## Seventy Series LED Display Wall Cubes – Base Models
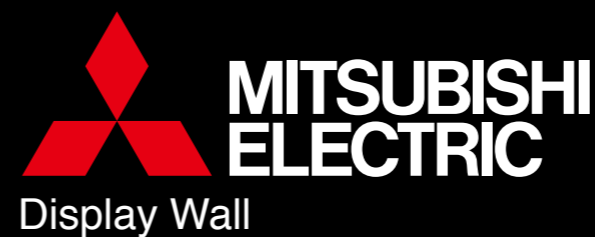
| Model | Screen size (inches) | Resolution | | Front access |
|---|---|---|---|---|
| | | 1400 × 1050 | 1024 × 768 | |
| 50PE | 50 | ○ | | |
| 50PEF | 50 | ○ | | ○ |
| 50XE | 50 | | ○ | |
| 50XEF | 50 | | ○ | ○ |
| 60PE | 60 | ○ | | |
| 60PEF | 60 | ○ | | ○ |
| 60XE | 60 | | ○ | |
| 60XEF | 60 | | ○ | ○ |
| 67PE | 67 | ○ | | |
| 67PEF | 67 | ○ | | ○ |
| 67XE | 67 | | ○ | |
| 67XEF | 67 | | ○ | ○ |

## About Mitsubishi Electric Corporation

Following its establishment in 1921, Mitsubishi Electric has grown into a comprehensive electrical/electronics products manufacturer operating at the global level. As of March 31, 2008, 105,651 employees were employed worldwide in the business groups of energy and electric systems, industrial automation systems, information and communication systems, electronic devices, and home appliances. Consolidated net sales were JPY 4,049,818 million in FY2008.

The Mitsubishi Electric Group is committed to continually improving technologies and services by applying creativity to all aspects of business and enhancing the quality of life in society as a whole. To this end, members of the Group abide by the following seven guiding principles: Trust, Quality, Technology, Citizenship, Ethics, Environment and Growth.

**MITSUBISHI ELECTRIC CORPORATION**

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**http://global.mitsubishielectric.com/bu/displaywall/**

*Changes for the Better*

**MITSUBISHI ELECTRIC**

Display Wall



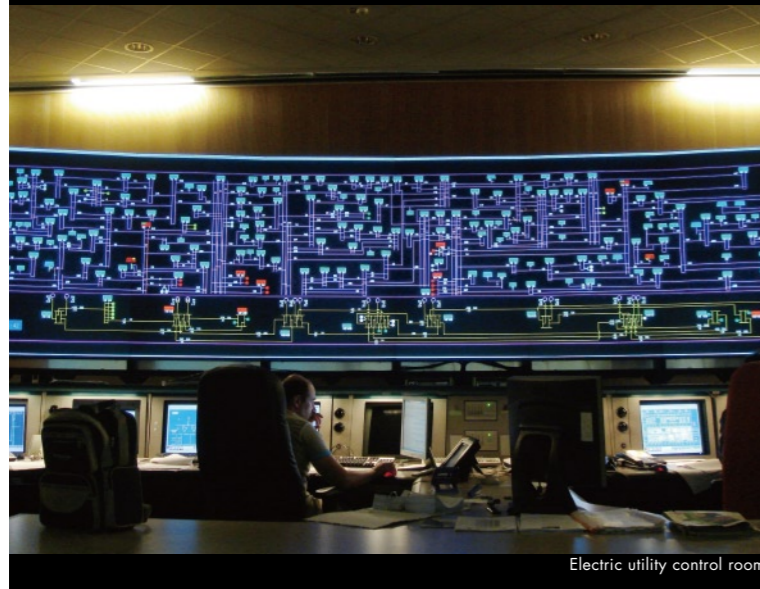**70 Seventy Series: LED**

LED Display Wall

# Originality, Expertise & Innovation ~
# Setting Global Standards for Display Wall Systems
# with Smart 7 Concept



Railway control room



Traffic control room



Electric utility control room



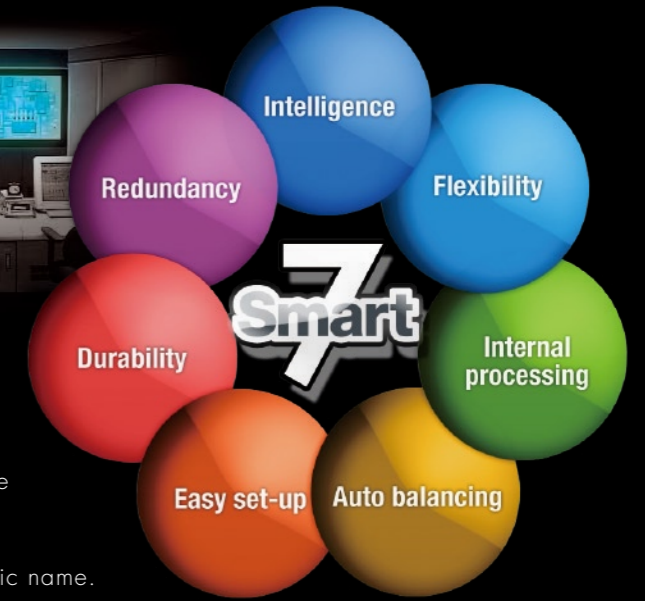Police command & control room



Disaster prevention center



Stock exchange



TV studio back drop

One of the first manufacturers to introduce display wall cubes using DLP™ technology in 1997, Mitsubishi Electric has a long history and extensive experience in the production of display wall systems. Their popularity continues to grow among customers and partners, with more than 40,000 display wall units installed in countries around the world to date.

A leading product of our 7th-generation solutions, the 70 Series incorporates the latest cutting-edge technologies to ensure the delivery of superior picture quality and reliability; maintaining the excellent quality synonymous with the Mitsubishi Electric name.
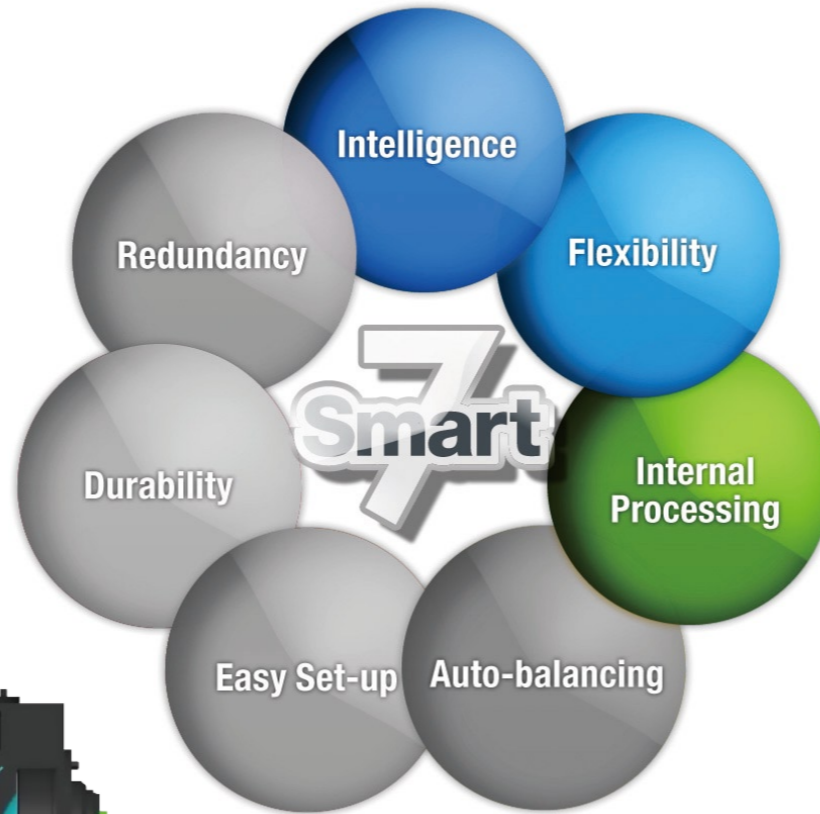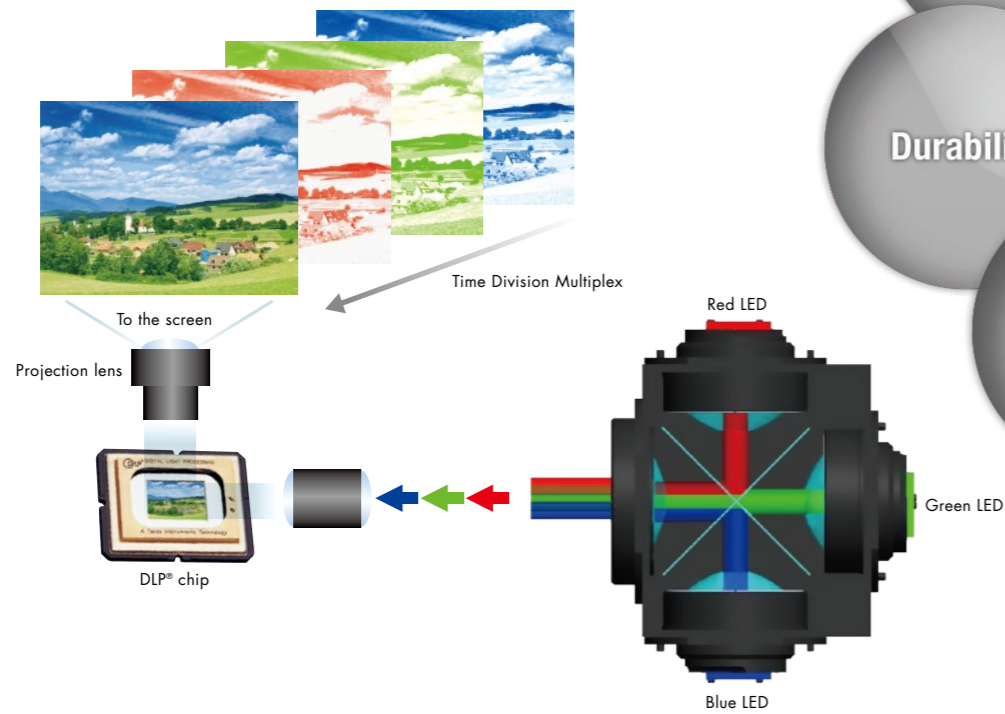


Intelligence
Flexibility
Redundancy
Smart 7
Durability
Internal processing
Easy set-up
Auto balancing

01

02

# Intelligence

## Smart LED

Mitsubishi Electric original optical system is equipped with a brightness and color optimization system that ensures maximum light output efficiency and natural color reproduction.
It has three brightness modes–Bright, Normal and Eco–giving users the flexibility to choose the best setting for the environment and application the display wall cube is to be used for. The lifetime of the LED chip and power consumption of the system vary according to the brightness level used.
Unlike traditional display wall systems, the 70 Series LED display wall cubes do not use mercury lamps.
For back drop applications at broadcasting stations, the lower color temerature setting is incorporated into the LED Display Wall Engines.

Time Division Multiplex

To the screen

Projection lens

DLP® chip

Red LED

Green LED

Blue LED

Smart 7

Intelligence

Flexibility

Internal Processing

Auto-balancing

Easy Set-up

Durability

Redundancy

## Color Space Control

This original digital color space control circuit was developed in-house for balancing and blending colors in order to compensate for the color and brightness discrepancies among display wall cubes. The gains in the values of each primary color (Red/Green/Blue) and other color mixtures are adjusted to provide consistent color blending and brilliance uniformity for multi-screen configurations.

Without "Color Space Controll"

With "Color Space Controll"
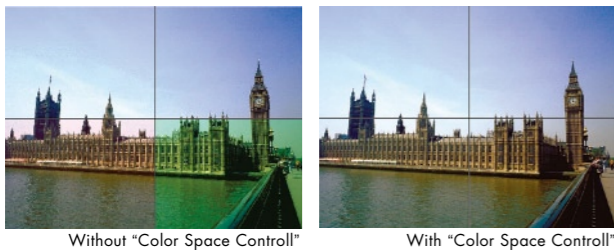
## Digital Gradation Circuit

Lackluster brightness at screen edges is not a problem thanks to Mitsubishi Electric's innovative digital gradation circuit. Brightness distribution is uniform across the screen, ensuring the reproduction of sharp vivid images from edge to edge on multi-screen configurations.

Without "Digital Gradation Circuit"

With "Digital Gradation Circuit"
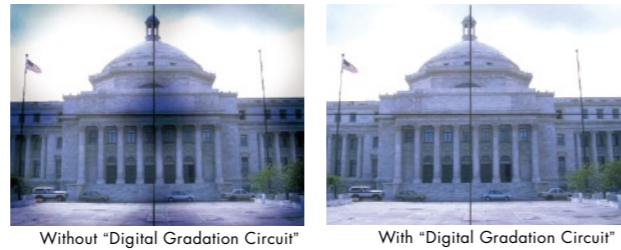
# Flexibility

## Tailor-made Systems

The 70 Series line-up includes screen sizes of 50", 60"and 67", all units loaded with the latest functions and customizable to match the diversified needs of each user. Both 100% front access (Mitsubishi Electric original) and rear access versions are available.

The same lenses, cabinets and screens are used for all the resolutions. Systems with higher resolutions or incorporating other upgrades are available at a small additional cost.

The drive unit powering the 70 Series display wall cubes is equipped with three optional input ports, giving customers the flexibility to configure the system according to their specific needs.

# Internal Processing

## Built-in Processor

The 70 Series units are equipped with an internal data processing function. Up to four windows per cube can be displayed when using the external input ports. Windows can be of any size or displayed across the entire wall  (up to six windows 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.
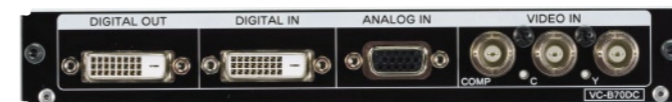
1 Back Ground (Desktop)

4 Windows + 1 Back Ground (Desktop)

## Auto-balancing

### Dynamic Color & Brightness Balancing

Each display wall cube is equipped with three built-in sensors (one for each primary color) and a dynamic color and brightness balancing system. The sensors continually monitor the individual red, green and blue outputs of each cube, share the data with adjacent cubes, and adjust performance automatically to produce an extremely accurate color balance over the entire display. These features make it possible to maintain the image uniformity of multi-screen configurations over long periods of operation without using an external computer.

## Easy Set-up

### Auto-tuning

Mitsubishi Electric display wall cubes are now equipped with an Auto-Geometry function. The result of extensive R&D work in image software processing, this revolutionary technology is designed to provide simplified mechanical adjustment: a camera and machine-vision software are util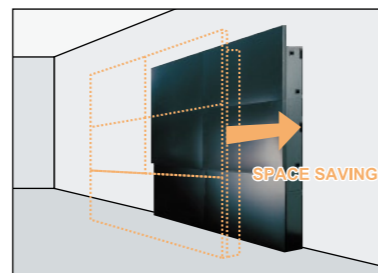ized to align the image on the screen automatically. A motorized adjustment device is installed in each display wall cube, enabling 6-axis mechanical adjustment as well as the mechanical adjustment of mirrors and screens. An automatic color adjustment (Auto CSC) feature is also available when using Wallaby software.

### Full Front Installation and Maintenance Capability

With the Seventy Series, Mitsubishi's genuine 100% front-access versions are widely available for 50", 60" and 67" for both XGA and SXGA+ resolutions. With the specially designed slide & lift screen structure and the self air ventilation system, all the installation and maintenance work can be done from the front, and no space behind the display wall cube is needed even it is tiled as a display wall.

SPACE SAVING

No space is needed behind a display wall

Intelligence
Flexibility
Redundancy
Smart 7
Durability
Internal Processing
Easy Set-up
Auto-balancing

## Durability

### Lower Cost of Ownership

The expected lifetime for the LED light source of our 70 Series LED display wall cube is 60,000 hours or more.
The average service life of other major moving parts such as the fan pack has been significantly increased as well.

Unlike traditional systems, LED display wall systems do not require lamps and color wheels, eliminating these consumables.
This significantly reduces the cost of ownership for users, which is a major concern when choosing a supplier.

### Highly Reliable Original Optical System

Mitsubishi Electric's innovative 70 Series LED display wall engine utilizes an optical system and a chassis box developed by the company in-house.
It is the core of the display wall cube, and the key to the cube's high reliability and picture quality.
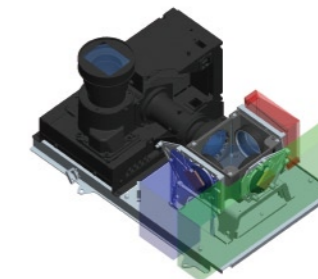
## Redundancy

### 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.

### Eco-conscious

Being able to select the appropriate brightness from the control room makes energy savings possible. For example, using the "Eco" mode late at night when viewing time may be short and there are relatively few viewers reduces power consumption while maintaining optimal brightness. Furthermore, the engines for our LED-lit displays do not use mercury lamps, unlike engines for lamp-based displays.

ENVIRONMENTAL VISION
2021
TECHNOLOGY & ACTION

**Environmental Vision 2021**
Environmental Vision 2021 is the long-term environmental management vision of the Mitsubishi Electric Group. It establishes a framework for realizing a sustainable planet, and defines long-term initiatives to prevent global warming and to create a recycling-based society.
Notes: *1: Compared to emissions in 2000.
       *2: Compared to emissions in 1990.