The Embedded I/O Company

TEWS TECHNOLOGIES

TPIM003

PIM I/O Module

Version 1.0

User Manual

Issue 1.1

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TPIM003-10

PIM I/O Module with 68 pin SCSI-3 type connector for e.g. TPMC460, TPMC630 and TPMC868

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. RESET#.

Issue	Description	Date
1.0	First Issue	May 2005
1.1	New address TEWS LLC	September 2006

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1 Product Description

The TPIM003 is a standard single-width PIM I/O module to be used with any PIM Carrier like TEWS' TCP020-TM-10, TVME020-TM-10 or others. It offers easy access to the PMC back I/O lines of PMC carriers with back I/O like TEWS' TCP260 or TVME8400.

The TPIM003 distributes all 64 PMC back I/O lines to a 68 pin SCSI-3 type connector located in the EMI front panel. Additional GND pins are inserted by solder jumpers at pin 9, 26, 43 and 60 of the 68 pin SCSI-3 type connector. The routing and I/O signal mapping of the TPIM003-10 is optimized for differential pair routing.

The TPIM003-10 recreates the PMC front I/O signal mapping in its 68 pin SCSI-3 type connector when used with e.g. the TPMC460, TPMC630 or TPMC868. Refer to the TPMC Data Sheets to find out if the TPIM003-10 recreates the PMC front I/O signal mapping in its 68 pin SCSI-3 type connector.

The operating temperature is -40°C to +85°C.

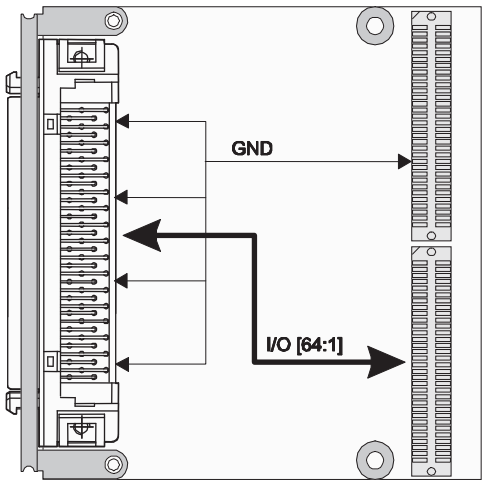

Figure 1-1 : Block Diagram

The TPIM003-10 recreates the PMC front I/O signal mapping in its 68 pin SCSI-3 type connector when used with e.g. the TPMC460, TPMC630 or TPMC868.

Always refer to the TPMC Data Sheets to find out the pin assignment of the TPIM003-10 68 pin SCSI-3 type connector.

2 Technical Specification

Front panel	EMI front panel
Number of PMC I/O Lines supported	64
Operating Data	
Temperature Range	Operating: -40°C to +85°C Storage: -40°C to +100°C
MTBF	1435000 h
Weight	47 g
Board Size	69 mm x 74 mm
Humidity	5 – 95% non condensing

Figure 2-1 : Technical Specification

3 Connector P10

P10 Pin	Signal Name	Signal Name	P10 Pin
1	-	-	2
3	-	-	4
5	-	-	6
7	-	-	8
9	-	-	10
11	-	-	12
13	GND	-	14
15	-	-	16
17	-	GND	18
19	-	-	20
21	-	-	22
23	-	-	24
25	-	-	26
27	-	-	28
29	GND	-	30
31	-	-	32
33	-	GND	34
35	-	-	36
37	-	-	38
39	-	-	40
41	-	-	42
43	-	-	44
45	GND	-	46
47	-	-	48
49	-	GND	50
51	-	-	52
53	-	-	54
55	-	-	56
57	-	-	58
59	-	-	60
61	-	-	62
63	-	-	64

Figure 3-1 : Connector P10

4 Connector P14

P14 Pin	Signal Name	Signal Name	P14 Pin
1	PMC I/O 1	PMC I/O 2	**2**
3	PMC I/O 3	PMC I/O 4	**4**
5	PMC I/O 5	PMC I/O 6	**6**
7	PMC I/O 7	PMC I/O 8	**8**
9	PMC I/O 9	PMC I/O 10	**10**
11	PMC I/O 11	PMC I/O 12	**12**
13	PMC I/O 13	PMC I/O 14	**14**
15	PMC I/O 15	PMC I/O 16	**16**
17	PMC I/O 17	PMC I/O 18	**18**
19	PMC I/O 19	PMC I/O 20	**20**
21	PMC I/O 21	PMC I/O 22	**22**
23	PMC I/O 23	PMC I/O 24	**24**
25	PMC I/O 25	PMC I/O 26	**26**
27	PMC I/O 27	PMC I/O 28	**28**
29	PMC I/O 29	PMC I/O 30	**30**
31	PMC I/O 31	PMC I/O 32	**32**
33	PMC I/O 33	PMC I/O 34	**34**
35	PMC I/O 35	PMC I/O 36	**36**
37	PMC I/O 37	PMC I/O 38	**38**
39	PMC I/O 39	PMC I/O 40	**40**
41	PMC I/O 41	PMC I/O 42	**42**
43	PMC I/O 43	PMC I/O 44	**44**
45	PMC I/O 45	PMC I/O 46	**46**
47	PMC I/O 47	PMC I/O 48	**48**
49	PMC I/O 49	PMC I/O 50	**50**
51	PMC I/O 51	PMC I/O 52	**52**
53	PMC I/O 53	PMC I/O 54	**54**
55	PMC I/O 55	PMC I/O 56	**56**
57	PMC I/O 57	PMC I/O 58	**58**
59	PMC I/O 59	PMC I/O 60	**60**
61	PMC I/O 61	PMC I/O 62	**62**
63	PMC I/O 63	PMC I/O 64	**64**

Figure 4-1 : Connector P14

5 Connector X1

X1 Pin	Signal Name	Signal Name	X1 Pin
1	PMC I/O 1	PMC I/O 3	**2**
3	PMC I/O 5	PMC I/O 7	**4**
5	PMC I/O 9	PMC I/O 11	**6**
7	PMC I/O 13	PMC I/O 15	**8**
9	GND*)	PMC I/O 17	**10**
11	PMC I/O 19	PMC I/O 21	**12**
13	PMC I/O 23	PMC I/O 25	**14**
15	PMC I/O 27	PMC I/O 29	**16**
17	PMC I/O 31	PMC I/O 33	**18**
19	PMC I/O 35	PMC I/O 37	**20**
21	PMC I/O 39	PMC I/O 41	**22**
23	PMC I/O 43	PMC I/O 45	**24**
25	PMC I/O 47	GND*)	**26**
27	PMC I/O 49	PMC I/O 51	**28**
29	PMC I/O 53	PMC I/O 55	**30**
31	PMC I/O 57	PMC I/O 59	**32**
33	PMC I/O 61	PMC I/O 63	**34**
35	PMC I/O 2	PMC I/O 4	**36**
37	PMC I/O 6	PMC I/O 8	**38**
39	PMC I/O 10	PMC I/O 12	**40**
41	PMC I/O 14	PMC I/O 16	**42**
43	GND*)	PMC I/O 18	**44**
45	PMC I/O 20	PMC I/O 22	**46**
47	PMC I/O 24	PMC I/O 26	**48**
49	PMC I/O 28	PMC I/O 30	**50**
51	PMC I/O 32	PMC I/O 34	**52**
53	PMC I/O 36	PMC I/O 38	**54**
55	PMC I/O 40	PMC I/O 42	**56**
57	PMC I/O 44	PMC I/O 46	**58**
59	PMC I/O 48	GND*)	**60**
61	PMC I/O 50	PMC I/O 52	**62**
63	PMC I/O 54	PMC I/O 56	**64**
65	PMC I/O 58	PMC I/O 60	**66**
67	PMC I/O 62	PMC I/O 64	**68**

Figure 5-1 : Connector X1

*) Each of these Pins can separately be connected to GND by a 0 Ohm resistor or solder jumper to achieve extended grounding of the I/O signals. The TPIM003-10 connects these pins to GND by default.

6 Pin Assignment

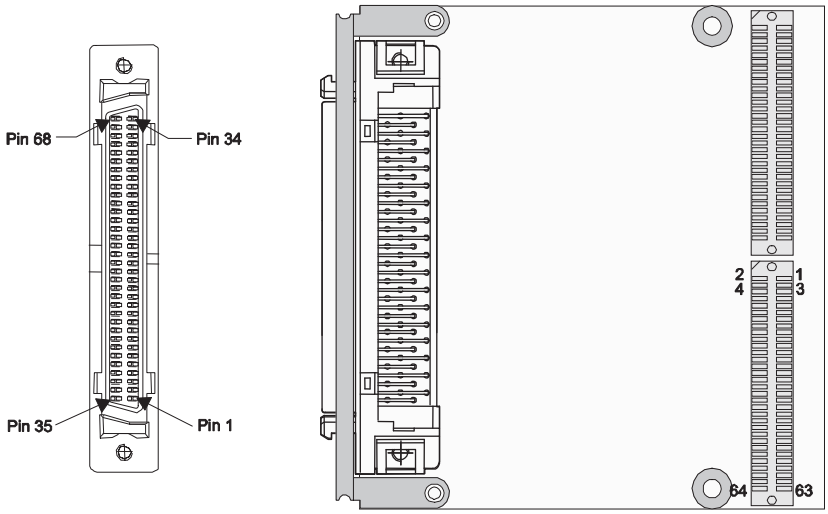

Figure 6-1 : Pin Assignment