

Report on

“The Internal and Peripheral Components of Desktop PC”

Course: Computer system and computing lab

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► A personal computer is a general-purpose, cost-effective computer that is designed to be used by a single end-user. Every PC is dependent on microprocessor technology, which allows PC makers to set the entire central processing unit (CPU) on a single chip.

► **components:**

- 1.CPU
- 2.HDD
- 3.Monitor
- 4.RAM
- 5.Cooling fan
- 6.Mouse
- 7.Keyboard
- 8.Power supplier
- 9.CD driver
- 10.Motherboard

► **Types of PC:**

- 1.Workstation
- 2.Desktop Computer
- 3.Laptop
- 4.Tablet
- 5.SuperComputer

► **Top manufacturers:**

- 1.HP
- 2.ASUS
- 3.Apple
- 4.Dell
- 5.Lenovo
- 6.Toshiba

Abstract

A computer is an electronic machine that takes input from the user, processes the given input and generates output in the form of useful information. It gets raw data from user and process according to the given instruction. There are a lot of components in a computer. The combination of all component a computer works. The components are..

- 1.CPU
- 2.HDD
- 3.Monitor
- 4.RAM
- 5.Cooling fan
- 6.Mouse
- 7.Keyboard
- 8.Power supplier
- 9.CD driver
- 10.Motherboard

Aims of the Report

To describe and know about all component of a computer which perform in a computer. And also know about individual component of a computer with its works ,types and different companies product.

Keywords

PC, RAM, ROM, HDD, Monitor, Keyboard, Mouse, Cooling Fan, CPU, Motherboard, Casing.

Abbreviations

- RAM=Random access memory.
- ROM=Read only memory.
- CPU=Central processing unit.
- HDD=Hard disk drive.
- PC=Personal computer.

1. Monitor



➤ A monitor is known as a screen or a visual display unit (VDU). It is an electronic visual computer display that includes a screen, circuitry and the case in which that circuitry is enclosed.

→components:

- 1.Screen.
- 2.Layered Glass
- 3.Stands
- 4.Power Connector
- 5.Interface Circuit
- 6.Amplifier Circuit

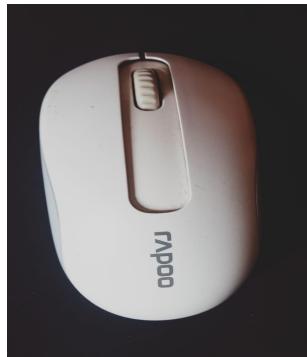
→Types of monitor.

- 1.LCD
- 2.LED
- 3.CRT
- 4.OLED

→Top manufacturers:

- 1.HP
- 2.ASUS
- 3.Apple
- 4.Dell

2.Mouse



➤ A computer mouse is a handheld hardware input device that controls a cursor in a GUI for pointing, moving and selecting text, icons, files, and folders on a computer.

→ components:

- 1. Mouse Buttons
- 2. Scroll Wheel
- 3. Motion Detection
- 4. Connection Points

→ Types of mouse:

- 1. Mechanical Mouse
- 2. USB Mouse
- 3. Blue tooth Mouse
- 4. Wireless Mouse
- 5. Gaming Mouse

→ Top manufacturers:

- 1. HP
- 2. ASUS
- 3. Apple
- 4. Dell
- 5. Rapoo.

3.Keyboard



►A computer keyboard is an input device used to enter characters and functions into the computer system by pressing buttons, or keys. It is an important part of a computer system.

►components:

- 1.keybord circuits
- 2.keyboard switches
- 3.keycaps
- 4.stabilizer
- 5.case and backplates
- 6.USB cable

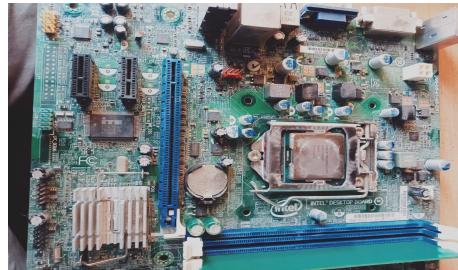
►Types of keyboard:

- 1.Multimedia keyboard
- 2.Mechanical keyboard
- 3.Virtual keyboard
- 4.USB keyboard
- 5.Gaming keyboard

►Top manufacturers:

- 1.HP
- 2.ASUS
- 3.Apple
- 4.Dell
- 5.Rapoo.

4.Mother board



► A mother board is a printed circuits which creates connection with all components on it ,it is like the backbone of a computer system.It is the most important component in pc.

→components:

- 1.Expension slot
2. 3-pin case fan connector
- 3.Back panel connector
- 4.Heat sink
- 5.inductor
- 6.capcitor etc.

→Types of Motherboard:

- 1.AT
- 2.ATX
- 3.LPX
- 4.BTX
- 5.Pico BTX
- 6.MINI ITX

→Top manufacturers:

- 1.Asus
- 2.Mgabyte technology
- 3.MSI
- 4.ASR rocks
- 5.Intel
- 6.Biostar

5.RAM



►RAM(Random Access Memory) is an important hardware in a computing device where the operating system, application program and data in current use are kept so they can be quickly reached by the devices processor, It is the main memory of a computer.

→components:

1. Board
2. Clock
3. Mode Register
4. Memory Banks
5. SPD cheap
6. Burst Counter

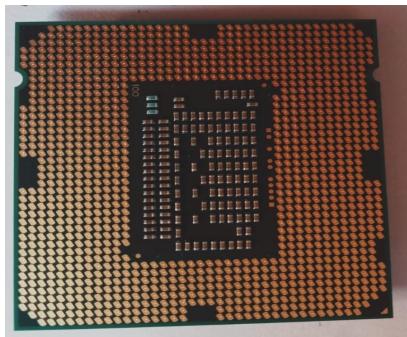
→Types of RAM :

- 1.SRAM
- 2.DRAM
- 3.SDRAM
- 4.SDR SDRAM
- 5.DDR SDRAM
- 6.Flash memory

→Top manufacturers:

- 1.Corsair
- 2.G.skill
- 3.Mushkin
- 4.Micron
- 5.Kingston
- 6.XTremeDDR
- 7.OCZ
- 8.Samsung

6.CPU



► A Central Processing Unit, or CPU, is functionally the most important component of a computer system. Without a CPU, any computer is more or less non-functional. It is generally referred to as the 'brain' of the computer due to the vast number of functions it performs. It is located in the motherboard.

► components:

1. Control Unit(CU)
2. Arithmetic logic unit(ALU)
3. Logic unit(LU)
4. Register
5. Cache
6. Buses
7. Clock

► Types of CPU:

1. Dual core
2. Quad core
3. Hexa core
4. Octa core
5. Deca core.

► Top manufacturers:

1. AMD
2. Intel
3. NVIDIA
4. Qualcomm
5. Hewlett
6. Acer inc
7. ARM holdings

7.HDD



➤ A computer hard disk drive (HDD) is a non-volatile data storage device. Non-volatile refers to storage devices that maintain stored data when turned off. All computers need a storage device, and HDDs are just one example of a type of storage device.

➥ components:

- 1.Disk platter storage
- 2.Spindel controls motion
- 3.Reading and Writing heads
- 4.Actuator Aligns and Hand
- 5.Other parts interface and protect

➥Types of HDD:

- 1.SATA
- 2.PATA
- 3.SCSI
- 4.SSD
- 5.NvME

➥Top manufacturers:

- 1.HP
- 2.Kingston Technology
- 3.Seagate
- 4.Western Digital
- 5.SanDisk

8.DVD



➤ A digital versatile disc (DVD) is an optical disc storage medium similar to a compact disc, but with enhanced data storage capacities as well as with higher quality of video and audio formats. Co Developed by Sony, Panasonic, Philips and Toshiba in 1995, the DVD is widely used for video formats, audio formats as well software and computer files. Digital versatile discs are also known as digital video discs.

➤ components:

1. Lens
2. Prism
3. Photo Diode
4. optical pick up
5. Rail
6. Land

➤ Types of DVD:

1. DVD-R
2. DVD-RW
3. DVD+R
4. DVD+Rw

➤ Top manufacturers:

1. Philips
2. MirriAd
3. CEDAR Audio
4. Sony
5. Qello
6. Dulas

9. Power Supply



► A power supply is the hardware component that provides electricity to power computers and other devices. It converts electrical current pulled from a power source, such as an outlet, battery or generator, to the correct format and passes it on to a device.

→ components:

1. Transformer
2. Rectifier
3. Filter
4. Regulator Circuits

→ Types of Power Supply:

1. SMPS
2. Uninterruptible
3. AC
4. DC
5. Regulated
6. Programmable
7. Liner power supply

→ Top manufacturers:

1. EVAGA
2. Corsair
3. Cooler master
4. Seasonic
5. Antec

10. UPS



► An uninterruptible power supply (UPS) is a device that allows a computer to keep running for at least a short time when incoming power is interrupted. As long as utility power is flowing, it also replenishes and maintains the energy storage.

► components:

1. Battery
2. Rectifier
3. Inverter
4. Static bypass switch

► Types of DVD:

1. Standby
2. Line interactive for desktop
3. Line interactive for Network
4. On-line double conversion

► Top manufacturers:

1. Huawei
2. K-star
3. Riello
4. Pillar
5. Toshiba

11. Cooling Fan



► Computer fans are found inside the computer case and help prevent the various computer parts inside from overheating. Without them, components of your computer can malfunction, become damaged, or even crash.

► components:

1. Fan
2. Fan motor
3. Shroud
4. Fan assembly
5. Thermo Switch

► Types of Cooling Fan:

1. Case Fan
2. CPU fan
3. Power supply fan
4. Video card fan

► Top manufacturers:

1. Mwon
2. Hungfo
3. Noctua
4. Wanton

12. SATA Cables



► The standard hardware interface for connecting storage and CD/DVD drives to the computer. Introduced in 2001, most computers for consumers use the SATA interface for hard drives.

→ components:

1. Power connectors
2. Standard connector
3. Slimline connector
4. Micro connector

→ Types of SATS Cables:

1. SATA-SATA
2. eSATA
3. eSATAp
4. Micro SATA
5. Mini SATA

→ Top manufacturers:

1. yas i-link
2. Vention
3. Vention
4. OXYTECH

13.SSD



➤ An SSD, or solid-state drive, is a type of storage device used in computers. This non-volatile storage media stores persistent data on solid-state flash memory. SSDs replace traditional hard disk drives (HDDs) in computers and perform the same basic functions as a hard drive. But SSDs are significantly faster in comparison.

➥ components:

- 1.Power connector
- 2.Controller.
- 3.DRAM
- 4.NAND

➥ Types of SSD:

- 1.SATA SSD
- 2.PCle SSD
- 3.m.2 SSD
- 4.u.2 SSD
- 5.NVMe SSD

➥ Top manufacturers:

- 1.Micron
- 2.Samsung
- 3.Toshiba Memory
- 4.Sk hynix
- 5.PowerChip

Conclusion

The above articles are a detailed discussion on “**The Internal and Peripheral Components of Desktop PC**”. Hopefully this discussion will accomplish the main purpose of today’s report.

Signature, Date & Contact Details



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THE END