

LEXELL LED DISPLAY

Choice of Light Emitting Diode

All the Light Emitting Diode is high brightness and 100% import from Showa Denko, combine with our world top optical sealing technology easily delivery the screen brightness more than 8,500 cd under the situation that driving current is much less than rated current of LED itself. The life of Light Emitting Diode can reach more than 100,000 hours. By comparing most of products in the market, our product has much wider angle to satisfy outdoor wide-angle display requirement.

Choice of Driving Chips

We are using OT Series Driving Chip, which is excellent for consistent output, and fully guarantee the uniformity of screen. The chip is the world's best performance of constant current driving source, it will stabilize the constant current output in various power supply fluctuations.

Choice of Housing Design

The housing made by 100% aluminum and the protection class meets IP 65 requirements.

Each box equipped with low noise fans to ensure inner temperature lower than 10 degree, and thermal management system installed in each box to adjust the speed of fans in different condition.

Without compromising quality of the product, our redundant design ensure the life of LED Display

The driving current of LED is less than 60%

The current of Driving OT Chip less than 25%

The fully load switching power less than 70%

Intelligent Design System

Remote Control feature of display power switch

Inside Detection Devices for different environmental situation such as temperature, smoke etc and the real time data will be sent back to the control room in order for staff easily recognize the operation

Self Protection for Short circuit, over current, alarm protection, system is able to tackle any emergency situations by itself.

Protection Design

Screen Protection Measures includes waterproof, moisture proof, anti-corrosion, anti-electromagnetic interference, fire, etc.

Performance Specification of Display

Item	Parameter
Pixel Pitch	16mm
Pixel Density	3906 units/m ²
Pixel Composition	1R1G1B
Light Emitting Diode	Japan Showa Denko
Box	Alum box structure, box thick more than 2.5mm
Color	More than 281 trillion color
Refresh Speed	≥240HZ
Max White Balance brightness	≥8500cd/m ² (6500K°color temperature after correction)
White Balance color temperature	3500K°≤TC≤8000K°
Bright Adjustment	Auto/manual not less than 16 degree, brightness automatically adjusts according to different environment.
Single Point Brightness adjustment	System has a single point of brightness adjustment function enable entire screen calibration, more vivid color
Driving Mode	Constant Current Driver
Viewing Angel	110 degree
Degree of Gray	65535(R)×65535(G) ×65535(B)
Signal Process	16 Bit
Frame Rate	Not less than 60HZ
Reverse γ calibration curve	Three or more adjustable γ curve
Control	Synchronize with Computer
Life	More than 5 Years

Hot-plug, self diagnosis	Easy Maintenance, support hot swap. Our self-developed software has real time tracking of any possible fault conditions
Control Point	<0.0001 (discrete state)
Balance	Screen flatness≤1mm, patchwork≤1mm
Uniformity	Basic Color Uniformity ≤5%
Protection	All equipment and housing system are made for waterproof, dustproof, anti-salt spray, mildew treatment positive protection is IP65
Distance Control	≥300M optical fiber communication
Continuous Working Hours	>48 Hours
MTBF	Not less than 5000 hours
Display Weight	Not less than 65KG/m ²
Power/M ²	Max Power: less than 800 W, Average Power: less than 400W
Working Temperature	-20℃ ~ +50℃
Working Humidity	10% ~ 95%

Technology Features

The video processor can be operated independently from the computer control for broadcast video. Only few companies is able to adopt their own fully self-developed intellectual property LED dedicated video processor.

Video Process Function

- Display grey level is 65536/per color, each color has a 16-bit decoding capacity
- Optical fiber for long distant transmission
- Remote control, computer-free video display and control functions
- DVI Digital interface capability
- 2 way video input with composite video interface, 1 channel S-Video interface
- Self-Correction function
- Video adjustment function for synchronization and offline

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- Rackmount installation structure

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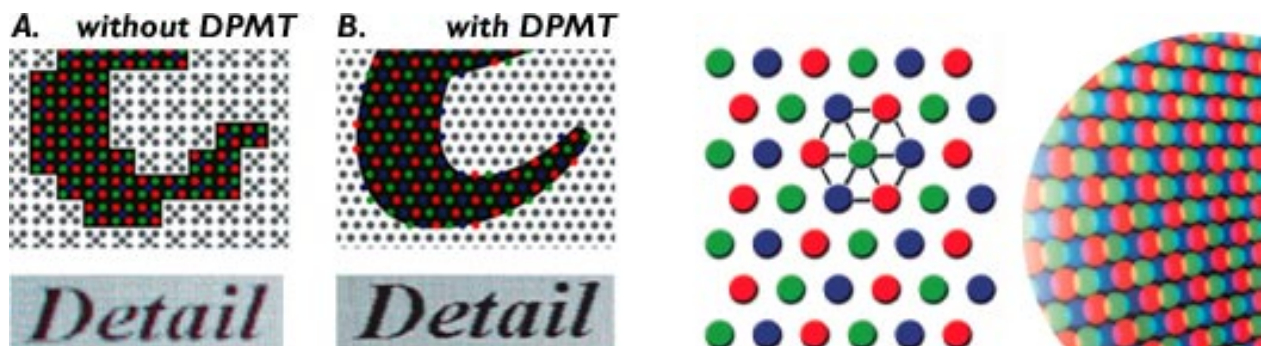
- LCD Display controller
- Standard RS232 interface
- Remote control to the display
- System remote configuration, online upgradable
- Screen transmitted, connected, and maintained by cable
- The function to handle video by frame, resized image functions
- PAL, NTSC video format system, compatible with SDTV and HDTV signals
- Screen Lock Function
- Video Control State Memory
- Video Processing with comb filter, noise reduction

Video Process Specs

- The screen refresh rate 480 Hz
- The display frame frequency 60 Hz
- Video input 2 composite video + 1 Way S-Video
- VGA input 1 Road DVI
- Light control and Remote Control RS 422
- Display Area 40m x 10m
- Working Voltage AC220V/50Hz
- Control Power Consumption <100W

DPMT Technologies (virtual pixel technology)

Our world patent self-develop 3 & 4 times frequency dynamic pixel scan is world leading technology which increase display pixel density and visual density 3 or 4 times, it helps to interpret new generation of higher resolution, wider viewing angle, more brightness uniformity display.



Brightness adjustment

Automatic brightness adjustment – Screen sensor will automatically adjust the brightness according to ambient environment.

Program brightness adjustment – Operator adjust the brightness by manually for different circumstances.

Manual brightness adjustment – Operator adjust the brightness only for special occasions.

LED Display Enhancement

High-speed refresh technology – Screen refresh rate reach to 480 frames/second, the maximum frame frequency is up to 60 frames/second, total refresh space equal to 1. The whole picture will not have jitter, water ripples, strobe or other undesirable phenomena. People can watch the display without fatigue.

New frame refresh technology – to enhance image restore quality and prevent picture serrate and picture distortion.

Grey Color Control

Grayscale LED display control technology is the key for image quality. By transforming coding using 48 bit gray scale, complete 281 trillion true color to ensure clear picture layer, bright color, better contrast to bring LED display to a new level.

Before



After



To correct RGB (Red, Green, Blue) color by color matrix transform technology our display can have the most ideal pure color and achieve the white balance and dynamic white balance.

Non-Linear Correction

Our unique technology can make the degree of each gray color to reach 16 bits, and make it very easy to reach perfect curve.

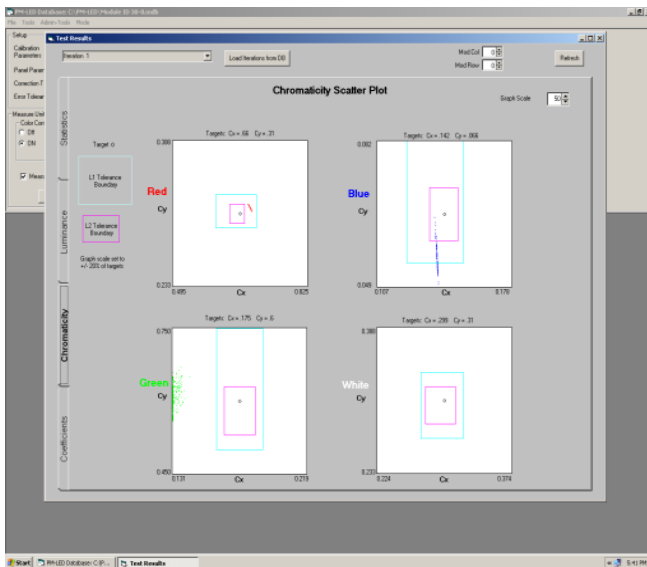
Fast Moving image Compensation

By using self-developed three-dimensional motion detection technology that automatically generates the appropriate corresponding filters adaptive filter movement to achieve fast motion image compensation and prevent jagged distortion, optical fuzzy and other display problems.

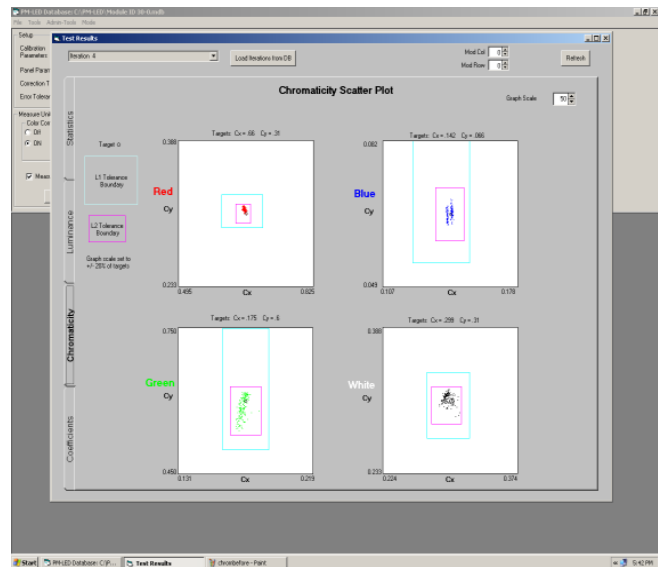
Pixel Balance / Color Rectification

By using a single point color correction technology to prevent spot phenomenon in large LED screen. Before and After correction measured values as shown below,

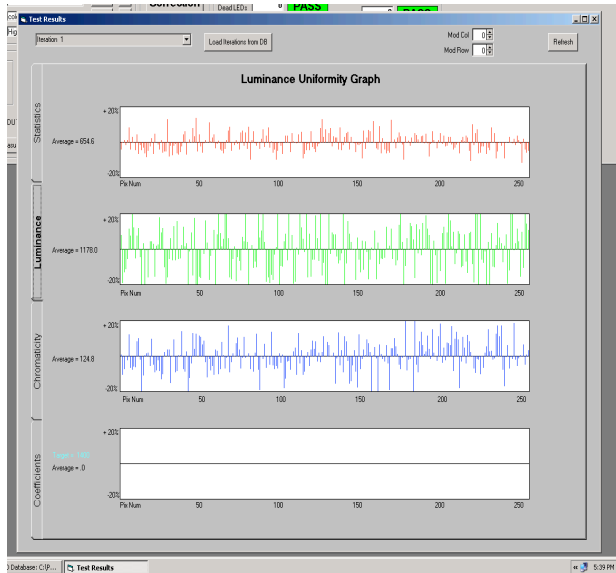
Before Correction



After Correction



Before



After

