Simple and easy tiling for an unlimited amount of configurations to meet the needs of applications required for both indoor and outdoor locations

Indoor and Outdoor LED wall display for Professional-Grade Digital Signage

http://www.nec-display.com/ap/
Excellent image quality, durability and reliability mark the beginning of a new generation of digital signage. These display products include the latest technical advantages that only LED technology can deliver.

Nec public displays demonstrate the effectiveness of introducing displays into various situations in a wide range of industries. Our relentless determination to provide high functionality and durability along with high picture quality and large display sizes resulted in a new line-up of full-colour LED modules. Our line-up of indoor and outdoor models further widens the application range for digital signage.

- **Locations for LED wall display**
  - Shopping centres
  - Airports
  - Street signs
  - Stadiums

**Our line-up of modules provides solutions for a wide range of needs**

**High-quality design to realise beautiful images**
- 3-in-1 SMD type (for indoor and outdoor use)
  - The three elements of RGB have been incorporated into one package (lamp). By using high-intensity white LEDs for the 3000 cd/m² indoor module LED-06AF1V and 6000 cd/m² outdoor module LED-10BF1, we have realized a high visibility even when viewed from an angle, with a wide viewing angle of 80 degrees to the left and right. By also adopting black LEDs for the indoor module LED-06AF1, we were able to prioritize the high contrast ratio of 3500:1.
- RGB type (for outdoor use)
  - Uses LED lamps with three independent RGB colours. Each LED configures one pixel of three colours. Multiple modules can be combined to create one large screen. The maximum brightness for the LED-10BF1 and the LED-20BF1 is 7500 cd/m², with a contrast ratio of 7500:1. Vivid, lively images are displayed even in direct sunlight.
- High-grade LED lamps
  - By using high-grade LED lamps from a Japanese manufacturer, we were able to reduce differences in luminosity and uneven colours that occur due to differences in LED lamps, allowing us to display uniform images.
- Reduced reflections
  - The use of surfacemounts over individual pixel elements results in better image visibility outdoors as well as indoors.

**Stable performance and high durability**
- Designed to be immune from heat expansion problems
  - By calculating thermal expansion in advance and designing the modules with this in mind, we were able to maintain the uniformity of large screens under harsh environments.
- IP65 protection rating
  - The outdoor modules stable operation by preventing dust and rain large screens under harsh environments.
  - By calculating thermal expansion in advance and designing the modules with this in mind, we were able to maintain the uniformity of large screens under harsh environments.
  - The four studs on the rear surface make it easy to attach the modules for simple construction.
- Maintenance can be performed from the front or back.

**Economy and ecology**
- The power source was designed for excellent power efficiency to keep power consumption low. These displays offer an effective total cost of ownership (TCO) with long-term use.
- A function that sets the optimal display brightness automatically according to the surrounding light-intensity minimizes unnecessary power consumption.
- The modules comply with the RoHS directive (of the EU), which restricts the use of specified toxic substances that affect the environment.

**Image management features**
- 64 levels of brightness adjustment
- Adjustment of colour temperature and white balance
- Gamma adjustment function

**LED wall display configuration**
- A large display can be configured for use by filling 50 cm square modules. The LED modules are equipped with power circuits and signal processing boards so external boxes and right-side installations are not required.
- The four studs on the rear surface make it easy to attach the modules for simple construction.
- Maintenance can be performed from the front or back.

**System configuration equipment**
- Video processor (LED-VP1)
  - This processor is equipped with a switching function to switch between multiple video input signals and a scaling function to convert to the optimal video for the display.
  - Video processor (LED-VP1) 15 mm pitch
  - Safe to use with multiple video sources, making it easy to switch between sources. Ideal for multiple input signals.
  - Video processor (LED-VP1) 10 mm pitch
  - Equipped with multiple input signals, making it easy to switch between sources. Ideal for multiple input signals.
  - Video processor (LED-VP1) 10 mm pitch (high-brightness type)
  - Equipped with multiple input signals, making it easy to switch between sources. Ideal for multiple input signals.
  - Video processor (LED-VP1) 15 mm pitch (high-brightness type)
  - Equipped with multiple input signals, making it easy to switch between sources. Ideal for multiple input signals.

**Examples of display configurations**

<table>
<thead>
<tr>
<th>Single Module</th>
<th>Briten Display</th>
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<tbody>
<tr>
<td>LED-06AF1V</td>
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<tr>
<td>LED-10BF1</td>
<td>LED-10BF1</td>
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<tr>
<td>LED-15BF1</td>
<td>LED-15BF1</td>
</tr>
<tr>
<td>LED-20BF1</td>
<td>LED-20BF1</td>
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</tbody>
</table>

*These LED-LS1/LED-CL1 are not supported. This function is designed for the LED-CL1B-10*