

DISPLAY TYPES AND WORKING PART 3

1. Alternatively referred to as a desktop display, a display or display device is a term used to describe the device used to view video, images, or text.
2. Any information shown on a display is sometimes referred to as a soft copy.
3. The picture is an example of a flat-panel display and the most common display used with computers today.

Displays can be characterized according to:

1. Color capability
2. Sharpness and viewability
3. The size of the screen
4. The projection technology

There are some display devices given below:

1. Cathode-Ray Tube(CRT)
2. Colour CRT Monitor
3. Liquid crystal display(LCD)
4. Light Emitting Diode(LED)
5. Direct View Storage Tubes(DVST)
6. Plasma Display
7. 3D Display

Direct View Storage Tube (DVST)

It is used to store the picture information as a charge distribution behind the phosphor-coated screen.

There are two guns used in DVST:

1. Primary Gun: It is used to store the picture information.
2. Flood / Secondary Gun: It is used to display a picture on the screen.

Electron guns:

Two electron guns are used in DVST : Primary Gun and Flood Gun. Primary gun is used to store picture pattern. Flood gun is used to maintain picture display on phosphor coated screen.

Phosphor Coated Screen:

In DVST the inner surface of CRT is coated with phosphor crystals is of high persistence that emit light when beam of electrons strike them.

Storage Mesh:

It is thin and high quality wire that is coated with dielectric and is located just behind phosphor coated screen. Primary gun deposits pattern of positive charge on this grid and it is transferred to phosphor coated screen by continuous flood of electrons produced by flood gun. Thus Storage Mesh stores picture to be displayed in form of positive charge distribution.

Collector:

This grid is located just behind storage mesh and purpose of this negatively charged grid is to smooth out flow of flood electrons.

Advantages:

1. Less Time Consuming
2. No Refreshing Required
3. High-Resolution
4. Less Cost

Disadvantages:

1. The specific part of the image cannot be erased.
2. They do not display color.

Plasma Display

It is a type of flat panel display which uses tiny plasma cells. It is also known as the Gas-Discharge display.

Components of Plasma display

1. Anode: It is used to deliver a positive voltage. It also has the line wires.
2. Cathode: It is used to provide negative voltage to gas cells. It also has fine wires.

3. Gas Plates: These plates work as capacitors. When we pass the voltage, the cell lights regularly.
4. Fluorescent cells: It contains small pockets of gas liquids when the voltage is passed to this neon gas. It emits light.

Components of Plasma display

Advantages:

1. Wall Mounted
2. Slim
3. Wider angle

Disadvantages:

1. Phosphorus loses luminosity over time.
2. It consumes more electricity than LCD.
3. Large Size