# LED Display System Overview

1. LED Display System is a multimedia hi-tech product that blended optical, electronic and acoustic signal processing technologies, and it includes the followings:
   - » Display screen
   - » Control computer and communication system
   - » Computer and its related peripheral
   - » Video peripheral
   - » System software

2. System Features:
   - » Available for connection to an external scanner, and accepting various pictures, graphs and handwriting inputs.
   - » Accepting video signal (TV, VCR, and DVD), and showing dynamic images, and it also can show graphs and animations.

» The control computer can act as a workstation on network, and read real-time data from specified computer, and show them on its display.

» Various methods for images display, and easy replacement for arranged programs whenever (including play sequence, time length) etc.

3. Protections for outdoor display

» They include waterproof, sun-screen, antistatic, damp proof, anti-freeze (anti-thundering, if necessary) and other features.

4. Photo of Outdoor full color led display screen (Pitch 20mm)


Back View of Led Screen

| (1). Structure description | | | | |
|---|---|---|---|---|
| Each pixel consists of 4 LEDs, which are 2 red, 1 pure green, and 1 pure blue ones.<br>Pixel pitch, 20mm; Resolution, 2500 pixels/M2, and it can be up to 10000 pixels/M2, | | | | |
| **(2) Technical analysis** | | | | |
| No. | Content | Item | | |
| 1 | Color analysis | To get best white balance, color ratio is designed to be R: G: B/3: 6: 1. | | |
| **(3) Pixel data** | | | | |
| No. | Item | Parameter | | |
| 1 | Pixel pitch | **20 mm** | | |
| 2 | Pixel composition | 2 red, 1 green and 1 blue LEDs | | |
| **(4) LED Data** | | | | |
| No. | Item | Wavelength | Brightness | Module No. |
| 1 | Red tube core | 620-630nm | 400-600mcd | Absen-OF20V-A+ |
| 2 | Pure green tube core | 520-530nm | 1600-2400mcd | Absen-OF20V-A+ |
| 3 | Pure blue tube core | 465-475nm | 300-700mcd | Absen-OF20V-A+ |
| **(5) Screen parameters** | | | | |
| 1 | Pixels per unit box | 64×48 pixels, unit box size: 1280mm x 960mm | | |
| 2 | Brightness | > 5500cd/$M^2$ | | |
| 3 | Brightness adjustment | Manual, 256 level | | |
| 4 | Scanning method | Static | | |

| | | |
|---|---|---|
| 5 | Drive methods | Constant current drive / Static Latching |
| 6 | Horizontal View angle | >110 degrees |
| 7 | Module Display Brightness Uniformity | < 5% |
| 8 | View distance | 10-150 m |
| 9 | Grey scale | Homochromy 12bit |
| 10 | Display colors | 36 bit color |
| 11 | Refresh Frame Frequency | 360HZ |
| 12 | Control method | Video Frequency Synchronization |
| 13 | Data transfer method: | Parallel RS 422 |
| 14 | Lifetime | > 100,000 hours |
| 15 | Defects rate | ≤0.00001(Led display line standard<0.0001) |
| 16 | Operating voltage | AC220V/50HZ or AC110V/60HZ |
| 17 | Screen power consumption | Max: 900w/㎡; Average: 450w/㎡ |
| 18 | Color Temperature | Brightness of R,G,B adjustable by the software 256 grades, Color temperature adjustable according to requirement |
| 19 | Screen weight | <70KG/cabinet |
| 20 | Effective Communication Distance (Without relay) | Unshielded twisted pair net line transmission distance 100m, max transmission distance 130m.<br>Multi-mode Optic fiber transmission distance 500m;Single-mode optic fiber transmission distance 10KM |
| 21 | MTBF | Not less than 10000 hours |
| 22 | Earth Leakage Current | < 2mA |
| 23 | Environment temperature | —20℃～+60℃ |
| 24 | Operating ambient humidity | 10%—95%RH |
| 25 | Systems operating platforms | WINDOWS(WIN95、WIN98、WIN2000), with a friendly UI, and interface for secondary development。 |