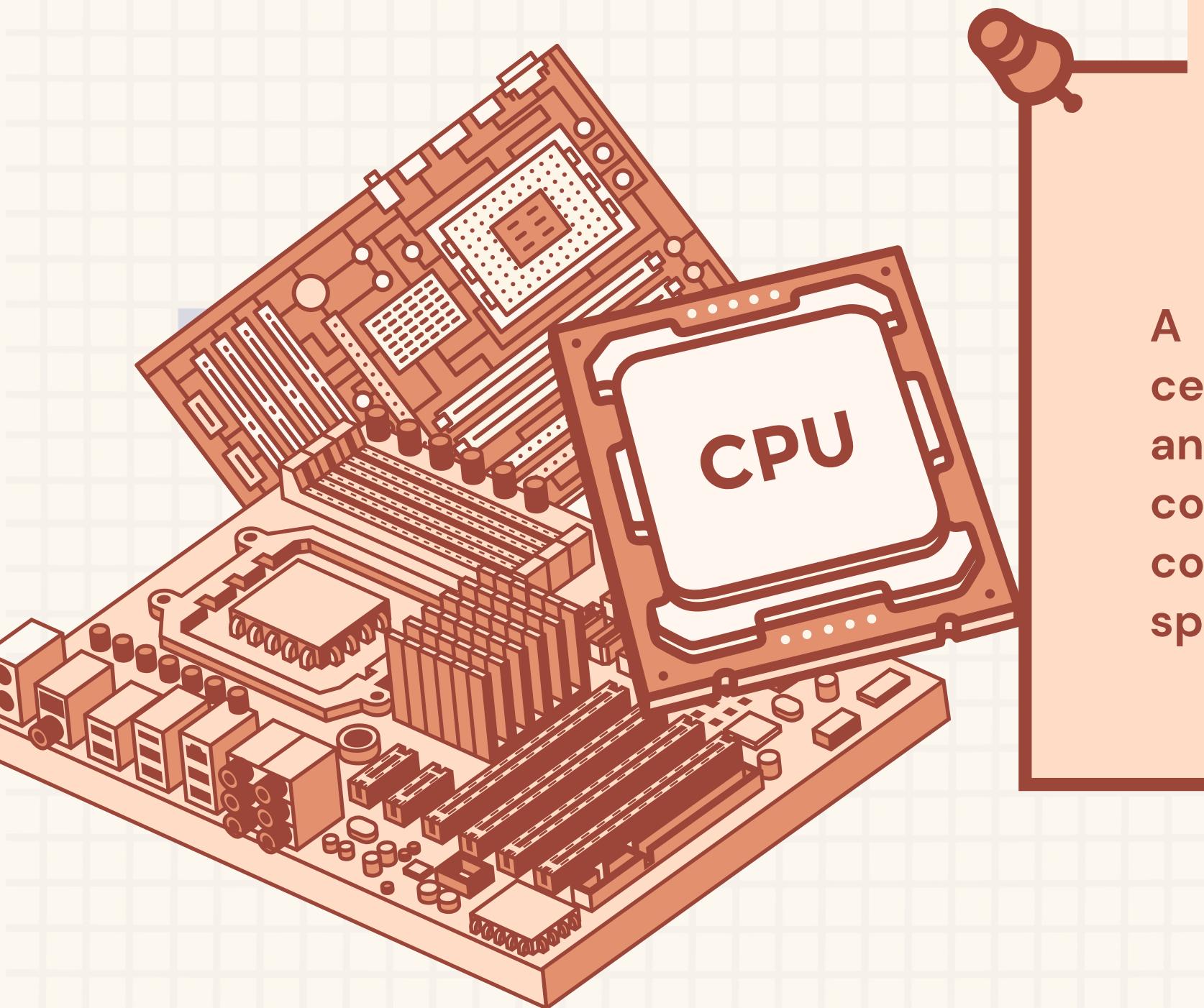




COMPARATIVE STUDY ON DIFFERENT TYPES OF MOTHERBOARD

PRESENTED BY: GESITE, DAN JOSEPH

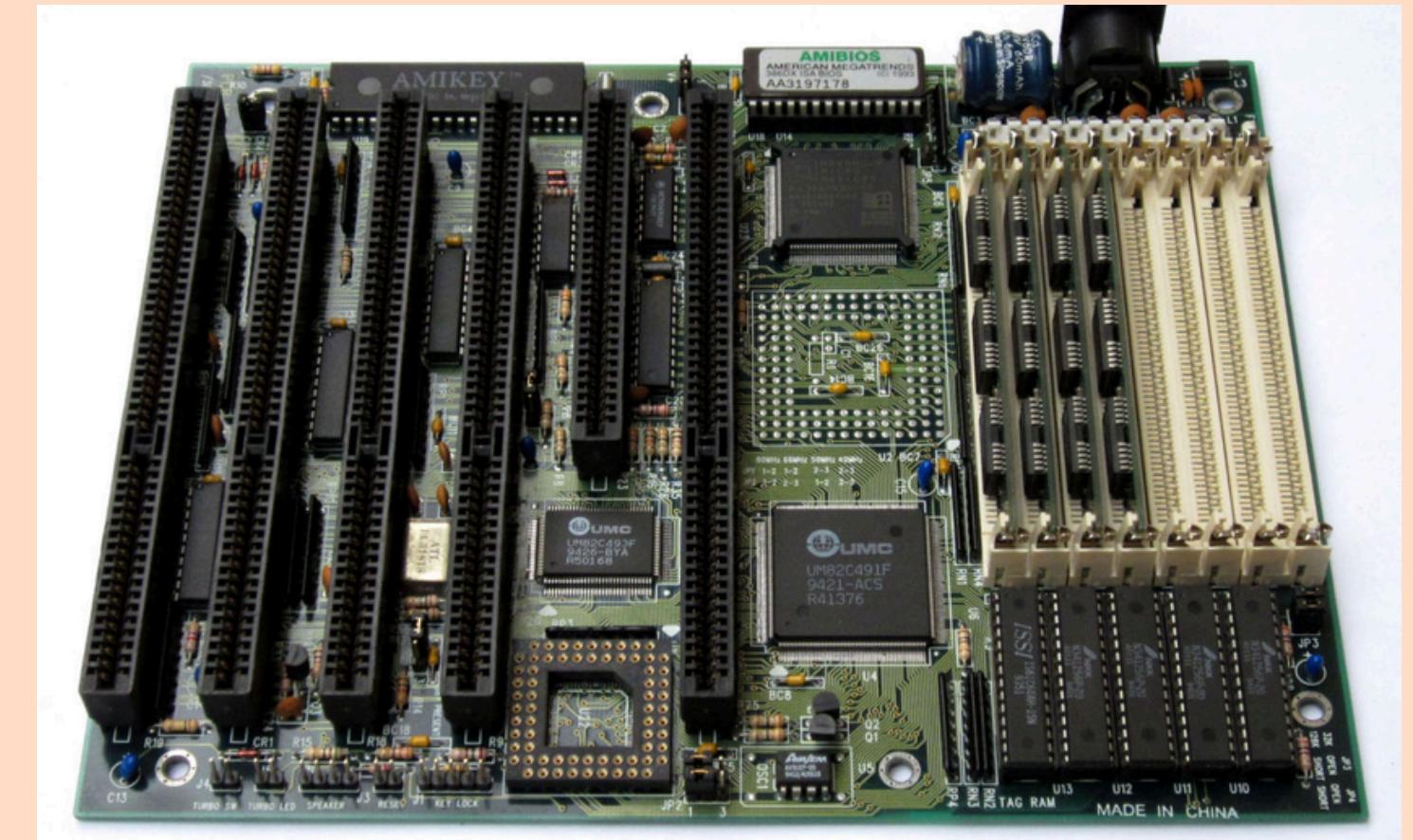


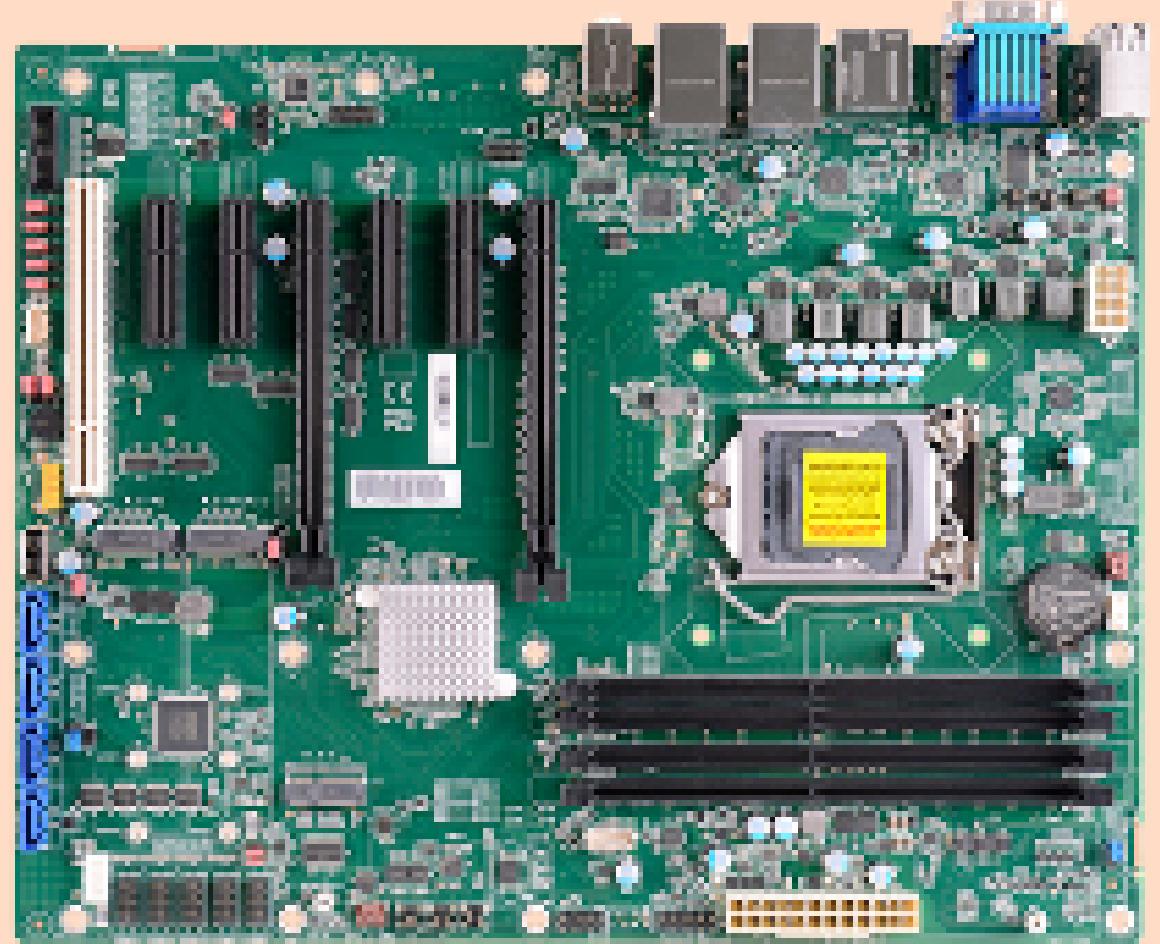
WHAT IS MOTHERBOARD?

A motherboard is the main PCB in a computer, serving as the central communications backbone connecting all components and peripherals. It distributes electricity and facilitates communication between the CPU, RAM, and other hardware components. There are various motherboards designed for specific computer models and sizes.

AT Motherboard

AT motherboards larger than EATX used 2 to 4 Northbridge and Southbridge chips for data flow management. They had basic BIOS, ISA slots, and IDE connectors, but lacked modern advancements like USB ports and onboard graphics.



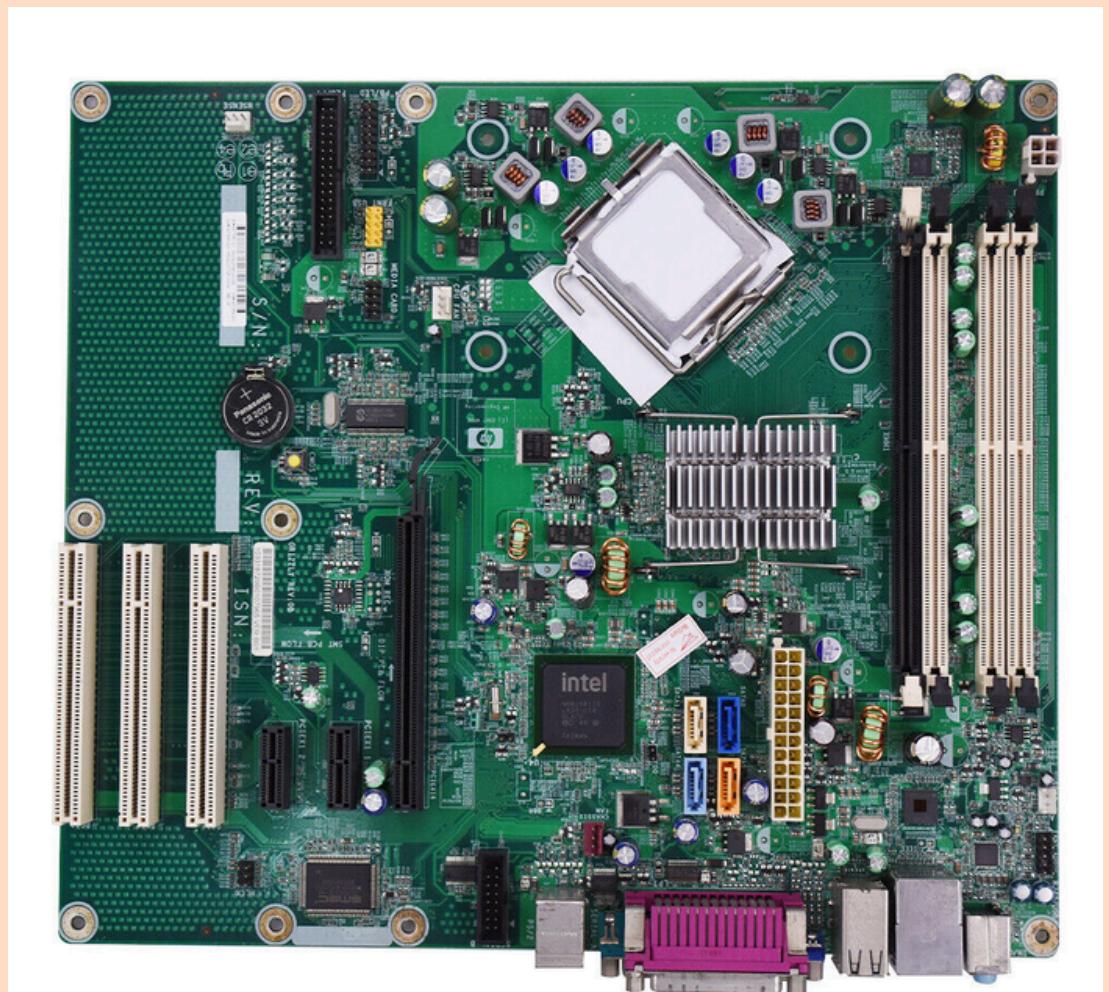


ATX Motherboard

The ATX motherboard, measuring 12x9.6 inches, features 1-4 Northbridge and Southbridge chips, UEFI support, PCIe slots, SATA connectors, USB ports, audio and networking chips, UEFI BIOS, and integrated graphics. These versatile boards are widely used for desktop computing due to their expandability and advanced features

BTX Motherboard

The BTX motherboard standard, measuring 12x10.5 inches, features 1 to 2 chips, UEFI support, 2 to 4 PCIe slots, optimized CPU and components, integrated graphics, and improved airflow designs for efficient cooling, making it ideal for high-performance or compact computing environments.





Extended-ATX Motherboard

The Extended-ATX motherboard, larger than standard ATX, features 1 to 4 chips, UEFI support, and 4 to 8 PCIe slots. It's commonly used in high-end servers and workstations, offering dual processor support, extensive storage, and advanced cooling solutions.

LPX Motherboard

The LPX motherboard, smaller than the ATX, features 1 to 2 chips and supports UEFI. It has 1 to 2 proprietary expansion slots and early integrated graphics, making it suitable for simpler, space-constrained systems with limited expandability.





Micro-ATX Motherboard

The Micro-ATX motherboard, smaller than the standard ATX, features 1 to 2 chips, a Platform Controller Hub, UEFI support, PCIe slots, and 4 to 6 RAM slots. It offers a compact form factor with essential features, making it ideal for smaller, affordable systems.

Mini ITX Motherboard

The Mini ITX motherboard, smaller than the Micro-ATX, features 1 Northbridge and Southbridge chip, supports UEFI, and has 1 PCIe slot. Designed for small form factor PCs, it offers integrated graphics, SATA connectors, networking, and low-power consumption.



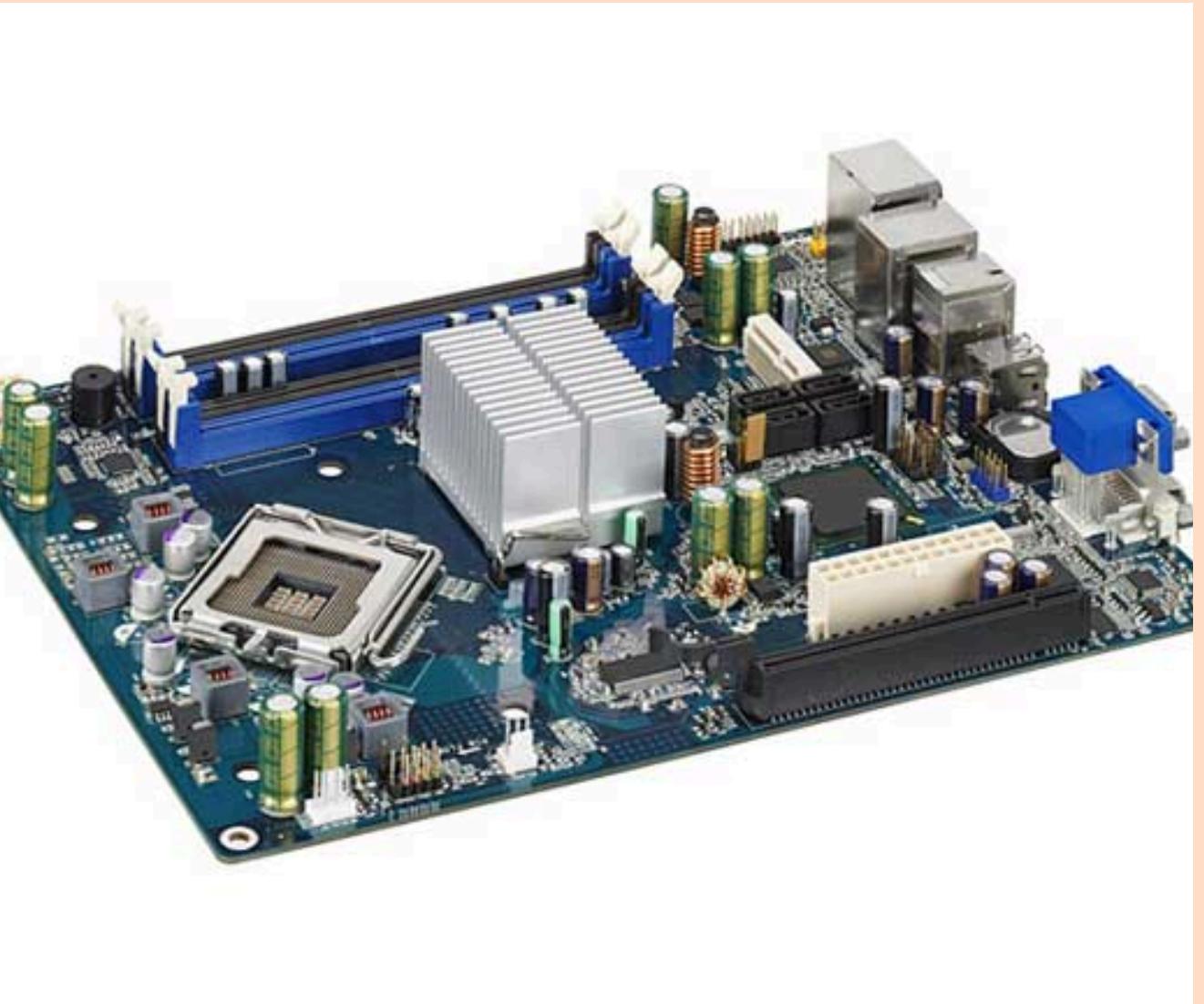


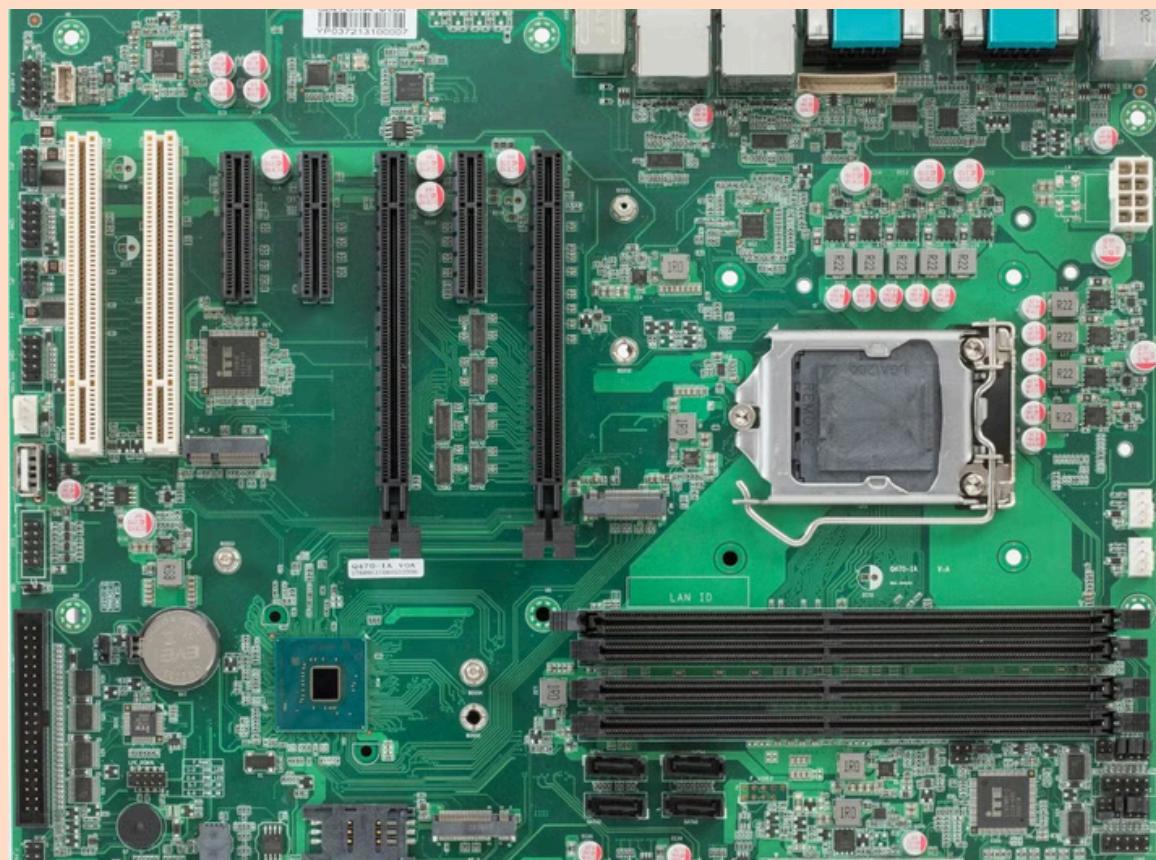
Mini-ATX Motherboard

Mini-ATX motherboards, smaller than standard ATX, feature 1 to 2 chips, UEFI support, PCIe slots, and RAM slots. Designed for compact cases, they offer a balance between size and functionality, with fewer expansion slots than standard ATX boards.

Pico BTX Motherboard

The Pico BTX motherboard, compact at 5.8 x 6.7 inches, features 1 Northbridge and Southbridge chip, supports UEFI, 1 PCIe slot, 2 to 4 RAM slots, and optimized cooling solutions. Ideal for space-saving systems, it offers reliable performance in tight spaces.





Standard-ATX Motherboard

The Standard-ATX motherboard, measuring 12 x 9.6 inches, features 1 to 4 chips, supports UEFI, 2 to 4 PCIe slots, and supports 6 to 12 RAM slots. It offers versatility, multiple slots, USB ports, SATA and NVMe storage, integrated networking, and advanced cooling.



THANK YOU!

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