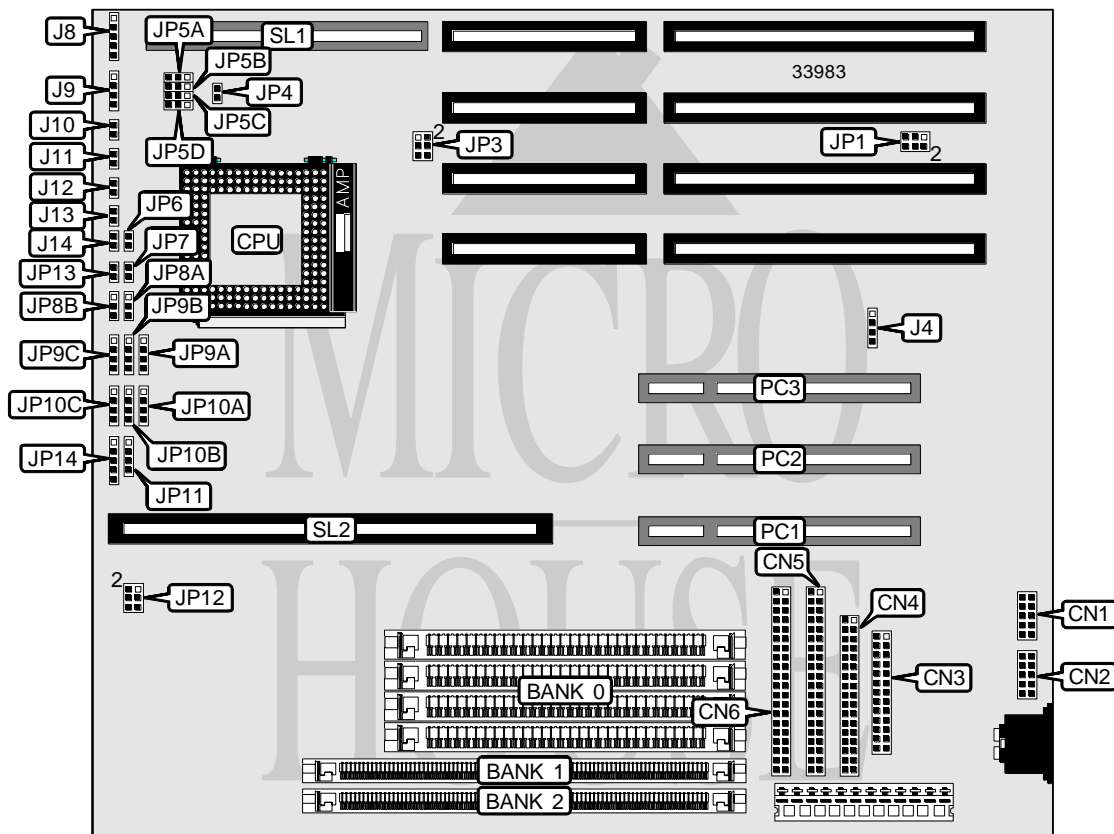


PC WARE INTERNATIONAL, INC.

MB-U88IVIP1M

Processor	CX486DX/IBM486DX/TI486DX/SGS486DX/80486DX/CX486DX2/ IBM486DX2/TI486DX2/SGS486DX2/AM486DX2/80486DX2/ CX486DX4/IBM486DX4/TI486DX4/SGS486DX4/AM486DX4/ 80486DX4/P24D/CX5X86/AM K5
Processor Speed	25/33/40/50(internal)/50/66(internal)/75(internal)/80(internal)/ 100(internal)/ 120(internal)/133MHz
Chip Set	UMC
Video Chip Set	None
Maximum Onboard Memory	128MB
Maximum Video Memory	None
Cache	128/256/512/1024KB
BIOS	AMI
Dimensions	250mm x 220mm
I/O Options	32-bit VESA local bus slot, 32-bit PCI slots (3), floppy drive interface, green PC connector, IDE interfaces (2), parallel port, serial ports (2), cache slot
NPU Options	None



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CONNECTIONS			
Purpose	Location	Purpose	Location
Serial port 1	CN1	Turbo LED	J10
Serial port 2	CN2	Reset switch	J11
Parallel port	CN3	Turbo switch	J12
Floppy drive interface	CN4	IDE interface LED	J13
IDE interface 1	CN5	Green PC connector	J14
IDE interface 2	CN6	32-bit PCI slots	PC1 - PC3
External battery	J4	32-bit VESA local bus slot	SL1
Power LED & keylock	J8	Cache slot	SL2
Speaker	J9		

USER CONFIGURABLE SETTINGS		
Function	Label	Position
í Battery type select internal	J4	Closed
Battery type select external	J4	Pins 2 & 3 closed
í CMOS memory clear	J4	Pins 3 & 4 closed
Factory configured - do not alter	JP1	N/A
í Flash BIOS voltage select 12v	JP2	Pins 1 & 2 closed
Flash BIOS voltage select 5v	JP2	Pins 2 & 3 closed

Note: The location of JP2 is unidentified.

DRAM CONFIGURATION			
Size	Bank 0	Bank 1	Bank 2
1MB	(4) 256K x 9	None	None
1MB	None	(1) 256K x 36	None
2MB	(4) 256K x 9	(1) 256K x 36	None
2MB	None	(1) 256K x 36	(1) 256K x 36
3MB	(4) 256K x 9	(1) 256K x 36	(1) 256K x 36
4MB	(4) 1M x 9	None	None
4MB	None	(1) 1M x 36	None
5MB	(4) 1M x 9	(1) 256K x 36	None
5MB	(4) 256K x 9	(1) 1M x 36	None
6MB	(4) 1M x 9	(1) 256K x 36	(1) 256K x 36
8MB	(4) 1M x 9	(1) 1M x 36	None
8MB	None	(1) 1M x 36	(1) 1M x 36
8MB	None	(1) 2M x 36	None
9MB	(4) 256K x 9	(1) 1M x 36	(1) 1M x 36
9MB	(4) 256K x 9	(1) 2M x 36	None
12MB	(4) 1M x 9	(1) 1M x 36	(1) 1M x 36
12MB	(4) 1M x 9	(1) 2M x 36	None
16MB	(4) 4M x 9	None	None
16MB	None	(1) 2M x 36	(1) 2M x 36
16MB	None	(1) 4M x 36	None
17MB	(4) 4M x 9	(1) 256K x 36	None

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DRAM CONFIGURATION (CON'T)			
Size	Bank 0	Bank 1	Bank 2
17MB	(4) 256K x 9	(1) 2M x 36	(1) 2M x 36
17MB	(4) 256K x 9	(1) 4M x 36	None
18MB	(4) 4M x 9	(1) 256K x 36	(1) 256K x 36
20MB	(4) 4M x 9	(1) 1M x 36	None
20MB	(4) 1M x 9	(1) 2M x 36	(1) 2M x 36
20MB	(4) 1M x 9	(1) 4M x 36	None
24MB	(4) 4M x 9	(1) 1M x 36	(1) 1M x 36
24MB	(4) 4M x 9	(1) 2M x 36	None
32MB	(4) 4M x 9	(1) 2M x 36	(1) 2M x 36
32MB	(4) 4M x 9	(1) 4M x 36	None
32MB	None	(1) 4M x 36	(1) 4M x 36
32MB	None	(1) 8M x 36	None
33MB	(4) 256K x 9	(1) 4M x 36	(1) 4M x 36
33MB	(4) 256K x 9	(1) 8M x 36	None
36MB	(4) 1M x 9	(1) 4M x 36	(1) 4M x 36
36MB	(4) 1M x 9	(1) 8M x 36	None
48MB	(4) 4M x 9	(1) 4M x 36	(1) 4M x 36
48MB	(4) 4M x 9	(1) 8M x 36	None
64MB	(4) 16M x 9	None	None
64MB	None	(1) 8M x 36	(1) 8M x 36
64MB	None	(1) 16M x 36	None
65MB	(4) 16M x 9	(1) 256K x 36	None
65MB	(4) 256K x 9	(1) 8M x 36	(1) 8M x 36
65MB	(4) 256K x 9	(1) 16M x 36	None
66MB	(4) 16M x 9	(1) 256K x 36	(1) 256K x 36
68MB	(4) 16M x 9	(1) 1M x 36	None
68MB	(4) 1M x 9	(1) 8M x 36	(1) 8M x 36
68MB	(4) 1M x 9	(1) 16M x 36	None
72MB	(4) 16M x 9	(1) 1M x 36	(1) 1M x 36
72MB	(4) 16M x 9	(1) 2M x 36	None
80MB	(4) 16M x 9	(1) 2M x 36	(1) 2M x 36
80MB	(4) 16M x 9	(1) 4M x 36	None
80MB	(4) 4M x 9	(1) 8M x 36	(1) 8M x 36
80MB	(4) 4M x 9	(1) 16M x 36	None
96MB	(4) 16M x 9	(1) 4M x 36	(1) 4M x 36
96MB	(4) 16M x 9	(1) 8M x 36	None
128MB	(4) 16M x 9	(1) 8M x 36	(1) 8M x 36
128MB	(4) 16M x 9	(1) 16M x 36	None
128MB	None	(1) 16M x 36	(1) 16M x 36
128MB	None	(1) 32M x 36	None

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CACHE CONFIGURATION	
Size	SL1
128KB	128KB module installed
256KB	256KB module installed
512KB	512KB module installed
1MB	1MB module installed

CPU TYPE CONFIGURATION					
Type	JP6	JP7	JP13	JP8A	JP8B
CX486DX	Open	Open	Open	Open	1 & 2
IBM486DX	Open	Open	Open	Open	1 & 2
TI486DX	Open	Open	Open	Open	1 & 2
SGS486DX	Open	Open	Open	Open	1 & 2
80486DX	Open	Closed	Open	2 & 3	Open
CX486DX2	Open	Open	Open	Open	1 & 2
IBM486DX2	Open	Open	Open	Open	1 & 2
TI486DX2	Open	Open	Open	Open	1 & 2
SGS486DX2	Open	Open	Open	Open	1 & 2
AM486DX2	Open	Closed	Open	2 & 3	Open
80486DX2	Open	Closed	Open	2 & 3	Open
CX486DX4	Open	Open	Open	Open	1 & 2
(SL)CX486DX4	Open	Open	Closed	1 & 2	Open
IBM486DX4	Open	Open	Open	Open	1 & 2
(SL)IBM486DX4	Open	Open	Closed	1 & 2	Open
TI486DX4	Open	Open	Open	Open	1 & 2
SGS486DX4	Open	Open	Open	Open	1 & 2
(SL)SGS486DX4	Open	Open	Closed	1 & 2	Open
AM486DX4	Open	Closed	Open	2 & 3	Open
80486DX4	Open	Open	Open	2 & 3	Open
P24D	Open	Open	Open	1 & 2	Open
CX5X86-133	Closed	Open	Open	1 & 2	Open
AM X5	Closed	Open	Open	1 & 2	Open

Note: Pins designated should be in the closed position.

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CPU TYPE CONFIGURATION (CON'T)					
Type	JP9A	JP9B	JP9C	JP10A	JP10B
CX486DX	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
IBM486DX	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
TI486DX	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
SGS486DX	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
80486DX	2 & 3	Open	Open	3 & 4	Open
CX486DX2	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
IBM486DX2	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
TI486DX2	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
SGS486DX2	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
AM486DX2	2 & 3	Open	Open	3 & 4	Open
80486DX2	2 & 3	Open	Open	3 & 4	Open
CX486DX4	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
(SL)CX486DX4	1 & 2	1 & 2, 3 & 4	3 & 4	3 & 4	1 & 2, 3 & 4
IBM486DX4	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
(SL)IBM486DX4	1 & 2	1 & 2, 3 & 4	3 & 4	3 & 4	1 & 2, 3 & 4
TI486DX4	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
SGS486DX4	1 & 2	1 & 2	2 & 3	3 & 4	2 & 3
(SL)SGS486DX4	1 & 2	1 & 2, 3 & 4	3 & 4	3 & 4	1 & 2, 3 & 4
AM486DX4	2 & 3	Open	Open	3 & 4	Open
80486DX4	1 & 2	1 & 2	Open	3 & 4	1 & 2
P24D	1 & 2	1 & 2, 3 & 4	3 & 4	3 & 4	1 & 2, 3 & 4
CX5X86-133	1 & 2	1 & 2, 3 & 4	3 & 4	3 & 4	1 & 2, 3 & 4
AM X5	1 & 2	1 & 2, 3 & 4	3 & 4	3 & 4	1 & 2, 3 & 4

Note: Pins designated should be in the closed position.

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CPU TYPE CONFIGURATION (CON'T)				
Type	JP10C	JP11	JP12	JP14
CX486DX	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
IBM486DX	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
TI486DX	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
SGS486DX	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
80486DX	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	Open
CX486DX2	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
IBM486DX2	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
TI486DX2	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
SGS486DX2	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
AM486DX2	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	Open
80486DX2	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	Open
CX486DX4	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
(SL)CX486DX4	1 & 2, 3 & 4	Open	2 & 4, 3 & 5	2 & 3, 4 & 5
IBM486DX4	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
(SL)IBM486DX4	1 & 2, 3 & 4	Open	2 & 4, 3 & 5	2 & 3, 4 & 5
TI486DX4	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
SGS486DX4	1 & 2, 3 & 4	2 & 3	2 & 4, 3 & 5	1 & 2, 3 & 4
(SL)SGS486DX4	1 & 2, 3 & 4	Open	2 & 4, 3 & 5	2 & 3, 4 & 5
AM486DX4	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	Open
80486DX4	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	2 & 3, 4 & 5
P24D	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	2 & 3, 4 & 5
CX5X86-133	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	2 & 3, 4 & 5
AM X5	1 & 2, 3 & 4	Open	1 & 3, 2 & 4	2 & 3, 4 & 5

Note: Pins designated should be in the closed position.

CPU SPEED CONFIGURATION (DX4/5X86/X5 ONLY)	
Speed	JP6
2x	Closed
3x	Open
4x	Closed

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CPU SPEED CONFIGURATION	
Speed	JP3
25MHz	Pins 5 & 6 closed
33MHz	Pins 1 & 2, 3 & 4, 5 & 6 closed
40MHz	Pins 3 & 4, 5 & 6 closed
50iMHz	Pins 5 & 6 closed
50MHz	Pins 1 & 2 closed
66iMHz	Pins 1 & 2, 3 & 4, 5 & 6 closed
75iMHz	Pins 5 & 6 closed
80iMHz	Pins 3 & 4, 5 & 6 closed
100iMHz	Pins 1 & 2, 3 & 4, 5 & 6 closed
120iMHz	Pins 3 & 4, 5 & 6 closed
133iMHz	Pins 1 & 2, 3 & 4, 5 & 6 closed

CPU VOLTAGE CONFIGURATION					
Voltage	JP4	JP5A	JP5B	JP5C	JP5D
3.3v	Closed	1 & 2	1 & 2	1 & 2	1 & 2
4v	Open	1 & 2	1 & 2	1 & 2	1 & 2
5v	Closed	2 & 3	2 & 3	2 & 3	2 & 3
Note: Pins designated should be in the closed position.					