iTOX Applied Computing

Revision Control Long Life Cycle

RoHS

G5M900-B10

Intel® 852GM ETX Board

PROCESSOR
- Intel® ULV Celeron® M processor & Active Cooler onboard
  - Core speed: 1GHz
  - Supports 64-bit host data bus and 32-bit addressing

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

SYSTEM MEMORY
- One 200-pin DDR SDRAM SODIMM socket
- 2.5V unbuffered PC1600 (DDR200) or PC2100 (DDR266) DDR SDRAM DIMM
- Supports 128Mbit, 256Mbit and 512Mbit technologies providing maximum capacity of 1GB (CL: 2 and 2.5 only) with x16 devices

BIOS
- Award BIOS
- 4Mbit flash memory

ENERGY EFFICIENT DESIGN
- Supports ACPI specification and OS Directed Power Management
- Wake-On-Events include:
  - Wake-On-PS/2 Keyboard/Mouse (optional)
  - Wake-On-USB Keyboard (optional)
  - Wake-On-LAN (optional)
  - 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, Vccl/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 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
- 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.)

BACKPLANE CONNECTORS
- ETX backplane connector (ETX-X1)
  - PCI bus: maximum of 4 PCI slots
  - USB 2.0: maximum of 4 USB ports
  - Audio: mic-in, line-in and line-out
- ETX backplane connector (ETX-X2)
  - ISA bus: maximum of 3 ISA slots
- ETX backplane connector (ETX-X3)
  - VGA RGB port
  - LVDS bus
  - COM 1 / COM 2
  - Parallel port
  - IrDA
  - Mouse/Keyboard
- ETX backplane connector (ETX-X4)
  - IDE 1 / IDE 2
  - Ethernet 10/100 port
  - Miscellaneous

COMPATIBILITY
- PCI 2.2 and AC '97 compliant

PCB
- 8 layers, ETX board
- 11.4cm (4.48") x 9.5cm (3.74")

SAFETY
- UL, cUL, FCC Class B, CE