

G5M100-N

Intel® Pentium® M Processor and Intel® Celeron® M Processor

Introduced: Q3/2004

PROCESSOR (Socket: mPGA479M)

- Intel® Pentium® M and Celeron® M Processor (478-pin)
 - 400 MHz system bus
 - Supports 64-bit host data bus and 32-bit addressing

CHIPSET

- Intel® 855GME chipset
 - Intel® 855GME 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 (DDR333) DDR SDRAM DIMM with ECC support
- Supports 128Mbit, 256Mbit, and 512Mbit technologies providing maximum capacity of 1GB with x 16 devices and up to 2GB with high density 512Mbit technology.

BIOS

- Award BIOS
- 4Mbit flash memory

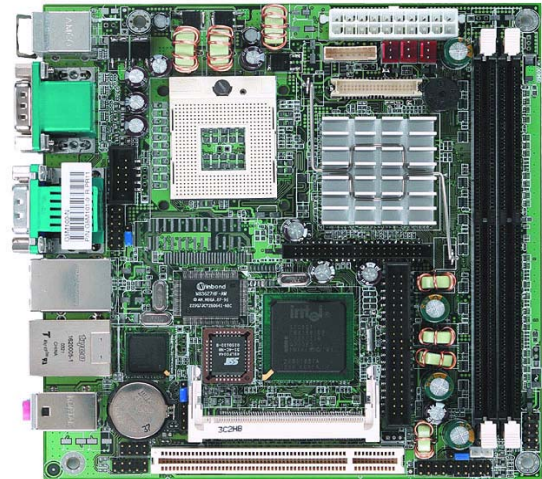
ENERGY EFFICIENT DESIGN

- 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 5VSB(V)/VBAT(V)/±5V/±12V/CPU(V) voltages and failure alarm
- Monitors CPU/chassis/2nd fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Supports Watchdog Timer Function

6.7" (17cm)



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ONBOARD GRAPHICS FEATURES

- Up to 64MB of dynamic video memory allocation
- Display core frequency at 133/200/250 MHz
- Render core frequency at 100/133/166/200/250MHz
- 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-bit and 24-bit Z-buffering; 16-bit 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



G5M100-N Revision Controlled Motherboard

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 2048x1536 at 75Hz

LFP (Local Flat Panel) LVDS INTERFACE

- Single-channel or double-channel LVDS panel support up to UXGA 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
- High quality differential CD input
- True stereo line level outputs
- S/PDIF-out interface
- 2-channel audio output

ONBOARD LAN FEATURES

- Intel® 82562EM 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
- Intel® 82551QM fast ethernet controller
 - Integrated IEEE 802.3, 10BASE-T and 100BASE-TX compatible PHY
 - Glueless 32-bit PCI master interface
 - Glueless CardBus master interface
 - 128 Kbyte Flash interface
 - Thin BGA 15²mm package

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

- 4 USB 2.0/1.1 ports
- 2 RJ45 LAN port
- 3 DB-9 serial ports
- 1 DB-15 VGA 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 connector for 2 additional external USB 2.0/1.1 ports
- 1 connector for parallel port
- 1 connector for LCD brightness control
- 1 connector for LVDS LCD panel
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 connector for IrDA interface
- 1 40-pin IDE 1 connector for 3.5" HDD
- 1 40-pin IDE 2 connector for 2.5" HDD (2.0 pitch)
- 1 floppy connector (FPC type)
- 1 ATX power supply connector
- 1 Wake-On-LAN connector
- 3 fan connectors

EXPANSION SLOTS

- 1 PCI slot for PCI expansion card or Riser Card
 - G5M100-N: 1 PCI slot for PCI expansion card
 - G5M100-N (R): 1 PCI slot for customized riser card for 1, 2, or 3 PCI slot expansion (for low profile PCI card only)
- 1 mini PCI socket (124-pin)

COMPATIBILITY

- PCI 2.2 and AC '97 compliant

PCB

- 6 layers, mini-ITX form factor
- 17cm (6.7") x 17cm (6.7")

SAFETY

- UL, cUL, FCC, CE



8 Elkins Road
East Brunswick, NJ 08816
Tel: 732-390-2815
Toll-Free: 888-200-ITOX
Fax: 732-390-2817
www.itox.com



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