LED Display Wall

[78/74 Series Version]
New Wide-format LED Display Wall Cubes Guarantee High Performance and Quality

Saving LED light source and DLP™ projector system incorporated to realize more advanced visual communications. Display wall cubes with wide formats of 16:9 and 16:10 newly added to the product line-up, further enhancing our ability to tailor solutions that suit diversified customer applications.

Smart 7 ~ New Functions for Market Leading Large Display Wall Systems

The key to visual communications can be found in Mitsubishi Electric’s Smart 7 technologies, the core concept behind display wall design at Mitsubishi Electric. These advanced cutting-edge technologies are incorporated in all 70 Series products, ensuring innovative display solutions for command and control room applications.

**DLPTM Technology for the Ultimate in High Quality and Digital Control**

At the core of Mitsubishi Electric projection technology is the DLPTM chip: a display device with minute metal mirrors arranged at multiple points on a silicon base using the most advanced semiconductor fabrication technology available. Each micromirror corresponds to a single pixel or element of the picture. Images are produced by maneuvering these micromirrors electronically.

**LED Light Source Advantages**

**Virtually Maintenance Free**

As an LED light source has an average service life that is approximately 10 times longer than that of conventional ultra high-pressure mercury lamps. Combined with the 100,000hr, ultra-long service life of our fans, the average service life of Mitsubishi Electric LED display wall cubes is more than 10 years, even when operated 24/7.

**Wide Color Reproduction Range**

The LED light source offers a much wider range of color reproduction, allowing a larger array of vivid colors to be used for the icons and symbols frequently used in command and control rooms. This ultimately makes it easier for command and control room operators to share information.

**Multiple Picture Settings**

Mitsubishi Electric LED display wall cubes have multiple picture settings, giving customers the freedom to choose the best setting according to the application and content being displayed. Optimized Color is best for reproducing natural looking colors, Vivid Color realizes more striking colors application and content being displayed. Optimized Color is best for reproducing natural looking colors, Vivid Color realizes more striking colors. Color Temperature is ideal for backdrop reproducing natural looking colors, Vivid Color realizes more striking colors. Color Temperature is ideal for backdrop reproduction, allowing a larger array of vivid colors to be used for the icons and symbols frequently used in command and control rooms. This ultimately makes it easier for command and control room operators to share information.

**Eco-conscious**

The LED light source eliminates the use of mercury, and thus helps to preserve the environment. At the same time, the Eco mode setting contributes to lower power consumption and CO2 emissions from display wall cubes that use a conventional ultrahigh-pressure mercury lamp.

**Largest LED Display Wall Cube Line-up Ever**

An expansive lineup is now available including 62 and 72-inch 16:10 wide models, 60 and 70-inch 16:9 wide models, and 50, 60, 67 and 80-inch 4:3 models. Available resolutions include XGA, SXGA+, Full HD(1080P) and WUXGA. Three screen options are offered as well: Black Stripe (standard), Cross-lenticular and Black Bead, which vary in brightness and viewing angle capabilities. This expanded range of choices gives users more flexibility in creating the optimal system to match the application and installation environment.

**Consistent High-quality Images**

Full digital control of color and gradation at every micromirror results in images with consistently high picture quality and uniform color and brightness, even between the center and edges of the display wall.

**Higher Reliability**

The DLPTM chip is a reflective device with a very high reflection characteristic allows still images, text data and other fixed patterns to be displayed for long periods of time without image retention or burn-in that occurs with other image processing methods.

**Choice of Four Brightness Modes**

Equipped with an original LED power control circuit, each display wall cube can be set to operate in one of four modes: Normal, Bright, Eco or Advanced Eco. As a result, command and control room operators can select the brightness according to the environment and use.

**Proven Performance**

Over 61,000 Mitsubishi Electric display wall products have been delivered to mission-critical command and control rooms around the world. Our new LED projection engines are developed through the deep understanding and experience gained from the market and listening closely to customers’ needs.

*All Mitsubishi Electric display wall cubes are manufactured using semiconductor wafers which are performed at the product Electric design stage.

*As of November 2013, in-house research.

*Service life figures not guaranteed.

*As of November 2013, in-house research.
High-resolution Images Created with Mitsubishi Electric’s New Optical Engine and Image-quality Circuit Design

Intelligence

High Contrast and Brightness
A newly developed optical system fully tuned to match the LED light source has been introduced, improving brightness uniformity even further. Higher contrast and brightness have also been realized for the wide models, 1,500:1 contrast for WE and HE; and 1,600:1 for PE, 1,700:1 for XE, and a high brightness of 1,580 cm/m2 has been realized for XE, and a high brightness of 1,700:1 has been realized for PE, 1,700:1 has been realized for XE, and a high brightness of 1,580 cm/m2 has been obtained for XE models and 1,600 cm/m2 for XE models.

Liquid Cooling System

Pump/Drive parts are required to circulate the liquid
Complex system requiring liquid reservoir and tube
Coolant must be replaced frequently due to deterioration and loss
Pump has a short service life (approx. 50,000hrs)

Air Cooling System

Highly efficient, compact cooling module
No moving parts that require frequent replacement
Long service life

Efficient Air Cooling System Realizes Higher Reliability

The system has an optimal airflow path and cooling module design that are perfectly matched to the characteristics of the LED light source.

Auto-balancing

Brightness and Color Uniformity Maintained between Multiple Screens Realizing More Expressive Images

Dynamic Color & Brightness Balancing
Each display wall cube is equipped with three built-in sensors (one for each primary color) that sense a color and brightness maintenance algorithm. The sensors continually monitor the individual red, green and blue output of each display wall cube, share the data with adjacent cubes, and adjust performance automatically to produce extremely accurate colors and brightness balance over the entire display. These features make it possible to maintain image uniformity on all-screen configurations over long periods of operation without using external software or a computer.

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Brightness with Cross-lenticular Screen

<table>
<thead>
<tr>
<th>Make</th>
<th>Model number</th>
<th>Brightness</th>
<th>Model number for optional Cross-lenticular Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bright mode</td>
<td>60XE74</td>
<td>50XEF74</td>
<td>72WEF78</td>
</tr>
<tr>
<td>Eco mode</td>
<td>60XE74</td>
<td>50XEF74</td>
<td>72WEF78</td>
</tr>
</tbody>
</table>

### Operating Conditions

**Operating current (100/240V)**

- 50XEF74: 0.5A
- 72WEF78: 0.5A

**Cooling fan**

- 50XEF74: 94W
- 72WEF78: 112W

**Pixel clock rate**

- 50XEF74: 1500:1 (Typ.)
- 72WEF78: 1500:1 (Typ.)

**Frame rate conversion**

- 50XEF74: 25 - 162MHz
- 72WEF78: 25 - 162MHz

### Accessibility

- Model number: S-6770CAF
- Accessibility: VC-B70DA2
- Projection engine: 31.5 - 92kHz
- Signal input terminal: VGA (640 x 480) - WUXGA (1920 x 1200)
- Model number: SC-6775U
- Operating condition: 0.2 - 1.5mm (*2)

### Functions

**Input signals**

- Signal input terminal: VC-B70DA2
- Input signal terminal: 20-80% non-condensing
- Digital/Analog RGB input board (option)
  - Functions: image scaling, black and white, frame rate conversion
- Analog RGB input board (option)
  - Functions: image scaling, black and white, frame rate conversion

**Video input board (option)**

- Functions: image scaling, black and white, frame rate conversion

**Digital inputs**

- Input: HDMI, DVI, DVI-I (digital with HDCP, analog) x 2
- Model number: SC-6775U
- Operating condition: 10-35°C.Degree

**3G-SDI input board (option)**

- Functions: image scaling, black and white
- Signal input terminal: DVI-I (digital with HDCP, analog) x 2
- Model number: SC-6775U
- Operating condition: 10-35°C.Degree

**Daisy chain board (option)**

- Functions: image scaling, black and white
- Signal input terminal: DVI-I (digital with HDCP, analog) x 2
- Model number: SC-6775U
- Operating condition: 10-35°C.Degree

**Black Bead Screen (option for 4:3 models)**

- Functions: image scaling, black and white
- Signal input terminal: DVI-I (digital with HDCP, analog) x 2
- Model number: SC-6775U
- Operating condition: 10-35°C.Degree
Eco Changes is the Mitsubishi Electric Group’s environmental statement, and expresses the Group’s stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

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Specifications are subject to change without notice.

*The design and measurements are subject to change without notice.
*All pictures shown are for illustrative purposes only.