

QUICK REFERENCE

JUMPER SETTINGS (* : Initial Setting)

WARNING
 The MediaGX processor is not pin compatible (signals and pinout) with the Pentium's family processors. Do not attempt to insert a Pentium processor on the board. This will damage both your processor and your board.

● W1, W6 - CPU Model

MediaGX processor Vcore = 2.9V	W1			W6			
	1-2	3-4	5-6	1-2	3-4	5-6	7-8
200MHz (6x)	off	on	off	on	off	off	on
233MHz (7x)	off	off	on	on	off	off	on
266MHz (8x)	off	off	off	on	off	off	on
300MHz (9x)	on	off	on	on	off	off	on

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

● W2 - VT-100 Mode

	1-2	3-4
Enabled	on	User reserved
Disabled *	off	User reserved

● W3 - Flat Panel Voltage Level

5V signal/power level *	1-2
3.3V signal/power level	2-3

● W4 - Battery

Internal Battery	1-2
External Battery *	2-3
Battery Disconnected	off

● W5 - Power Fail Detection

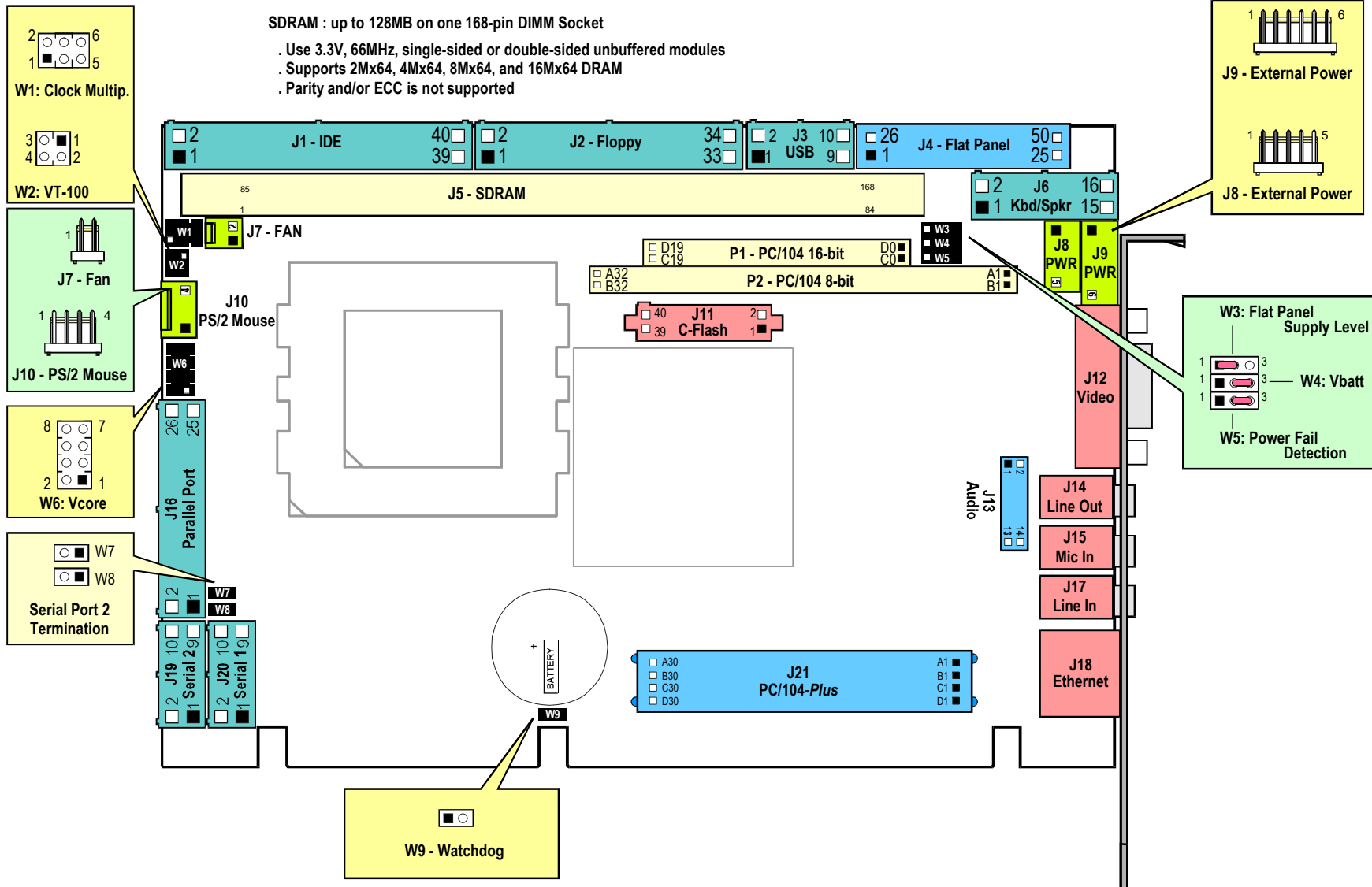
External	1-2
V Batt (3.08V) *	2-3

● W7, W8 - Serial Port 2 Termination

(set in RS-485 Mode only)	W7	W8
Termination Enabled	on	on
Termination Disabled *	off	off

● W9 - Watchdog Timer

Enabled	on
Disabled	off



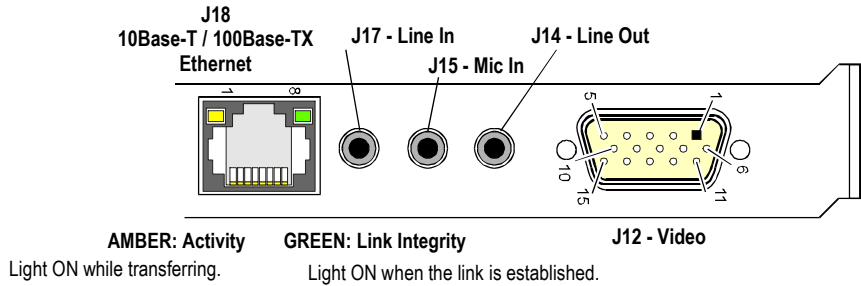
SDRAM : up to 128MB on one 168-pin DIMM Socket
 . Use 3.3V, 66MHz, single-sided or double-sided unbuffered modules
 . Supports 2Mx64, 4Mx64, 8Mx64, and 16Mx64 DRAM
 . Parity and/or ECC is not supported

W1: Clock Multip.
 W2: VT-100
 J7 - Fan
 J10 - PS/2 Mouse
 W6: Vcore
 Serial Port 2 Termination
 W7
 W8

J9 - External Power
 J8 - External Power
 W3: Flat Panel Supply Level
 W4: Vbatt
 W5: Power Fail Detection

BATTERY
 W9 - Watchdog

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.



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.
3. When using a flat panel, make sure the proper BIOS is installed.

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

◆ J1 - Enhanced IDE				* Active Low Signal			
Odd Pin Number	25	IOR *	39	ACTIVE *	30	GND	
1	RESET *	27	IOCHRDY	Even Pin Number	32	N.C.	
3-17	[HD7-HD0]	29	DACK *	2; 22-26	GND	34	N.C.
19	GND	31	IRQ14	4-18	[HD8-HD15]	36	ADD 2
21	DRQ	33; 35	ADD 1; ADD 0	20	N.C.	38	CS 1 *
23	IOW *	37	CS 0 *	28	GND	40	GND

◆ J2 - Floppy Disk				* Active Low Signal			
Odd Pin Number	8	INDEX *	22	WDATA *			
1-27	GND	10	MTR 0 *	24	WGATE *		
29; 33	N.C.	12	DRIVE SEL. 1 *	26	TRACK 0 *		
31	GND	14	DRIVE SEL. 0 *	28	WRITE PROTECT *		
Even Pin Number	16	MTR 1 *	30	RDATA *			
2	DRVEN 0	18	DIR CONTROL *	32	HEAD SELECT *		
4; 6	N.C.	20	STEP *	34	DSKCHG *		

◆ J3 - USB			
VCC	1	2	VCC
SBP0-	3	4	SBP1-
SBP0+	5	6	SBP1+
GND	7	8	GND
GND	9	10	GND

◆ J4 - Flat Panel				* Active Low Signal			
Odd Pin Number	29	N.C.	Even Pin Number	22	FP_VSYNC		
1	B2	31	GP1	2	B3	26	FP_DE
3	B4	33; 37	ENABKL/ENAVEE	4	B5	28; 32-36	GND
5	G2	35	FP_HSYNC	6	G3	30	GP0
7	G4	39	B0	8	G5	38	ENVDD
9	R1	41	N.C.	10	R0	40	GP2
11	G1	43	N.C.	12	G0	42-44	N.C.
13	R5	45	N.C.	14	R4	46	N.C.
15	R3	47	FPVAR_SW (3.3/5V Select)	16	R2	48	FPVAR_SW (3.3/5V Select)
17-21; 25-27	GND			18	FP_DCLK		
23	B1	49	+12V	20-24	N.C.	50	+12V

◆ J6 - Multi-Function			* Active Low Signal			◆ J7 - CPU Fan	
Odd Pin Number	7	SPEAKER	15	HD_ACT *	1	+5V	
1	KBCLK	9	N.C.	Even Pin Number	2	GND	
3	KDATA	11	User Reserved	2-4; 10-14	GND		
5	VCC (+5V)	13	PBRES *	6-8; 16	VCC (+5V)		

◆ J8 - Power.		◆ J11 - IDE CompactFlash				* Active Low Signal			
1	VCC (+5V)	Odd Pin Number	33-37	[DD0-DD2]					
2	GND	1-9	[DD11-DD15]	39	N.C.				
3	GND	11	CS3 *	Even Pin Number					
4	VCC (+5V)	13	DACK *	2; 24-26; 40	GND				
5	VCC (+5V)	15	DRQ	4-12	[DD3-DD7]				
		17	PDIAG *	14	CS1 *				
		19	IRQ	16	IOR *				
		21	VCC	18	IOW *				
		23	GND	20-22	VCC				
		25	RESET *	28	DA2				
		27	M/S	30	ACTIVE *				
		29	DA1	32	IORDY				
		31	DA0	34-38	[DD8-DD10]				

◆ J10 - PS/2 Mouse		◆ J12 - CRT VGA Interface			◆ J13 - Audio Interface				
1	MCLK	1	RED	9,11	N.C.	1	MIC1	2	A_GND
2	GND	2	GREEN	10	GND	3	LINL	4	A_GND
3	MDATA	3	BLUE	12	I2CDATA	5	LINR	6	A_GND
4	VCC	4	N.C.	13	HSYNC	7	LOUL	8	A_GND
		5	GND	14	VSYN	9	LOUR	10	A_GND
		6-8	A_GND	15	I2CCLK	11	AUX-L	12	A_GND
						13	AUX-R	14	Reserved

◆ J14 - Line Out				
1	GND			
2	OUTR			
3	LOUL			
4	OUTL			
5	LOUR			

◆ J15 - MIC In				
1	GND			
2	MIC1			
3	N.C.			
4	N.C.			
5	FMIC1			

◆ J16 - Parallel Port (Std Mode)				
STROBE *	1	2	AUTOFD *	
[D0-D7]	3-17	4	ERROR *	
ACK *	19	6	INIT *	
BUSY	21	8	SELECTIN *	
PE	23	10-18	GND	
SELECT	25	20-26	GND	

* Active Low Signal

◆ J17 - Line In				
1	GND			
2	INR			
3	LINL			
4	INL			
5	LINR			

◆ J18 - Ethernet				
1	TX+	5	N.C.	
2	TX-	6	RX-	
3	RX+	7	N.C.	
4	N.C.	8	N.C.	

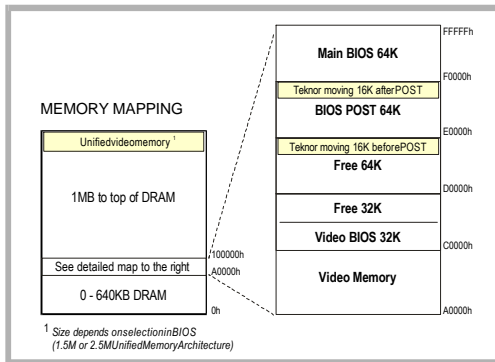
◆ J19 - Serial Port 2				
DCD 2	1	2	DSR 2	
RXD 2	3	4	RTS 2	
TXD 2	5	6	CTS 2	
DTR 2	7	8	RI 2	
GND	9	10	N.C.	

◆ J19 - 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	N.C.	

* Active Low Signal

◆ J20 - Serial Port 1 (RS-232)				
DCD 1 *	1	2	DSR 1 *	
RXD 1 *	3	4	RTS 1 *	
TXD 1	5	6	CTS 1 *	
DTR 1 *	7	8	RI 1 *	
GND	9	10	N.C.	

* Active Low Signal



The Technical Reference Manual can be downloaded from the TEKNOR Web Site at www.teknor.com.

To order a hard copy of the Technical Reference Manual, contact Customer Service at (450) 437-5682.

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PCI-826 TECHNICAL SPECIFICATIONS

- ☀ **CPU TYPE & SPEED**
MMX Enhanced MediaGX processor from Cyrix ; 200, 233, 266 and 300MHz
- ☀ **MEMORY**
SYSTEM MEMORY: Up to 128MB of 66MHz unbuffered SDRAM on one 168-pin DIMM socket
Standard 3.3V only; single-sided or double-sided; Parity and/or ECC not supported
CACHE MEMORY: 16KB unified CPU-internal L1 cache
FLASH BIOS: 256KB Boot Block Flash BIOS
- ☀ **BUS INTERFACE**
PC/AT bus or stand-alone operation
PCI Rev 2.1 compliant ; PC/104 Plus (2 master REQ/GNT pairs) ; USB
IDE CompactFlash ; ISA (bus master or IOCHK parity trapping not supported)
- ☀ **DATA PATH**
64-bit on CPU and memory bus; 32-bit on PCI bus; 16-bit on ISA bus
- ☀ **VIDEO**
MediaGX built-in video controller for graphics processing at the full processor clock speed
Resolutions: upto 1280x1024x256 colors (CRT); upto 1024x768x64K colors (Flat Panel)
Simultaneous CRT / Flat Panel ; 3.3V or 5V Flat Panel type selection using jumper
Video memory through unified system memory (SDRAM)
- ☀ **AUDIO**
MediaGX built-in 16-bit stereo controller ; PC97 compliant ; Line IN, Line OUT ; MIC IN ; AUX IN.
- ☀ **I/O**
SERIAL: two RS-232 ports configurable as COM1-4 with RS-485 available on COM2
PARALLEL: 1 bi-directional port (LPT1) with PC/XT, AT, PS/2, EPP and ECP modes
HARD DISK: Enhanced IDE interface (2 devices +1 CompactFlash disk) ; UDMA 33
FLOPPY DISK: interface for 2.44 or 2.88MB floppy drives
USER FLASH: support for CompactFlash disk; IDE compatible
USB: supports two ports, serial transfers upto 1.5MB/s
- ☀ **ETHERNET**
10Base-T/100Base-TX; PCI Rev. 2.1 compliant bus master ; LAN bootable
- ☀ **POWER**
VOLTAGE: +5V ±5% ; +12V ±5%
- ☀ **OPERATING CONDITIONS**
T.B.D.
- ☀ **ELECTRICAL / MECHANICAL**
Board dimensions: 4.8in. by 13.33in. / 121.9mm by 338.5mm
Conforms to IEEE P996 PC/AT bus spec¹; PCI Rev. 2.1 spec.; PICMG Rev. 2.0
¹ no external bus master or IOCHK support