



LED Video Wall

78/74 Series

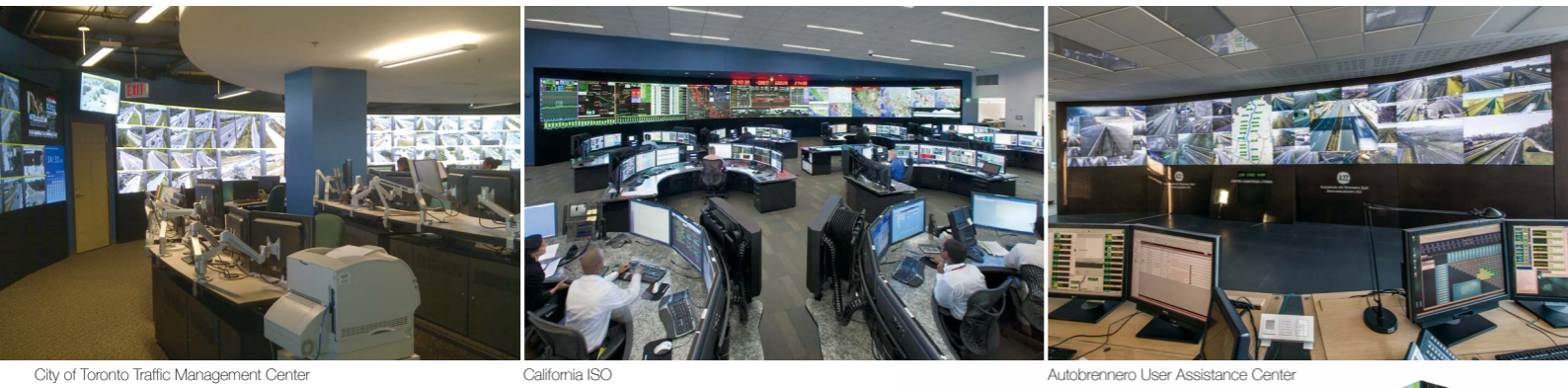


Redundant



New Wide-format LED Display Wall Cubes Guarantee High Performance and Quality

Energy-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.



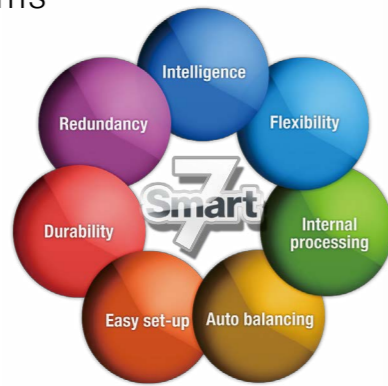
City of Toronto Traffic Management Center

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. Two screen options are offered as

well, Black Stripe (standard) and Cross-lenticular, 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



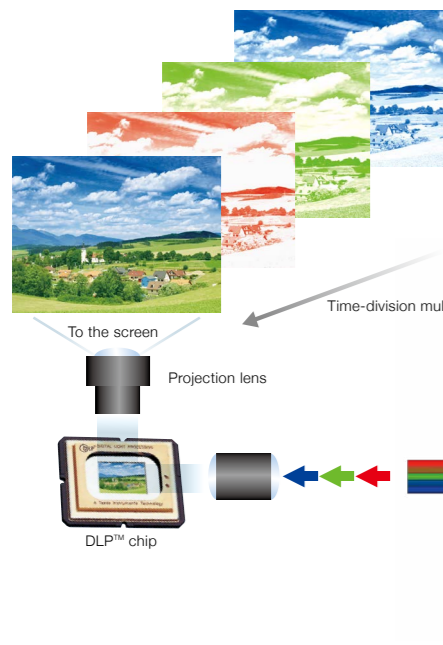
16:9 wide format



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.

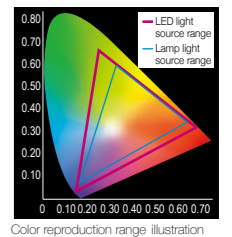
Proven Performance

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

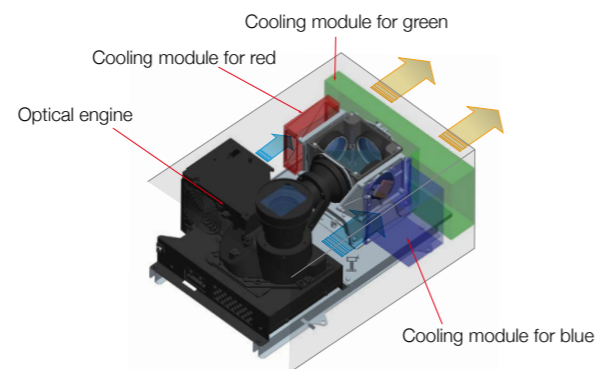
- Pump/Drive parts are required to circulate the liquid
- Complex system requiring liquid reservoir and tube
- Coolant must be replaced frequently due to deterioration and loss
- Pump has a short service life (approx. 50,000hr)

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.

Intelligence

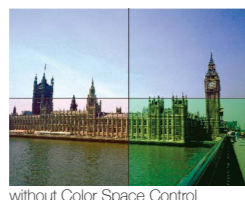
High-resolution Images Created with Mitsubishi Electric's New Optical Engine and Image-quality Circuit Design

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 WE and HE; and 1,160cm/m² high brightness for 62WE78 and 62WEF78. 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.



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.

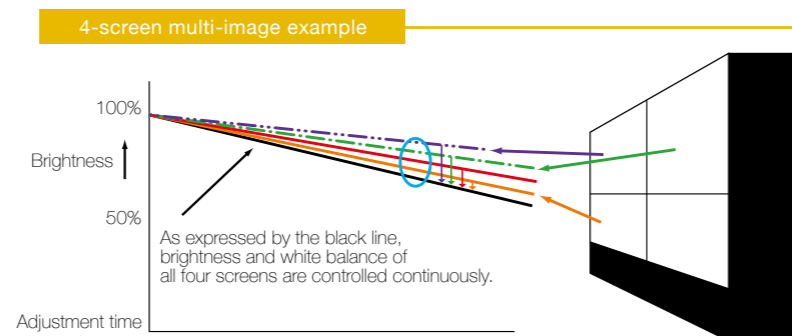


Auto-balancing

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.



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 boards per display wall cube

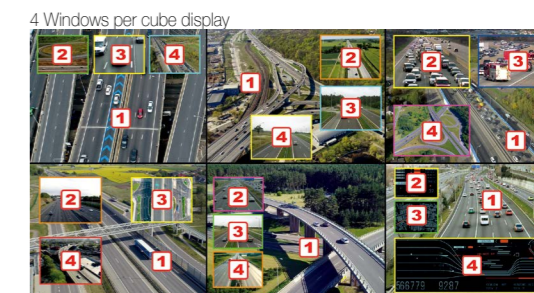


Internal Processing

Built-in Processor

The 70 Series video wall cubes are equipped with an internal image data processing function. In addition to the background image, up to 4 windows of any size can be displayed across each cube without using 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.



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^(*) for each RGB LED maintain high image quality even if a light element malfunctions, thereby enhancing reliability for various mission-critical environments.

(*) 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.

Abbreviated model name		62WE78	62WEF78	72WE78	72WEF78	60HE78	60HEF78	70HE78	70HEF78	50PE78	50PEF78	60PE78	60PEF78	67PE78	67PEF78	80PE78	50XE74	50XEF74	60XE74	60XEF74	67XE74	67XEF74			
Screen size		62"		72"		60"		70"		50"		60"		67"		80"		50"		60"		67"			
Native resolution		WUXGA (1920 x 1200 pixels)				Full HD(1920 x 1080 pixels)				SXGA+ (1400 x 1050 pixels)								XGA (1024 x 768 pixels)							
Accessibility		Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Rear	Front	Rear	Front	Rear	Front			
Technology		DLP™ technology(0.96" DLP™ 1 chip)/DarkChip3™/BrilliantColor™(*1)										DLP™ technology(0.95" DLP™ 1 chip)/DarkChip3™/BrilliantColor™(*1)						DLP™ technology (0.7" DLP™ 1 chip)/DarkChip3™/BrilliantColor™(*1)							
Brightness	Bright mode	1160cd/m² (Typ.)		860cd/m² (Typ.)		1200cd/m² (Typ.)		860cd/m² (Typ.)		1580 cd/m² (Typ.)		1090cd/m² (Typ.)		880cd/m² (Typ.)		630cd/m² (Typ.)		850cd/m² (Typ.)		590cd/m² (Typ.)		470cd/m² (Typ.)			
	Normal mode	810cd/m² (Typ.)		600cd/m² (Typ.)		840cd/m² (Typ.)		600cd/m² (Typ.)		1110 cd/m² (Typ.)		770cd/m² (Typ.)		610cd/m² (Typ.)		440cd/m² (Typ.)		650cd/m² (Typ.)		450cd/m² (Typ.)		360cd/m² (Typ.)			
	Eco mode	550cd/m² (Typ.)		410cd/m² (Typ.)		570cd/m² (Typ.)		410cd/m² (Typ.)		750c d/m² (Typ.)		520cd/m² (Typ.)		420cd/m² (Typ.)		300cd/m² (Typ.)		470cd/m² (Typ.)		330cd/m² (Typ.)		260cd/m² (Typ.)			
	Advanced Eco mode	170cd/m² (Typ.)		130cd/m² (Typ.)		180cd/m² (Typ.)		130cd/m² (Typ.)		300c d/m² (Typ.)		200cd/m² (Typ.)		160cd/m² (Typ.)		120cd/m² (Typ.)		140cd/m² (Typ.)		90cd/m² (Typ.)		70cd/m² (Typ.)			
Viewing angle	Horizontal	1/2 gain: ±35 deg, 1/10 gain: ±57 deg																							
	Vertical	1/2 gain: ±10 deg, 1/10 gain: ±28 deg																							
Contrast ratio		1500:1 (Typ.)										1600:1(Typ.)						1700:1 (Typ.)							
Screen-to-screen gap	Horizontal	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 2.0mm (*2)	1.0 - 3.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 2.0mm (*2)	1.0 - 3.0mm (*2)	0.2 - 1.0mm (*2)	1.0 - 2.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 2.0mm (*2)	1.0 - 3.0mm (*2)	0.2 - 3.0mm (*2)	0.2 - 1.0mm (*2)	1.0 - 2.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 2.0mm (*2)	1.0 - 3.0mm (*2)			
	Vertical	0.2 - 1.0mm (*2)	1.0 - 2.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 1.0mm (*2)	1.0 - 2.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 1.0mm (*2)	1.0 - 2.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 2.0mm (*2)	1.0 - 3.0mm (*2)	0.2 - 3.0mm (*2)	0.2 - 1.0mm (*2)	1.0 - 2.0mm (*2)	0.2 - 1.5mm (*2)	1.0 - 2.5mm (*2)	0.2 - 2.0mm (*2)	1.0 - 3.0mm (*2)			
Light source		Redundant LED (RGB)																							
	Expected lifetime (*3)	100,000 hr (Advanced Eco mode), 80,000 hr (other modes)																							
Key parts lifetime (average)	DLP™ chip	100,000hr (MTBF 650,000 hr)																							
	Cooling fan	100,000 hr																							
Control signal input		RS-232C: Dsub9																							
		LAN: RJ45 (10BASE-T/100BASE-TX)																							
		Dsub9 x 2 (IN/OUT)																							
		Mitsubishi Electric Original Control Link																							
		Wire remote: F3.5 jack																							
Optional input board slot		IR reciever x3																							
Power consumption (w/ 1 input board)	Bright mode	258W (Typ.)										233W (Typ.)						174W (Typ.)							
	Normal mode	174W (Typ.)										147W (Typ.)						127W (Typ.)							
	Eco mode	124W (Typ.)										108W (Typ.)						102W (Typ.)							
	Advanced Eco mode	96W (Typ.)										88W (Typ.)						79W (Typ.)							
Voltage range		100-240VAC±10%,50/60Hz±1Hz																							
Operating current (100/240V)		3.7/1.6amp.										3.4/1.5amp.						2.6/1.3amp.							
Operating conditions	Temperature	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)	10-30°C.Degree (50-86°F.Degree)	10-35°C.Degree (50-95°F.Degree)		
	Humidity	20-80% non-condensing																							
Weight		94kg/207lb	101kg/223lb	112kg/247lb	116kg/256lb	91kg/201lb	97kg/214lb	107kg/236lb	112kg/247lb	72kg/159lb	79kg/174lb	91kg/201lb	97kg/214lb	106kg/234lb	110kg/243lb	141kg/311lb	72kg/159lb	79kg/174lb	91kg/201lb	97kg/214lb	106kg/234lb	110kg/243lb			
Model number	Projection engine	VS-WE78UA										VS-PE78UA												VS-XE74U	
	Cabinet	S-62WE75CA	S-62WE75CAF	S-72WE75CA	S-72WE75CAF	S-60HE75CA	S-60HE75CAF	S-70HE75CA	S-70HE75CAF	S-5070CA	S-5070CAF	S-6070CA	S-6070CAF	S-6770CA	S-6770CAF	S-8070CA	S-5070CA	S-5070CAF	S-6070CA	S-6070CAF	S-6770CA	S-6770CAF			
	Screen unit	SC-62WE75U	SC-62WE75UF	SC-72WE75U	SC-72WE75UF	SC-60HE75U	SC-60HE75UF	SC-70HE75U	SC-70HE75UF	SC-5075U	SC-5075UF	SC-6075U	SC-6075UF	SC-6775U	SC-6775UF	SC-8075U	SC-5075U	SC-5075UF	SC-6075U	SC-6075UF	SC-6775U	SC-6775UF			

(*1) DLP™, DarkChip3™ and BrilliantColor™ are trademarks of Texas Instruments.

(*2) Depending on configuration and environment. The maximum screen-to-screen gap size is recommended for large display walls to allow for screen expansion due to heat and humidity.

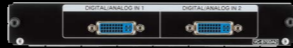
(*3) The lifetime of LED light source is an estimated value, not guaranteed. The estimated lifetime, Temperature condition during operation is 77°F/25°C. At 95°F/35°C, LED lifetime in Bright mode is 60,000hr.

Optional Cross-lenticular Screen upon special request

Abbreviated model name with optional Cross-lenticular Screen		62WE78L	62WEF78L	72WE78L	72WEF78L	60HE78L	60HEF78L	70HE78L	70HEF78L	50PE78L	50PEF78L	60PE78L	60PEF78L	67PE78L	67PEF78L	80PE78L	50XE74L	50XEF74L	60XE74L	60XEF74L	67XE74L	67XEF74L	
Model number for optional Cross-lenticular Screen		SC-62WE75L	SC-62WE75LF	SC-72WE75L	SC-72WE75LF	SC-60HE75L	SC-60HE75LF	SC-70HE75L	SC-70HE75LF	SC-5075L	SC-5075LF	SC-6075L	SC-6075LF	SC-6775L	SC-6775LF	SC-8075L	SC-5075L	SC-5075LF	SC-6075L	SC-6075LF	SC-6775L	SC-6775LF	
Brightness with optional Cross-lenticular Screen	Bright mode	590cd/m² (Typ.)		440cd/m² (Typ.)		590cd/m² (Typ.)		440cd/m² (Typ.)		800c d/m² (Typ.)		560cd/m² (Typ.)		450cd/m² (Typ.)		320cd/m² (Typ.)		430cd/m² (Typ.)		300cd/m² (Typ.)		240cd/m² (Typ.)	
	Normal mode	410cd/m² (Typ.)		310cd/m² (Typ.)		410cd/m² (Typ.)		310cd/m² (Typ.)		560c d/m² (Typ.)		390cd/m² (Typ.)		310cd/m² (Typ.)		220cd/m² (Typ.)		330cd/m² (Typ.)		230cd/m² (Typ.)		180cd/m² (Typ.)	
	Eco mode	280cd/m² (Typ.)		210cd/m² (Typ.)		280cd/m² (Typ.)		210cd/m² (Typ.)		380c d/m² (Typ.)		260cd/m² (Typ.)		210cd/m² (Typ.)		150cd/m² (Typ.)		240cd/m² (Typ.)		160cd/m² (Typ.)		130cd/m² (Typ.)	
	Advanced Eco mode	90cd/m² (Typ.)		65cd/m² (Typ.)		90cd/m² (Typ.)		65cd/m² (Typ.)		150c d/m² (Typ.)		100cd/m² (Typ.)		85cd/m² (Typ.)		60cd/m² (Typ.)		70cd/m² (Typ.)		50cd/m² (Typ.)		40cd/m² (Typ.)	
Viewing angle with optional cross-lenticular screen	Horizontal	1/2 gain: ±35 deg, 1/10 gain: ±57 deg																					
	Vertical	1/2 gain: ±33 deg, 1/10 gain: ±55 deg																					

Model	Screen size (inches)	Resolution				Front access
		WUXGA (1920 x 1200)	Full HD (1920 x 1080)	SXGA+ (1400 x 1050)	XGA (1024 x 768)	
62WE78	62	○				
62WEF78	62	○			○	
72WE78	72	○				
72WEF78	72	○			○	
60HE78	60		○			
60HEF78	60		○		○	
70HE78	70		○			
70HEF78	70		○		○	
50PE78	50			○		
50PEF78	50			○	○	
60PE78	60			○		
60PEF78	60			○	○	
67PE78	67			○		
67PEF78	67			○	○	
80PE78	80			○		
50XE74	50				○	
50XEF74	50				○	
60XE74	60				○	
60XEF74	60				○	
67XE74	67				○	
67XEF74	67				○	


Digital/Analog RGB input board (option)



Model number	VC-B70DA2	
Signal input terminal	DVI-I (digital with HDCP, analog) x 2	
RGB input scanning frequency	Signal resolutions	VGA (640 x 480) - WUXGA (1920 x 1200)
	Horizontal	31.5 - 92kHz
Pixel clock rate	Vertical	49 - 85Hz
		25 - 162MHz
Signal format	TMDS	
Functions	Shrink and zoom (scaling) Frame rate conversion Digital cable equalizer function (Max. 50m depending on the quality of equipment and cable)	


*This board can be used for WE/PE78 models.

Analog RGB input board (option)



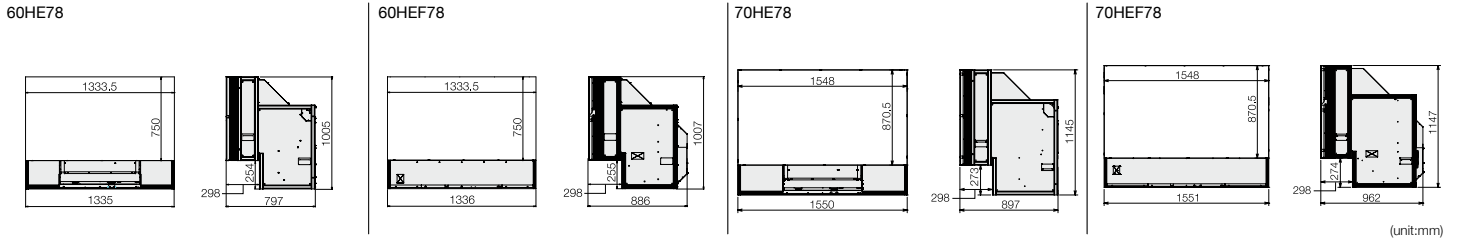
Model number	VC-B70G2	
Signal input terminal (analog RGB)	5BNC x1, HD D-sub 15 pins x1	
RGB input scanning frequency	Signal resolutions	VGA (640 x 480) - WUXGA (1920 x 1200)
	Horizontal	31.5 - 92kHz
Pixel clock rate	Vertical	49 - 85Hz
		25 - 162MHz
Functions	Image scaling (shrink and zoom) Frame rate conversion	

Video input board (option)

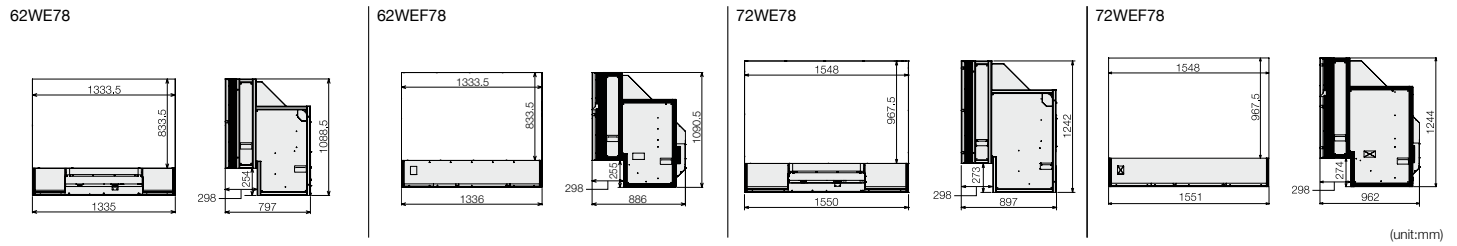


Model number	VC-B70V2
Signal input terminal (analog video)	3BNC x2
Analog video input signals	NTSC, NTSC4.43, PAL, PAL-M, PAL-N PAL-60, SECAM
Functions	Image scaling (shrink and zoom) Frame rate conversion

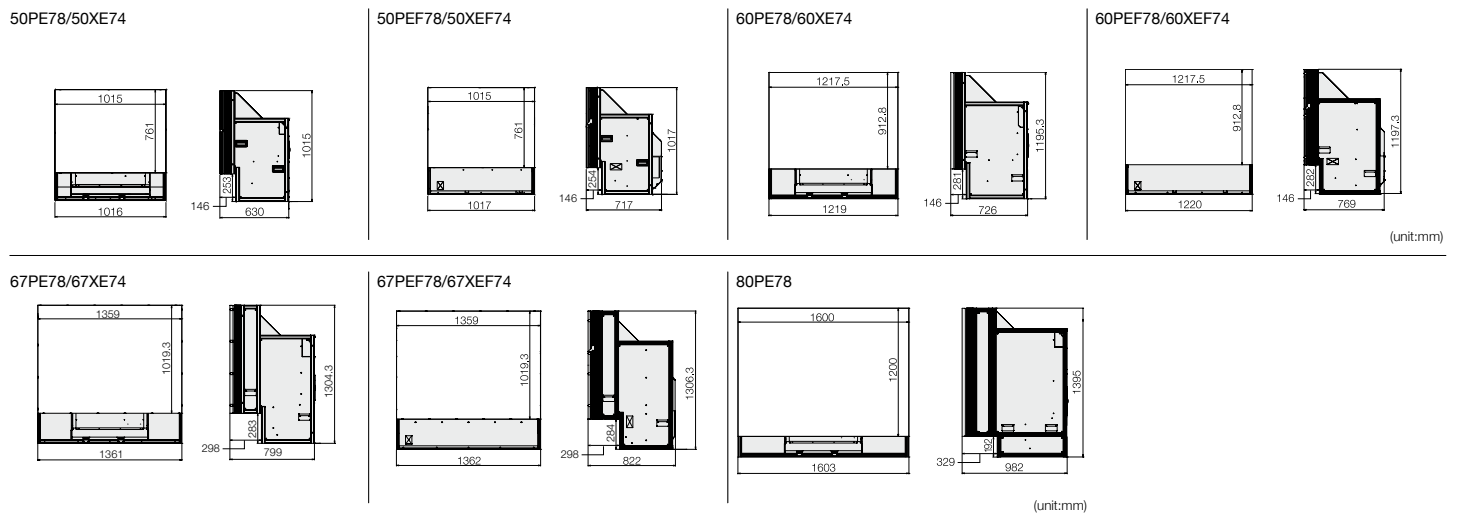
■ 16:9 wide format



■ 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.



MITSUBISHI ELECTRIC EUROPE B.V.

Nijverheidsweg 23A, 3641RP Mijdrecht - The Netherlands

Email: info@nl.mee.com | Web: www.mitsubishielectric-displaysolutions.com

UK +44 1707 278684
Middle East +971 4 372 4720
Turkey +90 216 969 25 00

Germany +49 2102 486 5970
Spain +34 93 565 3131
France +33 1 55 68 55 68

Benelux, Eastern Europe & Scandinavia +31 297 282 461
Russia & CIS +7 495 721 10 43
Italy / Greece / Israël +39 039 6053 479