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TEWS TECHNOLOGIES

TVME002-TM

Transition Module for VME64x IP Carrier

Version 1.0

User Manual

Issue 1.3

October 2008

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TVME002-TM-10

Transition Module for VME64x IP Carrier

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Style Conventions

Hexadecimal characters are specified with prefix 0x, i.e. 0x029E (that means hexadecimal value 029E).

For signals on hardware products, an ‚Active Low' is represented by the signal name with # following, i.e. IP_RESET#.

Access terms are described as:

W	Write Only
R	Read Only
R/W	Read/Write
R/C	Read/Clear
R/S	Read/Set

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Issue	Description	Date
1.0	First Issue	September 2002
1.1	Additions in Chapter “Technical Specification”	November 2004
1.2	New address TEWS LLC	September 2006
1.3	Correction of Connector X2 (IP B) Pin assignment	October 2008

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1 Product Description

The TVME002-TM-10 is a 6U, 80 mm Transition Module for VME64x IP Carrier providing easy access to the IP I/O lines.

It brings out all of the 200 IP I/O lines from the VME64x P0 and P2 connector to four 50 pin SCSI-2 type connectors located in the EMI front panel.

The routing between the VME64x P0 and P2 connector and the 4 HD50 SCSI-2 type connectors in the EMI front panel is ANSI/VITA 4.1-1996 compliant.

The operating temperature range is -40°C and +85°C.

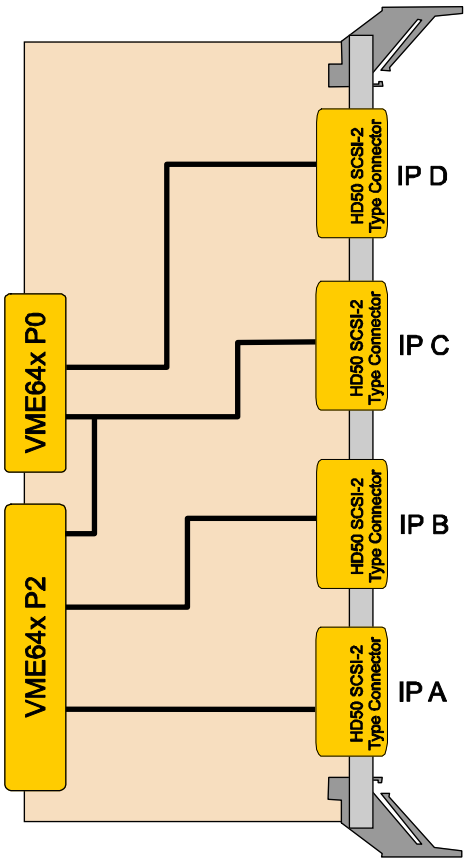


Figure 1-1 : Block Diagram

2 Technical Specification

Front panel	EMI shielded front panel
Interface to IP I/O Lines	4 HD50 SCSI-2 type connectors
Operating Data	
Temperature Range	Operating: -40°C to +85°C Storage: -40°C to +125°C
MTBF	1015000 h
Weight	225 g
Board Size	233.35 mm x 80 mm
Humidity	5 – 95% non condensing

Figure 2-1 : Technical Specification

3 Connector X1 (IP A)

X1 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
1	IO_A1	A6	RP2
2	IO_A2	C6	RP2
3	IO_A3	A7	RP2
4	IO_A4	C7	RP2
5	IO_A5	A8	RP2
6	IO_A6	C8	RP2
7	IO_A7	A9	RP2
8	IO_A8	C9	RP2
9	IO_A9	A10	RP2
10	IO_A10	C10	RP2
11	IO_A11	A11	RP2
12	IO_A12	C11	RP2
13	IO_A13	A12	RP2
14	IO_A14	C12	RP2
15	IO_A15	A13	RP2
16	IO_A16	C13	RP2
17	IO_A17	A14	RP2
18	IO_A18	C14	RP2
19	IO_A19	A15	RP2
20	IO_A20	C15	RP2
21	IO_A21	A16	RP2
22	IO_A22	C16	RP2
23	IO_A23	A17	RP2
24	IO_A24	C17	RP2
25	IO_A25	A18	RP2
26	IO_A26	C18	RP2
27	IO_A27	A19	RP2
28	IO_A28	C19	RP2
29	IO_A29	A20	RP2
30	IO_A30	C20	RP2
31	IO_A31	A21	RP2
32	IO_A32	C21	RP2
33	IO_A33	A22	RP2
34	IO_A34	C22	RP2
35	IO_A35	A23	RP2
36	IO_A36	C23	RP2
37	IO_A37	A24	RP2
38	IO_A38	C24	RP2
39	IO_A39	A25	RP2

X1 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
40	IO_A40	C25	RP2
41	IO_A41	A26	RP2
42	IO_A42	C26	RP2
43	IO_A43	A27	RP2
44	IO_A44	C27	RP2
45	IO_A45	A28	RP2
46	IO_A46	C28	RP2
47	IO_A47	A29	RP2
48	IO_A48	C29	RP2
49	IO_A49	A30	RP2
50	IO_A50	C30	RP2

Figure 3-1 : Connector X1 (IP A)

4 Connector X2 (IP B)

X2 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
1	IO_B1	D4	RP2
2	IO_B2	Z5	RP2
3	IO_B3	D5	RP2
4	IO_B4	D6	RP2
5	IO_B5	Z7	RP2
6	IO_B6	D7	RP2
7	IO_B7	D8	RP2
8	IO_B8	Z9	RP2
9	IO_B9	D9	RP2
10	IO_B10	D10	RP2
11	IO_B11	Z11	RP2
12	IO_B12	D11	RP2
13	IO_B13	D12	RP2
14	IO_B14	Z13	RP2
15	IO_B15	D13	RP2
16	IO_B16	D14	RP2
17	IO_B17	Z15	RP2
18	IO_B18	D15	RP2
19	IO_B19	D16	RP2
20	IO_B20	Z17	RP2
21	IO_B21	D17	RP2
22	IO_B22	D18	RP2
23	IO_B23	Z19	RP2
24	IO_B24	D19	RP2
25	IO_B25	D20	RP2
26	IO_B26	Z21	RP2
27	IO_B27	D21	RP2
28	IO_B28	D22	RP2
29	IO_B29	Z23	RP2
30	IO_B30	D23	RP2
31	IO_B31	D24	RP2
32	IO_B32	Z25	RP2
33	IO_B33	D25	RP2
34	IO_B34	D26	RP2
35	IO_B35	Z27	RP2
36	IO_B36	D27	RP2
37	IO_B37	D28	RP2
38	IO_B38	Z29	RP2
39	IO_B39	D29	RP2

X2 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
40	IO_B40	D30	RP2
41	IO_B41	A1	RP2
42	IO_B42	C1	RP2
43	IO_B43	A2	RP2
44	IO_B44	C2	RP2
45	IO_B45	A3	RP2
46	IO_B46	C3	RP2
47	IO_B47	A4	RP2
48	IO_B48	C4	RP2
49	IO_B49	A5	RP2
50	IO_B50	C5	RP2

Figure 4-1 : Connector X2 (IP B)

5 Connector X3 (IP C)

X3 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
1	IO_C1	A11	RP0
2	IO_C2	B11	RP0
3	IO_C3	C11	RP0
4	IO_C4	D11	RP0
5	IO_C5	E11	RP0
6	IO_C6	A12	RP0
7	IO_C7	B12	RP0
8	IO_C8	C12	RP0
9	IO_C9	D12	RP0
10	IO_C10	E12	RP0
11	IO_C11	A13	RP0
12	IO_C12	B13	RP0
13	IO_C13	C13	RP0
14	IO_C14	D13	RP0
15	IO_C15	E13	RP0
16	IO_C16	A14	RP0
17	IO_C17	B14	RP0
18	IO_C18	C14	RP0
19	IO_C19	D14	RP0
20	IO_C20	E14	RP0
21	IO_C21	A15	RP0
22	IO_C22	B15	RP0
23	IO_C23	C15	RP0
24	IO_C24	D15	RP0
25	IO_C25	E15	RP0
26	IO_C26	A16	RP0
27	IO_C27	B16	RP0
28	IO_C28	C16	RP0
29	IO_C29	D16	RP0
30	IO_C30	E16	RP0
31	IO_C31	A17	RP0
32	IO_C32	B17	RP0
33	IO_C33	C17	RP0
34	IO_C34	D17	RP0
35	IO_C35	E17	RP0
36	IO_C36	A18	RP0
37	IO_C37	B18	RP0
38	IO_C38	C18	RP0
39	IO_C39	D18	RP0

X3 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
40	IO_C40	E18	RP0
41	IO_C41	A19	RP0
42	IO_C42	B19	RP0
43	IO_C43	C19	RP0
44	IO_C44	D19	RP0
45	IO_C45	E19	RP0
46	IO_C46	Z1	RP2
47	IO_C47	D1	RP2
48	IO_C48	D2	RP2
49	IO_C49	Z3	RP2
50	IO_C50	D3	RP2

Figure 5-1 : Connector X3 (IP C)

6 Connector X4 (IP D)

X4 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
1	IO_D1	A1	RP0
2	IO_D2	B1	RP0
3	IO_D3	C1	RP0
4	IO_D4	D1	RP0
5	IO_D5	E1	RP0
6	IO_D6	A2	RP0
7	IO_D7	B2	RP0
8	IO_D8	C2	RP0
9	IO_D9	D2	RP0
10	IO_D10	E2	RP0
11	IO_D11	A3	RP0
12	IO_D12	B3	RP0
13	IO_D13	C3	RP0
14	IO_D14	D3	RP0
15	IO_D15	E3	RP0
16	IO_D16	A4	RP0
17	IO_D17	B4	RP0
18	IO_D18	C4	RP0
19	IO_D19	D4	RP0
20	IO_D20	E4	RP0
21	IO_D21	A5	RP0
22	IO_D22	B5	RP0
23	IO_D23	C5	RP0
24	IO_D24	D5	RP0
25	IO_D25	E5	RP0
26	IO_D26	A6	RP0
27	IO_D27	B6	RP0
28	IO_D28	C6	RP0
29	IO_D29	D6	RP0
30	IO_D30	E6	RP0
31	IO_D31	A7	RP0
32	IO_D32	B7	RP0
33	IO_D33	C7	RP0
34	IO_D34	D7	RP0
35	IO_D35	E7	RP0
36	IO_D36	A8	RP0
37	IO_D37	B8	RP0
38	IO_D38	C8	RP0
39	IO_D39	D8	RP0

X4 Pin	Signal Name	VME64x Backplane	
		Pin	Connector
40	IO_D40	E8	RP0
41	IO_D41	A9	RP0
42	IO_D42	B9	RP0
43	IO_D43	C9	RP0
44	IO_D44	D9	RP0
45	IO_D45	E9	RP0
46	IO_D46	A10	RP0
47	IO_D47	B10	RP0
48	IO_D48	C10	RP0
49	IO_D49	D10	RP0
50	IO_D50	E10	RP0

Figure 6-1 : Connector X4 (IP D)

7 VME PR0

Position	Row					
	A	B	C	D	E	F
1	IO_D1	IO_D2	IO_D3	IO_D4	IO_D5	GND
2	IO_D6	IO_D7	IO_D8	IO_D9	IO_D10	GND
3	IO_D11	IO_D12	IO_D13	IO_D14	IO_D15	GND
4	IO_D16	IO_D17	IO_D18	IO_D19	IO_D20	GND
5	IO_D21	IO_D22	IO_D23	IO_D24	IO_D25	GND
6	IO_D26	IO_D27	IO_D28	IO_D29	IO_D30	GND
7	IO_D31	IO_D32	IO_D33	IO_D34	IO_D35	GND
8	IO_D36	IO_D37	IO_D38	IO_D39	IO_D40	GND
9	IO_D41	IO_D42	IO_D43	IO_D44	IO_D45	GND
10	IO_D46	IO_D47	IO_D48	IO_D49	IO_D50	GND
11	IO_C1	IO_C2	IO_C3	IO_C4	IO_C5	GND
12	IO_C6	IO_C7	IO_C8	IO_C9	IO_C10	GND
13	IO_C11	IO_C12	IO_C13	IO_C14	IO_C15	GND
14	IO_C16	IO_C17	IO_C18	IO_C19	IO_C20	GND
15	IO_C21	IO_C22	IO_C23	IO_C24	IO_C25	GND
16	IO_C26	IO_C27	IO_C28	IO_C29	IO_C30	GND
17	IO_C31	IO_C32	IO_C33	IO_C34	IO_C35	GND
18	IO_C36	IO_C37	IO_C38	IO_C39	IO_C40	GND
19	IO_C41	IO_C42	IO_C43	IO_C44	IO_C45	GND

Figure 7-1 : VME RP0

8 VME PR2

Position	Row				
	Z	A	B	C	D
1	IO_C46	IO_B41	nc	IO_B42	IO_C47
2	GND	IO_B43	GND	IO_B44	IO_C48
3	IO_C49	IO_B45	nc	IO_B46	IO_C50
4	GND	IO_B47	nc	IO_B48	IO_B1
5	IO_B2	IO_B49	nc	IO_B50	IO_B3
6	GND	IO_A1	nc	IO_A2	IO_B4
7	IO_B5	IO_A3	nc	IO_A4	IO_B6
8	GND	IO_A5	nc	IO_A6	IO_B7
9	IO_B8	IO_A7	nc	IO_A8	IO_B9
10	GND	IO_A9	nc	IO_A10	IO_B10
11	IO_B11	IO_A11	nc	IO_A12	IO_B12
12	GND	IO_A13	GND	IO_A14	IO_B13
13	IO_B14	IO_A15	nc	IO_A16	IO_B15
14	GND	IO_A17	nc	IO_A18	IO_B16
15	IO_B17	IO_A19	nc	IO_A20	IO_B18
16	GND	IO_A21	nc	IO_A22	IO_B19
17	IO_B20	IO_A23	nc	IO_A24	IO_B21
18	GND	IO_A25	nc	IO_A26	IO_B22
19	IO_B23	IO_A27	nc	IO_A28	IO_B24
20	GND	IO_A29	nc	IO_A30	IO_B25
21	IO_B26	IO_A31	nc	IO_A32	IO_B27
22	GND	IO_A33	GND	IO_A34	IO_B28
23	IO_B29	IO_A35	nc	IO_A36	IO_B30
24	GND	IO_A37	nc	IO_A38	IO_B31
25	IO_B32	IO_A39	nc	IO_A40	IO_B33
26	GND	IO_A41	nc	IO_A42	IO_B34
27	IO_B35	IO_A43	nc	IO_A44	IO_B36
28	GND	IO_A45	nc	IO_A46	IO_B37
29	IO_B38	IO_A47	nc	IO_A48	IO_B39
30	GND	IO_A49	nc	IO_A50	IO_B40
31	nc	nc	GND	nc	GND
32	GND	nc	nc	nc	nc

Figure 8-1 : VME RP2

9 Pin Assignment

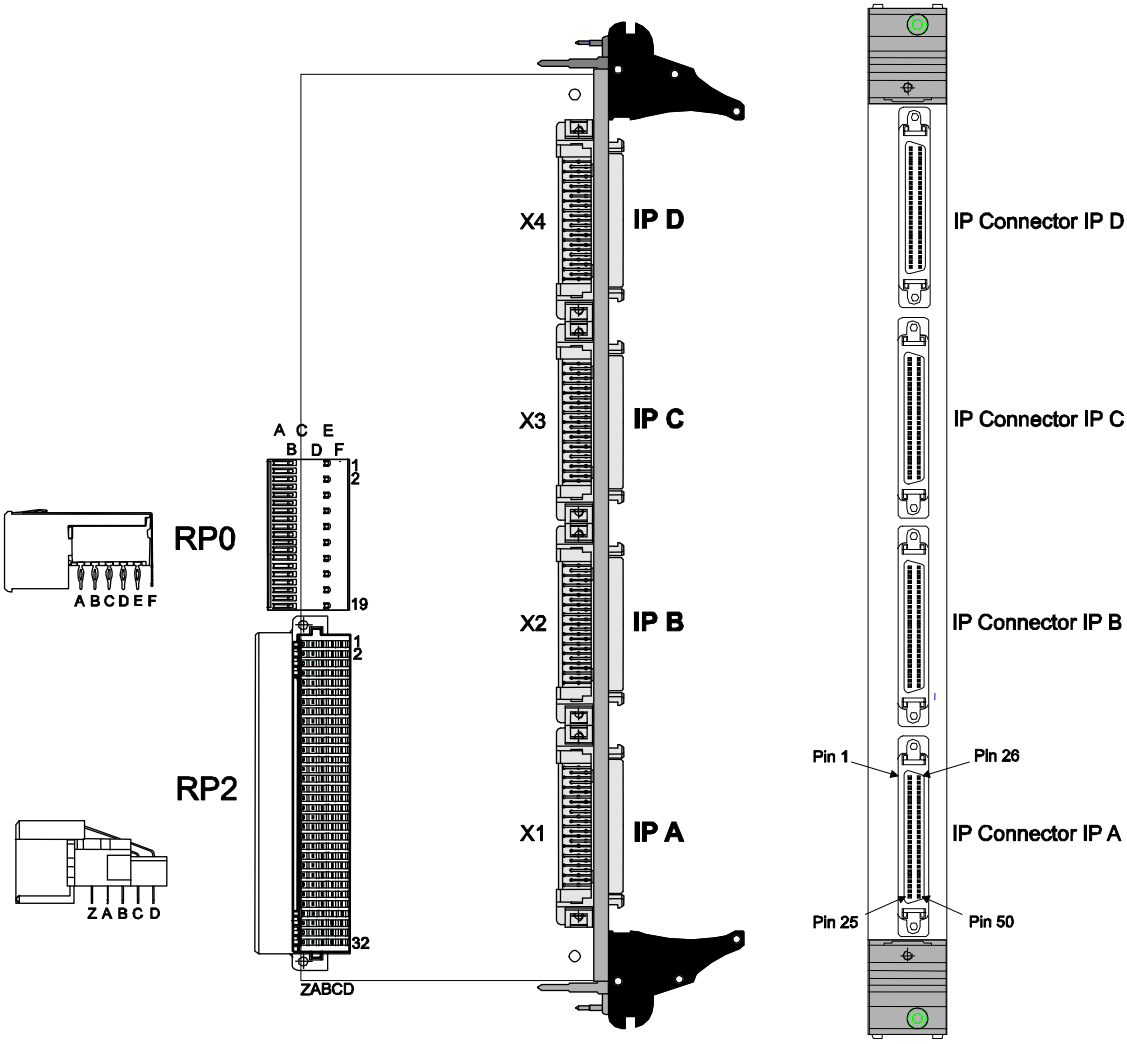


Figure 9-1 : Pin Assignment

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