DISPLAY TYPES AND WORKING PART 2 LCD, LED

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

Liquid crystal display (LCD)

1. The LCD depends upon the light modulating properties of liquid crystals.
2. LCD is used in watches and portable computers. LCD requires an AC power supply instead of DC, so it is difficult to use it in circuits.
3. It generally works on flat panel display technology. LCD consumes less power than LED. The LCD screen uses the liquid crystal to turn pixels on or off.
4. Liquid Crystals are a mixture of solid and liquid. When the current flows inside it, its position changes into the desired color.
5. For Example: TFT (Thin Film Transistor)

Advantages:

1. Produce a bright image
2. Energy efficient
3. Completely flat screen

Disadvantages:

1. Fixed aspect ratio & Resolution
2. Lower Contrast
3. More Expensive

<u>Light Emitting Diode (LED)</u>

1. LED is a device which emits when current passes through it. It is a semiconductor device.
2. The size of the LED is small, so we can easily make any display unit by arranging a large number of LEDs.
3. LED consumes more power compared to LCD. LED is used on TV, smartphones, motor vehicles, traffic light, etc.
4. LEDs are powerful in structure, so they are capable of withstanding mechanical pressure. LED also works at high temperatures.

Advantages:

1. The Intensity of light can be controlled.
2. Low operational Voltage.
3. Capable of handling the high temperature.

Disadvantages:

More Power Consuming than LCD