# **ASUS motherboard feature update**

# Intel® EM64T 🔛



The motherboard supports Intel<sup>®</sup> Pentium<sup>®</sup> 4 CPUs with the Intel<sup>®</sup> EM64T (Extended Memory 64 Technology). The Intel<sup>®</sup> EM64T feature allows your computer to run on 64-bit operating systems and access larger amounts of system memory for faster and more efficient computing.



The motherboard is fully compatible with Intel® LGA 775 processors running on 32-bit operating systems.

## Using the Intel<sup>®</sup> EM64T feature

To use the Intel<sup>®</sup> EM64T feature:

- 1. Install an Intel<sup>®</sup> Pentium<sup>®</sup> 4 CPU that supports the Intel<sup>®</sup> EM64T.
- 2. Install a 64-bit operating system (Windows® XP Professional x64 Edition or Windows<sup>®</sup> Server 2003 x64 Edition).
- 3. Install the 64-bit drivers for the motherboard components and devices from the support CD.
- 4. Install the 64-bit drivers for expansion cards or add-on devices, if any.



Refer to the expansion card or add-on device(s) documentation, or visit the related website, to verify if the card/device supports a 64-bit system.

## Enhanced Intel SpeedStep<sup>®</sup> Technology (EIST)

The Enhanced Intel SpeedStep<sup>®</sup> Technology (EIST) intelligently manages the CPU resources by automatically adjusting the CPU voltage and core frequency depending on the CPU loading and system speed/power requirement.

#### System requirements

- Intel<sup>®</sup> Pentium<sup>®</sup> 4 processor with EIST support •
- BIOS file with EIST support
- Operating system with EIST support (Windows® XP SP2/Windows® • Server 2003 SP1/Linux 2.6 kernel or later versions)

## Using the EIST

To use the EIST feature:

- Turn on the computer, then enter the BIOS Setup. 1.
- Go to the Advanced Menu, highlight CPU Configuration, then 2. press <Enter>.
- 3. Scroll down the options, select the Intel(R) SpeedStep **Technology** item, then press <Enter>. Refer to the BIOS screen on the next page.

BIOS SETUP UTILITY	
Configure Advanced CPU settings Frequency : 3200 MHz FSB Speed : 800 MHz Cache L1 : 16 KP	Maximum: CPU speed is set to maximum. Minimum: CPU speed is set to minimum. Automatic: CPU speed
Cache L1 : 10 KB Cache L2 : 1024 KB Cache L3 : 0 KB Ratio Status: Unlocked Ratio Actual Value : 16 Ratio CMOS Setting: [18]	is controlled by the operating system. Disabled: Default CPU speed.
Microcode Updation [Enabled] Max CPUID Value Limit: [Disabled] Enhanced C1 Control [Auto] CPU Internal Thermal Control [Auto]	<ul> <li>Select Screen</li> <li>Select Item</li> <li>Change Option</li> <li>General Help</li> </ul>
Hyper Threading Technology         [Enabled]           Intel(R)         SpeedStep Technology         [Automatic]	F10 Save and Exit ESC Exit
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4. Select **Automatic** (default) from the options, then press <Enter>.



Set this item to [Maximum] or [Disabled] if you <u>do not</u> want to use the EIST feature. The CPU constantly operates at a lower internal frequency if you set this item to [Minimum].

- 5. Press <F10> to save your changes and exit the BIOS setup.
- 6. After the computer restarts, right click on a blank space on the desktop, then select **Properties** from the pop-up menu.
- 7. When the **Display Properties** window appears, click the **Screen Saver** tab.
- 8. Click the **Power** button on the Monitor power section to open the **Power Options Properties** window.
- On the Power schemes section, click ▼, then select any option <u>except</u> Home/Office Desktop or Always On.
- 10. Click **Apply**, then click **OK**.
- 11. Close the **Display Properties** window. After you adjust the power scheme, the CPU internal frequency slightly decreases when the CPU loading is low.





- The motherboard comes with a BIOS file that supports EM64T and EIST. You can download the latest BIOS file from the ASUS website (www.asus.com/support/download/) if you need to update the BIOS file.
- The screen displays and procedures may vary depending on the operating system.
- Visit www.intel.com for more information on the EM64T and EIST features.
- Visit www.microsoft.com for more information on Windows<sup>®</sup> 64-bit OS.