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# VMEbus backplanes J1 system bus

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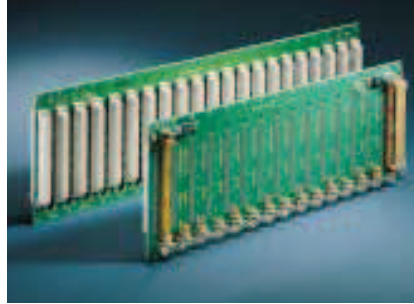
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10598025

## J1 system bus

- 3 U backplane with 16-bit data bus width
- Termination:  
Versions in IN-, ON- and OFF-board available  
Can be switched over, ON-/IN-board, active/passive
- Versions with (ADC) and without automatic daisy chaining (MDC) available
- Several IN-/OFF-board backplanes can be mounted next to each other without the loss of slots
- Particular features of IN-board backplane:
  - Through-connected PE mounting holes
  - Better shielding (on the backplane, shielded planes are on the outside, signal lines on the inside)

## Delivery comprises

Qty	Description	Material
1	Backplane	Fully equipped
10	Daisy chain jumper	
4	Locking lever	For safe securing of external terminator board on OFF-board

Slot	Width mm	Order No.						Slot	Width mm
		ON-board <sup>3)</sup>		IN-board <sup>3)</sup>		OFF-board			
		ADC <sup>7)</sup>	MDC	ADC <sup>7)</sup>	MDC	ADC	MDC <sup>5)</sup>		
1		-	-	-	-	-	<b>23000-101<sup>6)</sup></b>	1 <sup>1)</sup>	16.3
2		-	-	<b>23000-062<sup>4)</sup></b>	-	<b>23000-102</b>	<b>60800-369<sup>2)</sup></b>	2	38
3	71	<b>23000-003</b>	<b>23000-603</b>	<b>23000-063<sup>4)</sup></b>	-	<b>23000-103</b>	-	3	58
4		-	-	<b>23000-034</b>	<b>23000-634</b>	<b>23000-104</b>	-	4	78
5	112	<b>23000-005</b>	<b>23000-605</b>	<b>23000-035</b>	<b>23000-635</b>	<b>23000-105</b>	<b>23000-705</b>	5	98
6	133	-	<b>23000-606</b>	<b>23000-036</b>	<b>23000-636</b>	<b>23000-136</b>	<b>23000-706</b>	6	118
7	153	<b>23000-007</b>	<b>23000-607</b>	<b>23000-037</b>	<b>23000-637</b>	<b>23000-107</b>	<b>23000-707</b>	7	138
8		-	-	<b>23000-038</b>	<b>23000-638</b>	<b>23000-108</b>	<b>23000-708</b>	8	159
9	194	<b>23000-009</b>	<b>23000-609</b>	<b>23000-039</b>	<b>23000-639</b>	<b>23000-109</b>	<b>23000-709</b>	9	179
10	214	<b>23000-010</b>	<b>23000-610</b>	<b>23000-040</b>	<b>23000-640</b>	<b>23000-110</b>	<b>23000-710</b>	10	199
11		-	-	<b>23000-041</b>	<b>23000-641</b>	<b>23000-111</b>	<b>23000-711</b>	11	219
12	255	<b>23000-012</b>	<b>23000-612</b>	<b>23000-042</b>	<b>23000-642</b>	<b>23000-112</b>	<b>23000-712</b>	12	240
13		-	-	<b>23000-043</b>	<b>23000-643</b>	<b>23000-113</b>	<b>23000-713</b>	13	260
14		-	-	<b>23000-044</b>	<b>23000-644</b>	<b>23000-114</b>	<b>23000-714</b>	14	281
15	316	<b>23000-015</b>	<b>23000-615</b>	<b>23000-045</b>	<b>23000-645</b>	<b>23000-115</b>	<b>23000-715</b>	15	301
16	338	<b>23000-016</b>	<b>23000-616</b>	<b>23000-046</b>	<b>23000-646</b>	<b>23000-126</b>	<b>23000-726</b>	16	321
17		-	-	<b>23000-047</b>	<b>23000-647</b>	<b>23000-117</b>	<b>23000-717</b>	17	341
18		-	-	<b>23000-048</b>	<b>23000-648</b>	<b>23000-118</b>	<b>23000-718</b>	18	362
20	417	<b>23000-020</b>	<b>23000-620</b>	<b>23000-050</b>	<b>23000-650</b>	<b>23000-120</b>	<b>23000-720</b>	20	403
				<b>23000-051</b>	<b>23000-651</b>	<b>23000-121</b>	<b>23000-721</b>	21	423

<sup>1)</sup> For power supply

<sup>2)</sup> Connecting board for side-by-side mounting

<sup>3)</sup> Termination can be switched over between active/passive

<sup>4)</sup> Termination passive

<sup>5)</sup> Cannot be mounted side by side

<sup>6)</sup> 4-layer

<sup>7)</sup> 1st slot, MDC connector

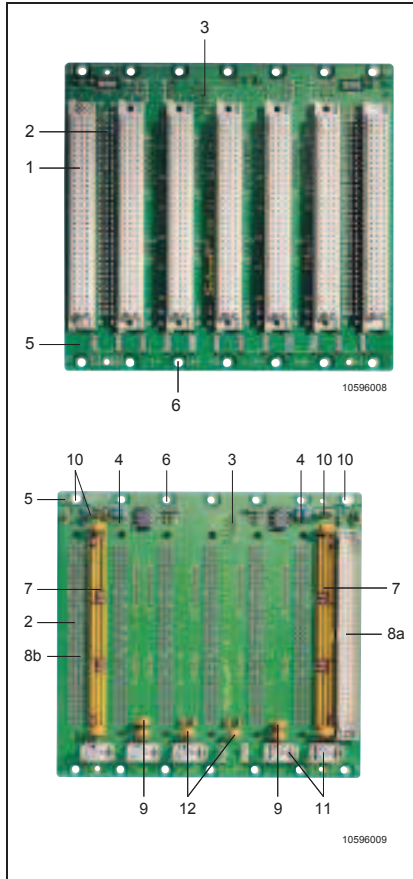
ADC = **A**utomatic **D**aisy **C**haining

MDC = **M**anual **D**aisy **C**haining

## Note

Further dimensions available on request.

# VMEbus backplanes J1 system bus



## Technical data:

- "High-speed" VME system bus, ON-/IN-board backplanes – particularly suitable for data transmission with fast drivers (ABT, FCT)
- Complying with Specification ANSI/VITA 1-1994
- Uniform impedance of all signal lines
- Optimized layout for minimal crosstalk
- Current distribution via busbars and connections via screw/plug connectors
- Suppression capacitors for conducted interference
- Interference suppression to PE ground also possible with plated-through PE mounting holes
- Safe interference suppression of transient and dynamic currents

Item	Description
1	Connector either with or without switch connector
2	Wire-wrap pins for daisy chain jumper for manual daisy chain (MDC)
3	Utility connector (5 wire-wrap pins, accessible on both sides)
4	Termination changeover between active/passive for $\geq 4$ slots
5	Multi-layer backplane
6	Assembly holes
7	Terminators (for ON-, IN-board)
8a	Connector slot 1, prepared for locking lever
b8	On OFF-board, even last slot equipped with connector
9	Suppression capacitors for filtering conducted interference on the power supply lines
10	PE connection (FASTON) and for IN-/OFF-board also through-plated mounting holes
11	Power connections
12	Decoupling capacitors between each slot

	ON-board	IN-board	OFF-board <sup>1)</sup>
Description	VME system bus, 16-bit, J1, 3 U		
Bit rate	20 Mbyte/s		
Base material	Epoxy resin fibreglass EP GC 02 as per DIN 40 802 (FR4), flame-resistant as per UL 94 V-0		
Design	4-layer: signal – V <sub>cc</sub> – GND – signal	6-layer: GND – signal – GND – V <sub>cc</sub> – signal – GND	
Characteristic impedance Z / Ohmic resistance R of all signal lines	Z = 60 ± 5 Ω / R < 1.5 Ω	Z = 55 ± 5 Ω / R < 1.5 Ω	
Termination location	ON-board	IN-board	OFF-board
Termination type	Can be switched over between active/passive	2 – 3 slot, passive, $\geq 4$ slot, can be switched over between active/passive	External
Basic current consumption	< 0.5 A (active termination), < 1.5 A (passive termination)		External
Connections	Power supply	FASTON (2.8/6.3 mm × 0.8 mm), screw terminals (M4)	
	PE	FASTON 6.3 × 0.8 mm	FASTON 6.3 × 0.8 mm, through-plated mounting holes
	ACFAIL	FASTON 6.3 × 0.8 mm	–
	Utility signals	Wire-wrap pins (GND, + 5 V, ACFAIL*, SYSFAIL*, SYSRESET*)	
	Connectors	C 96, press-in version, quality class 2 (400 plug-in cycles), ADC and MDC; for ADC first and last slot MDC connector, 1st slot cannot be jumpered, MDC cannot be mounted side by side	
Temperature range	Operation	Termination active 0 °C ... 50 °C, termination passive -40 °C ... +85 °C	
	Storage	Termination active -40 °C ... +85 °C, termination passive -40 °C ... +85 °C	
Dimensions	Height	3 U, 130 mm; 2 slot connecting board 100 mm	
	PCB thickness	approx. 3.2 mm	
	Slot pitch	4 HP = 20.32 mm	

<sup>1)</sup> Suitable with limitations for fast drivers, \* Low active

## Backplanes

J1 system bus.....	3.21.2
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J1/J2 monolithic....	3.21.6
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## Accessories

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