**MOTHERBOARD**

The motherboard serves as a single platform to connect all of the parts of a computer together. It can be considered as the backbone of the computer.

It connects the CPU, Memory, Hard drives, Optical drives, Video card, Sound card, and other parts. It also connects Expansion cards directly or via cables.

A computer is an electronic device that processes the data with respect to the user’s requirements using IO devices. The data processing takes place in a processor, an important component. The processor is situated in a hardware circuit board called the motherboard or Printed Circuit Board(PCB).

**Features of motherboard**

* Motherboard varies greatly in supporting various types of components.
* Motherboard supports a single type of CPU and few types of memories.
* Video cards, Hard drives, Sound cards have to be compatible with the motherboard to function properly.
* Motherboard, Cases, and Power supplies must be compatible to work properly together

#### Components

#### ****RAM slots(Random Access Memory)****

#### ****CPU Fan and HeatSink****

* **North bridge**
* **South bridge**
* **Capacitors**
* **Resistors**
* **CMOS battery(Complementary Metal Oxide Semiconductor)**

#### ****PCI Slots(Peripheral Component Interconnect)****

#### ****SATA cables(Serial Advanced Technology Attachment)****

#### ****BIOS(Basic Input Output System)****

* **Processor**
* **AGP(Accelerated Graphics Port)**
* **IDE(Integrated Drive Electronics**
* **Processor socket**
* **Integrated Circuits (IC)**

**RAM MODULES**

In computing, a memory module or RAM (random-access memory) stick is a printed circuit board on which memory integrated circuits are mounted.[1] Memory modules permit easy installation and replacement in electronic systems, especially computers such as personal computers, workstations, and servers.

Types of memory module include:

* TransFlash Memory Module
* SIMM, a single in-line memory module
* DIMM, dual in-line memory module
* Rambus memory modules are a subset of DIMMs, but are normally referred to as RIMMs
* SO-DIMM, small outline DIMM, a smaller version of the DIMM, used in laptop

#### DAUGHTER CARD

A [printed circuit board](https://www.webopedia.com/definitions/printed-circuit-board/) that plugs into another circuit board (usually the [motherboard](https://www.webopedia.com/reference/motherboards/)).

A daughtercard is similar to an [expansion board](https://www.webopedia.com/definitions/expansion-board/), but it accesses the motherboard components ([memory](https://www.webopedia.com/definitions/memory/) and [CPU](https://www.webopedia.com/definitions/cpu/)) directly instead of sending data through the slower [expansion bus](https://www.webopedia.com/definitions/expansion-bus/). A daughtercard is also called a *daughterboard.*

**BUS SLOTS**

Alternatively known as a bus slot or expansion port, an expansion slot is a connection or port inside a computer on the motherboard or riser card. It provides an installation point for a hardware expansion card to be connected. For example, if you wanted to install a new video card in the computer, you'd purchase a video expansion card and install that card into the compatible expansion slot.

Below is a listing of expansion slots commonly found in a computer and the devices associated with those slots.

* AGP - Video card.
* AMR - Modem, sound card.
* CNR - Modem, network card, sound card.
* EISA - SCSI, network card, video card.
* ISA - Network card, sound card, video card.
* PCI - Network card, SCSI, sound card, video card.
* PCI Express - Video card, modem, sound card, network card.
* VESA - Video card.

**INTERNAL STORAGE DEVICES**

Some storage devices are classed as 'internal' which means they are inside the computer case.

Most computers have some form of internal storage. The most common type of internal storage is the hard disk.At the most basic level, internal storage is needed to hold the operating system so that the computer is able to access the input and output devices.

It will also be used to store the applications software that you use and more than likely, the original copies of your data files.

Internal storage allows the data and applications to be loaded very rapidly into memory, ready for use. The data can be accessed much faster than data which is stored on an external storage device. This is because internal storage devices are connected directly to the motherboard and its data bus whereas external devices are connected through a hardware interface such as USB, which means they are considerably slower to access.

**INTERFACING PORTS**

A port is basically a physical docking point which is basically used to connect the external devices to the computer, or we can say that A port act as an interface between the computer and the external devices, e.g., we can connect hard drives, printers to the computer with the help of ports.There are different types of ports available:

* Serial port
* Parallel port
* USB port
* PS/2 port
* VGA port
* Modem port
* FireWire Port
* Sockets
* Infrared Port
* Game Port
* Digital Video Interface(DVI) Port
* Ethernet Port