

## G5M151-B06C Intel® 852GM Mini Board

### PROCESSOR

- Intel® ULV Celeron® M processor onboard
  - With 512KB L2 cache
  - Core speed 600MHz
  - Supports 64-bit host data bus and 32-bit addressing
  - Fanless solution

### CHIPSET

- Intel® chipset
  - Intel® 852GM Graphics Memory Controller Hub (GMCH)
  - Intel® 82801DB I/O Controller Hub (ICH4)

### SYSTEM MEMORY

- One 184-pin DDR SDRAM DIMM socket
- 2.5V unbuffered PC1600 (DDR200) or PC2100 (DDR266) DDR SDRAM DIMM
- Supports 128Mbit, 256Mbit and 512Mbit technologies providing maximum capacity of 1GB with x16 devices

### BIOS

- Award BIOS
- 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-PS/2 Keyboard/Mouse
  - Wake-On-USB Keyboard
  - Wake-On-LAN
  - Wake-On-Ring
  - 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 Vcore, VccP, VccI/O voltages and failure alarm
- Monitors CPU/system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

### ONBOARD GRAPHICS FEATURES

- Up to 64MB of dynamic video memory allocation
- Display core frequency at 133MHz
- Render core frequency at 133MHz
- Intel® Dual-Frequency Graphics Technology
- 2D graphics engine
  - Optimized 128-bit BLT engine
  - 32-bit Alpha Blended cursor
  - 8-bit, 16-bit and 32-bit color
- 3D graphics engine
  - Enhanced Hardware Binning Instruction Set
  - Bi-Cubic Filtering
  - Linear Gamma Blending for Video Mixer Rendering (VMR)
  - Video Mixer Rendering (VMR)
  - 3D setup and render engine
  - DirectX and OpenGL pixelization rules
  - 266-MegaTexel/s peak performance
  - 16- and 24-bit Z-buffering; 16- and 24-bit W-buffering
  - Optimal 3D resolution
  - Double and triple render buffer
- Graphics Power Management
  - Dynamic Frequency Switching
  - Memory Self-Refresh During C3
  - Intel® Display Power Saving Technology

### DISPLAY

- Dedicated LFP (Local Flat Panel) interface
  - Supports data format up to 24-bpp
- Analog display
  - 350MHz integrated 24-bit RAMDAC
  - Pixel resolution up to 1600x1200 at 85Hz and up to 1920x1440 at 60Hz

### LFP (Local Flat Panel) LVDS INTERFACE

- Single- or dual-channel LVDS panel support up to SXGA panel resolution with frequency range from 25MHz to 112MHz (single/dual channel)
- Integrated PWM interface for LCD backlight inverter control

### ONBOARD AUDIO FEATURES

- Realtek ALC202A
- 18-bit stereo full-duplex codec with independent variable sampling rate
- S/PDIF-out interface
- 2-channel audio output

### ONBOARD LAN FEATURES

- Intel 82562GT fast ethernet controller
- Basic 10/100 Client Connection
- IEEE 802.3, 10BASE-T/100BASE-TX compliant physical layer interface
- IEEE 802.3u Auto-Negotiation
- 48-pin SSOP, 3.3V device

### IDE INTERFACE

- Supports up to UltraDMA 100Mbps hard drives
- PIO Mode 4 Enhanced IDE (data transfer rate up to 14MB/sec.)

### REAR PANEL I/O PORTS

- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 DC jack (12V only)
- 1 DB-9 serial port
- 1 DB-15 VGA port
- 1 RJ45 LAN port
- 4 USB 2.0/1.1 ports
- Mic-in, line-in and line-out

### I/O CONNECTORS

- 1 connector for 2 additional external USB 2.0/1.1 ports
- 1 connector for an external serial port
- 1 connector for LCD brightness control
- 1 connector for LVDS LCD panel
- 1 connector for LCD/inverter power
- 1 connector for LCD power
- 1 peripheral power connector
- 1 Digital I/O connector
- 1 Digital I/O power connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF-out connector
- 1 connector for IrDA interface
- 1 40-pin IDE 1 connector for 3.5" HDD
- 1 44-pin IDE 2 connector for 2.5" HDD (2.0 pitch)
- 1 floppy connector (FPC type)
- 1 ATX +12V power connector (optional)
- 1 Wake-On-LAN connector
- 1 chassis open connector
- 1 front panel connector
- 3 fan connectors

### EXPANSION SLOTS

- 1 PCI slot for PCI expansion card or customized riser card for 1, 2 or 3 PCI slots expansion (for low profile PCI card only)

### COMPATIBILITY

- PCI 2.2 and AC '97 compliant

### PCB

- 6 layers, mini board (Mini-ITX compatible)
- 17cm (6.7") x 17cm (6.7")

### REAR PANEL I/O PORTS

