

# TCP012-TM-10

**Transition Module for 3U cPCI IP-Carrier**

**Version 1.0**

**User Manual**

Issue 1.2

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**TCP012-TM-10**

Transition Module for 3U cPCI 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#.

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<b>Issue</b>	<b>Description</b>	<b>Date</b>
1.0	First Issue	February 2003
1.1	MTBF Value added	October 2004
1.2	New address TEWS LLC	September 2006

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# 1 Product Description

The TCP012-TM-10 is a 3U Transition Module to be used with 3U cPCI IP carrier providing easy access to the IP I/O lines of cPCI IP carrier with back I/O.

It distributes all 100 IP I/O lines from the cPCI RJ2 connector to two shielded 50 pin Champ 0.8 connectors located in the EMI front panel. The champ connectors are assembled with screw locks to achieve a secure and reliable connection to the cable.

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

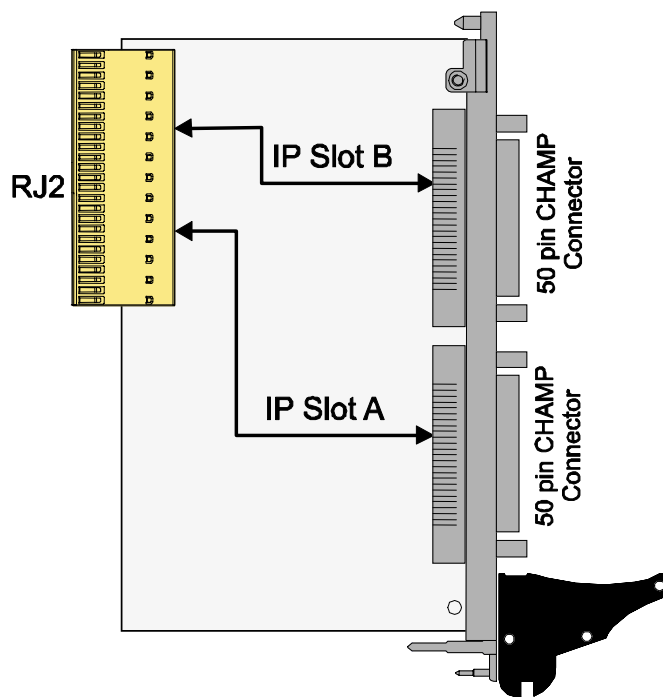


Figure 1-1 : Block Diagram

## **2 Technical Specification**

<b>Form Factor</b>	cPCI Rear Transition Module for 3U cPCI IP Carrier
<b>Board Size</b>	80 mm x 100 mm
<b>Weight</b>	Tbd
<b>Front panel</b>	EMI front panel
<b>Interface to IP I/O Lines</b>	Two shielded 50 pin Champ 0.8 mm connector with screw locks per IP
<b>MTBF</b>	2051000 h
<b>Temperature Range</b>	Operating: -40°C to +85°C Storage: -40°C to +125°C
<b>Humidity</b>	5-95 % non-condensing

Figure 2-1 : Technical Specification

### 3 Connector X1 (IP A)

X1 Pin	Signal Name	cPCI Backplane	
		Pin	Connector
1	A1	A11	RJ2
2	A2	B11	RJ2
3	A3	C11	RJ2
4	A4	D11	RJ2
5	A5	E11	RJ2
6	A6	A10	RJ2
7	A7	B10	RJ2
8	A8	C10	RJ2
9	A9	D10	RJ2
10	A10	E10	RJ2
11	A11	A9	RJ2
12	A12	B9	RJ2
13	A13	C9	RJ2
14	A14	D9	RJ2
15	A15	E9	RJ2
16	A16	A8	RJ2
17	A17	B8	RJ2
18	A18	C8	RJ2
19	A19	D8	RJ2
20	A20	E8	RJ2
21	A21	A7	RJ2
22	A22	B7	RJ2
23	A23	C7	RJ2
24	A24	D7	RJ2
25	A25	E7	RJ2
26	A26	A6	RJ2
27	A27	B6	RJ2
28	A28	C6	RJ2
29	A29	D6	RJ2
30	A30	E6	RJ2
31	A31	A5	RJ2
32	A32	B5	RJ2
33	A33	C5	RJ2
34	A34	D5	RJ2
35	A35	E5	RJ2
36	A36	A4	RJ2
37	A37	B4	RJ2
38	A38	C4	RJ2
39	A39	D4	RJ2



X1 Pin	Signal Name	cPCI Backplane	
		Pin	Connector
40	A40	E4	RJ2
41	A41	A3	RJ2
42	A42	B3	RJ2
43	A43	C3	RJ2
44	A44	D3	RJ2
45	A45	E3	RJ2
46	A46	A2	RJ2
47	IO_A47	B2	RJ2
48	IO_A48	C2	RJ2
49	IO_A49	D2	RJ2
50	IO_A50	E2	RJ2

Figure 3-1 : Connector X1 Pin Assignment (IP A)

## 4 Connector X2 (IP B)

X2 Pin	Signal Name	cPCI Backplane	
		Pin	Connector
1	B1	A21	RJ2
2	B2	B21	RJ2
3	B3	C21	RJ2
4	B4	D21	RJ2
5	B5	E21	RJ2
6	B6	A20	RJ2
7	B7	B20	RJ2
8	B8	C20	RJ2
9	B9	D20	RJ2
10	B10	E20	RJ2
11	B11	A19	RJ2
12	B12	B19	RJ2
13	B13	C19	RJ2
14	B14	D19	RJ2
15	B15	E19	RJ2
16	B16	A18	RJ2
17	B17	B18	RJ2
18	B18	C18	RJ2
19	B19	D18	RJ2
20	B20	E18	RJ2
21	B21	A17	RJ2
22	B22	B17	RJ2
23	B23	C17	RJ2
24	B24	D17	RJ2
25	B25	E17	RJ2
26	B26	A16	RJ2
27	B27	B16	RJ2
28	B28	C16	RJ2
29	B29	D16	RJ2
30	B30	E16	RJ2
31	B31	A15	RJ2
32	B32	B15	RJ2
33	B33	C15	RJ2
34	B34	D15	RJ2
35	B35	E15	RJ2
36	B36	A14	RJ2
37	B37	B14	RJ2
38	B38	C14	RJ2
39	B39	D14	RJ2

X2 Pin	Signal Name	cPCI Backplane	
		Pin	Connector
40	B40	E14	RJ2
41	B41	A13	RJ2
42	B42	B13	RJ2
43	B43	C13	RJ2
44	B44	D13	RJ2
45	B45	E13	RJ2
46	B46	A12	RJ2
47	B47	B12	RJ2
48	B48	C12	RJ2
49	B49	D12	RJ2
50	B50	E12	RJ2

Figure 4-1 : Connector X2 Pin Assignment (IP B)

## 5 Compact PCI RJ2

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

Figure 5-1 : Compact PCI RJ2

# 6 Pin Assignment

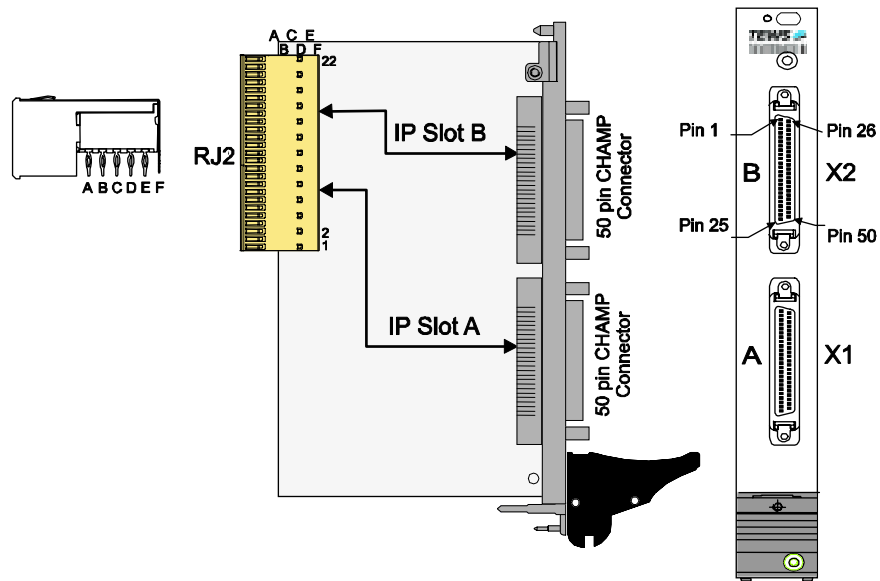


Figure 6-1 : Pin Assignment