

MU440EX *PRELIMINARY*

Celeron^ä processor based microATX system

Cost Effective Basic PC Platform

The MU440EX is Intel's time to market microtower solution featuring the Celeron processor and the new microATX form factor. The Celeron processor, 82440EX AGPset, and microATX form factor provide the functionality and affordability required for commercial and consumer basic PC applications. The Celeron processor combines MMX™ technology with the dynamic execution performance of the Pentium® II processor to provide good performance. With support for Accelerated Graphics Port (AGP) and SDRAM the 82440EX AGPset enables high performance graphics and memory sub-systems in the basic PC environment.

Integrated AGP Graphics and PCI Audio

The MU440EX has on-board ATI Rage Pro* AGP graphics and Yamaha DS1-L PCI audio. The Rage Pro graphics controller provides high performance 3D with only two megabytes of local frame buffer memory. With AGP graphics architecture the MU440EX uses system memory to augment local frame buffer memory by accessing textures directly from system memory across the AGP bus. The graphics sub-system also includes the ATI Media Channel (AMC) connector for video add-in cards. The two-chip digital/analog PCI audio architecture allows the analog CODEC to be located in a quiet area of the motherboard resulting in significant improvements in sound quality. The Yamaha DS1-L PCI digital component also delivers full Sound Blaster Pro* compatibility and supports up to 32 simultaneous voices of wavetable synthesis in hardware.



Compact Microtower Design

microATX is a new motherboard form factor developed as an extension of ATX with motherboard dimensions and mounting hole locations defined as a subset of the ATX specification. The smaller microATX motherboard allows system level cost efficiencies and small footprint chassis without compromising system upgradeability. Three slots, three open bays, and a 110 Watt power supply allow room for complex system configurations.

System Features

- Intel Celeron™ processor
- Intel 82440EX AGPset
- Integrated ATI Rage Pro AGP graphics
- Integrated Yamaha DS1-L PCI audio
- Three open peripheral bays and three 3/4 length expansion slots
- Two DIMM sockets
- microATX motherboard and chassis
- 110 Watt power supply

Benefits

- Processor price/performance targeted at basic PC market
- Supports AGP and SDRAM for improved system performance
- High performance realistic 3D graphics
- >80 dB SNR, enhanced stereo output and full Sound Blaster Pro* compatibility
- Allows system configuration expandability
- Supports up to 256 MB system memory
- Low cost microtower system with a small footprint
- Headroom to power all slots and expansion bays

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PROCESSOR/CACHE

Processors Supported Standard system configurations ship with Celeron™ processor. Motherboard supports Pentium® II processors with 66MHz front side bus and Celeron processors

SYSTEM MEMORY

Memory Capacity 2 168-pin DIMM sockets for up to 256 MB SDRAM (8 MB minimum)
Memory Size 32 MB non-ECC SDRAM DIMM standard
Memory Type Accepts Intel 4-clock 64-bit non-ECC unbuffered 66-MHz SDRAM DIMMs
DIMM Sizes 8 MB, 16 MB, 32 MB, 64 MB, 128 MB
Memory Voltage 3.3 volts

INTEL 82440EX AGPSET

Intel 82443EX - PCI/AGP Controller (PAC)
Integrated AGP controller
Integrated PCI bus mastering controller
Intel 82371EB PIIx4e - Multifunction PCI to ISA bridge
Dual channel enhanced IDE interface
Supports up to 4 IDE devices
Ultra DMA/33 and PIO Mode 3 & 4
USB controller

INTEGRATED AGP GRAPHICS

Controller ATI Rage Pro 1X AGP
Graphics Memory 2 MB of 100 MHz SGRAM
Video Port ATI Multimedia Channel Connector
Plug & Play Monitor Supports DDC1, DDC2B+

INTEGRATED PCI AUDIO

Digital Controller Yamaha DS1-L
Sound Blaster* Pro compatible
32-voice hardware wavetable
Analog CODEC Analog Devices AD1819A
16-bit stereo, full duplex
Phat* 3D stereo enhanced

INTEGRATED SUPER I/O

Controller SMC FDC37C707
One Serial Port Async, RS-232C, PC16550A compatible
Parallel Port ECP and EPP support
Floppy Controller 1.44 MB, 2.88 MB, 3-mode support
Keyboard/Mouse PS/2
APM/APC Power On, Off, Sleep, Resume features
Infra Red Interface IrDA 1.1 and Consumer IR compatible
Real Time Clock Century Reg., +/- 13 min/yr accuracy

SYSTEM BIOS

BIOS Type 2 Mb Flash with Intel/Phoenix BIOS
Special Features Plug and Play, IDE drive autoconfigure, ACPI 1.0 with Windows* 98, APM 1.2, boot from CD ROM support, multilingual support

JUMPERS AND FRONT PANEL CONNECTORS

Connectors Reset, Sleep/Power LEDs, HD LED, infrared, power on/off, sleep/resume
Jumpers Single jumper block for normal, configure, and recovery modes.

EXPANSION SLOTS (All 3/4 length)

Description Two dedicated PCI slots
One dedicated ISA slot

SYSTEM

microATX Chassis
Height 14.2" (36.1 cm)
Width 7.7" (19.6 cm)
Depth 13.1" (33.3 cm)
Weight (no peripherals) 18.3 lbs (8.3 kg)
Drive Bays
External 5.25", 1/2 height (1.6") 2
External 3.5", 1/3 height (1.0") 1
Internal 3.5"; 1/3 height (1.0") 1
Board Style microATX standard mounting holes
Integrated I/O connectors include:
one serial port, one parallel port, VGA connector, PS/2 keyboard and mouse connectors, audio line in, line out, and microphone connectors, game port, and two USB connectors
Board size 8.8" x 9.6" (22.4 cm x 24.4 cm)
microATX information available at <http://www.teleport.com/~microatx/>

POWER SUPPLY RATING

+3.3V Tolerance ± 5%, maximum current 8.0 A
+5V Tolerance ± 5%, maximum current 16.0 A
+5V standby Tolerance ± 5%, maximum current 0.1 A
+12V Tolerance ± 5%, maximum current 2.0 A
-12V Tolerance ± 5%, maximum current 0.3 A

SYSTEM ENVIRONMENTAL LIMITS

Operating Temperature +10°C to +35°C
Storage Temperature -40°C to +70°C
Operating Shock Half sine, 2G, 11 msec
Unpackaged Vibration .001g²/Hz@5Hz, slope: .01g²/Hz, 20-500Hz
Electrostatic Discharge 1.0 to 20.0 KV, limited errors, no damage

REGULATIONS

System marks/certifications:
cULus, ERG GS, VCCI,
CE marking, FCC, Canada ICES-003.

The system shall include a CB certificate and report for international compliance (no marking associated with CB scheme).

ORDERING INFORMATION

For configurations available in your area, please contact your Intel field sales representative.

Reference Intel's web page: <http://www.intel.com>

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