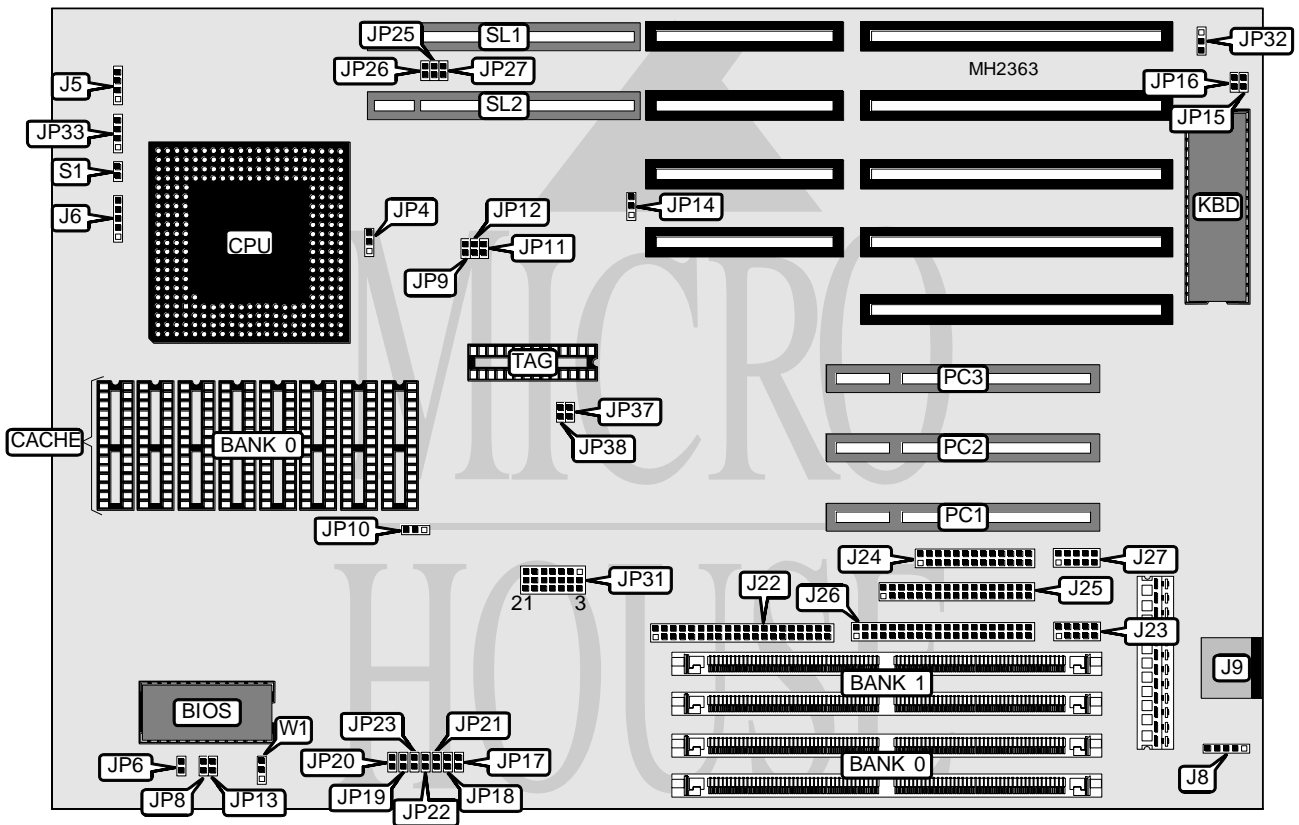


# NORTHGATE COMPUTER SYSTEMS, INC. ELEGANCE PENTIUM 90

<b>Processor</b>	Pentium
<b>Processor Speed</b>	60/66/75/90/100MHz
<b>Chip Set</b>	OPT1
<b>Max. Onboard DRAM</b>	128MB
<b>Cache</b>	256/1024KB
<b>BIOS</b>	AMI/Phoenix
<b>Dimensions</b>	330mm x 218mm
<b>I/O Options</b>	32-bit VESA local bus slots (2), 32-bit PCI bus slots (3), floppy drive interface, IDE interfaces (2), parallel port, PS/2 mouse port, serial ports (2)
<b>NPU Options</b>	None



CONNECTIONS			
Purpose	Location	Purpose	Location
Speaker	J5	IDE interface	J26
Power LED & keylock	J6	Serial port 2	J27
Keyboard connector	J8	Turbo LED	JP33 (pins 1 - 2)
PS/2 mouse port	J9	IDE interface LED	JP33 (pins 3 - 4)
IDE interface	J22	32-bit PCI bus slots	PC1 - PC3
Serial port 1	J23	Reset switch	S1
Parallel port	J24	32-bit VESA local bus slots	SL1 & SL2
Floppy drive interface	J25		

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USER CONFIGURABLE SETTINGS		
Function	Jumper	Position
í Factory configured - do not alter	JP1	Open
í Factory configured - do not alter	JP2	Open
í Factory configured - do not alter	JP3	Open
í Factory configured - do not alter	JP4	pins 2 & 3 closed
í Factory configured - do not alter	JP6	Open
í Factory configured - do not alter	JP8	Open
í Factory configured - do not alter	JP10	pins 2 & 3 closed
í Factory configured - do not alter	JP13	Open
í CMOS memory normal operation	JP14	pins 1 & 2 closed
CMOS memory clear	JP14	pins 2 & 3 closed
í Monitor type select color	JP15	Closed
Monitor type select monochrome	JP15	Open
í Factory configured - do not alter	JP16	Open
í I/O recovery delay delay enabled	JP19	Closed
I/O recovery delay delay disabled	JP19	Open
í LDEV# timing select end of first T2	JP20	Open
LDEV# timing select end of second T2	JP20	Closed
í Factory configured - do not alter	JP21	Open
í Factory configured - do not alter	JP22	Open
í Main board select SQ545	JP23	Closed
Main board select SQ503	JP23	Open
í Factory configured - do not alter	JP26	Closed
í Factory configured - do not alter	JP28	Open
í Factory configured - do not alter	JP29	pins 1 & 2 closed
í Factory configured - do not alter	JP30	Closed
í Port 3F7 mode select VESA	JP31	pins 8 & 9 closed
Port 3F7 mode select ISA	JP31	pins 7 & 8 closed
í IDE port address select primary	JP31	pins 10 & 11 closed
IDE port address select secondary	JP31	pins 11 & 12 closed
í VESA IDE enabled	JP31	pins 19 & 20 closed
VESA IDE disabled	JP31	pins 20 & 21 closed
í Parallel port IRQ select IRQ7	JP32	pins 1 & 2 closed
Parallel port IRQ select IRQ5	JP32	pins 2 & 3 closed
í Flash EPROM select normal operation	W1	pins 1 & 2 closed
Flash EPROM select flash programming	W1	pins 2 & 3 closed

Note: The location of the following jumpers are unidentified: JP1, JP2, JP3, JP28, JP29, & JP30.

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DRAM CONFIGURATION		
Size	Bank 0	Bank 1
2MB	(2) 256K x 36	NONE
4MB	(2) 256K x 36	(2) 256K x 36
4MB	(2) 512K x 36	NONE
6MB	(2) 256K x 36	(2) 512K x 36
8MB	(2) 512K x 36	(2) 512K x 36
10MB	(2) 1M x 36	(2) 256K x 36
12MB	(2) 1M x 36	(2) 512K x 36
16MB	(2) 1M x 36	(2) 1M x 36
16MB	(2) 2M x 36	NONE
18MB	(2) 256K x 36	(2) 2M x 36
20MB	(2) 512K x 36	(2) 2M x 36
24MB	(2) 1M x 36	(2) 2M x 36
32MB	(2) 2M x 36	(2) 2M x 36
32MB	(2) 4M x 36	NONE
34MB	(2) 256K x 36	(2) 4M x 36
36MB	(2) 512K x 36	(2) 4M x 36
40MB	(2) 1M x 36	(2) 4M x 36
48MB	(2) 2M x 36	(2) 4M x 36
64MB	(2) 4M x 36	(2) 4M x 36
64MB	(2) 8M x 36	NONE
66MB	(2) 256K x 36	(2) 8M x 36
68MB	(2) 512K x 36	(2) 8M x 36
72MB	(2) 1M x 36	(2) 8M x 36
80MB	(2) 2M x 36	(2) 8M x 36
96MB	(2) 4M x 36	(2) 8M x 36
128MB	(2) 8M x 36	(2) 8M x 36

CACHE CONFIGURATION		
Size	Bank 0	TAG
256KB	(8) 32K x 8	(1) 32K x 8
1MB	(8) 128K x 8	(1) 32K x 8

CACHE JUMPER CONFIGURATION		
Size	JP37	JP38
256KB	Open	Open
1MB	Closed	Closed

CPU SPEED CONFIGURATION			
Speed	JP9	JP11	JP12
50MHz	Open	Closed	Closed
60MHz	Closed	Open	Closed
66MHz	Open	Closed	Open
75MHz	Open	Closed	Closed
90MHz	Closed	Open	Closed
100MHz	Open	Closed	Open



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VESA CLOCK SPEED CONFIGURATION	
Speed	JP31
≤ 33MHz	pins 2 & 3, 4 & 5 closed
25MHz	pins 1 & 2, 4 & 5 closed
40MHz	pins 1 & 2, 5 & 6 closed
50MHz	pins 2 & 3, 5 & 6 closed

VESA CYCLE TIME CONFIGURATION	
Cycle time	JP31
≥ 480ns	pins 14 & 15, 17 & 18 closed
≥ 200ns	pins 13 & 14, 16 & 17 closed
≥ 240ns	pins 14 & 15, 16 & 17 closed
≥ 383ns	pins 13 & 14, 17 & 18 closed

BUS SPEED CONFIGURATION	
CPU speed	JP25
≤ 33MHz	Open
> 33MHz	Closed

BUS SPEED CONFIGURATION		
Setting	JP17	JP18
÷ LCLK/4	Open	Closed
LCLK/2	Open	Open
LCLK/3	Closed	Open
LCLK/5	Closed	Closed