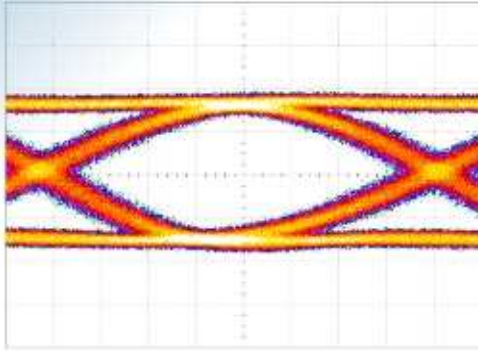




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Datasheet VMERACK6





CONTENTS

1 General.....	3
2 Functional Description	4
2.1 Design.....	4
2.2 Voltage Supply 230/110VAC.....	4
2.3 Power connection 230V/110VAC.....	5
3 VMEbus.....	6
4 Technical Specifications.....	8
5 Ordering information.....	8



1 General

The VMERACK6 sub rack is a shielded, fully closed enclosure with the following features:

- VMEbus sub rack with 6 slots with the J1 and J2 VMEbus boards
- Front connection components for the periphery of the boards
- Power supply unit for the VMEbus supply with +5V , +12V and -12V
- Power supply 230VAC, 110VAC



2 Functional Description

The front view of the VMERACK6:



2.1 Design

The VMERACK6 sub rack is a shielded, fully closed enclosure with a height of 266mm, a width of 220mm (with flange, approx. 270mm) and a depth of 250mm. The plug connectors (power connector and the periphery plug connectors of the boards) protrude around 70mm on the front side. The enclosure, with 6 height units (1 height unit = 44.45mm), contains the card cage with J1 (above) and J2 (below) VMEbus boards with 6 slots each with a width of 4 divisions (1 division = 5.08mm). The voltage supply with 6 height units and 18 divisions is located at the right of the VMEbus sub rack. This power supply supplies the boards in the VMEbus sub rack.

2.2 Voltage Supply 230V/110V

The voltage supply is fitted with a PC-power supply in order to supply the boards in the VMEbus sub rack with +5V/20A for the supply of the J1 and J2 VMEbus boards and with +12V/1A and -12V/0,1A for the supply of the J1 VMEbus board. The reference points of the power units GND (0V) are connected to each other and to the enclosure as well as to the PE-connection of the inlet connector for the incoming supply. The Input Fuse is fast acting (not user accessible).



2.3 Power connection 230V/110V

A fitted inlet connector with integrated two-pole switch and power filter is provided on the front panel of the voltage supply unit for the supply. This connector has the following connections:

Top	PE	Earth (connected to the enclosure and the GND of the power units)
Left	L1	Phase
Right	N	Neutral conductor

The sub rack comes with a cable (approx. 4m in length) with an integrated cable coupling for connection. The cable insulation is cut back at the connection end; the wires have the following colours:

L1 black or brown

N blue

PE yellow/green.

A fuse with a nominal value of $I = 4A$ (slow fuse) is recommended as a back-up fuse for the incoming supply.



4 VMEbus

The sub rack contains the **J1** (above) and **J2** (below) VMEbus boards with 6 slots with a slot distance of 4 divisions (4 x 5.08mm). **The J1 VMEbus board** (Rev. C) is terminated at slot 0 and 5 with active terminators (off-board). The J1 has a daisy-chain with auto closing at the connections b4/b5, b6/b7, b8/b9 und b10/b11 being closed automatically in slots where no boards are inserted.

Connector pin assignment of the J1 VMEbus board:

Row No.	Signal-name		
	column a	column b	column c
1	D00	BBSY	D08
2	D01	BCLR	D09
3	D02	ACFAIL	D10
4	D03	BG0IN	D11
5	D04	BG0OUT	D12
6	D05	BG1IN	D13
7	D06	BG1OUT	D14
8	D07	BG2IN	D15
9	GND	BG2OUT	GND
10	SYSCLK	BG3IN	SYSFAIL
11	GND	BG3OUT	BERR
12	DS1	BR0	SYSRESET
13	DS0	BR1	LWORD
14	WRITE	BR2	AM5
15	GND	BR3	A23
16	DTACK	AM0	A22
17	GND	AM1	A21
18	AS	AM2	A20
19	GND	AM3	A19
20	IACK	GND	A18
21	IACKIN	SERCLK	A17
22	IACKOUT	SERDAT	A16
23	AM4	GND	A15
24	A07	IRQ7	A14
25	A06	IRQ6	A13
26	A05	IRQ5	A12
27	A04	IRQ4	A11
28	A03	IRQ3	A10
29	A02	IRQ2	A09
30	A01	IRQ1	A08
31	-12V	+5V STDY	+12V
32	+5V	+5V	+5V

96-pin socket connector J1 (top) GND = 0 V, reference point for +5 V and 12 V

Note: The reference point GND is connected with the VMERACK enclosure and that's why also with PE of the 110/230VAC supply.



At the J2 VMEbus board only connection row "b" has a bus structure where lines for the addresses A24 ... A31 (b4 ... b11) and data D16 ... D31 (b14 ... b30) are terminated at slot 0 and 5 with active terminators.

Connector pin assignment of the J2 VMEbus board:

Row No.	Signal-name		
	column a	column b	column c
1	User (nc)	+5V	User (nc)
2	User (nc)	GND	User (nc)
3	User (nc)	Retry	User (nc)
4	User (nc)	A24	User (nc)
5	User (nc)	A25	User (nc)
6	User (nc)	A26	User (nc)
7	User (nc)	A27	User (nc)
8	User (nc)	A28	User (nc)
9	User (nc)	A29	User (nc)
10	User (nc)	A30	User (nc)
11	User (nc)	A31	User (nc)
12	User (nc)	GND	User (nc)
13	User (nc)	+5V	User (nc)
14	User (nc)	D16	User (nc)
15	User (nc)	D17	User (nc)
16	User (nc)	D18	User (nc)
17	User (nc)	D19	User (nc)
18	User (nc)	D20	User (nc)
19	User (nc)	D21	User (nc)
20	User (nc)	D22	User (nc)
21	User (nc)	D23	User (nc)
22	User (nc)	GND	User (nc)
23	User (nc)	D24	User (nc)
24	User (nc)	D25	User (nc)
25	User (nc)	D26	User (nc)
26	User (nc)	D27	User (nc)
27	User (nc)	D28	User (nc)
28	User (nc)	D29	User (nc)
29	User (nc)	D30	User (nc)
30	User (nc)	D31	User (nc)
31	User (nc)	GND	User (nc)
32	User (nc)	+5V	User (nc)

(nc) = not connected



5 Technical Specifications

230/110VAC supply

- Input voltage

230V power supply $U_e = 180\text{VAC}$ to 264VAC

110V power supply $U_e = 93.5\text{VAC}$ to 140VAC

Power consumption $P_e < 200\text{W}$

$f_e = 47\text{Hz}$ to 63Hz

Recommended back-up fuse $I = 2\text{A}$, slow

- Output voltages

(Controlled DC voltages for VMEbus)

$UB5 = +5\text{V} \pm 5\%$

$I < 20\text{A}$

$UB12P = +12\text{V} \pm 10\%$

$I < 1\text{A}$

$UB12N = -12\text{V} \pm 10\%$

$I < 0,1\text{A}$

AMBIENT CONDITIONS

Ambient temperature 0°C to $+50^\circ\text{C}$

Storage temperature -40°C to $+85^\circ\text{C}$

Humidity Class F (DIN 40040)

ELECTROMAGNETIC COMPATIBILITY

- Standard (pr) EN 50081-2 for noise emission

- Standard (pr) EN 50082-2 for noise immunity

MECHANICAL DESIGN

Dimensions sub rack

Height 266mm

Width 220mm (without flanges)

Total width 270mm

Depth 250mm (without flanges)

Total depth 290mm

Weight 3,5kg

6 Ordering Information

ORDER DATA Type VMERACK6 sub rack (complete), including power cable

Article No.:

7006078 (230/110VAC power supply)