

# Various Useful Modules

## VME Slave Interface (FEA\_VME\_P1)

Author: [Gerd Hochweller](#)

- 1 VME SLAVE INTERFACE (FEA\_VME\_P1)
- 2 LOGICAL DATA
- 3 MECHANICAL DATA

## 1 VME Slave Interface (FEA\_VME\_P1)

The module is 95 x 36 mm (3725 x 1400 mil) mezzanine board.

Power consumption: ~ ? A @ 5 V.

The module contains the logic and all the bus transceivers necessary to for a complete VME slave interface (including interrupt). It handles all VME bus signals on the P1 connector, i.e. all address modes up to **A24** and data transfers up to **D16** are supported. To be able to use the modes which require the VME signals on the P2 connector an additional module has to be used (FEA\_VME\_P2).

The module is based on the CYPRESS chips [CY7C960](#) and [CY7C964](#). For details see the datasheets and application notes.

## 2 Logical Data

The symbol to be used on schematic drawings in the DESY-FE Mentor System is:

**FEA\_VME\_P1'** (DIGITAL LIB / MISC IC LIB)

The module uses the following pinning:

PIN	SIGNAL		PIN	SIGNAL		PIN	SIGNAL		PIN	SIGNAL
1	VCC		37	DBE1*		73	VME_D04		109	VME_AM9
2	VCC		38	CLK80M		74	VME_D12		110	VME_IRQ1*
3	LD0		39	DBE2*		75	VME_D05		111	GND
4	LD1		40	GND		76	VME_D13		112	VME_A15
5	LD2		41	DBE3*		77	VME_D06		113	VME_A07
6	LD3		42	n.u.		78	VME_D14		114	VME_A14
7	LD4		43	LACK*		79	VME_D07		115	VME_A06
8	LD5		44	n.u.		80	VME_D15		116	VME_A13
9	LD6		45	GND		81	GND		117	VME_A05
10	LD7		46	GND		82	GND		118	VME_A12
11	LD8		47	LA0		83	n.u.		119	VME_A04
12	LD9		48	LA1		84	VME_SYSRESET*		120	VME_A11
13	LD10		49	LA2		85	VCC		121	VME_A03
14	LD11		50	LA3		86	VCC		122	VME_A10
15	LD12		51	LA4		87	VME_DS1*		123	VME_A02
16	LD13		52	LA5		88	n.u.		124	VME_A09
17	LD14		53	LA6		89	VME_DS0*		125	VME_A01
18	LD15		54	LA7		90	VME_LWORD*		126	VME_A08
19	GND		55	LA8		91	VME_WRITE*		127	VCC
20	GND		56	LA9		92	VME_AM5		128	VCC
21	REG0		57	LA10		93	GND		129	VCC
22	n.u.		58	LA11		94	VME_AM0		130	VCOMP0*
23	REG1		59	LA12		95	VME_DTACK*		131	VCOMP1*
24	n.u.		60	LA13		96	VME_AM2		132	D64
25	REG2		61	LA14		97	VME_AM1		133	DENO*
26	n.u.		62	LA15		98	VME_IRQ7*		134	STROBE*
27	R/W*		63	VCC		99	VME_AS*		135	DENIN1*
28	n.u.		64	VCC		100	VME_IRQ6*		136	DENIN*
29	CS0*		65	VME_D00		101	VME_AM3		137	LEDI
30	PREN*		66	VME_D08		102	VME_IRQ5*		138	LADI
31	CS1*		67	VME_D01		103	VME_IACK*		139	ABEN*
32	LIRQ*		68	VME_D09		104	VME_IRQ4*		140	LEDO
33	CS2*		69	VME_D02		105	VME_IACKIN*		141	LCOUT*
34	LDEN*		70	VME_D10		106	VME_IRQ3*		142	LDS
35	DBE0*		71	VME_D03		107	VME_IACKOUT*		143	GND
36	GND		72	VME_D11		108	VME_IRQ2*		144	VCOUT*

### 3 Mechanical Data

The symbol to be used on the PCB in the DESY-FE Mentor System is:

'fea\_vme\_p1' (\$DESY\_GEOM / std\_geom).

