Panasonic

Turnkey Solution for Multi Window Presentations

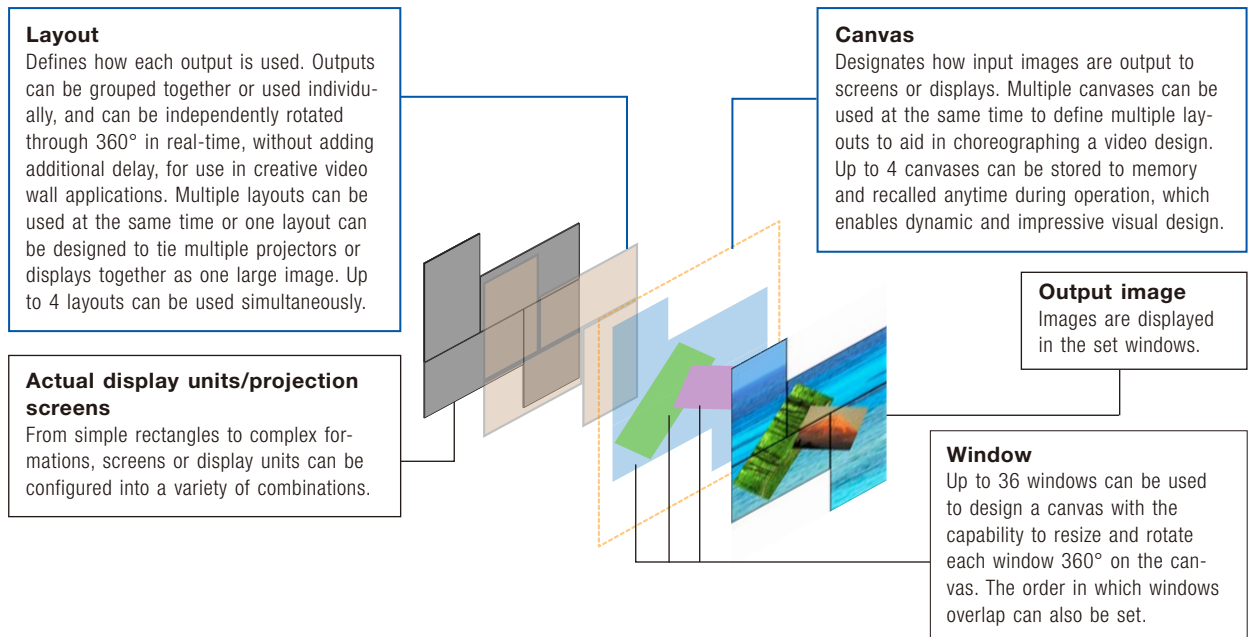# Unique Layout and Canvas Concept Adds Impact to Multi-Screen Images

—Easy and Flexible Expandability with DIGITAL LINK Compatibility—

The ET-MWP100G Panasonic Multi Window Processor makes it possible to quickly and efficiently combine multiple projectors and flat panel displays into a video wall or a multi vision system. Equipped with 16 slots for input/output terminals, the ET-MWP100G enables a combination of 5 optional interface boards, including a DIGITAL LINK output board, to support a variety of input sources and output devices. Interface boards are also easy to add or change, making the system highly fle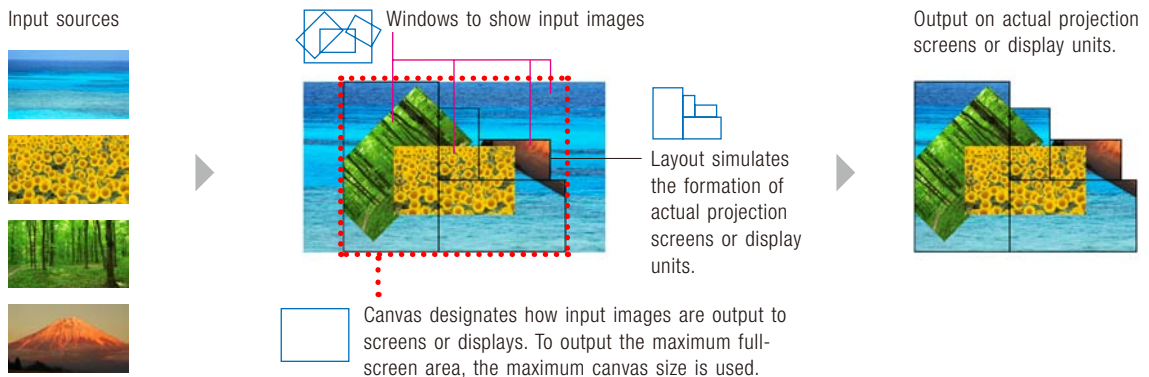xible even after it has been configured. Images can be split among multiple projectors or displays, and multi-windows (PinP) can be freely allotted in desired sizes, locations, inclinations and overlapping orders. Display patterns can be registered and switched by control software for Multi Window Processor, which is included with the ET-MWP100G, installed onto a PC. Even with interface boards mounted onto all 16 slots, the ET-MWP100G features low power consumption of 160 W[1] or less, helping to lower the total cost of ownership (TCO) in 24/7 continuous operation.

[1] When using a single power supply unit. The power consumption becomes 180 W when the optional ET-RPS100G power supply unit is added.
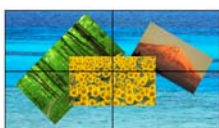
Layout and Canvas Concept

Layout
Defines how each output is used. Outputs can be grouped together or used individually, and can be independently rotated through 360° in real-time, without adding additional delay, for use in creative video wall applications. Multiple layouts can be used at the same time or one layout can be designed to tie multiple projectors or displays together as one large image. Up to 4 layouts can be used simultaneously.

Actual display units/projection screens
From simple rectangles to complex formations, screens or display units can be configured into a variety of combinations.

Canvas
Designates how input images are output to screens or displays. Multiple canvases can be used at the same time to define multiple layouts to aid in choreographing a video design. Up to 4 canvases can be stored to memory and recalled anytime during operation, which enables dynamic and impressive visual design.

Output image
Images are displayed in the set windows.

Window
Up to 36 windows can be used to design a canvas with the capability to resize and rotate each window 360° on the canvas. The order in which windows overlap can also be set.

How the Layout and Canvas Work

Input sources

Windows to show input images

Output on actual projection screens or display units.

Layout simulates the formation of actual projection screens or display units.

Canvas designates how input images are output to screens or displays. To output the maximum full-screen area, the maximum canvas size is used.

Output Pattern Examples

A single image can be presented across multiple displays. Window layers can also be displayed.
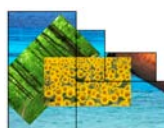
Flat displays with different screen sizes can be set as a single "canvas," and the image can be displayed at the same scale throughout.

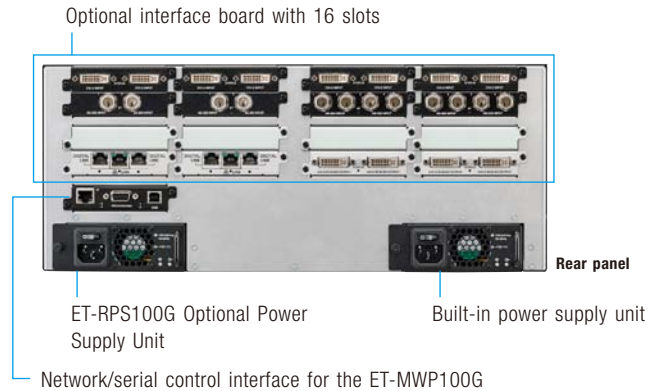An integrated screen can combine projector screens and displays.

Easy to Add or Replace Interface Boards.[*2] Lower Power Consumption.

Major ET-MWP100G Features

- Dedicated "Control Software for Multi Window Processor" supplied
- Single or multiple output layouts and multiple canvases
- Simultaneous use of multiple layouts and canvases
- 20 presets for canvas setting
- One or more windows (PinPs) on each canvas with 360° rotation of each window
- 16 interface board slots
- Easy addition and replacement of optional interface boards[*2]
- Low power consumption of max 160 W[*3] with 16 interface boards mounted
- DIGITAL LINK compatibility (when the ET-MCQDL350 DIGITAL LINK board mounted)
- Capability of up to 28 inputs with the ET-MCYDV100 DVI-U and ET-MCYSD200 3G-SDI boards
- Up to 56 inputs with the ET-MCYSD210 HD-SDI board
- Capability of up to 28 outputs with the ET-MCQDV150 DVI-U and ET-MCQDL350 DIGITAL LINK boards
- Bezel area adjustment capable for flat panel displays
- Edge Blending function for projectors

*2 Ask a qualified technician or your dealer when installing or removing this product.
*3 When using a single power supply unit. The power consumption becomes 180 W when the optional ET-RPS100G power supply unit is added.

Optional interface board with 16 slots

Rear panel

ET-RPS100G Optional Power Supply Unit

Built-in power supply unit

Network/serial control interface for the ET-MWP100G

NOTE: Photo shows the ET-MWP100G with optional interface boards and an additional power supply unit mounted.

The ET-MWP100G Contributes to a Wide Variety of Multi-Screen Solutions

The ET-MWP100G Multi Window Processor can be used to build a wide range of creative, impressive images that were never before possible, including video walls, digital signage, surveillance systems, TV studio displays, and live stage screens.


SOLUTION 1 | **Digital Signage Featuring TH-55LFV50 LED LCD Displays**

Incorporating the ET-MWP100G into this system allows a variety of content to be displayed with a highly flexible layout. It brings powerful impact and appeal to digital signage.

This video wall uses crisp, bright 55-inch LCD displays. The narrow bezel makes the displayed images easy to see and understand.

TH-55LFV50

55
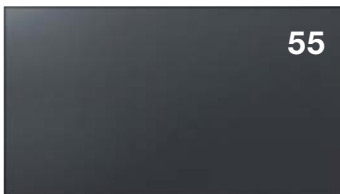
TH-55LFV50 Features

- Large 55-inch LCD screen and high brightness of 800 cd/m² makes the TH-55LFV50 ideal for installation in bright indoor places
- Super narrow bezel design for joints of only 5.3 mm (0.21″) allows seamless large-screen layouts
- A tough and reliable design meets the demands for multi-screen use
- Smart daisy-chain connection for easy operation

| **Control Room Featuring PT-RZ475 SOLID SHINE Projectors**

The low power consumption of the ET-MWP100G helps to reduce the total cost of ownership (TCO). Reliability is also increased by mounting the optional ET-RPS100G power supply unit as a power backup. Combining this with the PT-RZ475 for 24/7 operation is recommended for surveillance or observation use where high reliability is demanded.

This rear projection system uses projectors with an LED/Laser-combined light source to provide up to 10 years[*4] of continuous operation.

PT-RZ475

PT-RZ475 Features

- Up to 10 years[*4] (approximately 87,600 hours[*5]) of continuous operation
- 24/7 operation
- DIGITAL LINK transmits digital signals up to 100 m (328 ft) with a single CAT5e (STP) cable or higher

- 3D projection and portrait mode capability
- Powered-focus, short-throw lens

[*4] With LIGHT POWER set to Eco2. Parts other than the light source may require replacement in a shorter period.
[*5] 24 hours (1 day) × 365 days (1 Year) × 10 Years = 87,600 hours.

| **Broadcast Studio Featuring PT-DZ870 DLP™ Projectors**

The ET-MWP100G's optional interface boards support a wide variety of input sources. This makes it possible to connect to media servers, professional video cameras, and other devices. DIGTAL LINK compatibility also allows the input signals from these devices to be output to the PT-DZ870 over a single LAN cable[*6].

This integrated system incorporates bright, high-quality edge blended projection screens. Various image sources allow flexible changes and display methods to match programming content.

PT-DZ870

PT-DZ870 Features

- Bright 8,500 lm and high 10,000:1[*7] contrast ratio
- Dynamic RGB Booster strikes a balance between brightness and color reproduction
- Detail Clarity Processor 3 gives natural clarity to the finest details
- Edge blending, color matching and built-in multi-screen processor for seamless mutli-screen projection

- Geometric Adjustment and optional Geometry Manager Pro for specially shaped screens
- DIGITAL LINK transmits digital signals up to 100 m (328 ft) with a single CAT5e (STP) cable or higher

[*6] CAT5e (STP) cable or higher.
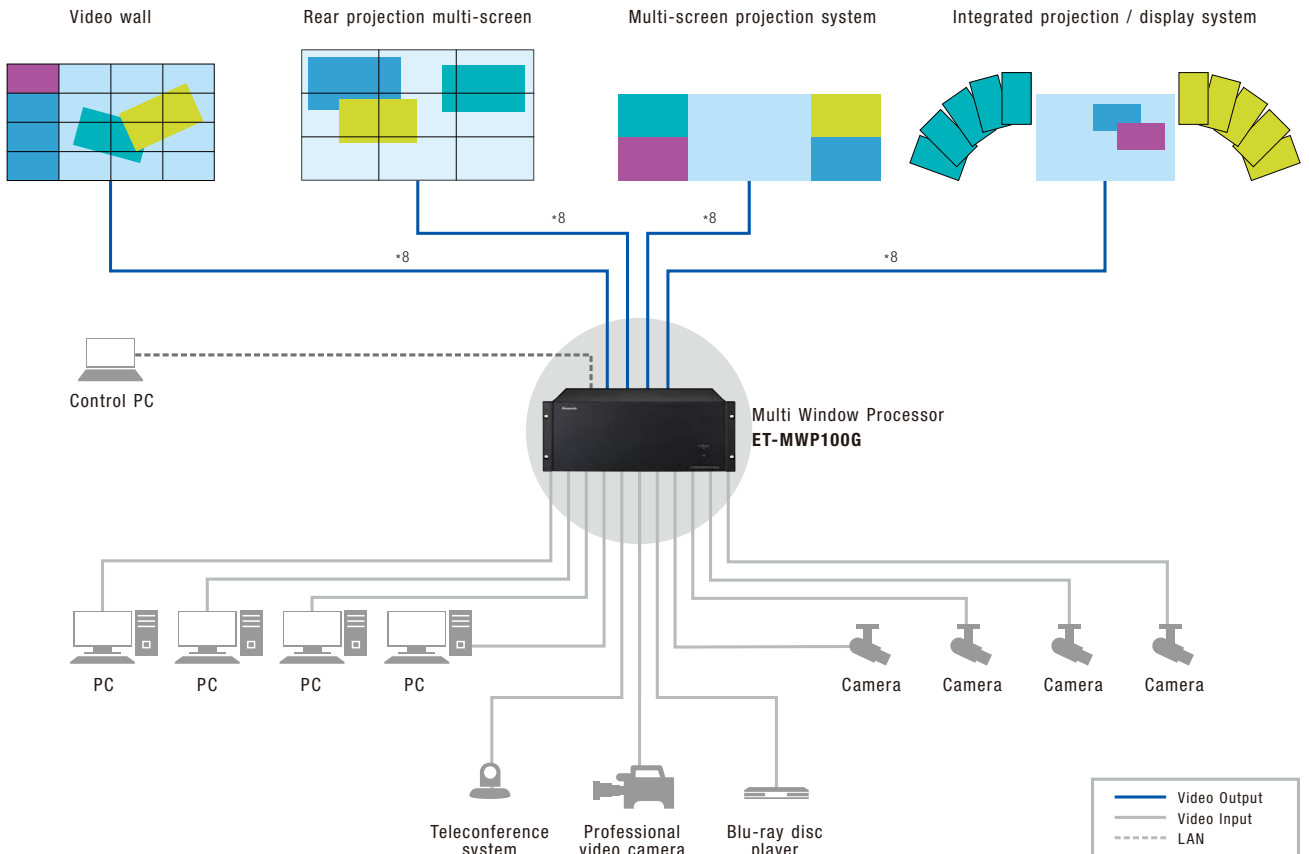[*7] Full on/off, with dynamic iris on.

Configuring a system with the ET-MWP100G enables flexible combinations with a host of input devices and displays to match applications like exhibitions, live staging, and video conferences.
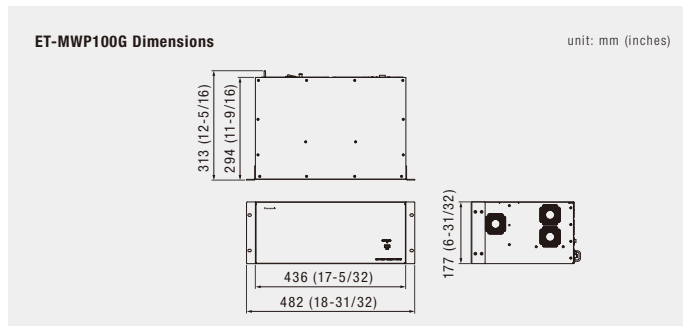

Fashion show

System Connection Example

Video wall

Rear projection multi-screen

Multi-screen projection system

Integrated projection / display system

*8

*8

*8

*8

Control PC

Multi Window Processor
ET-MWP100G

PC   PC   PC   PC

Camera   Camera   Camera   Camera

Teleconference system   Professional video camera   Blu-ray disc player

— Video Output
— Video Input
---- LAN

*8 Required to connect each output terminal of the ET-MWP100G with each projector or flat panel display. Up to 28 projectors can be simultaneously output via DIGITAL LINK. This illustration is intended only to show display patterns. These patterns cannot all be simultaneously output.

Specifications

ET-MWP100G

Power supply	100–240 V AC, 50/60 Hz
Power consumption	160 W max. (180 W with the ET-RPS100G)
Board mounting slots	16 slots (including two dedicated input slots and two dedicated output slots)

Scanning frequency

With the ET-MCYSD200		
SDI	3G-SDI signal	[Level A YP$_B$P$_R$ 4:2:2 10-bit] SMPTE ST 424 compliant: 1125 (1080)/60p, 1125 (1080)/50p
With the ET-MCYSD200/MCYSD210		
SDI	HD-SDI signal	[YP$_B$P$_R$ 4:2:2 10-bit] SMPTE ST 292 compliant: 750 (720)/60p, 750 (720)/50p, 1125 (1080)/60i, 1125 (1080)/50i, 1125 (1080)/25p, 1125 (1080)/24p, 1125 (1080)/30p
	SD-SDI signal	[YC$_B$C$_R$ 4:2:2 10-bit] SMPTE ST 259 compliant: 525i (480i), 625i (576i)
With the ET-MCYDV100		
DVI-U (digital)		f$_H$ 15.6–82.2 kHz, f$_V$ 24.0–85.1 Hz, dot clock: 25.2–162 MHz
DVI-U (analog)/RGB		f$_H$ 15.6–82.2 kHz, f$_V$ 24–85.1 Hz, dot clock: 162 MHz or lower
YP$_B$P$_R$ (YC$_B$C$_R$)		525i (480i): f$_H$ 15.75 kHz; f$_V$ 60 Hz, 625i (576i): f$_H$ 15.63 kHz; f$_V$ 50 Hz, 525p (480p): f$_H$ 31.50 kHz; f$_V$ 60 Hz, 625p (576p): f$_H$ 31.25 kHz; f$_V$ 50 Hz, 750 (720)/60p: f$_H$ 45.00 kHz; f$_V$ 60 Hz, 750 (720)/50p: f$_H$ 37.50 kHz; f$_V$ 50 Hz, 1125 (1080)/60i: f$_H$ 33.75 kHz; f$_V$ 60 Hz, 1125 (1080)/50i: f$_H$ 28.13 kHz; f$_V$ 50 Hz, 1125 (1080)/25p: f$_H$ 28.13 kHz; f$_V$ 25 Hz, 1125 (1080)/24p: f$_H$ 27.00 kHz; f$_V$ 24 Hz, 1125 (1080)/30p: f$_H$ 33.75 kHz; f$_V$ 30 Hz, 1125 (1080)/60p: f$_H$ 67.50 kHz; f$_V$ 60 Hz, 1125 (1080)/50p: f$_H$ 56.25 kHz; f$_V$ 50 Hz
Video/S-Video		f$_H$ 15.75 kHz, f$_V$ 60 Hz [NTSC], f$_H$ 15.63 kHz, f$_V$ 50 Hz [PAL]

Terminals	SERIAL IN	D-sub 9-pin (female) × 1 for external control (RS-232C compliant)
	LAN	RJ-45 × 1 for external control, 100Base-TX/10Base-T
	USB	Type A × 1 (front), Type B × 1 (rear), for service
Dimensions (W × H × D)		482 × 177 × 313 mm (18-31/32 × 6-31/32 × 12-5/16 in)
Weight*3		Approx. 9.6 kg (21.16 lbs) (when optional devices are mounted)
Operating environment		Operating temperature: 0–40 °C (32–104 °F)*4, operating humidity: 10%–85% (no condensation)
Supplied accessories		Power cord (× 3), software CD-ROM (Control Software for Multi Window Processor)

Optional Interface Boards

ET-MCYDV100

DVI-U IN		DVI-U 29-pin × 2
	Digital	DVI 1.0 compliant, compatible with HDCP, for single link only 525i (480i),*1 625i (576i),*1 525p (480p), 625p (576p), 750 (720)/60p, 750 (720)50p, 1125 (1080)/60i, 1125 (1080)/50i, 1125 (1080)/25p, 1125 (1080)/24p, 1125 (1080)/30p, 1125 (1080)/60p, 1125 (1080)/50p, VGA (640 × 480)–WUXGA*2 (1,920 × 1,200), compatible with non-interlaced signals only, dot clock: 25–162 MHz
	RGB	R, B: 0.7 Vp-p, G: 0.7 Vp-p (1.0 Vp-p for sync on G), 75 ohms HD, VD/SYNC: TTL, high impedance, positive/negative automatic
	YP$_B$P$_R$ (YC$_B$C$_R$)	Y: 1.0 Vp-p (including sync signal), P$_B$/P$_R$ (C$_B$/C$_R$): 0.7 Vp-p, 75 ohms
	S-Video	Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms
	Video	Y: 1.0 Vp-p, 75 ohms

ET-MCYSD200

SDI IN		BNC × 2
	3G-SDI	SMPTE ST 424 compliant
	HD-SDI	SMPTE ST 292 compliant
	SD-SDI	SMPTE ST 259 compliant

ET-MCYSD210

SDI IN		BNC × 4
	HD-SDI	SMPTE ST 292 compliant
	SD-SDI	SMPTE ST 259 compliant

ET-MCQDV150

DVI-U OUT		DVI-U 29-pin × 2
	Digital RGB/YP$_B$P$_R$ (YC$_B$C$_R$)	DVI 1.0 compliant, compatible with HDCP

ET-MCQDL350

DIGITAL LINK OUT		RJ-45 × 2
	LAN	RJ-45 × 1 for network connection, 100Base-TX/10Base-T

*1 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal)
*2 Compatible with VESA CVT-RB (Reduced Blanking) signals only
*3 Average value. May differ depending on models.
*4 At altitudes of 1,400 m (4,593 ft) or more, the operating temperature range is 0°C to 35°C (32°F to 95°F).

ET-MWP100G Dimensions

unit: mm (inches)

313 (12-5/16) 294 (11-9/16)
177 (6-31/32)
436 (17-5/32)
482 (18-31/32)

NOTES ON USE

1. Do not install the ET-MWP100G in locations that are subject to excessive water, humidity, steam, or oily smoke. Doing so may result in fire, malfunction, or electric shock.
2. Never place objects on top of the ET-MWP100G while it is operation.

Options

ET-MCYDV100
DVI-U Board
• 2 inputs for DVI-U

ET-MCQDV150
DVI-U Board
• 2 outputs for DVI-U

ET-MCYSD200
3G-SDI Board
• 2 inputs for 3G/HD/SD-SDI

ET-MCQDL350
DIGITAL LINK Board
• 2 outputs for DIGITAL LINK
• A LAN connector jack for serial control and network connection

ET-MCYSD210
HD-SDI Interface Board
• 4 inputs for HD/SD-SDI

ET-RPS100G
Power Supply Unit
• Additional unit for backup

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All information included here is valid as of July 2013.

ET-MWP100G1 Printed in Japan.