

MB-G4V620-B-G

Intel 845GV chipset
Socket 478-based Intel® ATX board

PROCESSOR (Socket 478-based Intel®)

- Intel® Pentium® 4 Processor with Hyper-Threading Technology
- Intel® Pentium® 4 Processor (478-pin)
 - 533MHz system data bus
 - 400MHz system data bus
- Intel® Celeron® Processor (478-pin)
 - 400MHz system data bus

CHIPSET

- Intel® 845GV chipset
 - Intel® 845GV Graphics Memory Controller Hub (GMCH)
 - Intel® 82801DB I/O Controller Hub (ICH4)

SYSTEM MEMORY

- Two 184-pin DDR SDRAM DIMM sockets
- 2.5V unbuffered PC1600 (DDR200), PC2100 (DDR266), or PC2700 (DDR 333) SDRAM DIMM
- Supports maximum of 2GB system memory using 64Mbit, 128Mbit, 256Mbit, or 512Mbit technology
 - Double-sided x16 DDR SDRAM DIMM is not supported

BIOS

- Award BIOS, Windows® 98SE/2000/ME/XP Plug and Play compatible
- Supports SCSI sequential boot-up
- Flash EPROM for easy BIOS upgrades
- Supports DMI 2.0 function
- 4Mbit flash memory

ENERGY EFFICIENT DESIGN

- Supports ACPI specification and OS Directed Power Management
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
 - Wake-On-Keyboard
 - Wake-On-USB Keyboard
 - Wake-On-Ring (through internal or external modem)
 - Wake-On-LAN
 - RTC timer to power-on the system
- System power management supported
- CPU stopped clock control
- Hardware supports SMI green mode
- Microsoft®/Intel® APM 1.2 compliant
- Soft Power supported - ACPI v1.0a specification
- AC power failure recovery

DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors 5VSB/VBAT/1.5V/3.3V/±5V/±12V/Vcore voltages and failure alarm
- Monitors CPU/system/second fan speed and failure alarm
- Automatic system/second fans on/off control
- Read back capability that displays temperature, voltage, and fan speed
- Opened chassis alarm
- Watchdog timer function

ONBOARD GRAPHICS FEATURES

- Graphics memory
 - Shares 512K/1MB/8MB of the system memory in DOS mode
 - Uses Dynamic Video Memory Technology (DVMT) in Windows mode
- Graphics controller
 - Core frequency of 200MHz
 - 350MHz integrated 24-bit RAMDAC
 - Analog display up to 2048x1536 @ 60Hz refresh
 - 3D setup and render engine - Discrete, Triangles, Strips and fans
 - Per pixel perspective corrected texture mapping
 - Software DVD at 30fps, full screen
- 2D graphics features
 - Optimized 256-bit BLT engine
 - 32-bit alpha blended cursor
 - Programmable 3-color transparent cursor
- 3D graphics features
 - 200 megapixels/sec fill rate

- Maximum 3D resolution: 1600x1200x32 @ 85Hz
- Flat and Gouraud shading
- 16- and 24-bit Z-buffering and 16- and 24-bit W-buffering
- Vertex and programmable pixel fogging and atmospheric effects
- Double and triple render buffer
- Software drivers
 - Windows® 98SE/2000/ME/XP and Windows® NT® 4.0

ONBOARD AUDIO FEATURES

- 18-bit stereo full-duplex codec with independent variable sampling rate
- High quality differential CD input
- True stereo line level outputs
- S/PDIF-out interface
- 2-channel audio output

ONBOARD LAN FEATURES

- Uses 82562 fast Ethernet controller
- Basic 10/100 Client Connection. Supports 559 level cable and PHY Stats. Support for Server OS included as check item, but no server function included
- Same Quality Driver suits as 82559
- Supports DMI/SNMP/WMI
- 10/100 Auto Sensing
- IEEE 802.3, 10BASE-T/100BASE-TX compliant physical layer interface
- IEEE 802.3u Auto-Negotiation
- 48-pin SSOP, 3.3V device

PCI IDE INTERFACE

- Supports ATA/33, ATA/66 and ATA/100 hard drives
- PIO Mode 4 Enhanced IDE (data transfer rate up to 14MB/sec.)
- Bus mastering reduces CPU utilization during disk transfer
- Supports ATAPI CD-ROM, LS-120 and ZIP

REAR PANEL I/O PORTS

- 4 USB 2.0/1.1 ports
- 1 RJ45 LAN port
- 1 DB-9 serial port
- 1 DB-15 VGA port
- 1 DB-25 parallel port
- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 3 audio jacks: line-out, line-in and mic-in

I/O CONNECTORS

- 1 CompactFlash™ socket
- 1 connector for 2 additional external USB 2.0/1.1 ports
- 1 connector for 1 external serial port
- 1 connector for an external game/MIDI port
- 2 internal audio connectors (CD-in and AUX-in)
- 1 S/PDIF-out connector
- 1 connector for IrDA interface
- 2 IDE connectors
- 1 floppy connector
- 2 ATX power supply connectors
- 1 Wake-On-LAN connector
- 1 Wake-On-Ring connector
- 1 chassis open connector
- CPU fan, system fan and second fan connectors

EXPANSION SLOTS

- 1 ADD (AGP Digital Display) slot for flat panel support.
- 3 PCI slots
- 1 Shared PCI/ISA slot
- 2 ISA slots

COMPATIBILITY

- PCI 2.2 and AC '97 compliant

CIRCUIT BOARD (PCB)

- 4 layers, ATX form factor
- 30.5cm (12") x 24.4cm (9.6")

SAFETY

- UL, cUL, FCC Class B, CE