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VECTOR IS ISO 9001:2008 & AS9100C CERTIFIED VECTORBORD® VMEbus J1 BACKPLANES

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## **GENERAL**

Vector VME J1 backplanes feature 6-layer controlled impedance construction with 2oz. copper power and ground planes. Effective crosstalk protection is provided with a patented trace pattern which effectively surrounds each signal trace with a closed conductive loop, providing shielding against both inductive and capacitive coupling. Vector VMEJ1 backplanes are fully RoHS compliant.



## Vectorbord® VMEBP21J1 Backplane

## <u>Vectorbord® VME Terminators and Mate-N-Lok™ Included with VMEBP21J1</u>

Backplane termination is provided by terminator modules which plug onto the rear first and last slot signal connectors. Terminator modules may be removed from the backplane and placed on a Vector VMEEJ1 or VMEE-M Extender board. Placing the terminated extender board attached end of the backplane that the terminator was removed from, extends and terminates the VMEbus transmission line to the circuit card which was plugged into the extender. Vector VME Terminators include SMT resistors, etc. and are fully RoHS compliant.

Power connections to the backplane are made via AMP/Tyco Universal Mate-N-Lok connectors which are soldered into the backplane. Mating connector housings and pins are provided.

There is an alternate 'power-bug' option where DC input voltage and ground can be wired directly to this backplane via screw terminals. Please contact <a href="Inquire@Vectorelect.com">Inquire@Vectorelect.com</a> about this option.

BACKPLANE INSTALLATION INTO CARD CAGES Hardware for backplane mounting is Vector part no. HD56 (12 mounting points) or HD56-1 (42 mounting points) and consists of one set each of M2.5 x 12mm screw, #3 lock washer and M2.5 (DIN125) flat washer. When installing the Vectorbord® backplane into a Vectorpak™ DIN metric sub rack, the backplane insulator (included with the rack) <u>MUST BE</u> <u>INSTALLED</u> between the backplane and the face of the rear rail. This insulator (Vector part no. 5250998-84) is required to provide the correct dimension from the front face of the backplane DIN connectors to the front panel.

<u>DAISY CHAIN JUMPERS</u> The interrupt acknowledge and bus grant daisy chain signals must be jumpered on this backplane when a slot is not occupied, and if there are boards further down (towards RIGHT) the backplane. Jumper connection locations are identified at each connector on the rear of the backplane, Jumper connections may be made by wire-wrapping or by using 0.100" X 0.100" push-on jumpers or shunt, made for 0.025" square wire-wrap posts.



IACK/BG Jumpers (shunts) included

<u>JOINING BACKPLANES</u> Vectorbord® VMEJ1 and VMEJ2 backplanes may be connected together is additional slots are required by using a Vectorbord® 2-slot Interconnect backplane mounted on the rear wire-wrap tails of the end connectors of the backplanes being joined.(in place of the terminator modules in these positions). Bus signal transmission line characteristics are preserved by the controlled impedance design of the 2-slot Interconnect backplane.

The VME specification requires that the IACK bus signal be connected to the IACKIN pin of slot1. On all Vectorbord® J1 and J2 backplanes less than 21-slots (with the exception of the 2-slot Interconnect backplane) this connection is made on the rear of the backplane with a push-on jumper. This jumper is located under the connector shroud which (P2) of slot #1 (J1). When connecting two Vectorbord® VME J1 or J2 backplanes with the 2-slot Interconnect backplane, remove the IACK to IACKIN jumper (pins A20 to A21) from the backplane which no longer has its J1 signal connector used as slot 1.

<u>BACKPLANE TERMINATION</u> Vectorbord® VME-bus terminator modules must be installed at each end of the physical backplane in the first and last connector location.