

## QUICK REFERENCE

### JUMPER SETTINGS (\* : Initial Setting)

● W3, W6, W10, W11 - CPU / Bus Clock													
	Clock Mul.		Bus/Core Freq. Ratio			CPU Type		W1 - Vcore				Refr.	
	W15	W8	W10	W4	W1A	W17	W18	1-2	3-4	5-6	7-8		9-10
P100	off	on	off	off	off	on	1-3 / 2-4	on	off	on	on	off	on
P120	on	off	on	off	off	on	1-3 / 2-4	on	off	on	on	off	on
P133	off	on	on	off	off	on	1-3 / 2-4	on	off	on	on	off	on
P150	on	off	on	on	off	on	1-3 / 2-4	on	off	on	on	off	on
P166	off	on	on	on	off	on	1-3 / 2-4	on	off	on	on	off	on
P200	off	on	off	on	off	on	1-3 / 2-4	on	off	on	on	off	on
P166-MMX	off	on	on	on	off	off	3-5 / 4-6	off	off	off	on	off	on
P200-MMX	off	on	off	on	off	off	3-5 / 4-6	off	off	off	on	off	on
P233-MMX	off	on	off	off	off	off	3-5 / 4-6	off	off	off	on	off	on

● W2, W3 - RS-422/485 Termination		
	W2	W3
With Termination Resistor	on	on
Without Termination Resistor *	off	off

● W5 - VBAT Internal Battery	
Battery Connected	on
Battery Disconnected *	off

● W6 - Watchdog	
Dual-Stage Watchdog	1 - 2
Single-Stage Watchdog *	2 - 3
Watchdog Disabled	off

● W7 - IOCHK Signal Source	
From ACFAIL Input	1 - 2
From First Stage Watchdog	2 - 3
Disabled *	off

● W9 - VGA Interrupt (PCI)	
Enabled	on
Disabled *	off

● W11 - Flash Disk / PanelLink Setup			
	Features	Settings	
1-2	Flash Disk Mast./Slave	on *	Set as Master
		off	Set as Slave

● W12 - Master VGA Interrupt			
	Features	Settings	
3-4	PanelLink Control Edge	on *	Latched on Falling
		off	Latched on Raising

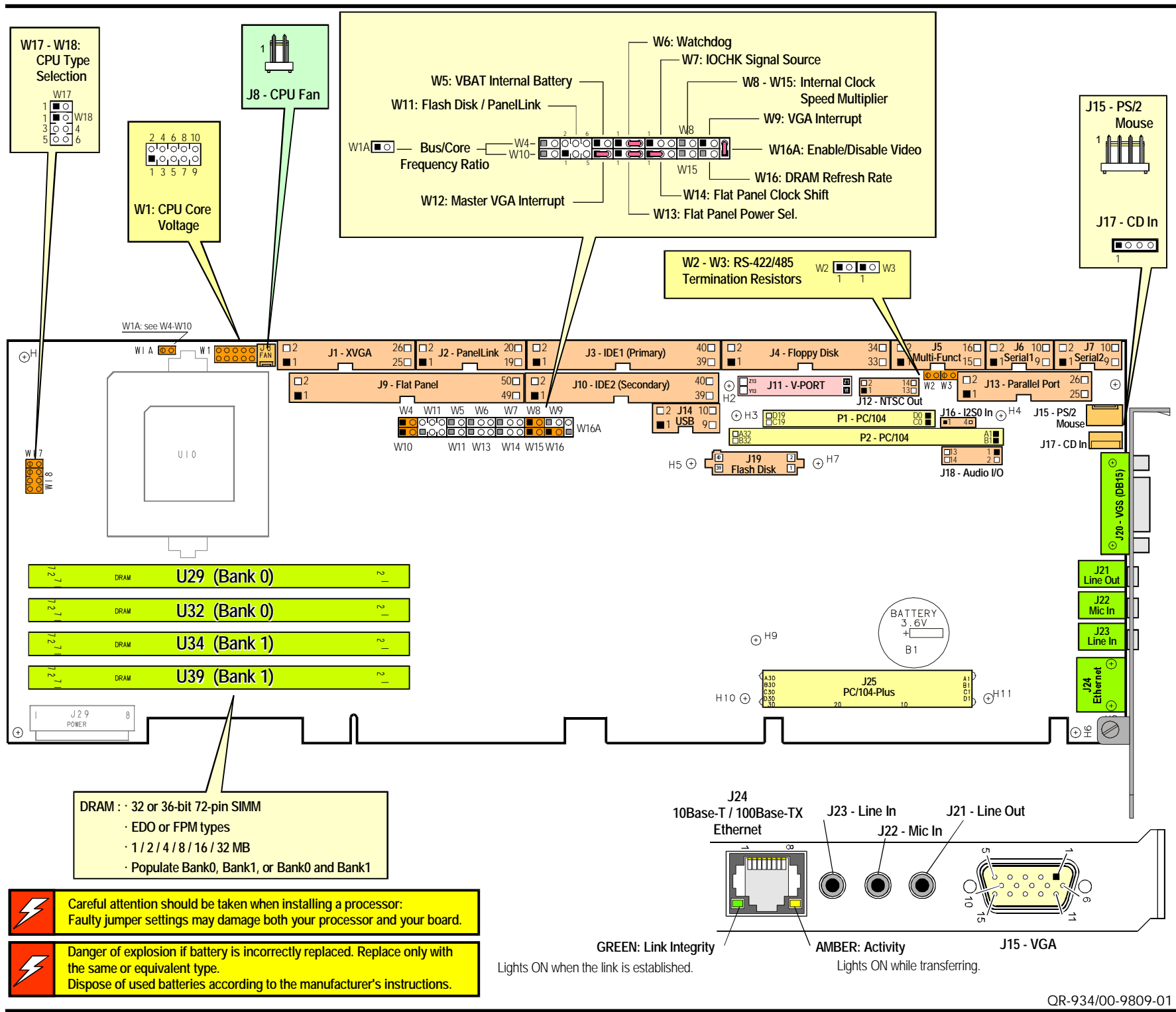
● W13 - Flat Panel Power Selection			
	Features	Settings	
5-6	PanelLink Control Edge	on *	Latched on Falling
		off	Latched on Raising

● W14 - Flat Panel Clock Shift			
	Features	Settings	
5-6	PanelLink Control Edge	on *	Latched on Falling
		off	Latched on Raising



● W16A - Video			
	Features	Settings	
5-6	PanelLink Control Edge	on *	Latched on Falling
		off	Latched on Raising

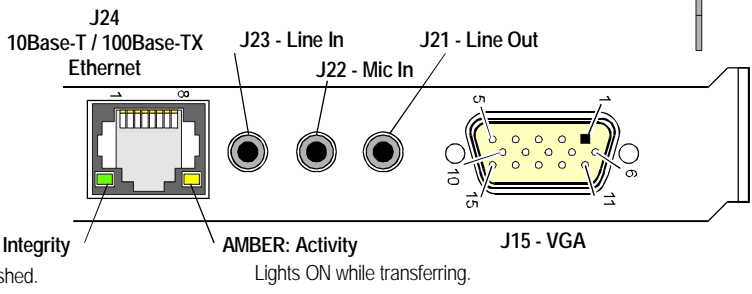
- Before Powering ON the Board**
1. Ensure the power supply connector is connected properly (+5V, +12V, -12V)
  2. Make sure all cables are connected to the adequate connector
  3. When using a flat panel, make sure the proper video BIOS is installed

- First Level Debugging**
1. Remove all peripheral boards from the backplane. Only keep the SBC.
  2. Remove all cables from the SBC except the video cable
  3. Make sure the memory is properly inserted and good working



DRAM : · 32 or 36-bit 72-pin SIMM  
 · EDO or FPM types  
 · 1 / 2 / 4 / 8 / 16 / 32 MB  
 · Populate Bank0, Bank1, or Bank0 and Bank1

-  Careful attention should be taken when installing a processor: Faulty jumper settings may damage both your processor and your board.
-  Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type. Dispose of used batteries according to the manufacturer's instructions.



# CONNECTOR PINOUTS

◆ J1 - XVGA	
1-7	BFP20-BFP23
9-15	BFP26-BFP29
17-23	BFP32-BFP35
25	POT_HI
2-18	GND
20-22	FPVCC_SW
24	VCON
26	POT_LO

◆ J2 - PanelLink	
Odd Pin Number	
1-5	GP0, GP1, GP2
7	VCC
9	TXC-
11	VCC3
13-17	TX0-, TX1-, TX2-
19	FPVCC_SW
Even Pin Number	
2	+12V
4, 6	GND
8	VCC
10	TXC+
12	VCC3
14-18	TX0+, TX1+, TX2+
20	TD

◆ J5 - Keyboard * Active Low Signal	
Odd Pin Number	
1	KCLK
3	KDATA
5	VCC
7	SPKR
9	ACFAIL*
Even Pin Number	
11	N.C.
13	PBRES*
15	HDACT*
2-4 ; 10-14	GND
6-8 ; 16	VCC

◆ J6 - Serial Port 1 / RS-232			
DCD 1	1	2	DSR 1
SIN 1	3	4	RTS 1
SOUT 1	5	6	CTS 1
DTR 1	7	8	RI 1
GND	9	10	N.C.

◆ J7 - Serial Port 2 / RS-232			
DCD 2	1	2	DSR 2
SIN 2	3	4	RTS 2
SOUT 2	5	6	CTS 2
DTR 2	7	8	RI 2
Gnd	9	10	Not Conn.

◆ J7 - Serial Port 2 / RS-422/485			
DCD 2	1	2	DSR 2
RX(-)	3	4	RX(+)
TX(-)	5	6	TX(+)
DTR 2	7	8	RI 2
Gnd	9	10	Not Conn.

◆ J8 - Fan	
1	+12V
2	GND

◆ J3 - EIDE (Primary)	
Odd Pin Number	
1	RESET *
3-17	[HD7-HD0]
19	GND
21	DMA REQ0
23	IOW *
25	IOR *
27	IOCHRDY
29	DMA ACK0 *
31	IRQ14
33 ; 35	SA1 ; SA0
37	CS1 *
39	ACTIVE *
Even Pin Number	
2 ; 22-26	GND
4-18	[HD8-HD15]
20	N.C.
28	Pulled Up
30	GND
32	IOCS16 *
34	GND
36	SA2
38	CS3 *
40	GND

\* Active Low Signal

◆ J9 - Flat Panel	
Odd Pin Number	
1, 3, 5, 7	FP2, 4, 8, 10
9, 11, 13, 15	FP9, 11, 13, 15
17-21, 25-27	GND
23, 29	FP1, 24
31	GP1
33	FPVEE
35	LLCLK
37	FPVEE
39, 43	FP0, 19
41	STANDBY *
45	ACTI
47	FPVCC_SW
49	+12V
Even Pin Number	
2, 4, 6, 8	FP3, 5, 9, 11
10, 12, 14, 16	FP12, 6, 16, 14
18	FPVCLK
20, 24	FP25, 18
22	LF5
26	FPDE
28, 32-36	GND
30-40	GP0, GP2
38	FPVCC
42-44	FP30, 31
46	FPDECTL
48	FPVCC_SW
50	+12V

◆ J4 - Floppy Disk	
Odd Pin Number	
1-15; 19-25; 31	GND
17; 27; 29; 33	N.C.
Even Pin Number	
2	DRVEND *
4 ; 6	N.C.
8	INDEX *
10	MOTOR 0 *
12	DRIVE SEL. 1 *
14	DRIVE SEL. 0 *
16	MOTOR 1 *
18	DIR CONTROL
20	STEP *
22	WDATA *
24	WGATE *
26	TRACK 0 *
28	WPROTECT *
30	RDATA *
32	HEAD SELECT *
34	DSKCHG *

MEMORY MAPPING	
00000-9FFFF	0-640KB DRAM
A0000-BFFFF	Video DRAM
C0000-CBFFF	Video BIOS
CC000-DFFFF	System DRAM
E0000-FFFFF	System BIOS
100000-top	System DRAM

◆ J10 - EIDE (Secondary)	
Odd Pin Number	
1	RESET *
3-17	[HD7-HD0]
19	GND
21	DMA REQ1
23	IOW *
25	IOR *
27	IOCHRDY
29	DMA ACK1 *
31	IRQ0
33 ; 35	SA1 ; SA0
37	CS1 *
39	ACTIVE *
Even Pin Number	
2 ; 22-26	GND
4-18	[HD8-HD15]
20	N.C.
28	Pulled Up
30	GND
32	IOCS16 *
34	GND
36	SA2
38	CS3 *
40	GND

\* Active Low Signal

◆ J11 - V-Port			
GND	Z1-3	Z13	VACTI
I2C_DAT	Z4	Y1-8	VPC0-7
VSYNC	Z5	Y9	I2C_CLK
EN_LCAM	Z6	Y10	HSYNC *
VCC	Z7	Y11	VP_IO_1
GND	Z8-11	Y12	VP_IO_2
ZVPCLK	Z12	Y13	GND

◆ J12 - NTSC Out			
RED	1	2	GND
GREEN	3	4	GND
BLUE	5	6	GND
CSYNC	7	8	GND
TVON	9	10	GND
NTSC_PAL	11	12	GND
HSYNC	13	14	VSYNC

◆ J13 - Parallel Port /Standard			
Odd Pin Number			
STROBE *	1	2	AUTOFD *
[PD0-PD7]	3-17	4	ERROR *
ACK *	19	6	INIT *
BUSY	21	8	SELECTIN*
PE	23	10-18	Gnd
SELECT	25	20-26	Gnd

◆ J22 - Mic In			
1	GND	3-5	GND
2	MIC_IN	4	N.C.

I/O MAPPING	
000-01F	DMA controller 1
020-03F	Interrupt Controller 1
040-05F	Timer
060-06F	Keyboard
070-07F	Real Time Clock
080-09F	DMA Page Register
0A0-0BF	Interrupt Controller 2
0C0-0DF	DMA Controller 2
0F0-0FF	Math coprocessor
170-177 ; 376	Secondary IDE
190-197	TEKNOR Ctrlr. Port
1F0-1F7 ; 3F6	Primary IDE
278-27A	Parallel Port (opt.)
290-297	TEK. Ctrlr Port (opt.)
2E8-2EF	COM4
2F8-2FF	COM2 (or COM1)
370-377	Floppy Disk (optional)
378-37A	Paral Port (LPT1)
390-397	TEK. Ctrlr Port (opt.)
3BC-3BE	Parallel Port (opt.)
3E8-3EF	COM3
3F0-3F7	Floppy Disk
3F8-3FF	COM1 (or COM2)
3C0-3CF	Graphics Controller
3D0-3DF	
3B0-3BB	

◆ J14 - USB			
SVB0	1	2	SVB1
SBP0-	3	4	SBP1-
SBP0+	5	6	SBP1+
GND	7-9	8-10	GND

◆ J15 - PS/2 Mouse			
1	MCLK	3	MDAT
2	GND	4	VCC

◆ J16 - I <sup>2</sup> S (no MPEG)			
1	BCLK	3	DATA
2	LRCLK	4	GND

◆ J17 - CD In			
1	L_CD	3	R_CD
2	A_GND	4	A_GND

◆ J18 - Audio I/O			
R_AUX1	1	2	A_GND
L_AUX1	3	4	A_GND
R_AUX2	5	6	A_GND
L_AUX2	7	8	A_GND
MIC_IN	9	10	A_GND
A_GND	11	12	A_GND
LL_OUT	13	14	RL_OUT

◆ J23 - Line In			
1	GND	3-5	GND
2	L_LINE	4	R_LINE

◆ P2/P1 - PC/104				
* Active Low Signal				
0	ROW A	ROW B	ROW C	ROW D
1	IOCHK*	GND	GND	GND
2	SD7	RESET DRV	SBHE*	MEMCS16 *
3	SD6	VCC (+5V)	SA23	IOCS16 *
4	SD5	IRQ9	SA22	IRQ10
5	SD4	-5V	SA21	IRQ11
6	SD3	DRQ2	SA20	IRQ12
7	SD2	-12V	SA19	IRQ15
8	SD1	0WS*	SA18	IRQ14
9	SD0	+12V	SA17	DACK0 *
10	IOCHRDY	N.C.	MEMR *	DRQ0
11	AEN	SMEMW *	MEMW *	DACK5 *
12	SA19	SMEMR *	SDB	DRQ5
13	SA18	IOW *	SD9	DACK6 *
14	SA17	IOR *	SD10	DRQ6
15	SA16	DACK3 *	SD11	DACK7 *
16	SA15	DRQ3	SD12	DRQ7
17	SA14	DACK1 *	SD13	VCC (+5V)
18	SA13	DRQ1	SD14	MASTER *
19	SA12	REFRESH *	SD15	GND
20	SA11	SYSCCLK	N.C.	GND
21	SA10	IRQ7		
22	SA9	IRQ6		
23	SA8	IRQ5		
24	SA7	IRQ4		
25	SA6	IRQ3		
26	SA5	DACK2 *		
27	SA4	T/C		
28	SA3	BALE		
29	SA2	VCC (+5V)		
30	SA1	OSC		
31	SA0	GND		
32	GND	GND		

◆ J19 - CompactFlash			
1	D11	2	GND
3	D12	4	D3
5	D13	6	D4
7	D14	8	D5
9	D15	10	D6
11	CS3 *	12	D7
13	N.C.	14	CS1 *
15	N.C.	16	IOR *
17	N.C.	18	IOW *
19	MIRQ0	20	VCC
21	VCC	22	VCC
23	GND	24	GND
25	RESET *	26	GND
27	FD_MAST.	28	A2
29	A1	30	ACT *
31	A0	32	N.C.
33	D0	34	D8
35	DD1	36	D9
37	DD2	38	D10
39	IOCS16 *	40	GND

◆ J20 - CRT VGA			
1	RED	6-8	A_GND
2	GREEN	12	N.C.
3	BLUE	13	HSYNC
4; 9; 11	N.C.	14	VSYNC
5 ; 10	GND	15	N.C.

◆ J21 - Line Out			
1	GND	3-5	N.C.
2	L_OUT	4	R_OUT

◆ J24 - Ethernet 10/100Base-TX			
1	TX+	5	N.C.
2	TX-	6	RX-
3	RX+	7	N.C.
4	N.C.	8	N.C.

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# PCI-934 TECHNICAL SPECIFICATIONS

★ **CPU TYPE & SPEED**  
Pentium 100, 120, 133, 150, 166 & 200 MHz ; Pentium 166, 200 & 233MHz MMX (K6 supported)

★ **SYSTEM MEMORY**  
DRAM FPM or EDO ; 8 to 512MB ; 72-pin SIMMs on up to four 72-pin SIMMs (2 banks)  
L1 Cache : 32KB  
L2 Cache 512KB write-back with extended cacheability ; 15ns synch. pipelined burst  
Flash Disk : 256KB (BIOS field upgrade) ; 4KB serial EEPROM (user configuration)

★ **BUS INTERFACE**  
PCI bus ; ISA bus ; internal high ISA bus driver ; PC/104-Plus compatible

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

★ **VIDEO**  
Cirrus Logic GD7556 graphics processor ; 2MB EDO video memory  
Resolutions: up to 1280x1024x256 colors (CRT) ; up to 1024x728x64K colors (Flat Panel)  
64-bit graphics engine with BitBLT ; Simultaneous CRT / Flat Panel ; PanelLink interface  
Direct interface 36-bit TFT display ; Asynchronous Digital Video Port interface

★ **I/O**  
SERIAL : two RS-232 ports, BIOS configurable as COM1-4 with RS-485 available on COM2  
PARALLEL : 1 bi-directional port (LPT1) with PCXT, AT, PS/2, EPP and ECP modes  
HARD DISK : 2 channel PCI EIDE ; drive up to 4 hard disks  
FLOPPY DISK : interface for 2 1.44 or 2.88MB floppy drives  
USB: two

★ **ETHERNET**  
10/100Base-TX Ethernet (Intel 82558)

★ **AUDIO AND MPEG**  
PnP SoundBlaster Pro™ and Windows Sound System (WSS) compatible (AD1816)  
1MB Wavetable with digital Audio Path  
Optional C-Cube video and sound MPEG-1 hardware decoder (CL480/484)  
Line In ; Line Out, Mic In

★ **POWER SUPPLY**  
VOLTAGE : +5V ±5% ; +12V ±5% ; Dual DC/DC for split voltage Pentium

★ **OS COMPATIBILITY**  
Award BIOS in Boot Block Flash  
PC and MS-DOS™ ; Windows®3.X ; Windows®95 ; Windows®NT ; OS/2®WARP  
SCO UNIX™ ; QNX™ ; NOVELL™ ; Unix Ware™

★ **OPERATING CONDITIONS**  
0°C to 60°C ; R.H. : 5% to 95% @ 40°C ; MTBF : > 90,000 hours (MIL-HDBK-217F)

★ **ELECTRICAL / MECHANICAL**  
Board dimensions : 4.8 in. x 13.33 in. (122 mm x 338 mm)  
Conforms to IEEE P996 PC/AT bus ; PCI Rev.2.1 ; PICMG Rev.2.0 and PC/104Plus Rev.1.0 spec.



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