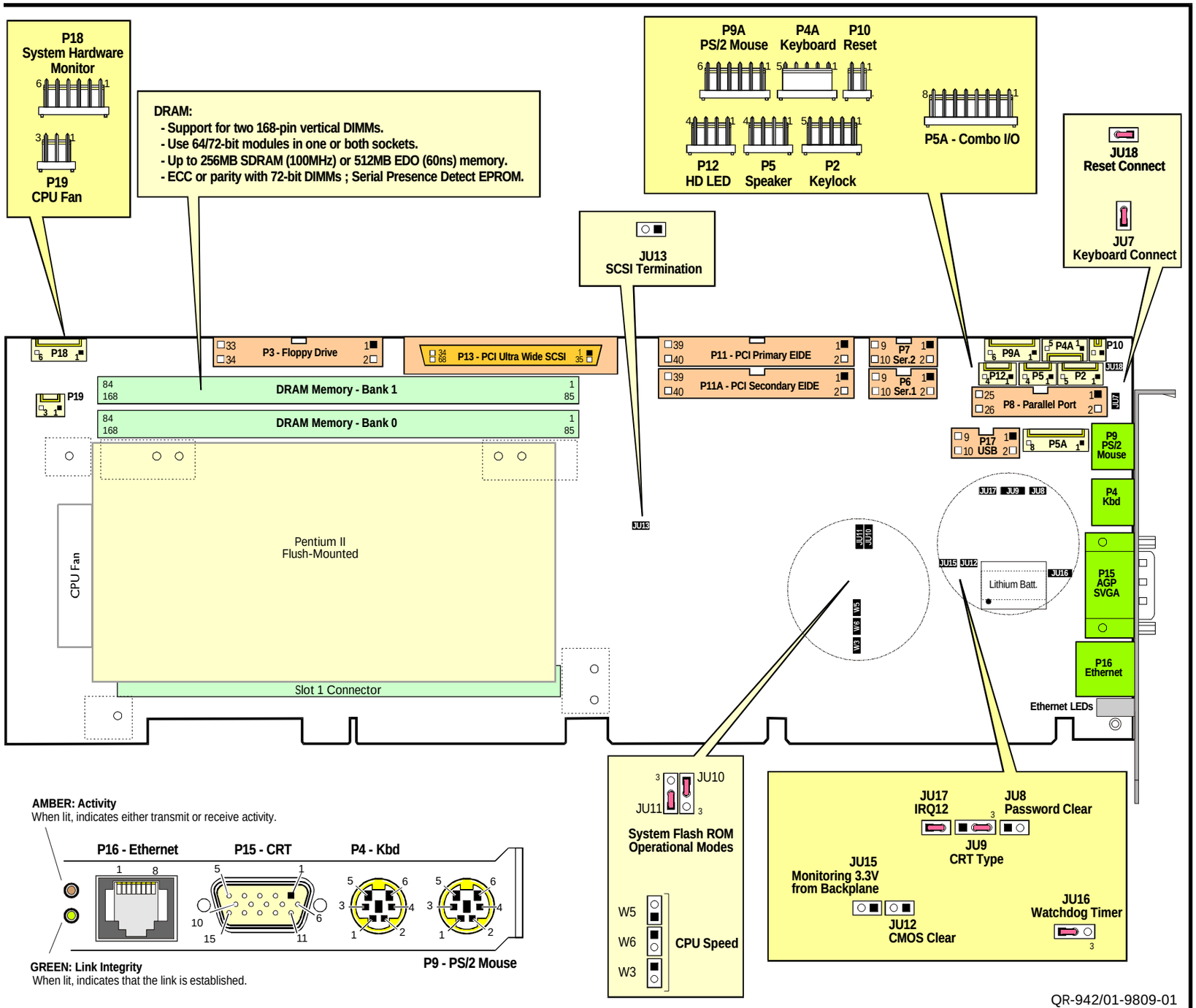

QR-942/01-9809-01

PCI-942

PENTIUM II PCI/ISA INDUSTRIAL SBC

TEKNOR INDUSTRIAL COMPUTERS INC

QUICK REFERENCE

JUMPER SETTINGS (* : Initial Setting)

W3, 6, 5 - CPU Speed (Synth. Freq. = 66MHz)

	W3	W6	W5
Pentium II - 233MHz	off	off	on
Pentium II - 266MHz	on	on	off
Pentium II - 300MHz	off	on	off
Pentium II - 333MHz	on	off	off

Careful attention should be taken when installing a processor:
Faulty jumper settings can damage both your processor and your board.

JU7 - Speaker Signal to P5A-pin 8

Connected *	on
Disconnected	off

JU8 - Password Clear

Password reset at power up	on
Nornal *	off

JU9 - CRT Type

Monochrome CRT	1-2
Color CRT *	2-3

JU10, 11 - System Flash ROM Modes

Beware of Jumper Pinout	JU10	JU11
Write Protect	1-2	2-3
Program All (Boot Block & Main Block)	2-3	1-2
Normal, PnP, & Program Main Block	2-3	2-3

JU12 - CMOS Clear

Clear CMOS	on
Normal Operation *	off

In Normal Operation, after clearing the CMOS, the BIOS is loaded with default values.

Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type.
Dispose of used batteries according to the manufacturer's instructions.

JU13 - SCSI Termination

Disabled	on
Enabled *	off

JU15 - Monitoring 3.3V from Backplane

Enabled (Reset if 3.3V below tolerance)	on
Disabled * (if 3.3V not supplied to bkplane)	off

JU16 - Watchdog timer

Nornal reset operation *	1-2
Watchdog timer operation	2-3

JU17 - IQR 12

Dedicated to PS/2 mouse *	on
Available for system use	off

JU18 - Reset Signal

Connected to P5A pin 1 *	on
Disconnected	off

Before Powering ON the Board

1. Ensure the power supply connector is connected properly (+5V, +12V, -12V).
2. Make sure all cables are connected to the right connectors.

First Level Debugging

1. Remove all peripheral boards from the backplane. Keep only the SBC.
2. Remove all cables from the SBC except the video cable.
3. Make sure the memory is working well and is properly inserted.

CONNECTOR PINOUTS

Compared to previous PCI-9xx boards, all connectors are rotated 180 degrees Make sure you connect connector mationg properly. Inproper connections may cause damage to your board and your devices.

P2 - Keylock

1	LED Power	3	GND	5	GND
2	Key (not connected)	4	Keylock Data		

P3 - Floppy Disk

* Active Low Signal

Odd Pin Number					
1-33	GND	10	MOTOR ON 0, 1 *	24	WENABLE *
Even Pin Number		12	DRIVE SEL. B *	26	TRACK 0 *
2	Drv Dens. Sel. 0 *	14	DRIVE SEL. A *	28	WPROTECT *
4	N.C.	16	MOTOR ON 2 *	30	RDATA *
6	N.C.	18	DIR CONTROL *	32	HEAD SELECT *
8	INDEX *	20	STEP *	34	DSKCHG *
		22	¸WDATA *		

P4 - Keyboard (connector)

1	KBD DATA	4	KBD Power (+5V fused)
2	Reserved	5	KBD CLOCK
3	GND	6	Reserved

P4A - Keyboard (header)

1	KBD CLOCK	4	KBD CLOCK
2	KBD DATA	5	KBD Power (+5V fused)
3	Key (N.C.)		

P5 - Speaker Port

1	SPK DATA	4	GND
2	Key (N.C.)	5	+5V

P5A - Combo I/O (header)

1	RESET	5	KBD DATA
2	GND	6	KBD LOCK DATA
3	N.C.	7	KBD Power (+5V fused)
4	KBD CLOCK	8	SPK DATA

P6 - Serial Port 1 (RS-232)

DCD 1 *	1	2	DSR 1 *
RX 1 *	3	4	RTS 1 *
TX 1	5	6	CTS 1 *
DTR 1 *	7	8	RI 1 *
GND	9	10	N.C.

P7 - Serial Port 2 (RS-232)

DCD 2 *	1	2	DSR 2 *
RX 2 *	3	4	RTS 2 *
TX 2	5	6	CTS 2 *
DTR 2 *	7	8	RI 2 *
GND	9	10	N.C.

P8 - Parallel Port (Std mode)

Odd Pin Number		Even Pin Number	
STROBE	1	2	AUTOFD
[D0-D7]	3-17	4	ERROR
ACK	19	6	INIT
BUSY	21	8	SELECTIN
PE	23	10-24	GND
SELECT	25	26	GND

P9 - PS/2 Mouse (connector)

1	MOUSE DATA	4	KBD Power (+5V fused)
2	Reserved	5	MOUSE CLOCK
3	GND	6	Reserved

P9A - PS/2 Mouse (header)

1	MOUSE DATA	4	KBD Power (+5V fused)
2	Reserved	5	MOUSE CLOCK
3	KBD GND	6	Reserved

P10 - External Reset

1	EXT RESET *	2	GND

P11 - Enhanced IDE (Primary)

Odd Pin Number					
1	RESET	29	DACK 0	20	N.C.
3-17	[HD7-HD0]	31	IRQ14	28	+5V
19	GND	33 ; 35	ADD1 ; ADD0	30	GND
21	REQ 0	37	CS0 1P	32	IOCS16
23	IOW	39	ACTIVE	34	GND
25	IOR	Even Pin Number		36	ADD2
27	IORDY	2 ; 22-26	GND	38	CS2
		4-18	[HD8-HD15]	40	GND

P11A - Enhanced IDE (Secondary)

Odd Pin Number		29	DACK 1	20	N.C.
1	RESET	31	MIRQ 0	28	+5V
3-17	[HD7-HD0]	33 ; 35	ADD1 ; ADD0	30	GND
19	GND	37	CS0 1S	32	IOCS16
21	REQ 1	39	ACTIVE	34	GND
23	IOW	Even Pin Number		36	ADD2
25	IOR	2 ; 22-26	GND	38	CS3S
27	IORDY	4-18	[HD8-HD15]	40	GND

P12 - Hard Drive LED Header

1	+5V Pull-up	2	HD LED	3	HD LED	4	+5V Pull-up

P13 - PCI Ultra Wide SCSI

1-16 ; 20-33	GND	49 ; 50	GND	59	SRST
17 ;	Term Power	51 ; 52	Term Power	60	SMSG
19	Not Connected	53	N.C.	61	SSEL
34	WIDEPS	54	GND	62	SCD
35-38	SDB12-SDB15	55	SATN	63	SREQ
39	SDBPH	56	GND	64	SIO
40-47	SDB0-SDB7	57	SBSY	65 ; 66	SDB8 ; SDB9
48	SDBP	58	SACK	67 ; 68	SDB10 ; SDB11

P15 -S VGA

1	RED	6-8	A_GND
2	GREEN	12	I2CData
3	BLUE	13	HSYNC
4; 9;11	N.C.	14	VSYNC
5 ; 10	GND	15	I2C Clk

P16 - 10/100Base-TX Ethernet

1	TXD+	5	N.C.
2	TXD-	6	RXD-
3	RXD+	7	N.C.
4	N.C.	8	N.C.

P17 -USB

1	+5V (USB0)	2	+5V (USB1)
3	USB0-	4	USB1-
5	USB0+	6	USB1+
7	GND (USB0)	8	GND (USB1)
9	SHIELD GND	10	SHIELD GND

P18 - System Hardware Monitor

1	GND	4	FAN2 (Fan 2 Tachometer Input)
2	GPO (General Purpose Output)	5	FAN1 (Fan 1 Tachometer Input)
3	CI (Chassis Intrusion Input)	6	OS# (Temperature Sense Output)

P19 - CPU Fan

1	GND
2	+12V
3	Fan Tach.

The Technical Reference Manual can be downloaded
from TEKNOR WEB site at **www.teknor.com**
To order a Technical Reference Manual hard copy, please contact
Customer Service Department at **(450) 437-5682**

MEMORY MAPPING

00000-9FFFF	System Memory	C0000-C7FFF	VGA BIOS	D0000-DFFFF	Available
A0000-BFFFF	Video Memory	C8000-CFFFF	ADAPTEC BIOS	E0000-FFFFF	Syst. BIOS / USB

I/O MAPPING

000-01F	DMA controller 1	0F0	Clear Math Coprocessor	378-37F	Parallel Printer Port 1
020-03F	Interrupt controller 1	0F1	Reset Math Coprocessor	380-38F	SDLC, Bisynchronous 2
040-05F	Timer	0F8-0FF	Math Coprocessor	3A0-3AF	Bisynchronous 1
060-06F	Keyboard (8042)	1F0-1F8	Fixed Disk	3B0-3BF	Mono. Display, prn adapt
070-07F	RTC, NMI mask	200-207	Game I/O	3D0-3DF	Color/Graphics Monitor
080-09F	DMA Page Register	278-27F	Parallel Printer Port 2	3F0-3F7	Diskette Controller
0A0-0BF	Interrupt controller 2	2F8-2FF	Serial Port 2	3F8-3FF	Serial Port 1
0C0-0DF	DMA controller 2	300-31F	Prototype Card		

PCI-942 TECHNICAL SPECIFICATIONS

CPU TYPE & SPEED
Pentium II 233, 266, 300 and 333MHz

SYSTEM MEMORY
DRAM: up to 512MB EDO, 50/60ns, cacheable on two 168-pin DIMM sockets
Cache : 512KB internal 64-bit wide non-blocking ECC L2 ; 16KB/16KB Instruction/Data L1
Flash Disk: 256KB for BIOS field upgrade

BUS INTERFACE
PCI bus (120-pin, 33MHz) ; ISAbus (98-pin, 8.33MHz) ; internal 24mA drivers for up to 20 slots

DATA PATH
64-bit on CPU, memory and video bus ; 32-bit on PCI bus ; 16-bit on ISA bus

VIDEO
Cirrus Logic CL-GD5465 with AGP SVGA CRT controller
2MB Rambus video memory
2D-3D capabilities ;
Resolution up to 1280x1024 non-interlaced, and 16.8M colors at resolutions up to 1024x768

I/O
SERIAL : two RS-232 ports (COM1-4) ; hardware selectable IRQs and BIOS selectable addressing
PARALLEL : 1 bi-directional port (LPT1) with compatibility, nibble, byte, EPP and ECP modes
HARD DISK : PCI EIDE Ultra DMA/33, IDE channels ; drive up to 4 hard disks
FLOPPY DISK : support for two 360KB to 2.88MB floppy drives
SCSI : Ultra Fast/Wide SCSI 3 : operation up to 40MB/s and full PCI-speed data transfers to host
USB : two for serial transfers at up to 1.5MB/s
ETHERNET : 10Base-T or 100Base-T via RJ-45 ; Full duplex

BIOS
AMI Hi-Flex in Flash EPROM ; diskless, kbd-less, and videoless extensions
BIOS POST and setup console redirection to serial port
Auto-configuration ; PnP tables, programmable bus and I/O speeds ; memory shadowing

INTERRUPTS
11 edge sensitive and configurable ; 4 PCI-level sensitive configurable for PnP compatibility

POWER SUPPLY
50W (PII 300MHz with 512KB cache and no DRAM)
+5V : 9.0A (regulated 2.5V to 3.3V at CPU)
+12V/-12V : 0.38A/0.1A
Support SMI/SMM power management ; ACPI Rev. 1.0 compliant

OPERATING CONDITIONS
0°C to 55°C with airflow, 5% to 95% @40°C ; MTBF : > 100,000 hours (MIL-HDBK-217F)

ELECTRICAL / MECHANICAL
Board dimensions : 4.8 x 13.32 in. / 122 x 338.5mm
Conforms to IEEE P996 PC/AT bus spec. ; PCI Rev.2.1 spec. ; PICMG Rev.2.0

Contact TEKNOR INC. for Technical Support

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