VXS PROCESSOR MESH BACKPLANE

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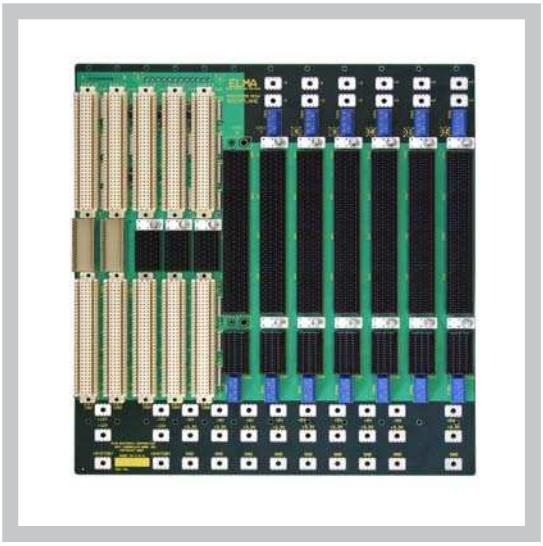

Features

- Defined mesh configuration over increases bandwidth to 112 Gbps
- Fully compatible to standard VXS boards
- 16X full mesh in processor fabric
- 2 center I/O channels
- Collected Rear I/O
- System Management Bus
- VME64x compatible
- Enhanced cooling

Board Specifications

- 18-layer board
- PCB UL listed 94V-0
- PCB .157" thick
- PCB Material: Nelco 4000-13SI

Mechanical Specifications

- 7U height
- 12 Slots
- 160-pin, class II VME connectors
- Multi-Gig RT-2 P0 connectors

Description

The VXS Processor Mesh is a powerful architecture with bandwidth that can deliver 112 Gbps of aggregate throughput within the processing mesh in a single chassis. This is an improvement of 6x over standard Star or Dual Star VXS topologies. Developed to enable a switch/processor mesh technology for applications which require multiple boards for application processing, this hybrid backplane implements two VME64x slots, three VME64x/VXS payload slots, one collected rear I/O slot, and six VXS switch slots. Each switch slot implements twenty x 4 links for a total of 25 Gbps per switch slot. The system architecture supports up to 7.5 Gbps of throughput between the I/O front end and the processing mesh.

The addition of a fat-pipe processor fabric segment further enhances the other key features of the VITA 41 architecture such as I^2C management bus, backwards compatibility to VME64x, PMC/XMC mezzanine sockets, rear transition slots, and the rugged VME64x mechanical architecture. The backplane can still utilize standard VME64x and VXS Payload slots. Therefore, backwards-compatibility is still an important element of the solution.

As Processor Mesh VXS is a point-to-point mesh with out the complexity of a switched fabric, it is natural to use SERDES-based point-to-point signaling protocols. Because bandwidth-intense processes can now be offloaded to the VXS Processor Mesh, the conventional two-channel central switch fabric defined by VITA 41.0 may be used primarily for a control and IO pathway. This means less expensive switch cards may be used to support the Star or Dual Star switched fabric and the more powerfully equipped processor-switch engines may be reserved for signal processing and computational tasks. Also, the number of these cards used can depend upon the application process and not the switch fabric topology.

VXS PROCESSOR MESH

Line Drawing

Coming Soon

Order Information

Height	Slots	Part Number
7U	12	1900001548-0000