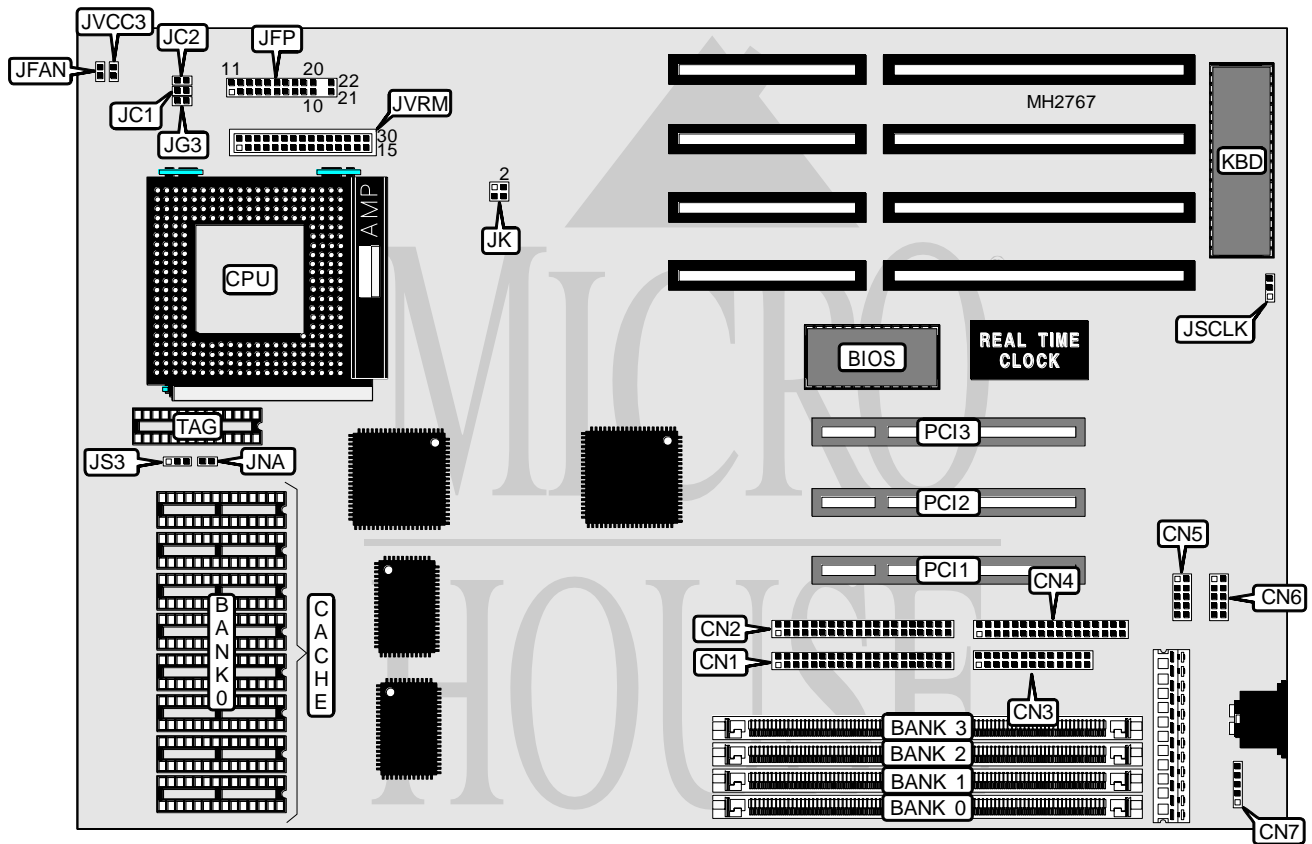


# MICRO-STAR INTERNATIONAL CO., LTD.

## MS - 5 1 1 9

<b>Processor</b>	Pentium
<b>Processor Speed</b>	75/90/100/120/133MHz
<b>Chip Set</b>	Intel
<b>Max. Onboard DRAM</b>	128MB
<b>Cache</b>	256/512KB
<b>BIOS</b>	AMI
<b>Dimensions</b>	260mm x 220mm
<b>I/O Options</b>	Parallel port, serial ports (2), IDE interfaces (2), floppy drive interface, green PC connector, 32-bit PCI slots (3), PS/2 mouse connector
<b>NPU Options</b>	None



CONNECTIONS			
Purpose	Location	Purpose	Location
IDE interface (primary)	CN1	Speaker	JFP pins 7 - 10
IDE interface (secondary)	CN2	Turbo LED	JFP pins 12 & 13
Floppy drive interface	CN3	Turbo switch	JFP pins 15 - 17
Parallel port	CN4	Reset switch	JFP pins 19 & 20
Serial port 2	CN5	IDE interface LED	JFP pins 21 & 22
Serial port 1	CN6	Green PC connector	JG3
PS/2 mouse connector	CN7	32-bit PCI slots	PCI1 - PCI3
Chassis fan power	JFAN	Voltage regulator module	JVRM
Power LED & keylock	JFP pins 1 - 5		

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USER CONFIGURABLE SETTINGS		
Function	Jumper	Position
í Next address disabled	JNA	Open
Next address enabled	JNA	Closed
í PCI bus clock/3	JSCLK	pins 1 & 2 closed
PCI bus clock/4	JSCLK	pins 2 & 3 closed

DRAM CONFIGURATION				
Size	Bank 0	Bank 1	Bank 2	Bank 3
4MB	(1) 1M x 36	NONE	NONE	NONE
4MB	NONE	NONE	(1) 1M x 36	NONE
8MB	(1) 2M x 36	NONE	NONE	NONE
8MB	NONE	NONE	(1) 2M x 36	NONE
8MB	(1) 1M x 36	(1) 1M x 36	NONE	NONE
8MB	NONE	NONE	(1) 1M x 36	(1) 1M x 36
16MB	(1) 4M x 36	NONE	NONE	NONE
16MB	NONE	NONE	(1) 4M x 36	NONE
16MB	(1) 2M x 36	(1) 2M x 36	NONE	NONE
16MB	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36	(1) 1M x 36
16MB	NONE	NONE	(1) 2M x 36	(1) 2M x 36
24MB	(1) 1M x 36	(1) 1M x 36	(1) 2M x 36	(1) 2M x 36
24MB	(1) 2M x 36	(1) 2M x 36	(1) 1M x 36	(1) 1M x 36
32MB	(1) 8M x 36	NONE	NONE	NONE
32MB	NONE	NONE	(1) 8M x 36	NONE
32MB	(1) 4M x 36	(1) 4M x 36	NONE	NONE
32MB	(1) 2M x 36	(1) 2M x 36	(1) 2M x 36	(1) 2M x 36
32MB	NONE	NONE	(1) 4M x 36	(1) 4M x 36
40MB	(1) 1M x 36	(1) 1M x 36	(1) 4M x 36	(1) 4M x 36
40MB	(1) 4M x 36	(1) 4M x 36	(1) 1M x 36	(1) 1M x 36
48MB	(1) 4M x 36	(1) 4M x 36	(1) 2M x 36	(1) 2M x 36
48MB	(1) 2M x 36	(1) 2M x 36	(1) 4M x 36	(1) 4M x 36
64MB	(1) 16M x 36	NONE	NONE	NONE
64MB	NONE	NONE	(1) 16M x 36	NONE
64MB	(1) 8M x 36	(1) 8M x 36	NONE	NONE
64MB	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36	(1) 4M x 36
64MB	NONE	NONE	(1) 8M x 36	(1) 8M x 36
72MB	(1) 1M x 36	(1) 1M x 36	(1) 8M x 36	(1) 8M x 36
72MB	(1) 8M x 36	(1) 8M x 36	(1) 1M x 36	(1) 1M x 36
80MB	(1) 2M x 36	(1) 2M x 36	(1) 8M x 36	(1) 8M x 36
80MB	(1) 8M x 36	(1) 8M x 36	(1) 2M x 36	(1) 2M x 36
96MB	(1) 4M x 36	(1) 4M x 36	(1) 8M x 36	(1) 8M x 36
96MB	(1) 8M x 36	(1) 8M x 36	(1) 4M x 36	(1) 4M x 36
128MB	(1) 32M x 36	NONE	NONE	NONE
128MB	NONE	NONE	(1) 32M x 36	NONE

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DRAM CONFIGURATION (CON'T)				
Size	Bank 0	Bank 1	Bank 2	Bank 3
128MB	(1) 16M x 36	(1) 16M x 36	NONE	NONE
128MB	(1) 8M x 36	(1) 8M x 36	(1) 8M x 36	(1) 8M x 36
128MB	NONE	NONE	(1) 16M x 36	(1) 16M x 36

CACHE CONFIGURATION		
Size	Bank 0	TAG
256KB	(8) 32K x 8	(1) 32K x 8
512KB	(8) 64K x 8	(1) 32K x 8

CACHE JUMPER CONFIGURATION	
Size	JS3
256KB	pins 2 & 3 closed
512KB	pins 1 & 2 closed

CPU SPEED CONFIGURATION	
Speed	JK
75MHz	pins 1 & 3, 2 & 4 closed
90MHz	pins 1 & 3 closed
100MHz	pins 2 & 4 closed
120MHz	pins 1 & 3 closed
133MHz	pins 2 & 4 closed

CPU VOLTAGE CONFIGURATION	
Voltage	JVCC3
3.4v	Closed
3.5v	Open

BUS/CORE RATIO CONFIGURATION			
P54C/CQS/CS	P54CS POR(C-step)	JC1	JC2
2/3	2/3	Open	Open
1/2	1/2	Closed	Open
1/3	1/3	Open	Closed
1/4	2/5	Closed	Closed

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VOLTAGE REGULATOR MODULE PIN IDENTIFICATION			
Pin	Purpose	Pin	Purpose
1	VSS	16	VSS
2	VSS	17	VSS
3	ND	18	V/IO
4	V/IO	19	V/IO
5	3.3v	20	3.3v
6	3.3v	21	3.3v
7	VCORE	22	VCORE
8	VCORE	23	VCORE
9	VSS	24	VCORE
10	VCORE	25	VCORE
11	PRGOOD	26	UPVRM#
12	SENSE	27	DISABLE
13	VSS	28	VSS
14	5v	29	5v
15	5v	30	5v

Note: The purpose of the Voltage Regulator Module is to allow different voltage processors to be supported by the motherboard.