

TPMC866-TM-30

Transition Module for 2 TPMC866 with 16 RJH Connectors

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User Manual

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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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Issue	Description	Date
1.0	First Issue	June 2002
1.1	Completion "Technical Specification"	April 2003
1.2	New address TEWS LLC	September 2006
1.3	Added details for Jumper Configuration	July 2007

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1 Product Description

The TPMC866-TM-30 is a complete interface solution for the TPMC866-10 and the TPMC866-12 (RS485 HD mode only). Two TPMC866-10/12 can be connected to one TPMC866-TM-30. The TPMC866-TM-30 comes with two TA105-10 cables (0.8m ribbon cable with 50 pin ribbon cable connector and 50 pin SCSI-2 male connector).

The 16 serial ports of the two TPMC866-10 or TPMC867-10 are routed to 16 4-pin RJH connectors located in the 6U/4TE front panel of the TPMC866-TM-30.

Jumper fields are provided for each channel to select termination for the RS485 (Jn1: 1-2, 3-4).

A two pin screw terminal (X9) can be used to supply the on board termination for RS485.

TXD, RXD and GND are supported for each of the 8 serial channels of the TPMC866-10 (RS232).

DX+/- and GND are supported for the TPMC866-12 (RS485 HD mode).

2 Technical Specification

Board Size	233 mm x 80 mm
Front panel	6U / 4TE front panel with 16 4pin RJH connectors
Interface	2 connector for 50 conductor flat cable
Cable	2 TA105-10 (0.8m ribbon cable with 50 pin ribbon cable connector and 50 pin SCSI-2 male connector)
Power Supply	+5V / GND by 2 pin screw terminal Power only required supplying on board termination. Fuse protected by a 1A Multifuse.
MTBF	459746h

Figure 2-1 : Technical Specification

3 Connector X1/X2 Pin Assignment

Connector X1			Connector X2		
X1 Pin	TPMC866-10 (RS232)	TPMC866-12 (RS485 HD)	X2 Pin	TPMC866-10 (RS232)	TPMC866-12 (RS485 HD)
1	GND1	GND1	1	GND9	GND9
2	TXD1	DX1-	2	TXD9	DX9-
3	RXD1	DX1+	3	RXD9	DX9+
4	Nc	Nc	4	Nc	Nc
5	Nc	Nc	5	Nc	Nc
6	GND2	GND2	6	GND10	GND10
7	TXD2	DX2-	7	TXD10	DX10-
8	RXD2	DX2+	8	RXD10	DX10+
9	Nc	Nc	9	Nc	Nc
10	Nc	Nc	10	Nc	Nc
11	GND3	GND3	11	GND11	GND11
12	TXD3	DX3-	12	TXD11	DX11-
13	RXD3	DX3+	13	RXD11	DX11+
14	Nc	Nc	14	Nc	Nc
15	Nc	Nc	15	Nc	Nc
16	GND4	GND4	16	GND12	GND12
17	TXD4	DX4-	17	TXD12	DX12-
18	RXD4	DX4+	18	RXD12	DX12+
19	Nc	Nc	19	Nc	Nc
20	Nc	Nc	20	Nc	Nc
21	GND5	GND5	21	GND13	GND13
22	TXD5	DX5-	22	TXD13	DX13-
23	RXD5	DX5+	23	RXD13	DX13+
24	Nc	Nc	24	Nc	Nc
25	Nc	Nc	25	Nc	Nc
26	GND6	GND6	26	GND14	GND14
27	TXD6	DX6-	27	TXD14	DX14-
28	RXD6	DX6+	28	RXD14	DX14+
29	Nc	Nc	29	Nc	Nc
30	Nc	Nc	30	Nc	Nc
31	GND7	GND7	31	GND15	GND15
32	TXD7	DX7-	32	TXD15	DX15-
33	RXD7	DX7+	33	RXD15	DX15+
34	Nc	Nc	34	Nc	Nc
35	Nc	Nc	35	Nc	Nc
36	GND8	GND8	36	GND16	GND16
37	TXD8	DX8-	37	TXD16	DX16-

Connector X1			Connector X2		
X1 Pin	TPMC866-10 (RS232)	TPMC866-12 (RS485 HD)	X2 Pin	TPMC866-10 (RS232)	TPMC866-12 (RS485 HD)
38	RXD8	DX8+	38	RXD16	DX16+
39	nc	nc	39	Nc	nc
40	nc	nc	40	Nc	nc
41	nc	nc	41	Nc	nc
42	nc	nc	42	nc	nc
43	nc	nc	43	nc	nc
44	nc	nc	44	nc	nc
45	nc	nc	45	nc	nc
46	nc	nc	46	nc	nc
47	nc	nc	47	nc	nc
48	nc	nc	48	nc	nc
49	nc	nc	49	nc	nc
50	nc	nc	50	nc	nc

nc = not connected on the TPMC866-TM-30

Figure 3-1 : Connector X1/X2 Pin Assignment

4 RJ45 Pin Assignment

Pin No. RJH	RS232	RS485
1	GND	GND
2	RXD	DX+
3	TXD	DX-
4	GND	GND

Figure 4-1 : Pin Assignment of RJH Connector TPMC866-TM-30 Channel 1 and 16

GND of each of the 16 RJH connectors is routed separately to X1 / X2.

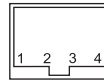


Figure 4-2 : RJH Pinning

5 Connector X9 Pin Assignment

Pin	Signal
1	GND
2	+5V

Figure 5-1 : Pin Assignment of X9 Screw Terminal

6 Jumper Configuration

Position	Function
1-2	Installed: 120R On Board Termination for RS485 Mode active
3-4	Open: No On Board Termination for RS485 Mode

Figure 6-1 : Jumper Field Jn1

Jumper Configuration Notes:

There is a jumper field (Jn1) per serial channel n (n = 1 to 16) for enabling the on board termination for the RS485 mode. Install all jumpers on the jumper field to enable the on board termination for RS485 mode. Remove all jumpers from a serial channel jumper field for RS232 mode or if on board termination is not desired for RS485 mode.

The TPMC866-12 provides jumper selectable on board termination for RS422 / RS485. If the on board termination of the TPMC866-12 is enabled then do not use the termination jumper fields of the TPMC866-TM-30 !

Using the on board termination feature requires a +5V power supply at the X9 connector (2 pin screw terminal).

7 Assembly Drawing

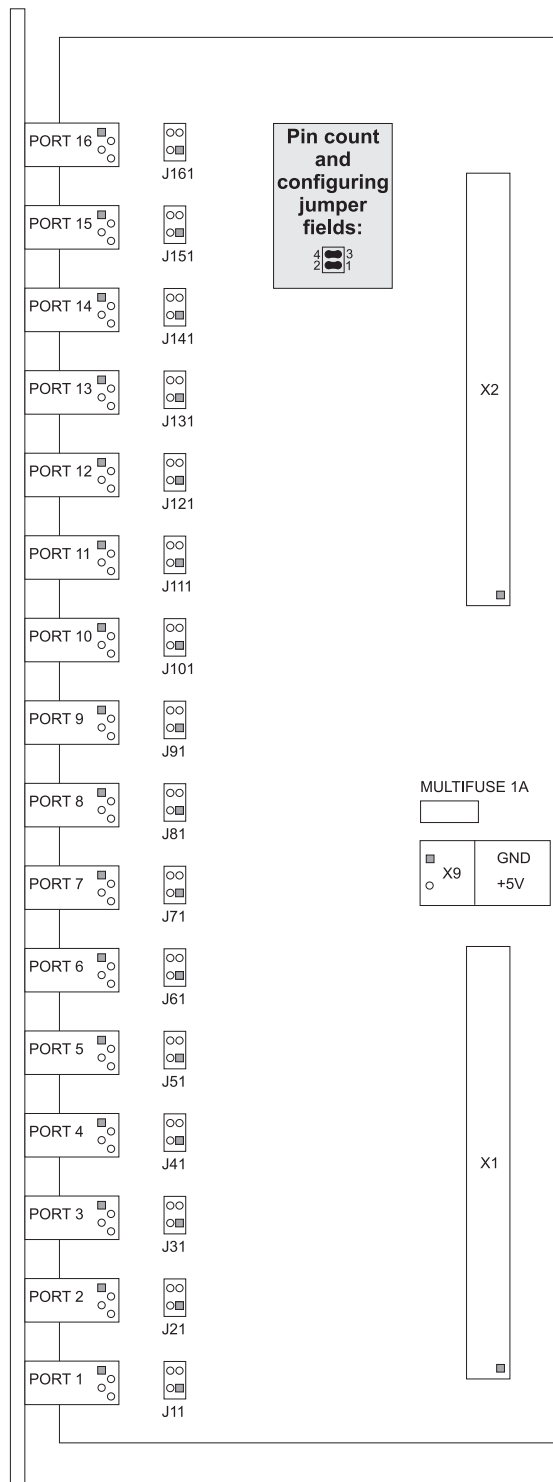


Figure 7-1 : Assembly Drawing