TRENTON Technology Inc.
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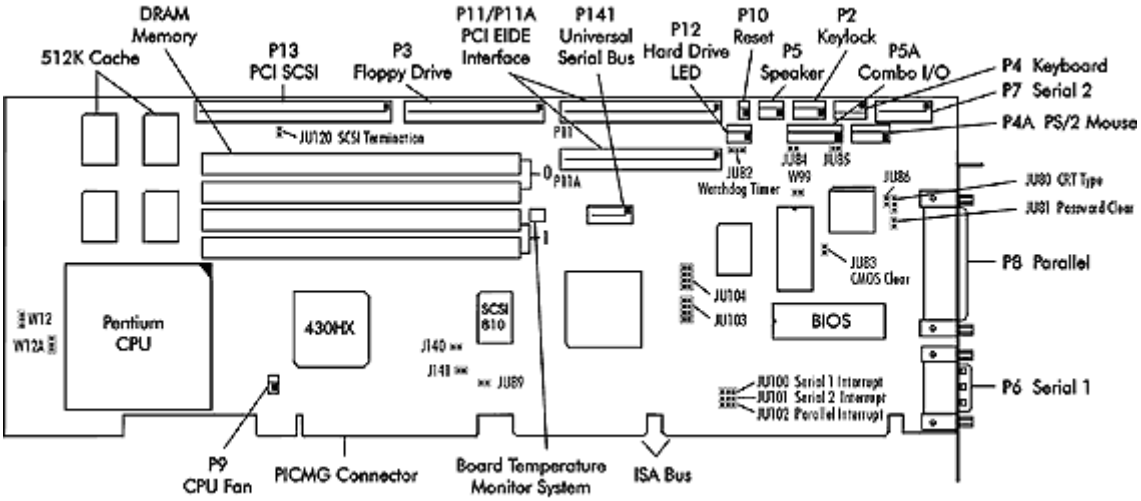
Technical Information – Jumpers and Connectors
T2 (5422-xxx) System Host Board

Layout Diagram



Jumpers & LEDs

The setup of the configuration jumpers on the SHB is described below. An asterisk (*) indicates the default value of each jumper.

NOTE: For two-position jumpers (3-post), "RIGHT" is toward the bracket end of the board; "LEFT" is toward the memory sockets.

JU80 CRT TYPE SELECT
TOP = Color *
BOTTOM = Monochrome

JU81 PASSWORD CLEAR
INSTALL = Reset to null
REMOVE = Normal operation *

JU82 WATCHDOG TIMER
LEFT = Normal reset *
RIGHT = Enable watchdog

JU83 CMOS CLEAR
INSTALL = Clear CMOS
REMOVE = Operate *

JU84 P5A SPEAKER CONNECT
INSTALL= Connect speaker data signal to pin 8 of Combo I/O connector (P5A) *
REMOVE= Disconnect

JU85 P5A RESET CONNECT
INSTALL= Connect reset data signal to pin 1 of Combo I/O connector (P5A) *
REMOVE= Disconnect

JU86 INTERRUPT 12 (IRQ12) SELECT
INSTALL = Dedicate IRQ12 to PS/2 mouse. *
REMOVE = Make IRQ12 available for system use.

JU89 3.3V MONITOR ENABLE

INSTALL = Enable 3.3V monitor.
REMOVE = Disable 3.3V monitor. *

NOTE: JU89 enables the 3.3 volt monitor, which monitors the 3.3V power plane of the backplane. This voltage is routed to the SBC via the PICMG® connector. The monitor generates a RESET to the SBC if 3.3V is below tolerance. If your system does *not* supply 3.3V to the backplane, this jumper *must* be removed (disabled).

JU100 ON-BOARD SERIAL PORT 1 INTERRUPT SELECT

LEFT = IRQ3
RIGHT = IRQ4 *

JU101 ON-BOARD SERIAL PORT 2 INTERRUPT SELECT

LEFT = IRQ3 *
RIGHT = IRQ4

JU102 ON-BOARD PARALLEL PORT INTERRUPT SELECT

LEFT = IRQ5
RIGHT = IRQ7 *

JU103 PARALLEL PORT DACK

	Pins
DACK #7	1-2
DACK #6	3-4
DACK #5	5-6
DACK #3	7-8

JU104 PARALLEL PORT DREQ

	Pins
DREQ #7	1-2
DREQ #6	3-4
DREQ #5	5-6
DREQ #3	7-8

JU120 SCSI TERMINATION

INSTALL= Disable on-board active termination for SCSI interface

REMOVE= Enable *

CPU SPEED JUMPERS

There are five jumpers (J140, J141, W12, W12A and W99) which must be set correctly to allow the SBC to take full advantage of the speed of the Pentium microprocessor. The jumper settings depend on the bare board revision level as indicated in the following charts.

Bare Board Revision Levels Prior to K-A-06:

CPU	Synthesizer	Jumpers		CPU Speed		Bus Clock
Speed	**Frequency**	**J140**	**J141**	**W12**	**W12A***	**W99**
233MHz	66MHz	Out	In	Bottom	Bottom/Right	In
200MHz	66MHz	Out	In	Bottom	Top/Left	In
166MHz	66MHz	Out	In	Top	Top/Left	In
150MHz	60MHz	In	Out	Top	Top/Left	In

133MHz	66MHz	Out	In	Top	Bottom/Right	In
120MHz	60MHz	In	Out	Top	Bottom/Right	In
100MHz	66MHz	Out	In	Bottom	Bottom/Right	In
90MHz	60MHz	In	Out	Bottom	Bottom/Right	In
75MHz	50MHz	In	In	Bottom	Bottom/Right	Out

* Orientation of jumper depends on bare board revision level.

Bare Board Revision Levels K-A-06 and Above:

CPU	**Synthesizer**	**Jumpers**		**CPU Speed**		**Bus Clock**
Speed	**Frequency**	**J140**	**J141**	**W12**	**W12A**	**W99**
233MHz	66MHz	Out	In	Top	Top	In
200MHz	66MHz	Out	In	Top	Bottom	In
166MHz	66MHz	Out	In	Bottom	Bottom	In
150MHz	60MHz	In	Out	Bottom	Bottom	In
133MHz	66MHz	Out	In	Bottom	Top	In
120MHz	60MHz	In	Out	Bottom	Top	In
100MHz	66MHz	Out	In	Top	Top	In
90MHz	60MHz	In	Out	Top	Top	In

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Connectors

NOTE:
Pin 1 on the connectors is indicated by the square pad on the PCB.

P2 - KEYLOCK CONNECTOR

5 pin single row header, Amp #640456-5

PIN	SIGNAL
1	LED Power
2	Key
3	Gnd
4	Keylock Data
5	Gnd

P3 - FLOPPY DRIVE CONNECTOR

34 pin dual row header,
Robinson Nugent #IDH-34LP-S3-TR

PIN	SIGNAL	PIN	SIGNAL
1	Gnd	2	N-RPM
3	Gnd	4	NC
5	Gnd	6	D-Rate0
7	Gnd	8	P-Index
9	Gnd	10	N-Motoron 1
11	Gnd	12	N-Drive Sel2
13	Gnd	14	N-Drive Sel1
15	Gnd	16	N-Motoron 2
17	Gnd	18	N-Dir
19	Gnd	20	N-Stop Step
21	Gnd	22	N-Write Data
23	Gnd	24	N-Write Gate
25	Gnd	26	P-Track 0
27	Gnd	28	P-Write Protect
29	Gnd	30	N-Read Data
31	Gnd	32	N-Side Select
33	Gnd	34	Disk Chng

P9 - CPU FAN

2 pin header, Amp #640456-2

PIN	SIGNAL
1	+12V
2	Gnd

P10 - EXTERNAL RESET CONNECTOR

2 pin header, Amp #640456-2

PIN	SIGNAL
1	Negative External Reset
2	Gnd

P11 - PRIMARY IDE HARD DRIVE CONNECTOR

40 pin dual row header,
Robinson Nugent #IDH-40LP-S3-TR

PIN	SIGNAL	PIN	SIGNAL
1	Reset	2	Gnd
3	Data 7	4	Data 8
5	Data 6	6	Data 9
7	Data 5	8	Data 10
9	Data 4	10	Data 11
11	Data 3	12	Data 12
13	Data 2	14	Data 13
15	Data 1	16	Data 14
17	Data 0	18	Data 15
19	Gnd	20	NC
21	DRQ 0	22	Gnd
23	IOW	24	Gnd
25	IOR	26	Gnd
27	IORDY	28	SELPDP
29	DACK 0	30	Gnd
31	IRQ 14	32	NC
33	Add 1	34	Gnd
35	Add 0	36	Add 2
37	CS 1P	38	CS 3P
39	IDEACTP	40	Gnd

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Connectors (Continued)

P4 - KEYBOARD CONNECTOR

5 pin single row header, Amp #640456-5

PIN	SIGNAL
1	Kbd Clock
2	Kbd Data
3	Key
4	Kbd Gnd
5	Kbd Power (+5V fused) with self-resetting fuse

P4A - PS/2 MOUSE HEADER

6 pin single row header, Amp #640456-6

PIN	SIGNAL
1	Ms Data
2	Reserved
3	Kbd Gnd
4	Kbd Power (+5V fused) with self-resetting fuse
5	Ms Clock
6	Reserved

P5 - SPEAKER PORT CONNECTOR

4 pin single row header, Amp #640456-4

PIN	SIGNAL
1	Speaker Data
2	Key
3	Gnd
4	+5V

P5A - COMBO I/O CONNECTOR

8 pin single row header, Amp #640456-8

PIN	SIGNAL
1	Reset (See JU18 in *Configuration Jumpers* above.)
2	Gnd
3	NC
4	Kbd Clock
5	Kbd Data

P11A - SECONDARY IDE HARD DRIVE CONNECTOR

40 pin dual row header,
Robinson Nugent #IDH-40LP-S3-TR

PIN	SIGNAL	PIN	SIGNAL
1	Reset	2	Gnd
3	Data 7	4	Data 8
5	Data 6	6	Data 9
7	Data 5	8	Data 10
9	Data 4	10	Data 11
11	Data 3	12	Data 12
13	Data 2	14	Data 13
15	Data 1	16	Data 14
17	Data 0	18	Data 15
19	Gnd	20	NC
21	DRQ 1	22	Gnd
23	IOW	24	Gnd
25	IOR	26	Gnd
27	IORDY	28	SELPDS
29	DACK 1	30	Gnd
31	IRQ15	32	NC
33	Add 1	34	Gnd
35	Add 0	36	Add 2
37	CS 1S	38	CS 3S
39	IDEACTS	40	Gnd

P12 - HARD DRIVE LED CONNECTOR

4 pin single row header, Amp #640456-4

PIN	SIGNAL
1	+5V Pullup
2	Light
3	Light
4	+5V Pullup

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6	Kbd Lock Data
7	Kbd Power (+5V fused) with self-resetting fuse
8	Speaker Data

Connectors (Continued)

P6 - SERIAL PORT 1 CONNECTOR

9 pin D, Foxconn International #UDBA11S2LA

PIN	SIGNAL	PIN	SIGNAL
1	Carrier Detect	6	Data Set Ready-I
2	Receive Data-I	7	Request to Send-O
3	Transmit Data-0	8	Clear to Send-I
4	Data Terminal Ready-0	9	Ring Indicator-I
5	Signal Gnd		

P7 - SERIAL PORT 2 CONNECTOR

10 pin dual row header,
Robinson Nugent #IDH-10LP-S3-TR

PIN	SIGNAL	PIN	SIGNAL
1	Carrier Detect	2	Data Set Ready-I
3	Receive Data-I	4	Request to Send-O
5	Transmit Data-0	6	Clear to Send-I
7	Data Terminal Ready-0	8	Ring Indicator-I
9	Signal Gnd	10	NC

P8 - PARALLEL PORT CONNECTOR

25 pin D, Amp #747846-3

PIN	SIGNAL	PIN	SIGNAL
1	Strobe	14	Auto Feed XT
2	Data Bit 0	15	Error
3	Data Bit 1	16	Init
4	Data Bit 2	17	Slct In
5	Data Bit 3	18	Gnd
6	Data Bit 4	19	Gnd
7	Data Bit 5	20	Gnd
8	Data Bit 6	21	Gnd

P13 - PCI SCSI CONTROLLER CONNECTOR

50 pin dual row header,
Robinson Nugent #IDH-50LP-S3-TR

PIN	SIGNAL	PIN	SIGNAL
1	Gnd	2	SCZDB0
3	Gnd	4	SCZDB1
5	Gnd	6	SCZDB2
7	Gnd	8	SCZDB3
9	Gnd	10	SCZDB4
11	Gnd	12	SCZDB5
13	Gnd	14	SCZDB6
15	Gnd	16	SCZDB7
17	Gnd	18	SCZDBP
19	Gnd	20	Gnd
21	Gnd	22	Gnd
23	Gnd	24	Gnd
25	NC	26	TERMPWR
27	Gnd	28	Gnd
29	Gnd	30	Gnd
31	Gnd	32	SCZATN
33	Gnd	34	Gnd
35	Gnd	36	SCZBSY
37	Gnd	38	SCZACK
39	Gnd	40	SCZRST
41	Gnd	42	SCZMSG
43	Gnd	44	SCZSEL
45	Gnd	46	SCZCD
47	Gnd	48	SCZREQ
49	Gnd	50	SCZIO

P141 - UNIVERSAL SERIAL BUS (USB) CONNECTOR

8 pin dual row header, Molex #702-46-0821
(+5V fused with self-resetting fuses)

PIN	SIGNAL	PIN	SIGNAL
1	+5V - USB0	2	+5V - USB1
3	USB0-	4	USB1-

9	Data Bit 7	22	Gnd	5	USB0+	6	USB1+
10	ACK	23	Gnd	7	Gnd - USB0	8	Gnd - USB1
11	Busy	24	Gnd				
12	Paper End	25	Gnd				
13	Slct						