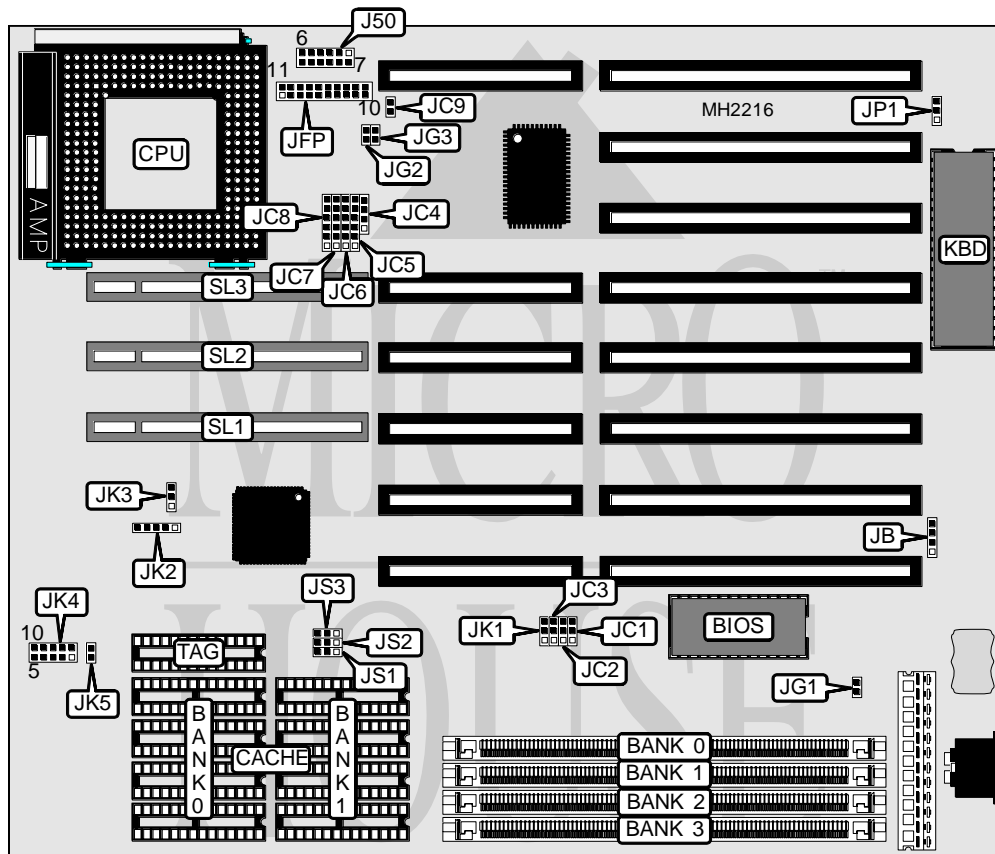


MICRO-STAR INTERNATIONAL CO., LTD.

MS-4137 (VLB 486 AL5)

Processor	80486SX/CX486M7/AMD486DXL/80486DX/80486DX2/Pentium Overdrive
Processor Speed	25/33/40/50(internal)/50/66(internal)/75(internal)/100(internal)MHz
Chip Set	ALI
Max. Onboard DRAM	64MB
Cache	128/256KB
BIOS	AMI
Dimensions	254mm x 220mm
I/O Options	32-bit VESA local bus slots (3), green PC connector
NPU Options	None



CONNECTIONS			
Purpose	Location	Purpose	Location
External battery	JB	Reset switch	JFP (pins 19-20)
Power LED & keylock	JFP (pins 1-5)	Green PC connector	JG1
Speaker	JFP (pins 7-10)	Green PC connector	JG2
Green PC connector	JFP (pins 9-10)	Green PC connector	JG3
Turbo LED	JFP (pins 12-13)	32-bit VESA local bus slots	SL1 - SL3
Turbo switch	JFP (pins 15-17)		

Note: If speaker is installed, JFP (pins 9-10) are not used.

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USER CONFIGURABLE SETTINGS		
Function	Jumper	Position
í Battery type select internal	JB	pins 2 & 3 closed
Battery type select external	JB	Closed
í CPU type select Intel/AMD	JC1	pins 1 & 2 closed
CPU type select Cyrix	JC1	pins 2 & 3 closed
í Factory configured - do not alter	JC2	Open
í Factory configured - do not alter	JC3	Open
í Factory configured - do not alter	JC9	Open
í CPU type select P24C not installed	JK5	Closed
CPU type select P24C installed	JK5	Open
í Monitor type select monochrome	JP1	pins 1 & 2 closed
Monitor type select color	JP1	pins 2 & 3 closed

DRAM CONFIGURATION				
Size	Bank 0	Bank 1	Bank 2	Bank 3
1MB	(1) 256K x 36	NONE	NONE	NONE
2MB	(1) 256K x 36	(1) 256K x 36	NONE	NONE
3MB	(1) 256K x 36	(1) 512K x 36	NONE	NONE
3MB	(1) 256K x 36	(1) 256K x 36	(1) 256K x 36	NONE
3MB	(1) 512K x 36	(1) 256K x 36	NONE	NONE
4MB	(1) 1M x 36	NONE	NONE	NONE
4MB	(1) 256K x 36	(1) 256K x 36	(1) 256K x 36	(1) 256K x 36
4MB	(1) 512K x 36	(1) 512K x 36	NONE	NONE
4MB	(1) 512K x 36	(1) 256K x 36	(1) 256K x 36	NONE
5MB	(1) 256K x 36	(1) 1M x 36	NONE	NONE
5MB	(1) 1M x 36	(1) 256K x 36	NONE	NONE
6MB	(1) 1M x 36	(1) 512K x 36	NONE	NONE
6MB	(1) 256K x 36	(1) 256K x 36	(1) 1M x 36	NONE
6MB	(1) 256K x 36	(1) 1M x 36	(1) 256K x 36	NONE
6MB	(1) 512K x 36	(1) 1M x 36	NONE	NONE
7MB	(1) 256K x 36	(1) 256K x 36	(1) 256K x 36	(1) 1M x 36
7MB	(1) 512K x 36	(1) 256K x 36	(1) 1M x 36	NONE
8MB	(1) 1M x 36	(1) 1M x 36	NONE	NONE
9MB	(1) 256K x 36	(1) 2M x 36	NONE	NONE
9MB	(1) 256K x 36	(1) 1M x 36	(1) 1M x 36	NONE
9MB	(1) 1M x 36	(1) 1M x 36	(1) 256K x 36	NONE
9MB	(1) 2M x 36	(1) 256K x 36	NONE	NONE
10MB	(1) 512K x 36	(1) 2M x 36	NONE	NONE
10MB	(1) 2M x 36	(1) 512K x 36	NONE	NONE
10MB	(1) 2M x 36	(1) 256K x 36	(1) 256K x 36	NONE
10MB	(1) 512K x 36	(1) 1M x 36	(1) 1M x 36	NONE
12MB	(1) 1M x 36	(1) 2M x 36	NONE	NONE
12MB	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36	NONE
12MB	(1) 2M x 36	(1) 1M x 36	NONE	NONE

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DRAM CONFIGURATION (CON'T)				
Size	Bank 0	Bank 1	Bank 2	Bank 3
13MB	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36	(1) 256K x 36
13MB	(1) 2M x 36	(1) 256K x 36	(1) 1M x 36	NONE
16MB	(1) 4M x 36	NONE	NONE	NONE
16MB	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36
16MB	(1) 2M x 36	(1) 2M x 36	NONE	NONE
16MB	(1) 2M x 36	(1) 1M x 36	(1) 1M x 36	NONE
17MB	(1) 256K x 36	(1) 4M x 36	NONE	NONE
17MB	(1) 4M x 36	(1) 256K x 36	NONE	NONE
18MB	(1) 4M x 36	(1) 512K x 36	NONE	NONE
18MB	(1) 256K x 36	(1) 256K x 36	(1) 4M x 36	NONE
18MB	(1) 512K x 36	(1) 4M x 36	NONE	NONE
19MB	(1) 256K x 36	(1) 256K x 36	(1) 256K x 36	(1) 4M x 36
19MB	(1) 512K x 36	(1) 256K x 36	(1) 4M x 36	NONE
20MB	(1) 1M x 36	(1) 4M x 36	NONE	NONE
20MB	(1) 4M x 36	(1) 1M x 36	NONE	NONE
21MB	(1) 256K x 36	(1) 1M x 36	(1) 4M x 36	NONE
21MB	(1) 4M x 36	(1) 1M x 36	(1) 256K x 36	NONE
22MB	(1) 512K x 36	(1) 1M x 36	(1) 4M x 36	NONE
22MB	(1) 512K x 36	(1) 1M x 36	(1) 4M x 36	NONE
24MB	(1) 4M x 36	(1) 2M x 36	NONE	NONE
24MB	(1) 1M x 36	(1) 1M x 36	(1) 4M x 36	NONE
24MB	(1) 4M x 36	(1) 1M x 36	(1) 1M x 36	NONE
24MB	(1) 1M x 36	(1) 1M x 36	(1) 4M x 36	NONE
24MB	(1) 2M x 36	(1) 4M x 36	NONE	NONE
24MB	(1) 2M x 36	(1) 1M x 36	(1) 1M x 36	NONE
25MB	(1) 2M x 36	(1) 256K x 36	(1) 4M x 36	NONE
28MB	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36	(1) 4M x 36
28MB	(1) 2M x 36	(1) 1M x 36	(1) 4M x 36	NONE
32MB	(1) 4M x 36	(1) 4M x 36	NONE	NONE
33MB	(1) 256K x 36	(1) 8M x 36	NONE	NONE
33MB	(1) 4M x 36	(1) 4M x 36	(1) 256K x 36	NONE
33MB	(1) 8M x 36	(1) 256K x 36	NONE	NONE
34MB	(1) 512K x 36	(1) 8M x 36	NONE	NONE
34MB	(1) 8M x 36	(1) 512K x 36	NONE	NONE
34MB	(1) 8M x 36	(1) 256K x 36	(1) 256K x 36	NONE
36MB	(1) 1M x 36	(1) 8M x 36	NONE	NONE
36MB	(1) 4M x 36	(1) 1M x 36	(1) 4M x 36	NONE
36MB	(1) 4M x 36	(1) 4M x 36	(1) 1M x 36	NONE
36MB	(1) 8M x 36	(1) 1M x 36	NONE	NONE
37MB	(1) 8M x 36	(1) 256K x 36	(1) 1M x 36	NONE
40MB	(1) 2M x 36	(1) 8M x 36	NONE	NONE
40MB	(1) 8M x 36	(1) 2M x 36	NONE	NONE

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DRAM CONFIGURATION (CON'T)				
Size	Bank 0	Bank 1	Bank 2	Bank 3
40MB	(1) 8M x 36	(1) 1M x 36	(1) 1M x 36	NONE
48MB	(1) 4M x 36	(1) 8M x 36	NONE	NONE
48MB	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36	NONE
48MB	(1) 8M x 36	(1) 4M x 36	NONE	NONE
49MB	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36	(1) 256K x 36
49MB	(1) 8M x 36	(1) 256K x 36	(1) 4M x 36	NONE
52MB	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36	(1) 1M x 36
52MB	(1) 8M x 36	(1) 1M x 36	(1) 4M x 36	NONE
64MB	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36
64MB	(1) 8M x 36	(1) 8M x 36	NONE	NONE

CACHE CONFIGURATION			
Size	Bank 0	Bank 1	TAG
128KB	(4) 32K x 8	NONE	(1) 8K/16K/32K x 8
256KB	(4) 32K x 8	(4) 32K x 8	(1) 16K/32K x 8
256KB	(4) 64K x 8	NONE	(1) 16K/32K x 8

CACHE JUMPER CONFIGURATION			
Size	JS1	JS2	JS3
128KB	pins 2 & 3 closed	pins 2 & 3 closed	pins 2 & 3 closed
256KB	pins 1 & 2 closed	pins 1 & 2 closed	pins 2 & 3 closed
256KB	pins 2 & 3 closed	pins 1 & 2 closed	pins 2 & 3 closed

CPU TYPE CONFIGURATION			
Type	JC4	JC5	JC6
80486SX	2 & 3	4 & 5	Open
SL80486SX	2 & 3	5 & 6	JC5 pin1 & JC6 pin1
80486DX/DX2	1 & 2, 3 & 4	4 & 5	3 & 4
CX486M7	1 & 2, 3 & 4	2 & 3, 5 & 6	3 & 4, 5 & 6
AMD486DXL	1 & 2, 3 & 4	4 & 5	3 & 4
SL80486DX/DX2/DX4	1 & 2, 3 & 4	5 & 6	3 & 4, JC5 pin1 & JC6 pin1
Pentium Overdrive	1 & 2, 3 & 4	5 & 6	2 & 3, JC5 pin1 & JC6 pin1

Note: Pins designated should be in the closed position.

CPU TYPE CONFIGURATION (CON'T)		
Type	JC7	JC8
80486SX	Open	pins 4 & 5 closed
SL80486SX	5 & 6	JC7 pin1 & JC8 pin1
80486DX/DX2	Open	4 & 5
CX486M7	2 & 3, 4 & 5	4 & 5
AMD486DXL	JC6 pin1 & JC7 pin1, JC6 pin5 & JC7 pin5	4 & 5
SL80486DX/DX2/DX4	5 & 6	4 & 5, JC7 pin1 & JC8 pin1
Pentium Overdrive	5 & 6	4 & 5, JC7 pin1 & JC8 pin1

Note: Pins designated should be in the closed position.

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CPU SPEED CONFIGURATION				
Speed	JK1	JK2	JK3	JK4
25MHz	1 & 2	2 & 3	2 & 3	1 & 6, 4 & 9, 5 & 10
33MHz	1 & 2	2 & 3	2 & 3	1 & 6, 2 & 7, 3 & 8, 4 & 9, 5 & 10
40MHz	2 & 3	4 & 5	2 & 3	2 & 7, 5 & 10
50iMHz	1 & 2	2 & 3	2 & 3	1 & 6, 4 & 9, 5 & 10
50MHz	2 & 3	1 & 2	1 & 2	1 & 6, 4 & 9
66iMHz	1 & 2	2 & 3	2 & 3	1 & 6, 2 & 7, 3 & 8, 4 & 9, 5 & 10
75iMHz	1 & 2	2 & 3	2 & 3	1 & 6, 4 & 9, 5 & 10
100iMHz	1 & 2	2 & 3	2 & 3	1 & 6, 2 & 7, 3 & 8, 4 & 9, 5 & 10
Note: Pins designated should be in the closed position.				

VOLTAGE CONFIGURATION	
Voltage	J50
3.3v	pins 1 & 2, 3 & 4, 5 & 6 closed
5v	pins 7 & 8, 9 & 10 11 & 12 closed
Note: The mainboard can only support 5v when a 3.3v regulator is not installed.	