

Display Wall



LED Display Wall

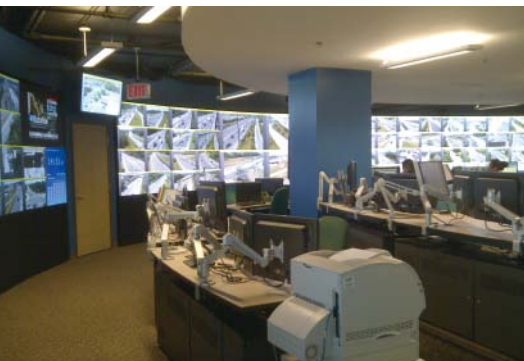
[78/74 Series Version]

Redundant



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.



City of Toronto Traffic Management Center



California ISO



Autobrennero User Assistance Center

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.



Largest LED Display Wall Cube Line-up Ever

An expansive line-up 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.

*All Mitsubishi display wall cubes are manufactured using seismic simulation which was performed at the product Electric design stage.

16:10 wide format



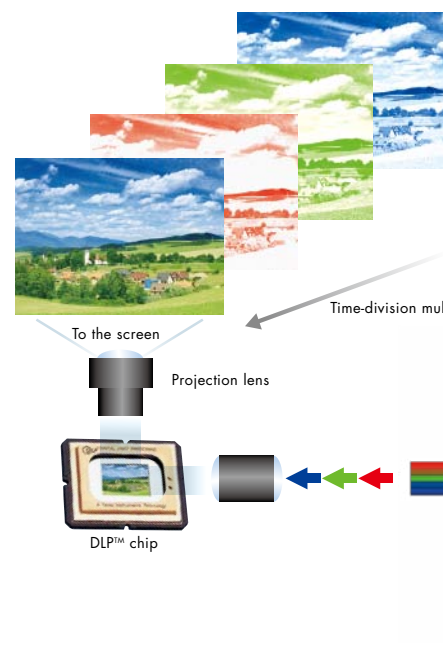
16:9 wide format



4:3 format



DLP™ Technology for the Ultimate in High Quality and Digital Control



At the core of Mitsubishi Electric projection technology is the DLP™ 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.

*DLP and the DLP medallion logo are registered trademarks of Texas Instruments in the United States of America.

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 DLP™ chip is a reflective device with a very high reflection ratio, thus very little energy remains on the chip itself. This 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.

LED Light Source Advantages

Virtually Maintenance Free

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, ultralong 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.

*Service life figures not guaranteed.

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.

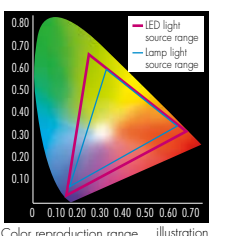
Proven Performance

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.

*As of November 2013, in-house research.

Wider 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 in icons/symbols, and Low Color Temperature is ideal for backdrop applications in broadcasting studios.

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 than display wall cubes that use a conventional ultrahigh-pressure mercury lamp.

Durability

Air Cooling System for LED Light Source

Liquid Cooling System

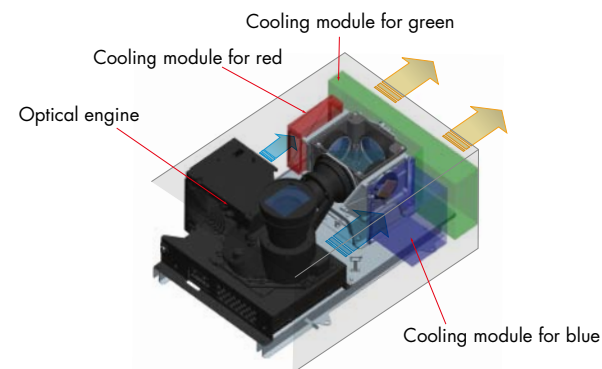
- Pump/Drive parts are required to circulate the liquid
- Complex system requiring liquid reservoir and tube
- Coolant must be replaced frequently due to deterioration and loss
- Pump has a short service life (approx. 50,000hr)

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.



*The cooling module consists of a highly efficient cooling tube and aluminum plate.

Easy Set-up

Full Front Access for Simple Maintenance

Mitsubishi Electric offers a wide line-up of front-access products: front access is available for 60" [Full HD (1080P)] and 70" [Full HD (1080P)], 62" (WUXGA) and 72" (WUXGA) models, as well as 4:3 models (50", 60" and 67", both XGA and SXGA+). The specially designed slide-and-lift screen and air-ventilation system allow all installation and maintenance work to be completed from the front. As a result, no maintenance space is needed behind the display wall cubes even if they are tiled as a display wall installation.



Flexibility

More Ports and Increased Input Resolution Options



The number of input boards has been increased for compatibility with a wider range of input signals. Compatibility with input resolution has also been increased, now including up to WUXGA (1920x1200).

*Possible to select up to three from six option boards per display wall cube



Analog RGB input board



Digital/Analog RGB input board



Daisy chain board



Digital RGB input board



Video input board



3G-SDI input board

Intelligence

High-resolution Images Created with Mitsubishi Electric's New Optical Engine and Image-quality Circuit Design

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 VE and HE; and 1,160cm/m² high brightness for 62VE78 and 62VEF78. For the 4:3 models, a higher contrast of 1,600:1 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 50PE78 and 50PEF78.

Color Space Control Circuit

To compensate for the color and brightness inconsistencies on display wall cubes, Mitsubishi Electric has developed an original Color Space Control Circuit that balances and blends colors. The ratios of each primary color (red/green/blue) and other color mixtures are adjusted to provide consistent color blending and superior uniformity on multi-screen configurations.



without Color Space Control



with Color Space Control

Digital Gradation Circuit

Loss of brightness at the screen edges is no longer a problem owing to Mitsubishi Electric's innovative digital gradation circuit. Brightness is distributed evenly across the screen, ensuring the reproduction of sharp, vivid images from edge to edge on multi-screen configurations.



without digital gradation



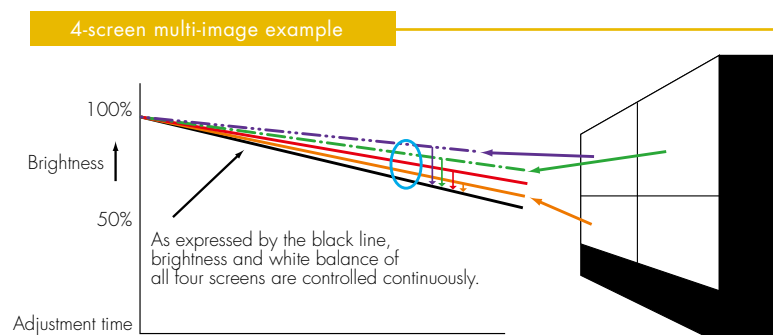
with digital gradation

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 use 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 multi-screen configurations over long periods of operation without using external software or a computer.



Internal Processing

Built-in Processor

The 70 Series units are equipped with an internal data processing function. Up to four windows (*1) or two windows (*2) per cube can be displayed when using the optional input boards. Windows can be of any size or displayed across the entire wall (up to six windows (*1) or three windows (*2) per cube is possible if a 'desktop' image is not present). Multiple windows can be moved freely without the need of an external computer. Used in combination with Mitsubishi Electric's D-Wall software suite, the entire imaging system can be controlled intuitively from a user-friendly graphical user interface.

(*1) VE/HE models with VC-B70V2 and VC-B70DA2 or PE/XE models with all boards.
(*2) VE/HE models with other boards.

1 Back Ground (Desktop)



*The example is for PE/VE78 Models.

4 Windows + 1 Back Ground (Desktop)



Redundancy

Ideal Features for Mission-critical Environments

Redundant LED

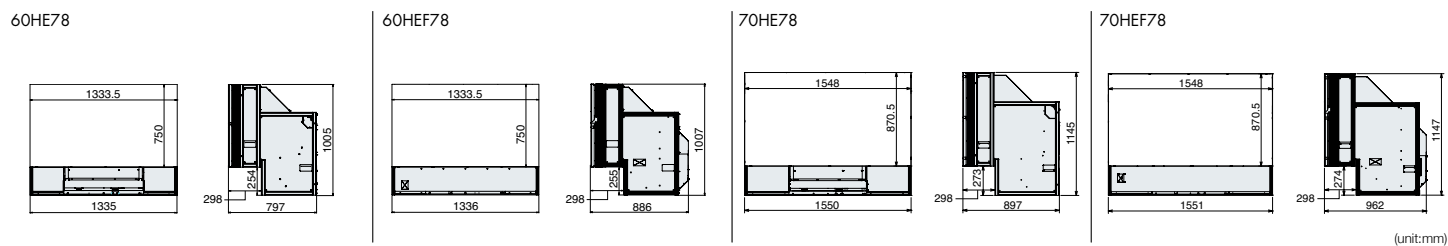
Mitsubishi Electric's original LED light source utilizes the ideal combination of fully redundant RGB LEDs and air cooling system, creating perfect display solutions for 24hr operations. Six light elements(*3) for each RGB LED maintain high image quality even if a light element malfunctions, thereby enhancing reliability for various mission-critical environments.

(*3) XE models have four elements

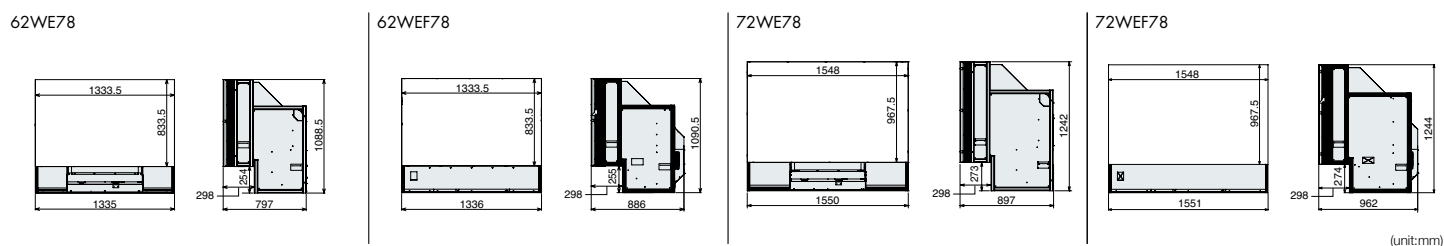
Smart Switch

A "Smart Switch" function has been added to Mitsubishi Electric display wall cubes to deliver the signal redundancy necessary for mission-critical applications that require round-the-clock operation. If a signal is unexpectedly lost, the display wall automatically switches to the alternative signal source (either "port-to-port" or "board-to-board") within seconds after the 'no signal' status is detected. This function makes it possible for the user to minimize downtime in the event of a signal source failure.

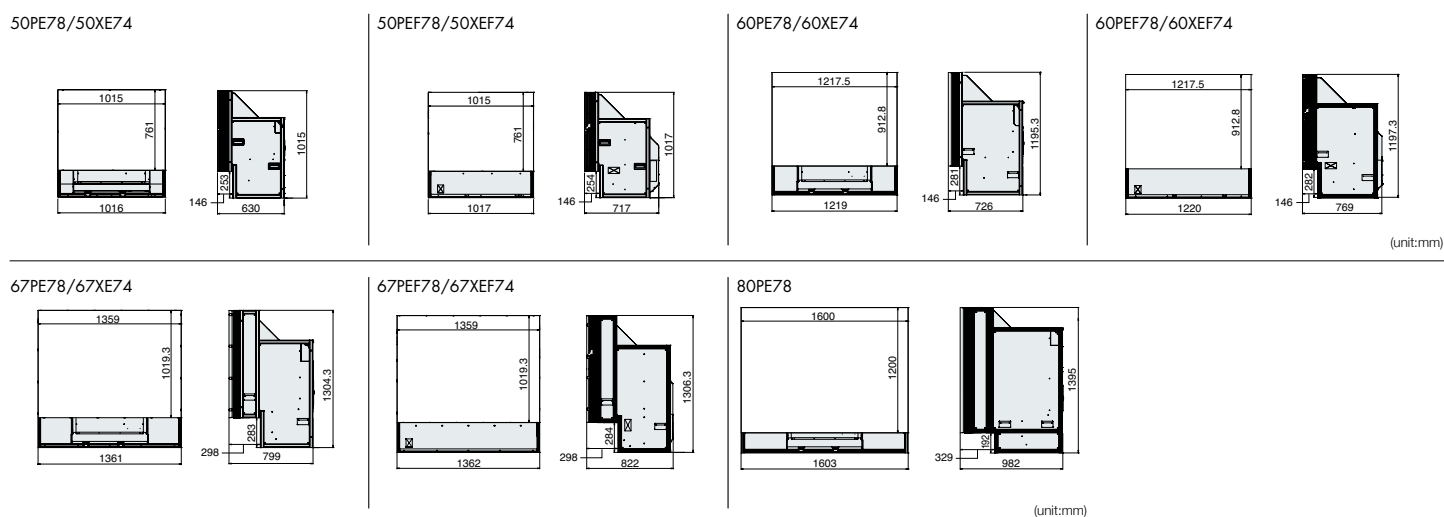
■ 16:9 wide format



■ 16:10 wide format



■ 4:3 format



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



for a greener tomorrow

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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