ITOX®
Applied Computing
Revision Control Long Life Cycle

RoHS

G5M100-N-G

Intel 855GME chipset

Socket mPGA479M-based Intel® Mini-ITX board

PROCESSOR (Socket mPGA479M-based Intel®)
- Intel® Pentium® M and Celeron® M Processor (478-pin)
  - 400MHz system data 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
- Watchdog timer function

ONBOARD GRAPHICS FEATURES
- Up to 64MB of dynamic video memory allocation
- Display core frequency at 133/200/250MHz
- Render core frequency at 100/133/166/200/250MHz
- Intel® Dual-Frequency Graphics Technology
- 2D graphics engine
  - Optimized 256-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/sec peak performance
  - 16- and 24-bit Z-buffering and 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 2048x1536 at 75Hz

LFP (Local Flat Panel) LVDS INTERFACE
- Single- or dual-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
- Uses 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
- Uses 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 15^2 mm 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 LCD brightness control
- 1 connector for LVDS LCD panel
- 40-pin connector for LVDS LCD panel
- 1 connector for LCD/inverter power
- 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 connector type)
- 1 parallel connector
- 1 ATX power supply connectors
- 1 Wake-On-LAN connector
- 1 Wake-On-Ring connector
- 1 chassis open connector
- 1 front panel connector
- 3 fan connectors

EXPANSION SLOTS
- 1 PCI slot for PCI expansion card or Riser Card for 1, 2, or 3 PCI slots (for low profile PCI card only)
- 1 mini PCI socket

COMPATIBILITY
- PCI 2.2 and AC '97 compliant

CIRCUIT BOARD (PCB)
- 6 layers, Mini-ITX form factor
- 7 cm (6.7") x 17 cm (6.7")

SAFETY
- UL, cUL, FCC Class B, CE