

Description

The 5-slot, 8-slot and 10-slot VXS backplanes from Elma Bustronic come in a Single Star configuration with one hub slot. The backplane offers plenty of power bugs for +3.3V, +5V, +/- 12V, V I/O and Ground. All Elma Bustronic VXS backplanes are designed to be compliant to the latest VITA 41 specifications.

The 5-slot has 4 payload slots and one switch slot. Each payload slot (slots 1 to 4) has two fabric channels (a and b) which connect in a point to point topology to the switch slot. The 8-slot has 7 payload slots and one switch slot. The 10-slot has 7 payload slots, 2 legacy VME64x slots, and one switch slot. The 7-row MultiGig connector in the P0 position of each payload slot also has pins assigned to rear I/O. I/O communication can be implemented via a rear transition module (FRU) or via front panel connectors.

Features

- Conforms to VITA 41.0 VXS backplane specifications
- High speed MultiGig RT-2 connector over P0
- One hub slot, 4 payload slots (5-slot)
- One switch slot, 7 payload slots, and 2 legacy VME64x slots (10-slot)
- Plenty of power bugs for 3.3V, 5V, 12V and GND
- Compatible with VME64x standard line cards
- Single Star, Dual Star, Mesh, and Hybrid versions available
- Various configurations of payload slots, switch card slots, etc.

Board Specifications

- 12-layer board, 14-layer board
- 2 oz. copper power and ground
- PCB UL listed 94V-0
- PCB FR-4 or equivalent
- PCB .159" thick (5-slot), .182" thick (8-slot) PCB .145" thick (10-slot)

Mechanical Specifications

- 5, 8 and 10 slots, other sizes available
- 7U height (5-slot), 6U height (8, 10-slot)
- 160-pin, class II VME connectors
- Multi-Gig RT-2 P0 connectors (10-slot)



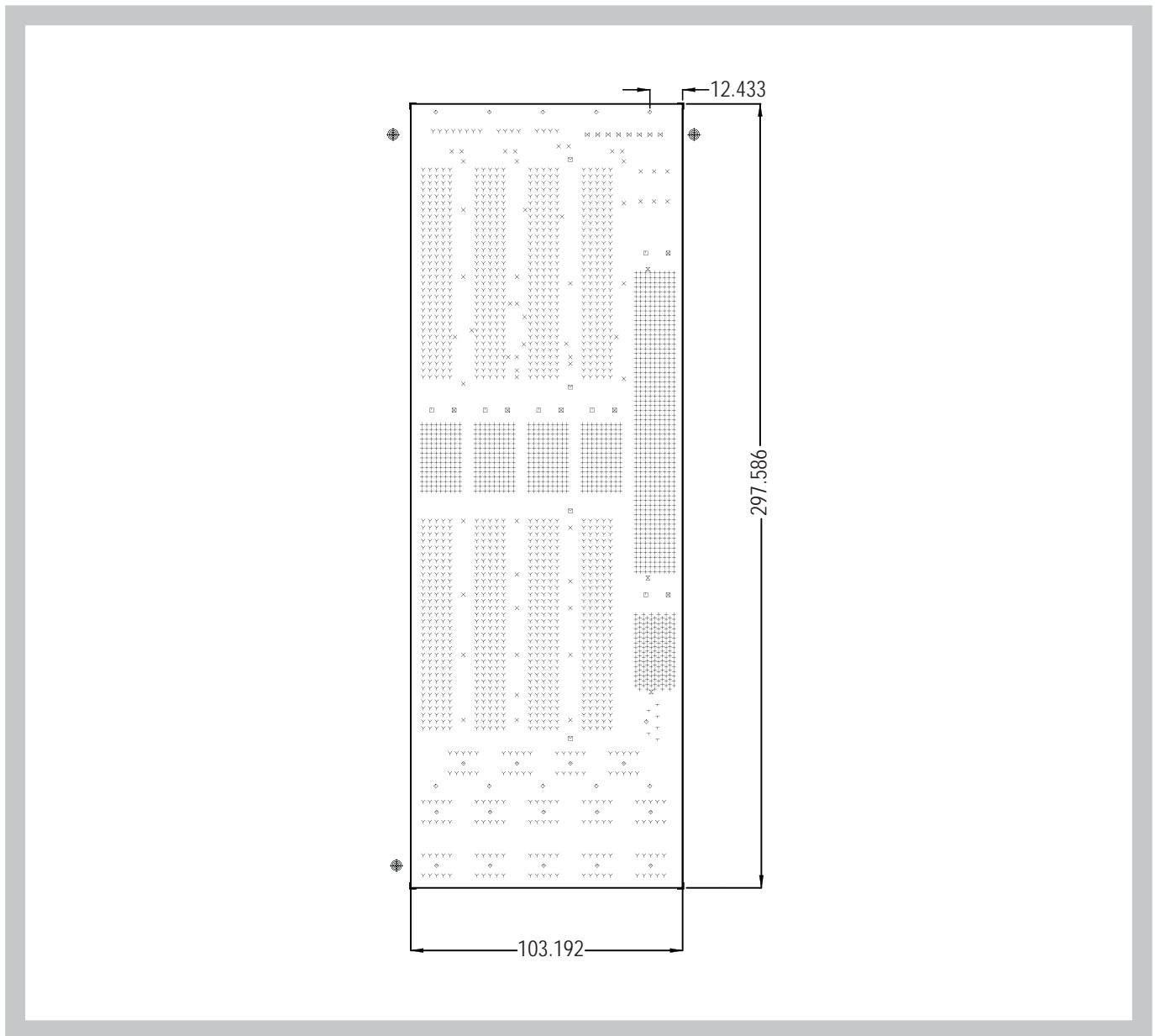
Close-up of MultiGig RT-2 Connectors



Close-up of Power Bugs

VXS Backplanes - Single Star

Line Drawing



ORDER INFORMATION

Slots	Description	Part Number
5	1 switch card slot, 4 payload slots	101VXSS705-0621
8	1 switch card slot, 7 payload slots	101VXSS608-0621R
10	1 switch card slot, 7 payload slots and 2 legacy VME64x slots	101VXSS610-0621

VXS Backplanes - Single Star

Product Configurations

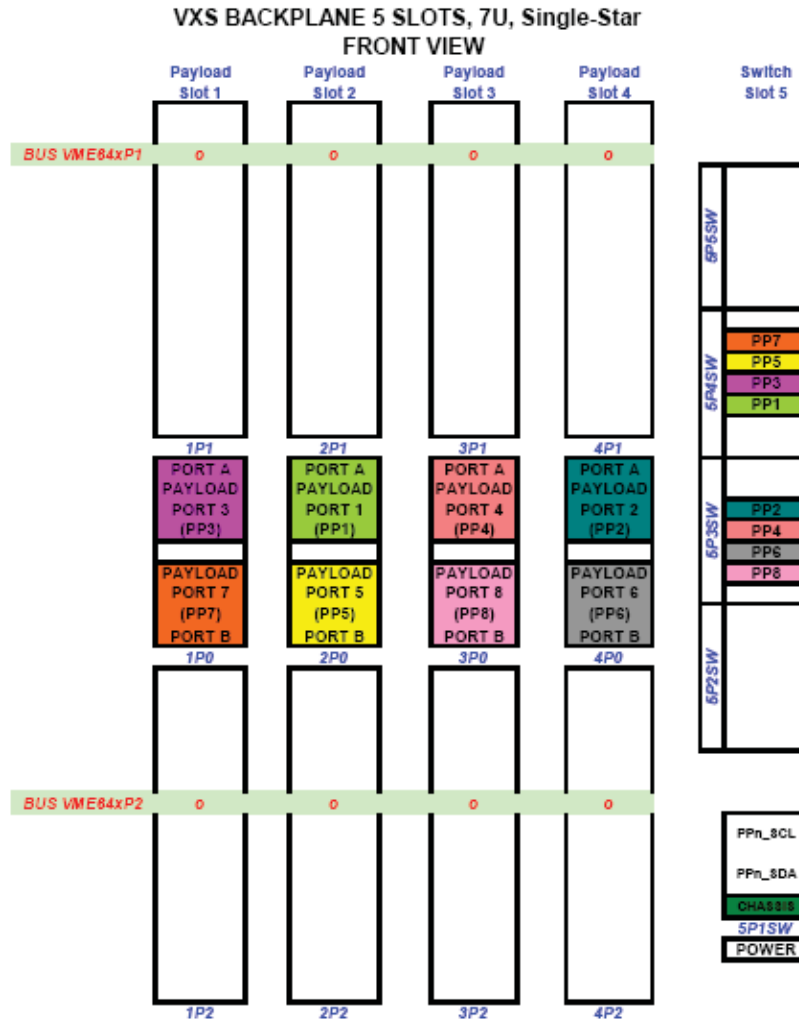
(Example: 101VXSS705-0621R)

101	Product	Form	Slots	- - - - - Configuration
	<p>Product VXS = VITA 41 Compatible 7U</p> <p>Topology S = Single Star</p> <p>02-21 = Slots</p> <p>Configuration</p> <p>Power Interface _____</p> <p>0 = 10 pin power tap with 6/32 screw 1 = M4 threaded stud 2 = 10 pin power taps with busbar kit 9 = Custom [9 _ _ _ sequential numbers] X = Not applicable</p> <p>J1 Connectors and Shrouds _____</p> <p>0 = Not applicable 1 = Not applicable 2 = 160 pin 17mm with shrouds, all slots 3 = 160 pin 13mm with shrouds, all slots 4 = 160 pin 13mm without shrouds, all slots 5 = 160 pin 17mm without shrouds, all slots 6 = 160 pin 5mm without shrouds, all slots 7 = Not applicable 8 = 160 pin 17mm slot 1, 5mm all other slots X = Not applicable</p> <p>J2 Connectors and Shrouds _____</p> <p>0 = Not applicable 1 = Not applicable 2 = 160 pin 17mm with shrouds, all slots 3 = 160 pin 13mm with shrouds, all slots 4 = 160 pin 13mm without shrouds, all slots 5 = 160 pin 17mm without shrouds, all slots 6 = 160 pin 5mm without shrouds, all slots X = Not applicable</p> <p>J0 Connectors and Shrouds _____</p> <p>0 = No J0 connector 1 = J0 [9 x 15 connector] 2 = J0 , RJ0, rear alignment pin and header (if VME64x slots present, J0 and shrouds inst.) X = Not applicable</p> <p>RoHS Compliance _____</p> <p>R = RoHS compliant</p>			

Common Configurations

VXS Backplanes - Single Star

5-Slot



- Legend:**
- The PP links are routed from the Switch Slot to the Payload Slots at Port A and Port B.
e.g.: Port A from Slot 1 is connected through PP3 with the Switch Slot and Port B from Slot 1 is connected through PP7 with the Switch Slot.
 - The System Management Links, PPn_SCL & PPn_SDA are routed radially between the Switch Slot and each of the Payload Slots according to the upper diagram, following the Payload Port allocation (n=1 to 8 Payload Ports).

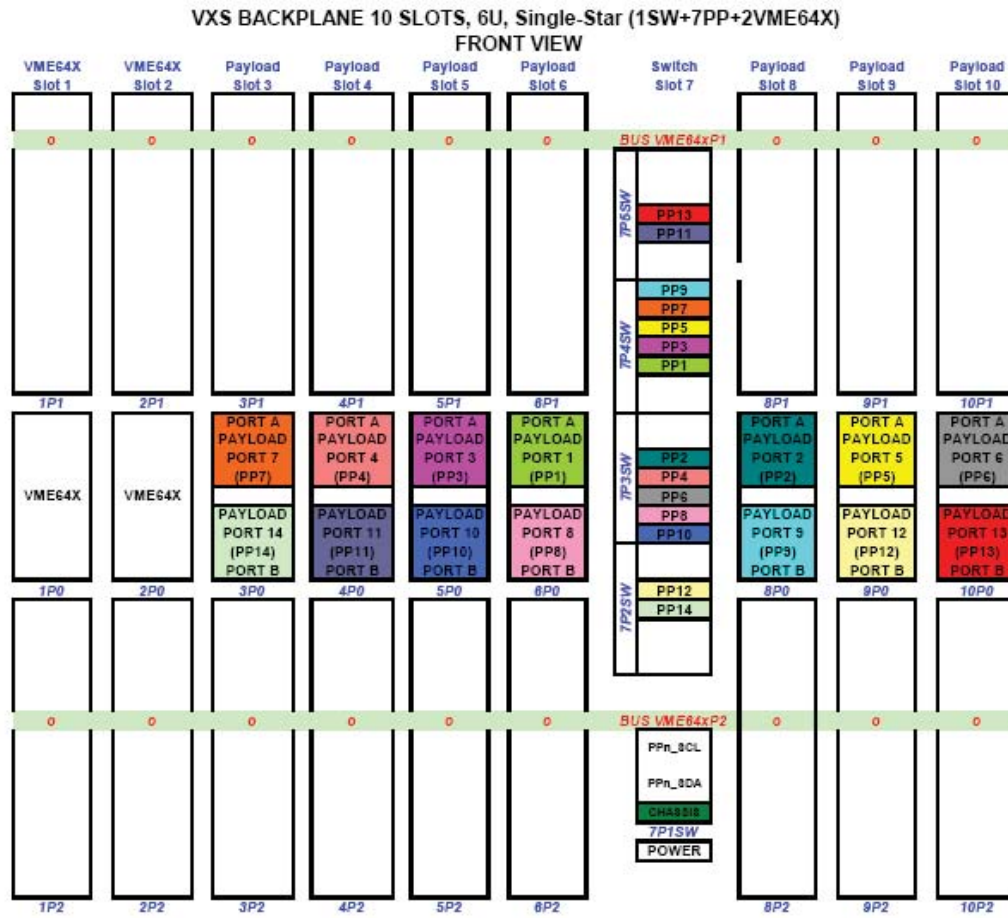
The power insertion area is below the signal slots above the bottom-mounting rail.



Power Bugs

VXS Backplanes - Single Star

10-Slot



Legend:

1. The PP links are routed from the Switch Slot to the Payload Slots at Port A and Port B.
2. The System Management Links, PPn_SCL & PPn_SDA are routed radially between the Switch Slot and each of the Payload Slots according to the upper diagram (n=1 To 14 Payload Ports).
e.g.: Port A from Slot 3 is connected through PP7 with the Switch Slot and Port B from Slot 3 is connected through PP14 with the Switch Slot.

VXS Backplanes - Single Star

5-Slot

System Monitoring : P1 (8-way Header) having the pin assignment according to the figure below.

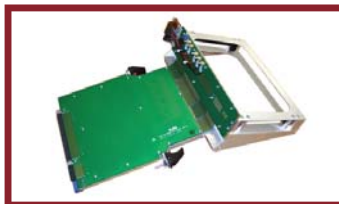
P1	
1	GND
2	+5V
3	ACFAIL
4	SYSFAIL
5	SYSRESET
6	+3.3V
7	+12V
8	-12V

Specifications

- VITA 1.7-2003 Increased Current Level for 96 Pin & 160 Pin DIN/IEC Connector
- VITA 41.0-200x VXS VMEbus Switched Serial Standard
- VITA 41.10-2003 Live Insertion System Requirements for VITA 41 Boards Trial Use Standard
- VITA 41.11-2005 Rear Transition Module Standard for VXS VMEbus Switched Serial Payload
- ANSI/VITA 38-2003 System Management Draft Standard
- ANSI/VITA 1.1-1997 VME64x Standard as modified by VITA 41.0 (P0/J0 connector and Switch Slots)
- ANSI/VITA 1.5-2003 2eSST (Source Synchronous Transfer)

Related Products from Elma Electronic:

- System Platforms – need a chassis for your backplane?
- VXS Embedded Computing Products – SBCs, Switches, Shelf Managers, and More.



Did you know we also offer with this VXS backplane:

- VXS Extenders, RTMs, test modules
- Thermal or backplane simulation/test, paint/silkscreen, customization, integration

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