

# Micro LED Display with Megapixel HELIOS LED Processing Platform



Power UI/UX with Megapixel HELIOS LED Processing Platform



Achieving True Black



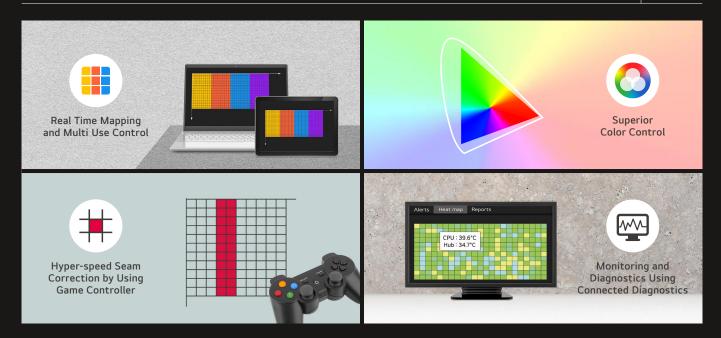
Accurate Colors



High Reliability

## LSAP Series

| Pixel Pitch            | 0.94 mm        |
|------------------------|----------------|
| Brightness             | 600 nit (Max.) |
| Weight per Cabinet     | 7.6 kg         |
| Service Access         | Front and Rear |
| IP Rating Front / Rear | IP50 / IP20    |



## Powerful UI/UX with Megapixel HELIOS LED Processing Platform

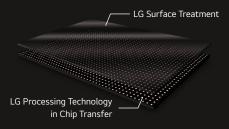
With the Megapixel HELIOS LED Processing Platform, LSAP now has the capability to utilize powerful UX and UI functionalities. Real-Time Mapping and Multi-User Control, Superior Color Control, Hyper-Speed Seam Correction using a game controller, and Monitoring and Diagnostics through connected diagnostics are all available.

\* Megapixel HELIOS LED Processing Platform needs to be purchased separately



# Enhanced Uniformity with LST (LG Surface Treatment) Technology

LG MAGNIT's innovative Chip Transfer and Surface Treatment Technology enhances white uniformity and reduces color distortion from any angle, delivering true and accurate wide-angle viewing experiences. This technology ensures remarkable color uniformity, resulting in superior image quality.





## Achieving True Black with Direct Chip Mounting

LG MAGNIT's advanced and precise method for direct bonding micro-sized chips onto circuit boards combined with the black coating technology, creates a stunning black expression that stands out compared to SMD-type LED displays. This makes it the ideal choice for displaying content that requires deep black color, ensuring that every image is rich, vibrant, and true to life.

\* Based on comparison against LG's conventional LED Signage



#### Accurate Colors as Intended

By carefully selecting an LED chip which is a key factor to determine color purity, its narrowed wavelength allows LG MAGNIT to show uniform colors across the screen. Furthermore, the enhanced Gamut Transfer technology supports it to describe colors close to the original color, which is essential for places where exact color representation is demanding.



### Care Less with Sturdy Design

Through several layers of coated film, LSAP can protect its LED chips from risks caused by water drops, dust, static electricity or physical impacts. It also meets the fire regulations with BS 476 Part 7 Class 1 certification. Considering that it is usually installed in public places where many people come and go, its stability is vitally important to minimize unforeseen accidents.

<sup>\*</sup> Based on in-house testing in accordance with the certification criteria, or under actual operating conditions.

## **SPECIFICATIONS**

#### LSAP009-U1/T1

|                              | Pitch Name                               | P0.9                                           |
|------------------------------|------------------------------------------|------------------------------------------------|
| Physical<br>Parameters       | Pixel Configuration                      | СОВ                                            |
|                              | Pixel Pitch (mm)                         | 0.938                                          |
|                              | Module Resolution (W × H)                | 320 × 120                                      |
|                              | Module Dimensions (W × H, mm)            | 300 × 112.5                                    |
|                              | Weight per Module (kg)                   | 0.19                                           |
|                              | No. of Modules per Cabinet (W × H)       | 2 × 3                                          |
|                              | Cabinet Resolution (W × H)               | 640 × 360                                      |
|                              | Cabinet Dimensions (W × H × D, mm)       | 600 × 337.5 × 44.9                             |
|                              | Cabinet Surface Area (m²)                | 0.203                                          |
|                              | Weight per Cabinet (kg/Cabinet)          | 7.6                                            |
|                              | Weight per Square Meter (kg/m²)          | 37.5                                           |
|                              | Physical Pixel Density (pixels/m²)       | 1,137,778                                      |
|                              | Flatness of Cabinet (mm)                 | ±0.5                                           |
|                              | Cabinet material                         | Die Casting Aluminum                           |
|                              | Service Access                           | Front and Rear                                 |
|                              | Max. Brightness (After Calibration, nit) | 600 (Max.)                                     |
|                              | Color Temperature (K)                    | 2,000-10,000 / Default 6,504                   |
|                              | Visual Viewing Angle (H × V)             | 160 × 160                                      |
| Optical<br>Specifications    | Brightness Uniformity                    | ≥ 95%                                          |
|                              | Color Uniformity                         | ±0.02 Cx, Cy                                   |
|                              | Contrast Ratio                           | 100,000 : 1 (Max.)                             |
|                              | Processing Depth (bit)                   | 22 (Internal Processing (HDR10))               |
|                              | Power Consumption (W/Cabinet, Max.)      | 68                                             |
|                              | Power Consumption (W/Cabinet, Avg.)      | 47                                             |
| Electrical<br>Specifications | Power Consumption (W/m², Max.)           | 336                                            |
|                              | Heat Dissipation (BTU/h/Cabinet, Max.)   | 232                                            |
|                              | Heat Dissipation (BTU/h/Cabinet, Avg.)   | 160                                            |
|                              | Heat Dissipation (BTU/h/m², Max.)        | 1,146                                          |
|                              | Power Supply (V)                         | 100 to 240                                     |
|                              | Frame Rate (Hz)                          | 23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60 |
|                              | Refresh Rate (Hz)                        | 3,840                                          |
| Operation<br>Specifications  | Lifetime (Half Brightness)               | 100,000                                        |
|                              | Operating Temperature (°C)               | 0 to +40                                       |
|                              | Operating Humidity                       | 10-80% RH                                      |
|                              | IP Rating Front / Rear                   | IP50 / IP20                                    |
| Standard                     | Certification                            | IEC 62368-1, EMC Class A, BS476 Part7 Class2Y  |
| Environment                  |                                          | RoHs/REACH                                     |
| Controller                   |                                          | Megapixel HELIOS LED Processing Platform       |
| 90 Degree Corner Cut         |                                          | No                                             |

## Megapixel HELIOS LED Processing Platform (Controller)

|                  |                                                                                                                             | 3 1                   |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Cabinet          |                                                                                                                             | LSAP, LBAG            |
| Max Output Range | Loading Capacity                                                                                                            | 8,192 × 4,320 @ 60 Hz |
|                  | Output Resolution                                                                                                           | 35.3 Million Pixels   |
| Input            | HDMI 2.0, HDCP 2.2, DP 1.4 (HBR3), SDI (4 × 12G-SDI), OPS (ST2110)                                                          |                       |
| Output           | Optic (To LED Screen) (8 × 10G)                                                                                             |                       |
| Control          | LAN                                                                                                                         | Yes                   |
| Control          | GenLock                                                                                                                     | Yes (In)              |
| Video Processing | Brightness Adjustment, Chroma Adjustment, Improved Grayscale at Low Brightness, Scaling, HDR (PQ, HLG, Custom), EDID Custom |                       |
| Application      | SuperSign CMS (Cross-platform Web Interface), webOS API, Configuration SW (Cross-platform Web Interface)                    |                       |
| Mechanical       | Size (W × H × D, mm)                                                                                                        | 481.5 × 44.2 × 393    |
|                  | Weight (kg)                                                                                                                 | 5.7                   |

<sup>\*</sup> Specifications are subject to change without notice. Please make sure to check the product manual for details about product usage.







