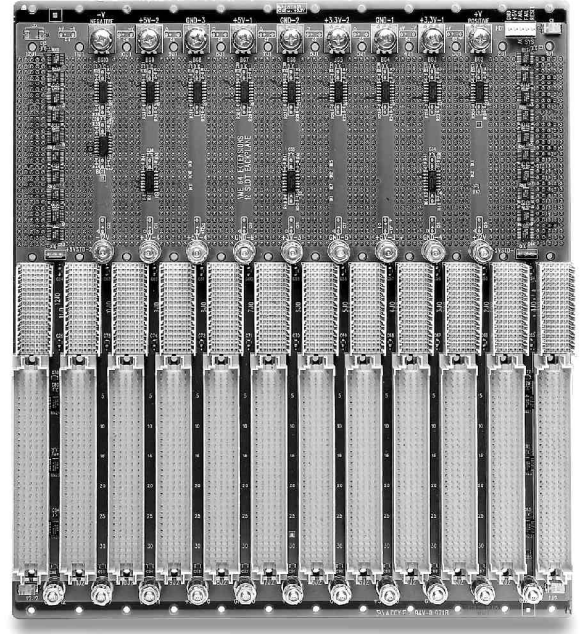


### Features

- Distributed bulk low frequency decoupling
- Convenient automatic BG/IACK jumpering
- SMT inboard termination allows up to 21 slots
- Flexible power connections require no bus-bars
- Hot-swap compatible
- Includes +3.3V, V1, and V2 power bussing
- Fully passive assembly (optional)
- ANSI/VITA 1.1-1997 compliant

## Specifications

<b>Bus Structure:</b>	VME64x, 32/64 bit, J1/J2 monolithic
<b>Connectors:</b>	160 pin, 5 row, J1/J2, IEC 61076-4-113 133 pin, 7 row, J0, IEC 61076-4-101
<b>Dimensions:</b>	Width (in.) = (# slots x 0.80) - 0.13 Height 10.35" (263mm)
<b>Weight:</b>	3.32 lbs. (1.51 kg; 12 slot)
<b>Assembly:</b>	SMT/press-fit assembly
<b>Layer count:</b>	10 layers
<b>Control:</b>	System header for SYSRESET, SYSFAIL, ACFAIL, +5V and return; 5 pin MTA-100
<b>PCB:</b>	FR4 epoxy-glass laminate, multilayer, all-stripline, SMOBC, silkscreen on two sides, 1 oz. on copper signal and power planes minimum, UL 94V-0, 0.154" (3.9 mm) thickness
<b>Impedance:</b>	50 Ohms, non-loaded pcb
<b>Termination:</b>	Passive, electrically outboard, mechanically inboard; 330 Ohms to 5V, 470 Ohms to Gnd
<b>Decoupling:</b>	<i>High-frequency</i> decoupling at each slot; 0.1µF SMT ceramic capacitors (MLC) <i>Low-frequency</i> decoupling distributed across backplane; 100µF Tantalum (SMT)
<b>Rear shrouds:</b>	Extended rear tails and shrouds on P0 and J2, all slots; short tail connectors on all J1 slots (no shrouds)
<b>DC distribution:</b>	70A rated power bolts for +5, +3.3, +/-12VDC, +/-V1, +/- V2 and return with M4 screws; diode ESD protection on power rails
<b>Performance:</b>	End-to-end voltage drop and ground shift less than 150mV (12-slot backplane, 5V at 140A)
<b>Compliance:</b>	ANSI/VITA 1-1994, ANSI/VITA 1.1-1997
<b>Warranty:</b>	1 year
<b>Connectors:</b>	<i>System Connector</i> (5 pin; mates to AMP #640440-5) 1   GRD   +5V   ACFAIL   SYSFAIL   SYSRESET   5



(070-1512-COM-OB SHOWN)

## Ordering Information

Tracewell 6U VME64x backplanes are available in the following standard configurations. Please consult your Tracewell Systems sales contact for other slot sizes and configurations:

Part number	Description
070-1502-000-0B	BP, VME64X, 6U, 2-SL, J1/J2/J0
070-1505-000-0B	BP, VME64X, 6U, 5-SL, J1/J2/J0
070-1507-000-0B	BP, VME64X, 6U, 7-SL, J1/J2/J0
070-1512-COM-0B	BP, VME64X, 6U, 12-SL, J1/J2/J0
070-1516-000-0B	BP, VME64X, 6U, 16-SL, J1/J2/J0
070-1518-000-0B	BP, VME64X, 6U, 18-SL, J1/J2/J0
070-1521-000-0B	BP, VME64X, 6U, 21-SL, J1/J2/J0

request a quote at our web site:  
[www.tracewellsystems.com](http://www.tracewellsystems.com)  
 or call: 1.800.848.4525

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