## **GIGA-BYTE TECHNOLOGY CO., LTD.**

## **GA-586SG**

Device Type Processor

CX 6X86/IBM 6X86/CX 6X86L/IBM 6X86L/CX 6X86MX/IBM 6X86MX/AM K5/AM

K6/Pentium/Pentium MMX

90/100/120/133/150/166/180/200/233/266MHz

Processor Speed

Chip Set

**Maximum Onboard Memory** 

Cache BIOS Dimensions

I/O Options (backplane)

768MB (EDO & SDRAM supported)

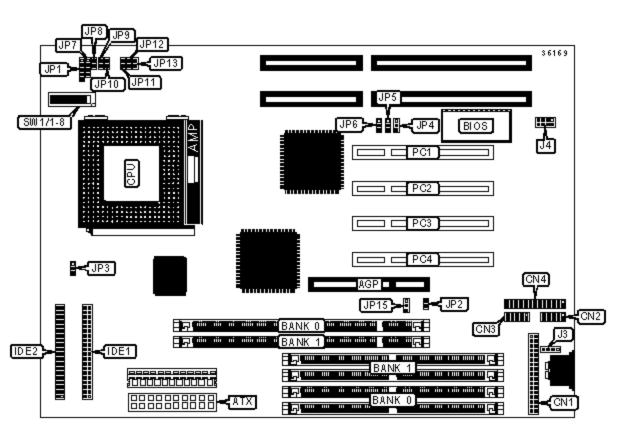
512KB Award

Mainboard

220mm x 250mm

32-bit PCI slots (4), floppy drive interface, green PC connector, IDE interfaces (2), parallel port, PS/2 mouse interface, serial ports (2), USB connectors (2), ATX power connector, AGP

slot



CONNECTIONS					
Purpose	Location	Purpose	Location		
AGP slot	AGP	CPU fan power	JP3		
ATX power connector	ATX	Speaker	JP7		
Floppy drive interface	CN1	Turbo LED connector	JP8		
Serial port 1	CN2	Turbo switch	JP9		
Serial port 2	CN3	Reset switch	JP10		
	CN4		JP11		

Parallel port		Green PC connector	
IDE interface 1	IDE1	IDE interface LED	JP12
IDE interface 2	IDE2	Soft off power supply	JP13
PS/2 mouse interface	J3	Wake-on-LAN connector	JP15
USB connector	J4	PCI expansion ports	PC1 - PC4
Power LED & keylock	JP1		

USER CONFIGURABLE SETTINGS					
Function Label Position					
Keyboard power-on disabled	JP2	Open			
Keyboard power-on enabled	JP2	Closed			

DIMM CONFIGURATION					
Size	Bank 0	Bank 1			
8MB	(1) 1M x 64	None			
16MB	(1) 2M x 64	None			
16MB	(1) 1M x 64	(1) 1M x 64			
24MB	(1) 2M x 64	(1) 1M x 64			
32MB	(1) 4M x 64	None			
32MB	(1) 2M x 64	(1) 2M x 64			
40MB	(1) 4M x 64	(1) 1M x 64			
48MB	(1) 4M x 64	(1) 2M x 64			
64MB	(1) 8M x 64	None			
64MB	(1) 4M x 64	(1) 4M x 64			
72MB	(1) 8M x 64	(1) 1M x 64			
80MB	(1) 8M x 64	(1) 2M x 64			
96MB	(1) 8M x 64	(1) 4M x 64			
32MB 40MB 48MB 64MB 64MB 72MB 80MB	(1) 2M x 64 (1) 4M x 64 (1) 4M x 64 (1) 8M x 64 (1) 8M x 64 (1) 8M x 64	(1) 2M (1) 1M (1) 2M Non (1) 4M (1) 1M (1) 2M			

128MB	(1) 16M x 64	None
128MB	(1) 8M x 64	(1) 8M x 64
136MB	(1) 16M x 64	(1) 1M x 64
144MB	(1) 16M x 64	(1) 2M x 64
160MB	(1) 16M x 64	(1) 4M x 64
192MB	(1) 16M x 64	(1) 8M x 64
256MB	(1) 16M x 64	(1) 16M x 64

SIM	SIMM CONFIGURATION						
Size	Bank 0	Bank 1					
8MB	(2) 1M x 36	None					
16MB	(2) 2M x 36	None					
16MB	(2) 1M x 36	(2) 1M x 36					
24MB	(2) 2M x 36	(2) 1M x 36					
32MB	(2) 4M x 36	None					
32MB	(2) 2M x 36	(2) 2M x 36					
40MB	(2) 4M x 36	(2) 1M x 36					
48MB	(2) 4M x 36	(2) 2M x 36					
64MB	(2) 8M x 36	None					
64MB	(2) 4M x 36	(2) 4M x 36					
72MB	(2) 8M x 36	(2) 1M x 36					
80MB	(2) 8M x 36	(2) 2M x 36					
96MB	(2) 8M x 36	(2) 4M x 36					
128MB	(2) 8M x 36	(2) 8M x 36					
128MB	(2) 16M x 36	None					
136MB	(2) 16M x 36	(2) 1M x 36					
144MB	(2) 16M x 36	(2) 2M x 36					
160MB	(2) 16M x 36	(2) 4M x 36					

192MB	(2) 16M x 36	(2) 8M x 36		
256MB	(2) 16M x 36	(2) 16M x 36		
256MB	(2) 32M x 36	None		
264MB	(2) 32M x 36	(2) 1M x 36		
272MB	(2) 32M x 36	(2) 2M x 36		
288MB	(2) 32M x 36	(2) 4M x 36		
320MB	(2) 32M x 36	(2) 8M x 36		
384MB	(2) 32M x 36	(2) 16M x 36		
512MB	512MB (2) 32M x 36			
Note: Board accepts EDO memory.				

CPU SPEED SELECTION (INTEL)								
Speed	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5	SW1/6	SW1/7	SW1/8
90MHz	On	Off	Off	Off	Off	Off	On	Off
100MHz	Off	Off	Off	Off	Off	Off	On	Off
120MHz	On	On	Off	Off	Off	Off	On	Off
133MHz	Off	On	Off	Off	Off	Off	On	Off
150MHz	On	On	On	Off	Off	Off	On	Off
166MHz	Off	On	On	Off	Off	Off	On	Off
180MHz	On	Off	On	Off	Off	Off	On	Off
200MHz	Off	Off	On	Off	Off	Off	On	Off
Note: PC54CT and PC54CTB models also use these settings.								

CPU SPEED SELECTION (INTEL CON'T)						
Speed	JP4	JP5	JP6			
90MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			
100MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			
120MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			

133MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed		
150MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed		
166MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed		
180MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed		
200MHz Pins 2 & 3 closed Pins 2 & 3 closed Pins 2 & 3 closed					
Note: PC54CT and PC54CTB models also use these settings.					

CPU SPEED SELECTION (INTEL MMX)								
Speed	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5	SW1/6	SW1/7	SW1/8
150MHz	On	On	On	Off	Off	Off	On	Off
166MHz	Off	On	On	Off	Off	Off	On	Off
200MHz	Off	Off	On	Off	Off	Off	On	Off
233MHz	Off	Off	Off	Off	Off	Off	On	Off

CPU SPEED SELECTION (INTEL MMX CON'T)						
Speed	JP4	JP5	JP6			
150MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			
166MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			
200MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			
233MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed			

	CPU SPEED SELECTION (AM K5)									
Speed	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5	SW1/6	SW1/7	SW1/8		
133MHz	Off	On	Off	Off	Off	Off	On	Off		
166MHz	Off	On	On	Off	Off	Off	On	Off		

CPU SPEED SELECTION (AM K5 CON'T)							
Speed	JP6						
133MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				
166MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				

	CPU SPEED SELECTION (AM K6)									
Speed	SW1/1	SW1/1 SW1/2 SW1/3 SW1/4 SW1/5 SW1/6 SW1/7 SW1/8								
160MHz	Off	On	On	Off	Off	On	On	Off		
180MHz	On	Off	On	Off	Off	On	On	Off		
200MHz	Off	Off	On	Off	Off	On	On	Off		
233MHz	Off	Off	Off	On	Off	Off	On	Off		

CPU SPEED SELECTION (AM K6 CON'T)							
Speed	JP4	JP5	JP6				
160MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				
180MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				
200MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				
233MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				

CPU SPEED SELECTION (CX/IBM 6X86)									
Speed	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5	SW1/6	SW1/7	SW1/8	
120MHz	On	On	Off	Off	Off	Off	On	Off	
133MHz	Off	On	Off	Off	Off	Off	On	Off	
150MHz	Off	On	Off	Off	Off	Off	On	Off	

CPU SPEED SELECTION (CX/IBM 6X86 CON'T)						
Speed	JP4	JP5	JP6			

120MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed
133MHz	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed
150MHz	Pins 1 & 2 closed	Pins 2 & 3 closed	Pins 1 & 2 closed

	CPU SPEED SELECTION (CX/IBM 6X86L)										
Speed	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5	SW1/6	SW1/7	SW1/8			
PR150+	On	On	Off	Off	Off	Off	On	Off			
PR166+	Off	On	Off	Off	Off	Off	On	Off			
PR200+	Off	On	Off	Off	Off	Off	On	Off			

CPU SPEED SELECTION (CX/IBM 6X86L CON'T)							
Speed	JP4	JP5	JP6				
PR150+	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				
PR166+	Pins 2 & 3 closed	Pins 2 & 3 closed	Pins 2 & 3 closed				
PR200+	Pins 1 & 2 closed	Pins 2 & 3 closed	Pins 1 & 2 closed				

CPU SPEED SELECTION (CX/IBM 6X86MX)									
Speed	Clock Speed	Multiplier	SW1/1	SW1/2	SW1/3	SW1/4			
PR150	60MHz	2x	On	On	Off	Off			
PR166	60MHz	2.5x	On	On	On	Off			
PR166	66MHz	2x	Off	On	Off	Off			
PR200	60MHz	3x	On	Off	On	Off			
PR200	66MHz	2.5x	Off	On	On	Off			
PR200	75MHz	2x	Off	On	Off	Off			
PR233	66MHz	3x	Off	Off	On	Off			
PR233	75MHz	2.5x	Off	On	On	Off			
PR233	83MHz	2x	On	On	Off	Off			

PR266	66MHz	3.5x	Off	Off	Off	Off
PR266	75MHz	3x	Off	Off	On	Off
PR266	83MHz	2.5x	On	On	On	Off

	CPU SPEED SELECTION (CX/IBM 6X86MX CON'T)									
Speed	Clock Speed	Multiplier	SW1/5	SW1/6	SW1/7	SW1/8				
PR150	60MHz	2x	Off	On	On	Off				
PR166	60MHz	2.5x	Off	On	On	Off				
PR166	66MHz	2x	Off	On	On	Off				
PR200	60MHz	3x	Off	On	On	Off				
PR200	66MHz	2.5x	Off	On	On	Off				
PR200	75MHz	2x	Off	On	On	Off				
PR233	66MHz	3x	Off	On	On	Off				
PR233	75MHz	2.5x	Off	On	On	Off				
PR233	83MHz	2x	Off	On	On	Off				
PR266	66MHz	3.5x	Off	On	On	Off				
PR266	75MHz	3x	Off	On	On	Off				
PR266	83MHz	2.5x	Off	On	On	Off				

CPU SPEED SELECTION (CX/IBM 6X86MX CON'T)							
Speed	Clock Speed	Mulitiplier	JP4	JP5	JP6		
PR150	60MHz	2x	2 & 3	2 & 3	2 & 3		
PR166	60MHz	2.5x	2 & 3	2 & 3	2 & 3		
PR166	66MHz	2x	2 & 3	2 & 3	2 & 3		
PR200	60MHz	3x	2 & 3	2 & 3	2 & 3		
PR200	66MHz	2.5x	2 & 3	2 & 3	2 & 3		
PR200	75MHz	2x	1 & 2	2 & 3	1 & 2		
PR233	66MHz	3x	2 & 3	2 & 3	2 & 3		

PR233	76MHz	2.5x	1 & 2	2 & 3	1 & 2
PR233	83MHz	2x	1 & 2	1 & 2	2 & 3
PR266	66MHz	3.5x	2 & 3	2 & 3	2 & 3
PR266	75MHz	3x	1 & 2	2 & 3	1 & 2
PR266	83MHz	2.5x	1 & 2	1 & 2	2 & 3

Note: Indicated pins are in the closed position.