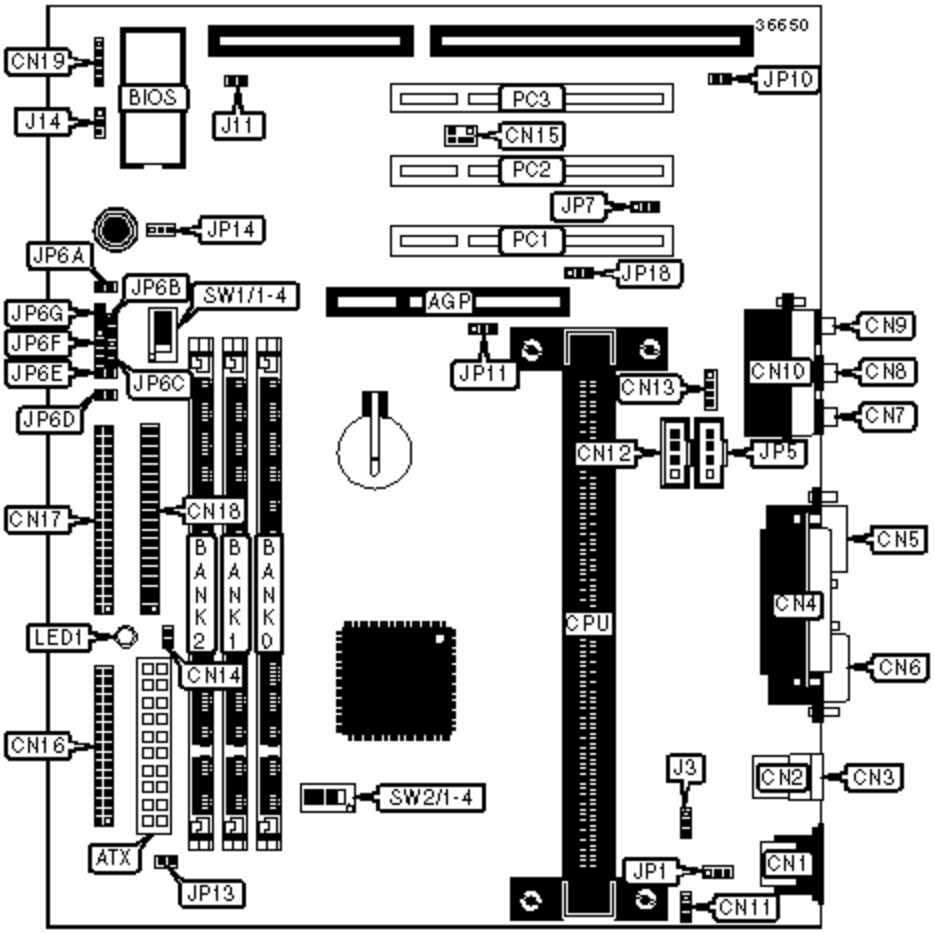
# GIGA-BYTE TECHNOLOGY CO., LTD.

## GA-6VMA (REV. 1.0)

| | |
|---|---|
| **Device Type** | Mainboard |
| **Processor** | Celeron/Pentium II/Pentium III |
| **Processor Speed** | 233/266/300/333/350/366/400/433/450/500/550/600/650MHz |
| **Chip Set** | VIA |
| **Audio Chip Set** | ESS |
| **Maximum Onboard Memory** | 768MB (SDRAM supported) |
| **Cache** | 0/128/256/512KB (located on the CPU) |
| **BIOS** | Award |
| **Dimensions** | 245mm x 200mm |
| **I/O Options** | 32-bit PCI slots (3), floppy drive interface, game/MIDI port, green PC connector, IDE interfaces (2), parallel port, PS/2 mouse port, serial ports (2), IR connector, USB connectors (2), ATX power connector, AGP slot, line in, line out, microphone in, SB-link connector, Audio in - CD-ROM (2), Modem with voice connector, Wake-on-LAN connector, Power-on Ring Connector |




| CONNECTIONS | | | |
|---|---|---|---|
| **Purpose** | **Location** | **Purpose** | **Location** |
| AGP slot | AGP | IDE interface 1 | CN17 |
| ATX power connector | ATX | IDE interface 2 | CN18 |
| PS/2 mouse port | CN1 | IR connector | CN19 |
| USB connector 1 | CN2 | CPU fan power | J3 |

| | | | |
|---|---|---|---|
| USB connector 2 | CN3 | Power-on-ring connector | J11 |
| Parallel port | CN4 | System fan power | J14 |
| Serial port 1 | CN5 | Audio in - CD-ROM | JP5 |
| Serial port 2 | CN6 | Green PC LED | JP6A |
| Line out | CN7 | Power switch | JP6B |
| Line in | CN8 | Power LED | JP6C |
| Microphone in | CN9 | Green PC connector | JP6D |
| Game/MIDI port | CN10 | IDE interface LED | JP6E |
| Power fan connector | CN11 | PC speaker | JP6F |
| Audio in - CD-ROM | CN12 | Reset switch | JP6G |
| Modem with voice connector | CN13 | Wake-on-LAN connector | JP7 |
| STR LED connector | CN14 | Open case connector | JP10 |
| SB-link connector | CN15 | Ram suspend LED | JP15 |
| Floppy drive interface | CN16 | 32-bit PCI slots | PC1 - PC3 |

| USER CONFIGURABLE SETTINGS | | | |
|---|---|---|---|
| **Function** | | **Label** | **Position** |
| » | Keyboard power-on disabled | JP1 | Pins 2 & 3 closed |
| | Keyboard power-on enabled | JP1 | Pins 1 & 2 closed |
| » | Normal system acceleration | JP11 | Pins 2 & 3 closed |
| | Turbo system acceleration - 100MHz and higher | JP11 | Pins 1 & 2 closed |
| » | Normal RAM operation | JP13 | Open |
| | Suspend RAM operation | JP13 | Closed |
| » | CMOS normal operation | JP14 | Pins 2 & 3 closed |
| | CMOS clear memory | JP14 | Pins 1 & 2 closed |
| » | Onboard sound enabled | JP18 | Pins 1 & 2 closed |
| | Onboard sound disabled | JP18 | Pins 2 & 3 closed |

Note: Once RAM operation has been suspended (JP13 - closed), SDRAM modules can be unplugged and replaced.

| DIMM CONFIGURATION | | | |
|---|---|---|---|
| **Size** | **Bank 0** | **Bank 1** | **Bank 2** |
| 16MB | (1) 2M x 64 | None | None |
| 32MB | (1) 2M x 64 | (1) 2M x 64 | None |
| 32MB | (1) 4M x 64 | None | None |
| 48MB | (1) 2M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 64MB | (1) 4M x 64 | (1) 4M x 64 | None |
| 64MB | (1) 8M x 64 | None | None |
| 64MB | (1) 4M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 96MB | (1) 4M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 96MB | (1) 8M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 128MB | (1) 8M x 64 | (1) 8M x 64 | None |
| 128MB | (1) 16M x 64 | None | None |
| 128MB | (1) 8M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 160MB | (1) 16M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 192MB | (1) 8M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 192MB | (1) 16M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 256MB | (1) 16M x 64 | (1) 16M x 64 | None |
| 256MB | (1) 32M x 64 | None | None |
| 256MB | (1) 16M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 288MB | (1) 32M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 320MB | (1) 32M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 384MB | (1) 16M x 64 | (1) 16M x 64 | (1) 16M x 64 |
| 384MB | (1) 32M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 512MB | (1) 32M x 64 | (1) 32M x 64 | None |
| 512MB | (1) 32M x 64 | (1) 16M x 64 | (1) 16M x 64 |
| 768MB | (1) 32M x 64 | (1) 32M x 64 | (1) 32M x 64 |

| | | | |
|---|---|---|---|
| 768MB | (1) 32M x 64 | (1) 32M x 64 | (1) 32M x 64 |

Note: Board supports SDRAM memory.

| CACHE CONFIGURATION |
|---|
| Note: 256/512KB cache located on the Pentium II CPU. 128KB cache is located on the Celeron 300A & 333 CPU. |

| CPU SPEED SELECTION (CELERON) | | | | | | |
|---|---|---|---|---|---|---|
| **CPU speed** | **Clock speed** | **Multiplier** | **SW1/1** | **SW1/2** | **SW1/3** | **SW1/4** |
| 233MHZ | 66MHz | 3.5x | Off | Off | On | On |
| 266MHz | 66MHz | 4x | On | On | Off | On |
| 300MHz | 66MHz | 4.5x | Off | On | Off | On |
| 333MHz | 66MHz | 5x | On | Off | Off | On |
| 366MHz | 66MHz | 5.5x | Off | Off | Off | On |
| 400MHz | 66MHz | 6x | On | On | On | Off |
| 433MHz | 66MHz | 6.5x | Off | On | On | Off |

| CPU SPEED SELECTION (CELERON CONT) | | | | | | |
|---|---|---|---|---|---|---|
| **CPU speed** | **Clock speed** | **Multiplier** | **SW2/1** | **SW2/2** | **SW2/3** | **SW2/4** |
| 233MHZ | 66MHz | 3.5x | On | Off | Off | On |
| 266MHz | 66MHz | 4x | On | Off | Off | On |
| 300MHz | 66MHz | 4.5x | On | Off | Off | On |
| 333MHz | 66MHz | 5x | On | Off | Off | On |
| 366MHz | 66MHz | 5.5x | On | Off | Off | On |
| 400MHz | 66MHz | 6x | On | Off | Off | On |
| 433MHz | 66MHz | 6.5x | On | Off | Off | On |

| CPU SPEED SELECTION (PENTIUM II) |
|---|

| CPU speed | Clock speed | Multiplier | SW1/1 | SW1/2 | SW1/3 | SW1/4 |
|---|---|---|---|---|---|---|
| 233MHZ | 66MHz | 3.5x | Off | Off | On | On |
| 266MHz | 66MHz | 4x | On | On | Off | On |
| 300MHz | 66MHz | 4.5x | Off | On | Off | On |
| 333MHz | 66MHz | 5x | On | Off | Off | On |
| 350MHz | 100MHz | 3.5x | Off | Off | On | On |
| 366MHz | 66MHz | 5.5x | Off | Off | Off | On |
| 400MHz | 66MHz | 6x | On | On | On | Off |
| 400MHz | 100MHz | 4x | On | On | Off | On |
| 433MHz | 66MHz | 6.5x | Off | On | On | Off |

| CPU SPEED SELECTION (PENTIUM II CONT) | | | | | | |
|---|---|---|---|---|---|---|
| CPU speed | Clock speed | Multiplier | SW2/1 | SW2/2 | SW2/3 | SW2/4 |
| 233MHZ | 66MHz | 3.5x | On | Off | Off | On |
| 266MHz | 66MHz | 4x | On | Off | Off | On |
| 300MHz | 66MHz | 4.5x | On | Off | Off | On |
| 333MHz | 66MHz | 5x | On | Off | Off | On |
| 350MHz | 100MHz | 3.5x | Off | Off | Off | Off |
| 366MHz | 66MHz | 5.5x | On | Off | Off | On |
| 400MHz | 66MHz | 6x | On | Off | Off | On |
| 400MHz | 100MHz | 4x | Off | Off | Off | Off |
| 433MHz | 66MHz | 6.5x | On | Off | Off | On |

| CPU SPEED SELECTION (PENTIUM III) | | | | | | |
|---|---|---|---|---|---|---|
| CPU speed | Clock speed | Multiplier | SW1/1 | SW1/2 | SW1/3 | SW1/4 |
| 450MHz | 100MHz | 4.5x | Off | On | Off | On |
| 500MHz | 100MHz | 5x | On | Off | Off | On |
| 550MHz | 100MHz | 5.5x | Off | Off | Off | On |

| | | | | | | |
|---|---|---|---|---|---|---|
| 600MHz | 100MHz | 6x | On | On | On | Off |
| 650MHz | 100MHz | 6.5x | Off | On | On | Off |

| CPU SPEED SELECTION (PENTIUM III CONT) | | | | | | |
|---|---|---|---|---|---|---|
| **CPU speed** | **Clock speed** | **Multiplier** | **SW2/1** | **SW2/2** | **SW2/3** | **SW2/4** |
| 450MHz | 100MHz | 4.5x | Off | Off | Off | Off |
| 500MHz | 100MHz | 5x | Off | Off | Off | Off |
| 550MHz | 100MHz | 5.5x | Off | Off | Off | Off |
| 600MHz | 100MHz | 6x | Off | Off | Off | Off |
| 650MHz | 100MHz | 6.5x | Off | Off | Off | Off |

| DIAGNOSTIC LED(S) | | | |
|---|---|---|---|
| **LED** | **Color** | **Status** | **Condition** |
| LED1 | Unidentified | On | RAM operation is normal - do not unplug SDRAM |
| LED1 | Unidentified | Off | RAM operation is suspended |