ET-WBC100/ET-PKC300B

TENTATIVE

Specifications

Range of	Horizontal swing	g angle	±5°		
adjustment	Vertical tilt angle	е	±5°		
	Horizontal tilt ar	ngle	±5°		
	Vertical slide am	ount	Image size between 2.03 m [80 in] ¹ and 2.29 m [90 in]: -10 mm - +10 mm [-13/32 in - +13/32 in]		
			Image size between 2.29 m [90 in](exclusive) and 3.05 m [120 in]: -10 mm - +40 mm [-13/32 in - +1 9/16 in]		
	Forward/backwa	ard slide amount	0 mm – 270 mm [0 in – 10 5/8 in]		
	Horizontal slide	amount	-41 mm – 49 mm [-1 5/8 in – 1 15/16 in] ²		
External dimens	External dimensions Width		491 mm – 519 mm [19-11/32 in – 20-7/16in]		
Height Depth		Height	210 mm – 245 mm [8-9/32 in – 9-21/32in]		
		Depth	395 mm – 665 mm [15-9/16 in – 26-3/16in]		
Weight	Weight		Approx. 8 kg (17.64 lbs)		

1 For the aspect ratio of 4:3, it is 1.78 m [70 in]. 2 The horizontal slide range includes a middle portion that cannot slide.

Applicable projectors

PT-CMZ50

Note

This illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.
This illustration is not drawn to scale

ET-WBC100/ET-PKC300B

Structural components (ET-WBC100)

This is a wall mount bracket (Model No.: ET-WBC100) for installing the projector to a wall.

Parts name	Form (number of parts)		Applications
Wall mount bracket		x 1	This wall mount bracket is installed to the wall to support the entire product. In addition to forward/backward and vertical slide adjustment, it allows vertical and horizontal tilt adjustment and horizontal swing adjustment of the projector.
Mount cover	Mount cover (L) x 1 Mount cover (R) x 1		These are attached to the wall mount bracket.
Projector mount bracket kit		x 1	This is used to install the projector to the wall mount bracket. It consists of a projector mount bracket and a connecting plate. It allows horizontal slide adjustment of the projector.
Screws	Screw with captive washer (M6×16)	x 4	Used to secure the projector mount bracket kit to the projector.
Sciews	Flanged screw (M4×10)	x 4	Used to secure the projector mount bracket kit to the wall mount bracket.
	Screw with captive washer (M6×16)	x 1	
Projector dropprevention kit	Wire rope x 1 (3.0 mm [1/8 in] wire diameter, 750 mm [29 17/32 in] length) Wire rope x 1 (3.0 mm (1/8 in] wire diameter, 660 mm [25 31/32 in] length)		Prevents the projector from falling. Use one of the two wire ropes.
	Flat washer (M6)	x 1	
Template sheet		x 1	Used to determine positions of the screw holes for securing the wall mount bracket to the wall.

Store small parts in an appropriate manner, and keep them away from children.
Tightening torque for the screw is M4: 1.25 ± 0.2 N·m (excluding the flanged screws), M6: 4 ± 0.5 N·m.
When tightening up the screws, use a tool such as a torque screwdriver. Do not use electric screwdrivers or impact screwdrivers.

Attention

- Installation work should onle be carried out by the certified personnel.
- Do not install in a location that is not strong enough.
- Read the "Installation Instructions" throughly and then preform the operation correctly and safely.
- If products are no longer being used, they should be dismantled and removed by the certified personnel as soon as possible.
- Dispose of the packaging materials properly after taking the product out of it.

ET-WBC100/ET-PKC300B

Structural components (ET-PKC300B)

This projector mount bracket (Model No.: ET-PKC300B) is included in wall mount bracket (Model No.: ET-WBC100.) This is a projector mount bracket (Model No.: ET-PKC300B) used to replace the projector mount bracket of an existing wall mount bracket.

Parts name	Form (number of parts)		Applications
Projector mount bracket		x 1	This is used to install the projector to the wall mount bracket.
Screws	Screw with captive washer (M6×16)	x 4	These are used to secure the projector mount bracket to the projector.
Sciews	Screw with captive washer (M4×14)	x 5	These are used to secure the connecting plate, which is removed from the existing wall mount bracket, to the projector mount bracket.
	Screw with captive washer (M6×16)	x 1	
Projector	Wire rope x (3.0 mm [1/8 in] wire diameter, 750 mm [29 17/32 in] length)		Prevents the projector from falling.
dropprevention kit	Wire rope (3.0 mm [1/8 in] wire diameter, 660 mm [25 31/32 in] length)	x 1	Use one of the two wire ropes.
	Flat washer (M6)	x 1	

Store small parts in an appropriate manner, and keep them away from children.
Tightening torque for the screw is M4: 1.25 ± 0.2 N·m (excluding the flanged screws), M6: 4 ± 0.5 N·m.
When tightening up the screws, use a tool such as a torque screwdriver. Do not use electric screwdrivers or impact screwdrivers.

Attention

• Dispose of the packaging materials properly after taking the product out of it.

ET-WBC100/ET-PKC300B

Dimensions

(Unit : mm [inch])



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395 [15 9/16]







519 [20 7/16]

0

0

Horizontal slide

ET-WBC100/ET-PKC300B

The illustration shows the ET-WBC100 mounted on PT-CMZ50.

(Unit : mm [inch])



ET-WBC100/ET-PKC300B

Dimension of screw holes used for securing the wall mount bracket.

(Unit : mm [inch])



ET-WBC100/ET-PKC300B

The dimensional relationship between the screen and projector is shown below.

Determine the installation position on the wall based on the "Dimensional relationship diagram" and the "Dimensional relationship".

The projected image size can be adjusted by changing the distance between the screen and the projector.

Dimensional relationship diagram <For PT-CMZ50>



Note

The illustrations of projectors in this manual are for informational purposes only. The appearance may differ from the actual product.

· This drawing is not in exact scale.

SH	Projected image height
SW	Projected image width
SD	Projected image size
L	Projection distance (distance from the screen surface to the mirror reflection surface ¹)
D	Distance from the wall surface to the screen surface
L1	Distance from the screen surface to the back surface of the projector
L2	Distance from the back surface of the projector to the wall surface
L3	Distance (225 mm [8-27/32 in]) from the center axis of horizontal swing adjustment to the back surface of the projector
L4	Distance from the wall surface to the center axis of horizontal swing adjustment
L5	Distance (47.5 mm [1-7/8 in]) from the image center to the wall mount bracket center
H1	Distance from the top edge of the projected image to the center of screw holes (on the lower side) used for securing the wall mount bracket
H2	Distance from the top edge of the projected image to the center of screw holes (on the upper side) used for securing the wall mount bracket

1 The mirror reflection surface cannot be seen from the outside because it is located inside the projector.

Attention

• To prevent obstruction of the intake and exhaust vents, install the projector with a clearance from walls and objects. For details about the required distance from surrounding walls and objects, refer to the operating instructions for your projector. If you are installing the projector in a sealed space, be sure to provide additional air conditioning equipment and ventilation equipment. Insufficient ventilation will result in an accumulation of heat and may activate the projector's protection circuit.
Avoid setting up in places which are subject to sudden temperature changes, such as near an air conditioner or lighting equipment (studio)

lamps, etc.).

ET-WBC100/ET-PKC300B

Dimensional relationship

To use a projected image size not listed in the tables, check the projected image size SD (m) and calculate the value using the formulas provided in "Formulas for calculating dimensions".

<For PT-CMZ50>

Dimensions in the tables are values when Digital Zoom Extender function is disabled by setting the [POSITION] menu \rightarrow [SCREEN ADJUSTMENT] \rightarrow [DIGITAL ZOOM EXTENDER] to [OFF] on the projector.

							Unit: m
	Projected image size [Aspect ratio 16:10]			L	L1	H1 ¹	H21
S	D	SH	SW	L	LI	пі	ΠZ
2.03	[80 in]	1.077	1.723	0.41	0.010	0.346	0.519
2.16	[85 in]	1.144	1.831	0.43	0.033	0.358	0.531
2.29	[90 in]	1.212	1.939	0.46	0.055	0.370	0.543
2.41	[95 in]	1.279	2.046	0.48	0.078	0.381	0.554
2.54	[100 in]	1.346	2.154	0.50	0.10	0.393	0.566
2.79	[110 in]	1.481	2.369	0.55	0.15	0.417	0.590
3.05	[120 in]	1.615	2.585	0.59	0.19	0.441	0.614

	Projected image size (Aspect ratio 16:9)			L1	H1 ¹	H2 ¹	
S	D	SH	SW		LI		пz [.]
2.03	[80 in]	0.996	1.771	0.42	0.020	0.407	0.580
2.16	[85 in]	1.058	1.882	0.44	0.043	0.422	0.595
2.29	[90 in]	1.121	1.992	0.47	0.067	0.438	0.611
2.41	[95 in]	1.183	2.103	0.49	0.090	0.453	0.626
2.54	[100 in]	1.245	2.214	0.51	0.11	0.469	0.642
2.79	[110 in]	1.370	2.435	0.56	0.16	0.500	0.673
3.05	[120 in]	1.494	2.657	0.61	0.21	0.532	0.705

	Projected image size (Aspect ratio 4:3)			1	L1	H1 ¹	H2 ¹
S	D	SH	SW	L			п2
1.78	[70 in]	1.067	1.422	0.41	0.007	0.344	0.517
1.91	[75 in]	1.143	1.524	0.43	0.032	0.358	0.531
2.03	[80 in]	1.219	1.626	0.46	0.058	0.371	0.544
2.16	[85 in]	1.295	1.727	0.48	0.083	0.384	0.557
2.29	[90 in]	1.372	1.829	0.51	0.11	0.398	0.571
2.41	[95 in]	1.448	1.930	0.54	0.13	0.411	0.584
2.54	[100 in]	1.524	2.032	0.56	0.16	0.425	0.598
2.79	[110 in]	1.676	2.235	0.61	0.21	0.451	0.624

1 Values in the tables are based on the factory default height position of the arm.

ET-WBC100/ET-PKC300B

Formulas for calculating dimensions

To use a projected image size not listed in "Dimensional relationship", check the projected image size SD (m) and use the respective formula to calculate the value.

Values obtained with the following formulas contain a slight error.

When calculating the value using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula.

<For PT-CMZ50>

Aspect ratio	16:10	16:9	4:3	
Screen height (SH)	=0.530 x SD	=0.490 x SD	=0.6 x SD	
Screen width (SW)	=0.848 x SD	=0.872 x SD	=0.8 x SD	
Projection distance (L)	=0.1782 x SD + 0.0485	=0.1831 x SD + 0.0485	=0.2017 x SD + 0.0485	
Distance from screen surface to back surface of the projector (L1)		=0.0100 + (L-0.4105)		
Distance from back surface of the projector to wall surface (L2)	=L1 + D			
Distance from wall surface to center axis of horizontal swing adjustment (L4)	= L1 +	.3 + D or = 0.0100 + (L-0.4105) + L3 + D		
Distance from top edge of projected image to center of screw holes (on lower side) used for securing the wall mount bracket (H1)	=0.0933 x SD + 0.1564	=0.1231 x SD + 0.1564	=0.1056 x SD + 0.1564	
Distance from top edge of projected image to center of screw holes (on the upper side) used for securing the wall mount bracket (H2)	=0.0933 x SD + 0.3294	=0.1231 x SD + 0.3294	=0.1056 x SD + 0.3294	





PT-CMZ50

Laser Projector Delivers Big Pictures from Ultra-Short Distances with Minimal Shadowing, Easy Installation, and Convenient Adjustment





Model	PT-CMZ50
Light output	5,200 lm ³
Resolution	WUXGA (1920 x 1200 pixels)
Light source	Laser diodes
Dimensions (W x H x D)	 495 mm x 160 mm x 421 mm (19 1/2" x 6 19/64" x 16 37/64") (excluding feet and protrusions) 495 mm x 176 mm x 421 mm (19 1/2" x 6 15/16" x 16 37/64") (with feet at shortest position)
Weight	Approx. 9.5 kg (20.9 lbs)
Operation noise	35 dB (NORMAL/ECO), 26 dB (QUIET)

Feature 01 | Communicate Clearly and Comfortably

- Delivers a large 80-inch image from about 1 cm (1/3 in)⁴
- 5,200 lm³ and WUXGA resolution makes text and graphics easy to read in brightly litrooms
- Quiet 26 dB operation (QUIET Mode) reduces distractions when the projector is nearby
- Stylish cabinet (available in black/white) has no lens protrusion and harmonizes with any décor

Feature 02 | Flexible, Versatile, and Easy to Install

- Lightweight wall-mount bracket option ships partially preassembled for easy installation
- Powered center/periphery focus via remote control simplifies post-installation adjustment
- Digital Zoom Extender and Digital Image Shift function enables convenient adjustment after installation
- Supports wide-aspect 2560 x 1080 (21:9)⁵ and 3240 x 1080 (27:9)⁵ input signals
- Accepts 4K input signals¹
- Connect a second projector/monitor via HDMI[™] output terminal

Feature 03 | Eco-friendly Long-Term Operation

- No light-source or filter maintenance required for 20,000 hours⁶, reducing waste
- Watts-per-lumen efficiency is approx. 31%⁷ better than other lamp-based short-throw models

Note: Design and specification subject to change without notice. Release date varies by country or region. 1 4K/30p signals are supported via HDMI[™] and DIGITAL LINK terminals. 2 Requires optional AI-WM50 Series Wireless Module (sold separately). Availability may vary by country or region. 3 When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. Measurement, measuring conditions, and method of notation are all compliant with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped. 4 Value is the distance from projector body to wall. 5 A 2560 x 1080 (21:9) input signal is displayed at 1920 x 810 (21:9), and a 3240 x 1080 (27:9). 6 Around this time, light output will have decreased to approximately 50% of its original level ([PICTURE MODE]: [DYNAMIC], [DY

PT-CMZ50 introduction

February 2023 Ver2.0

Panasonic Connect Media Entertainment Business Division



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PT-CMZ50

Laser Projector Delivers Big Pictures from Ultra-Short Distances with Minimal Shadowing, Easy Installation, and Convenient Adjustment

AVAILABLE FROM CY2023 Q2

		PT-CM	Z50	
		5,200	m	
	WU	JXGA (192	0 x 1200)	
SOLID SHINE LASER				WHELES 2

1 4K/30p signals are supported via HDMI[™] and DIGITALLINK terminals. 2 Requires optional AJ-WM50 Series Wireless Module (sold separately).



CMZ50 Concept

Deliver big, clear pictures from ultra-short distances

SALES BY MONTH

Project a large 80-inch image from about 1 cm (1/3 in)¹. Avoid screen shadows and give remote and on-site participants a clear view, even in brightly lit spaces. Ceiling and wall-mount options simplify installation while smooth UX streamlines usability in the classroom, office, and beyond.

Feature 01 Communicate Clearly and Comfortably WUXGA images from ultra-short distances

Feature 02

Flexible, Versatile, and Easy to Install

Partially preassembled wall-mount option and powered center/periphery focus

Feature 03

Eco-Friendly Long-Term Operation

Energy-efficient operation reduces cost and environmental impact



Ultra-Short-Throw 5,200 lm¹ CMZ50 Creates Opportunities in Diverse Spaces



1 When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. Measurement, measuring conditions, and method of notation are all compliant with ISO/IEC 21118:2020 international standards. Value is average of all products when shipped.

Reduces Environmental Impact, from Unboxing to EOL

More Efficient Longer Lasting Less Waste

Watts-per-lumen efficiency about 31 %¹ better than other lamp-based short-throw models

Includes ECO Mode to further reduce power consumption Light source and filter don't require maintenance for about 20,000 hours²

No lamp disposal thanks to long-lasting laser

Filter can be washed and reused, reducing waste

1 Based on a comparison between PT-CMZ50 (max. power consumption 325 W, brightness 5,200 lm) and PT-TW381R (max. power consumption 300 W, brightness 3,300 lm). 2 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 °C [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). Estimated time until light output declines to 50% varies depending on environment. Filter can be washed and reused up to two times. Filter cleaning cycle: 20,000 hours (under dust conditions of 0.08 mg/m³), 10,000 hours (under dust conditions of 0.15 mg/m³).

Feature 01 Communicate Clearly and Comfortably

Delivers a Large 80-inch Image from About 1 cm (1/3 in)¹

Challenge

- Need to display content as large as possible
- Installation space is limited by room size or ceiling obstructions (lights, cameras, microphones, etc.)
- Need to avoid screen shadows and lens dazzling

CMZ50 Solution

- ✓ Projects an 80−120 in (2.03−3.05 m) image,
 ideal for rooms with limited installation space
- Installs almost flush to the wall with optional wall mount avoiding obstructions on the ceiling
- ✓ Ultra-short-throw design limits shadowing, ideal for exhibitions/studios where people are close to the screen



1 Value is the distance from projector body to wall.

7

Feature 01 | Communicate Clearly and Comfortably

5,200 lm¹ at WUXGA for clear image visibility

- High brightness improves image visibility in environments with bright LED lighting
- WUXGA resolution smooths and sharpens fine text for clear visibility when viewed at a distance



Panasonic WUXGA model compared to a competitive model with Full HD-equivalent resolution achieved via shifting technology.

1 When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. Measurement, measuring conditions, and method of notation are all compliant with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped.

Sharp, high-contrast pictures in well-lit rooms

- High 3,000,000:1¹ Dynamic Contrast optimizes image expression for realistic depth and dimensionality
- System Daylight View enhances image visibility according to ambient light levels in the room





System Daylight View OFF

System Daylight View ON



1 Full On/Full Off. When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] is set to [1].

Panasonic CONNECT

Feature 01 | Communicate Clearly and Comfortably

Quiet Design Limits Distractions

- Heat-resistant laser light source contributes to a significant reduction in fan and exhaust noise
- Operation noise is almost indiscernible even when seated close to the projector

	Lamp-based model	\rightarrow	CMZ50
Operation noise ¹	30 dB	4 dB Lower	26 dB

Operating noise is perceived to be about <u>half that of the</u> <u>lamp-based model²</u>

1 Based on a comparison between PT-CMZ50 (26 dB) and PT-TW381R (30 dB) in QUIET Mode. 2 Decibel value is a logarithmic expression, meaning that a 4 dB change results in the perception that operating noise is approximately halved (or doubled) compared to the original value.

Stylish Cabinet Blends into Your Space

- Stylish cabinet design without lens protrusion
- Black or white body suits a variety of spaces, from classrooms and meeting rooms to museums





New Wall-Mount Bracket Simplifies Installation and Adjustment

Assembly complete

• Optional wall-mount bracket ships partially preassembled for stress-free installation





Note: Cover included (not pictured).

Base and arm attach with four bolts



No lens protrusions makes it easy to attach projector and base



New Wall-Mount Bracket Simplifies Installation and Adjustment

- Image position (V/H) and projector tilt are easily adjusted using the dial following installation
- It's possible to attach the PressIT receiver or PTZ Camera to the base bracket



Powered Focus (Center/Periphery)

• Adjust center and periphery focus via remote control after installation



Digital Zoom Extender and Digital Image Shift

• Move the image vertically and horizontally using the Digital Image Shift function



Projection Image

Image Shift Interface

Note: Resolution decreases when using Digital Zoom Extender. Some screen-correction functions are not available when using this function, and range of corner adjustment is limited.

Supports Widescreen Input Signals

- Accepts 2560 x 1080 (21:9)¹ and 3240 x 1080 (27:9)¹ input signals to support immersive conferencing layouts that improve communication between remote and on-site participants
- Supports 4K input signals for seamless integration into existing system infrastructure



Widescreen conferencing software layouts arrange remote participants along the bottom of the screen at eye level to those seated in the room.

1 A 2560 x 1080 (21:9) input signal is displayed at 1920 x 810 (21:9), and a 3240 x 1080 (27:9) input signal at 1920 x 640 (27:9).

Equipped with HDMI[™] Output

• Connect a second projector/display to the main projector via HDMI-OUT terminal to share content on a second screen in a neat, simple layout



• It's also possible to check projected content on a monitor (no switcher required)



Feature 03 | Eco-Friendly Long-Term Operation

Sustainable and Cost-Effective Design

- No light-source maintenance for 20,000 hours¹, reducing the cost and hassle of lamp replacement
- No filter maintenance for up to 20,000 hours², filter can be washed and reused, reducing cost, labor, and environmental impact



Save time, cost, waste, and hassle!

1 Around this time, light output will have decreased to approximately 50% of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 ° C [86 ° F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). Estimated time until light output declines to 50% varies depending on environment. 2 Filter can be washed and reused up to two times. Filter cleaning cycle: 20,000 hours (under dust conditions of 0.08 mg/m³), 10,000 hours (under dust conditions of 0.15 mg/m³).

Brighter and More Energy Efficient

- Watts-per-lumen efficiency is approx. 31%¹ better than other lamp-based short-throw models
- Uses resources sustainably to reduce the cost to you and the environment

1 Based on a comparison between PT-CMZ50 (max. power consumption 325 W, brightness 5,200 lm) and PT-TW381R (max. power consumption 300 W, brightness 3,300 lm).



Note: Based on a comparison between PT-CMZ50 (max. power consumption 325 W, brightness 5,200 lm) and PT-TW381R (max. power consumption 300 W, brightness 3,300 lm).

Specifications

		PT-CMZ50	
LCD Panel		16.3 mm (0.64 in) diagonal (16:10 aspect ratio), Transparent LCD panel (x 3, R/G/B), 2,304,000 (1920 x 1200 pixels) x 3	
Light Source	e	Laser diode	
Light outpu	t	5,200lm	
Time until l	ight output declines to 50%	20,000 hours (NORMAL/QUIET)/24,000 hours (ECO)	
Resolution		WUXGA (1920 x 1200 pixels)	
Contrast ra	tio	3,000,000:1	
Lens		powered focus lens, F = 1.7, f = 2.81 mm, throw ratio:0.235:1	
Keystone Correction Range		Vertical: $\pm 3°$, Horizontal: $\pm 3°$	
	Power Supply	AC 100V-240V, 50/60Hz	
_	Maximum Power Consumption	325 W (AC 100–120 V), 310 W (AC 200–240 V)	
Power	On-mode Power Consumption	[NORMAL]290 W (AC 100–120 V), 280 W (AC 200–240 V) [ECO]215 W (AC 100–120 V), 205 W (AC 200–240 V) [QUIET]210 W (AC 100–120 V), 200 W (AC 200–240 V)	
Dimensions	(W x H x D)	495 mm x 160 mm x 421 mm (19 1/2″ x 6 19/64″ x 16 37/64″) (excluding feet and protrusions), 495 mm x 176 mm x 421 mm (19 1/2″ x 6 15/16″ x 16 37/64″) (with feet at shortest position)	
Weght		Approx. 9.5 kg (20.9 lbs)	
Opara	Envirionment	Operating temperature: 0–45 $^{\circ}$ C (32–113 $^{\circ}$ F), Operating humidity: 20–80 % (no condensation)	
tion	Noise	35 dB (NORMAL/ECO), 26 dB (QUIET)	
Protocol ve	rsions	IPv4 (IPv6 from MP in the late May)	
Applicable	software	Multi Monitoring & Control Software, Logo Transfer Software, Projector Network Setup Software, Presenter Light Software for Windows®, Wireless Projector App for iOS/Android™	
Control fun	ction via LAN	PJLink™ [Class 2], Crestron Connected™, AMX Device Discovery	



Options | Various option for better performance





Options | Various option for better performance



Early Warning Software ET-SWA100 Series



 CMZ50 delivers clear images with higher resolution and higher contrast

IUO

• Shorter throw distance reduces shadowing

- Digital Zoom Extender and Digital Image Shift for easy screen adjustment
- Powered focus makes it easy to adjust focus via remote control after installing the projector

Model		Panasonic PT-CMZ50	EPSON EB-800F	Christie Captiva DWU500S	Optoma ZU500USTe
	Size	0.64 in	0.62 in	0.67 in	0.67 in
Panel	Display system	3LCD	3LCD	1-Chip DLP	1-Chip DLP
	Pixels	WUXGA	WXGA+WOB	WUXGA	WUXGA
Light source	e	Laser	Laser	Laser	Laser
Light output		5,200 lm ¹	5,000 lm	4,500 lm(ANSI) / 5,000 lm(ISO)	5,000 lm (ANSI)
Resolution		WUXGA	Full HD-equivalent resolution with a shifting technology	WUXGA	WUXGA
Contrast rat	io	3,000,000:1 ²	Over 2,500,000:1	1,800:1	100,000:1
Screen size (diagonal)		80–120 in	16:9 : 65–130 in 16:6 : 61–120 in		1080p: 90–120 in WUXGA: 93–123 in
Throw ratio		0.235:1	0.27:1	0.25:1	0.253:1
Lens		Digital Zoom Eutondor	Digital Zoom (1.35x)	Digital Zoom	
Lens shift	Vertical	Digital Zoom Extender Digital Image Shift			
	Horizontal				
Powered focus		Yes	—	—	—
Kovstopo correction	Vertical	+/-3°	+/-3°	0-40° (Geometric correction)	+/-15°
Keystone correction	Horizontal	+/-3°	+/-3°	0–40° (Geometric correction)	+/-15°

1 When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. Measurement, measuring conditions, and method of notation are all compliant with ISO/IEC 21118:2020 international standards. Value is average of all products when shipped. 2 Full On/Full Off. When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] is set to [1].

- CMZ50 supports various widescreen input signals
- Power consumption is about approx. 15% lower than EPSON
- Noise level 1 dB lower than EPSON for quieter operation
- Filter requires no maintenance for 20,000 hours¹, reducing cost and hassle

Model		Panasonic PT-CMZ50	EPSON EB-800F	Christie Captiva DWU500S	Optoma ZU500USTe
Terminals		HDMI [™] IN (CEC) x 2 / OUT x 1 DIGITAL LINK x 1 Computer IN x 1 Audio IN x 1 Audio OUT x 1 SERIAL x 1 USB A x 1 (DC OUT, 5 V/2 A) LAN x 1	HDMI [™] IN x 3 / OUT x 1 HDBaseT x 1 Computer IN x 1 Computer IN/OUT x 1 RCA composite x 1 Stereo Mini IN x 3 Stereo Mini OUT x 1 SERIAL x 1 USB A x 2 USB A x 2 (DATA/DC OUT) LAN x 1	HDMI [™] IN x 2 VGA x 1 VGA audio In x1 Mic IN x 1 DC OUT (5 V/1.5 A) VGA OUT x 1 Audio OUT x 1 SERIAL x 1	HDMI [™] x 2 VGA IN x 1 VGA IN/OUT x 1 Composite x 1 Audio IN x 2 DC OUT (5 V/0.5 A) Audio IN x 1 (Mini)/OUT x 1 Mic IN x 1 SERIAL x 1 RJ45 x 1 (HDBT)
Specific input signals		16:6 (1920 x 720) signal 21:9 (1920 x 810) signal <mark>21:9 (2560 x 1080²) signal</mark>	16:6 (1920 x 720) signal 21:9 (1920 x 810) signal	_	16:6 (1920 x 720) signal
Power	Max.	325 W (AC 100–120 V), 310 W (AC 200–240 V)	381 W (NORMAL)	350 W (+/- 15% @ 110 V)	410 W (+/-15% @ 110 V) 400 W (+/-15% @ 220 V)
consumption	On-mode	[NORMAL]290W(AC100–120V), 280W(AC 200–240V) [ECO]215W(AC 100–120 V), 205W(AC 200–240 V) [QUIET]210W(AC 100–120 V), 200W(AC 200–240 V)			
Cabinet color		White/Black	White/Black		
Filter		ECO Filter (20,000 hours ¹)	Air filter		Dust filter (500 hours)
Operation noise	NORMAL/ECO	35 dB	36 dB	36 dB	36 dB
•	QUIET	26 dB	27 dB	30 dB (ECO)	32 dB (ECO)
Dimensions (W x H x D)		495 mm x 160 mm x 421 mm (excluding feet and protrusions)	458 x 209.5 x 375 mm	383 x 88 x 318 mm	383 x 88 x 318 mm
Weight		9.5 kg	9.4 kg	5.8 kg	5.7 kg

1 Filter can be washed and reused up to two times. Filter cleaning cycle: 20,000 hours (under dust conditions of 0.08 mg/m³), 10,000 hours (under dust conditions of 0.15 mg/m³). 2 A 2560 x 1080 (21:9) input signal is displayed at 1920 x 810 (21:9).

Panasonic CONNECT

IUO

Brand	Panasonic	EPSON	Maxell
Model number	ET-WBC100	ELPLB62	HAS-WM06
Appearance	Z Y Base bracket	Z Y X	X
Dimensions (W x H x D)	491-519 x 210 -245 x 395-665 mm	550 x 280 x 523 - 906 mm	503 x 205 x 516 - 779 mm
Bracket weight	Approx. 8 kg	9.2 kg	7.1kg
Max. weight	15 kg	15 kg	15 kg
Adjustable range Horizontal Front and back Vertical Fine-tuning (H) Keystone fine-tuning (H) Keystone fine-tuning (V)	\pm 45 mm 0 - 270 mm \pm 10 mm (Image size between 80-90") - 10 ~ +40 mm (Image size between 90-120") \pm 5° \pm 5° \pm 5°	$\pm 45 \text{ mm}$ 0 - 383 mm $\pm 40 \text{ mm}$ $\pm 9^{\circ}$ $\pm 5^{\circ}$ $\pm 13^{\circ}$ -	$\pm 50 \text{ mm}$ 0 -308 mm $\pm 35 \text{ mm}$ $\pm 5^{\circ}$ $\pm 5^{\circ}$ $\pm 5^{\circ}$ -
Color tone	Resin part: White Sheet metal part: Painted white	Resin part: White Sheet metal part: Painted white	Resin part: White Sheet metal part: Painted white, plated

- EPSON's wall mount has more parts and is tricky to assemble with 13 bolts
- Panasonic's ET-WBC100 has fewer parts and requires four bolts to assemble

Note: See P.8 for details on assembling ET-WBC100.

Bracket as shipped (comprises eight parts)



Note: Cover (not pictured) is also included.





Assembly is best performed with two people since the arm is heavy and must be precisely aligned while the bolts are being fastened.

Assembly complete

Internal Use Only



CMZ50 has a shorter throw ratio than EPSON, reducing the chance of shadowing





Panasonic PT-CMZ50 (Throw ratio 0.235:1)

Optional Panasonic ET-PKC300 base bracket enables attachment to EPSON wall-mount bracket



	ET-PKC300B	
Dimensions (W x H x D)	470 mm x 13 mm x 370 mm	
Weight	2.8 kg	
Compatible with third-party bracket	Yes (EPSON)	

<u>Note</u>

- The customer is responsible for attaching ET-PKC300 to an EPSON bracket
- Due to the specifications of the EPSON bracket, the space between the wall and the projector is wider. Image size is therefore restricted to 100–120 inches.



Panasonic CONNECT

Panasonic CONNECT

P R E L I M I N A R Y AS OF JANUARY 2023

PT-CMZ50

AVAILABLE FROM CY2023 Q2

Note: Release date varies depending on country or region

Laser Projector Delivers Big Pictures from Ultra-Short Distances with Minimal Shadowing, Easy Installation, and Convenient Adjustment



• Communicate Clearly and Comfortably

CMZ50 is an ultra-short-throw projector for well-lit hyflex learning and meeting spaces. It delivers an 80-inch image from about 1 cm (1/3 in.)⁴, avoiding shadows on screen. Laser light-source develops 5,200 lm³ with 3,000,000:1⁵ Dynamic Contrast. Watts-per-lumen efficiency is about 31%⁶ better than other lamp-based short-throw models, and no light-source or filter maintenance is required for 20,000 hours⁷.

• Flexible, Versatile, and Easy to Install

CMZ50 installs flexibly on ceiling or wall using optional mounts including ET-WBC100, a lightweight wall-mount system that ships partially preassembled for easy installation. Image adjustment is easily performed via remote control using Digital Zoom Extender and Image Shift⁸ function and powered focus. Stylish body and quiet 26 dB⁹ operation blend CMZ50 into your space, limiting distractions.

• Fast and Frictionless UX

With widescreen content becoming popular, CMZ50 supports 2560 x 1080 (21:9)¹⁰ and 3240 x 1080 (27:9)¹⁰ input signals. An HDMI[™] output is included to connect a second projector. Start work instantly: images appear about a second¹¹ after powering on, and CEC command-compatible¹² HDMI[™] turns the projector on and displays automatically when content is played from a device. You can also share your screen via Wireless Presentation System PressIT² or wireless module².

1 Input signals are converted to the projector's resolution upon playback. YPaPs 4:2:0 format only for 4K/30p signals input via DIGITAL LINK. 2 Optional accessories sold separately. Availability may vary by country or region. 3 When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. Measurement, measuring conditions, and method of notation are all compliant with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped. 4 Value is the distance from projector body to wail. 5 Full Onr/Full Off, when [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC] control (DYNAMIC] (DYNAMIC] control (DYNAMIC] (DYNAMIC]
Specifications

Model			PT-CMZ50				
Projector type			LCD projector				
LCD panel	Size		16.3 mm (0.64 in) diagonal (16:10 aspect ratio)				
	Display sys	tem	Transparent LCD panel (x 3, R/G/B)				
	Drive meth	od	Active matrix				
	Pixels		2,304,000 (1920 x 1200) pixels				
Light source			Laser diodes				
Light output ^{1,3}	2		5,200 lm				
Time until ligh	t output decline	s to 50 %3	20,000 hours (NORMAL/QUIET)/24,000 hours (ECO)				
Resolution			WUXGA (1920 x 1200 pixels)				
Contrast ratio	1		3,000,000:1 (Full On/Full Off) (When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] is set to [1].)				
Screen size (di	agonal)		2.03-3.05 m (80-120 in), 16:10 aspect ratio				
Center-to-corr	ner zone ratio ¹		85 %				
Lens			Fixed zoom, powered focus lens, $F = 1.7$, $f = 2.81$ mm, throw ratio: 0.235:1 (Projection distance: 1 cm [1/3 in] for 80-inch image)				
Digital Zoom B	xtender ⁴		Throw ratio 0.235–0.288:1 ⁵ (Corresponding value)				
Keystone corre	ection range		Vertical: ±3°, Horizontal: ±3°				
Installation			Ceiling/floor, front/rear, free 360-degree installation				
Terminals	HDMI [™] 1/2 IN		HDMI" 19-pin x 2 (Compatible with HDCP 1.4, Deep Color, 4K/30p ⁶ signal input), CEC supported ⁷				
	HDMI [™] OL	т	HDMI [®] 19-pin x 1 (Compatible with HDCP 1.4, Deep Color, 4K/30p ⁶ signal output)				
	COMPUTER IN		D-sub 15-pin (female) x 1 (RGB/YPBPR/YCBCR)				
	AUDIO IN		M3 stereo mini-jack x 1				
	VARIABLE AUDIO OUT		M3 stereo mini-jack x 1				
	SERIAL IN		D-sub 9-pin (female) x 1 for computer control (RS-232C compliant)				
	LAN/DIGITAL LINK		RJ-45 x 1 for network and DIGITAL LINK connection (video/network/serial control) (HDBaseT [®] compliant), 100Base-TX (Compatible with PJLink [®] [Class 2], HDCP, Deep Color, 4K/30p ⁶ signal input)				
	LAN		RJ-45 x 1 for network control, 10Base-T, 100Base-TX, compatible with PJLink" [Class 2]				
	USB (VIEWER/ WIRELESS/DC OUT)		USB connector (Type A) x 1 for Memory Viewer function, optional AJ-WM50 Series Wireless Module, power supply (DC 5 V, maximum 2 A)				
Protocol versio	ons		IPv4				
Power supply			AC 100 V-240 V, 50/60 Hz				
Power	Maximum power	consumption	325 W (AC 100–120 V), 310 W (AC 200–240 V)				
consumption ⁸	On-mode power	NORMAL	290 W (AC 100–120 V), 280 W (AC 200–240 V)				
	consumption	ECO	215 W (AC 100–120 V), 205 W (AC 200–240 V)				
	(Light Power)	QUIET	210 W (AC 100–120 V), 200 W (AC 200–240 V)				
Built-in speake	er		10 W monaural				
Cabinet mater	ials		Molded plastic				
Filter ⁹			Included (Estimated maintenance time: approx. 20,000 hours)				
Operation nois	se ¹		35 dB (NORMAL/ECO), 26 dB (QUIET)				
Dimensions (V	V x H x D)		495 mm x 160 mm x 421 mm (19 $\frac{1}{2}$ x 6 $\frac{19}{64}$ x 16 $\frac{37}{64}$) (excluding feet and protrusions), 495 mm x 176 mm x 421 mm (19 $\frac{1}{2}$ x 6 $\frac{15}{16}$ x 16 $\frac{37}{64}$) (with feet at shortest position)				
Weight with s	upplied lens10		Approx. 9.5 kg (20.9 lbs)				
Operating env	ironment		Operating temperature: 0–45 °C (32–113 °F)'', Operating humidity: 20–80 % (no condensation)				
Operating environment Applicable software			Multi Monitoring & Control Software, Logo Transfer Software, Projector Network Setup Software, Presenter Light Software for Windows ^{*12} , Wireless Projector App for iOS/Android ⁻¹³				

1 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped. 2 When [PICTURE MODE] is set to [DYNAMIC], [LIGHT POWER] is set to [NORMAL], [DAYLIGHT VIEW] is set to [OFF], and [AUTO POWER SAVE] is set to [OFF]. 3 Around this time, light output will have decreased to approximately 50 % of its original level (IPICTURE MODE]: [DYNAMIC], [DINAMIC CONTRAST] set to [2], temperature 30 °C (86 °F), elevation 700 m (2,297 ft) with 0.15 mg/m³ of particulate matter). Estimated time until light output declines to 50 % varies depending on environment. 4 Resolution decreases when using Digital Zoom Extender. Some sciencorrection functions are not available when using this function, and range ocroner adjustment is limited. 5 When Digital Zoom Extender is set to 80 % 64K signals are converted to the projector's resolution upon projection. 7 Depending on the connected CEC command-compatible device, the link control may not operate normally. 8 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. On-mode power consumption measured at 25 °C (70 °F) operating temperature at an allitude of 700 m (2,297 ft). 9 Filter deening cycle varies depending on the actual butput is limited at operating temperatures higher than 30 °C (86 °F), and Vaverage value. May differ depending on the actual butput is limited at operating themperatures higher than 30 °C (86 °F), and rojectors cannot be operated at altitudes higher than 3. 700 m (8,858 ft) above sea level. When optional AI-WMX05 Series wireless module is attached, operating temperature range becomes 0-40 °C (32-104 °F). 12 When using Presenter Light Software, numes are projected with how using Presenter Light Software, numes are projected with the using the screen high or the screen Adv and received are being transmitted. 13 When butput temperature indivender before the screen Adv and received are being transmited. To Wh 1280 x 800 dots or 1024 x 768 dots onto the screen. Also, your PC display resolution may be forcibly changed, and audio playback disrupted or become noi display resolution differs depending on your iOS/Android" device and the display device. The maximum supported display resolution is WXGA (1280 x 800). come noisy, while images and sound are being transmitted. 13 Whén using the Wireless Projector app,

Optional Accessories

Ceiling Mount Bracket

ET-PKD120H (for high ceilings) / ET-PKD120S (for low ceilings) / ET-PKD1205 (toi 100 ceinings) 7 ET-PKD130H (with 6-axis adjustment mechanism) Note: ET-PKD120H/PKD120S/PKD130H used in combination with ET-PKE301B (sold separately).

 Attachment for Ceiling Mount Bracket ET-PKE301B

•	Wall	Mount	Bracket
	ET-W	BC100	

- Replacement Filter Unit
- ET-RFV500
- DIGITAL LINK Switcher ET-YFB200G
- Note: ET-YFB200G is not compatible with 4K signals.
- Digital Interface Box
- ET-YFB100G Note: ET-YFB100G is not compatible with 4K signals. • Wireless Module

AJ-WM50 Series Note: Availability may vary by country or region. The suffix at the end of the model number is omitted. Operating temperature: 0–40 °C (32–104 °F).

Wireless Presentation System PressIT

TY-WPS1 (basic set) Note: Visit https://panasonic.net/cns/prodisplays/pressit for more information.

 Early Warning Software
 ET-SWA100 Series
 Note: Part number suffix may differ depending on the license type.

Panasonic CONNECT

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. Availability of products and accessories may vary by country or region. Products may be subject to export control regulations. The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI Subject to Export to Export to Export Logs are trademarks or registered trademarks of HDML Licensing Administrator, Irade Dress and the HDML Logs are trademarks or registered trademarks of HDML Licensing Administrator, Inc. Trademark PlLink is a trademark applied for trademark rights in Japan, the United States of America and other countries and areas. Android is a trademark or registered trademark of Google LLC. IOS is a trademark or registered trademark or Lademark or Microsoft. Corporation in the United States and/or other countries. SOLID SHINE and PressIT are trademarks of Panasonic Holdings Corporation. All other trademarks are the property of the respective trademark owners. © Panasonic Connect Co., Ltd. 2023. All rights reserved.



For more information about Panasonic projectors, please visit:

Projector Global Website - https://panasonic.net/cns/projector/ Facebook - www.facebook.com/panasonicprojectoranddisplay YouTube - www.youtube.com/user/PanasonicProjector

> Note: Following the shift of the Panasonic Group to a holding company system, the Connected Solutions Company of the Panasonic Corporation has changed to Panasonic Connect Co., Ltd. as of April 1, 2022.









HIGHLIGHTS OF THE WEEK







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If you're viewing this in Adobe Reader, this file can be opened automatically by clicking here.









INVESTING IN OUR FUTURE



LCD Projector

Specifications Main unit

Power supply			AC 100 V-240 V, 50 Hz/60 Hz		
Power consumption ¹	Maximum power con	sumption	350 W (3.7-1.6 A) (375 VA) (TBD)		
	On-mode power	[NORMAL]	320 W (100-240 V), 310 W (200-240 V) (TBD)		
	consumption	[ECO]	* Operating Temperature: 25 °C (77 °F) 230 W (100-240 V), 220 W (200-240 V) (TBD)		
	(Light power)	[QUIET]	255 W (100-240 V), 225 W (200-240 V) (100) 225 W (100-240 V), 215 W (200-240 V) (TBD) Altitude: 700 m (2,297 ft)		
	Standby mode	[NORMAL]	20 W (TBD)		
	power consumption		When [IN STANDBY MODE] in [AUDIO SETTING] is set to [OFF], [QUICK STARTUP] is set to [OFF], and <dc out=""> terminal is not in use.</dc>		
		[ECO]	0.5 W (TBD)		
TU value			Max 1,195 BTU (TBD)		
LCD panel	Size		16.3 mm [0.64 in] diagonal (16:10 aspect ratio)		
	Display system		Transparent LCD panel (x 3, R/G/B)		
	Number of pixels		2,304,000 (1920 x 1200) pixels		
Refresh rate			60 Hz Refresh rate varies depending on scanning frequency.		
Light source			Laser diode		
Light output ¹	Light Power	[NORMAL]	5,200 lm (TBD) When [PICTURE MODE] is set to [DYNAMIC], [LIGHT POWER] is set to [NORMAL], [DAYLIGHT VIEW] is set to [OFF], and [AUTO POWER SAVE] is set to [OFF].		
		[ECO/QUIET]	3,500 lm (TBD)		
Time until light output declines to 50% ²	Light Power	[NORMAL/ QUIET]	20,000 hours (TBD)		
		[ECO]	24,000 hours (TBD)		
Filter Replacement Cyc	le		20,000 hours (Under the dust conditions of 0.08mg/m ³)		
			10,000 hours (Under the dust conditions of 0.15mg/m ³)		
			Filter cleaning cycle varies depending on environment. Filter can be washed and reused up to two times.		
Resolution			WUXGA (1920 x 1200 pixels)		
Contrast ratio ¹			3,000,000:1 (Full On/Full Off)		
oonnabe radio			(When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] is set to [1].		
Screen size			2.03-3.05 m [80-120 in], 16:10 aspect ratio (TBD)		
Center to corner zone r	atio ¹		85%		
Lens			Fixed zoom, manual focus lens, F = 1.7, f = 2.81 mm, throw ratio: 0.235:1		
Digital Zoom Extender ³			0.235-0.288 ⁴ (TBD)		
Keystone correction rar	ıge		Vertical ±3 ° (Auto, Manual), Horizontal ±3 ° (Manual)		
Installation			Ceiling/floor, front/rear, free 360-degree installation		
Built-in speaker			10 W (monaural)		
Compatible Signal	COMPUTER signal input		Video signal resolution: 480i (525i), 576i (625i), 480/60p to 1080/50p Computer signal resolution: 640 x 480 to 1920 x 1200 (non-interlace) Dot clock frequency: 13.5 MHz to 162 MHz		
	HDMI signal input		Video signal resolution: 480/60p, 576/50p to 4096 x 2160/30p (TBD) Computer signal resolution: 640 x 480 to 1920 x 1200 (non-interlace) Dot clock frequency: 27 MHz to 267.3 MHz (TBD)		
	DIGITAL LINK signal input		Video signal resolution: 480/60p, 576/50p to 4096 x 2160/30p (TBD) Computer signal resolution: 640 x 480 to 1920 x 1200 (non-interlace) Dot clock frequency: 27 MHz to 267.3 MHz (TBD)		
Terminals	HDMI 1 IN/ 2 IN		HDMI 19pin x 2 Deep Color, compatible with HDCP 1.4, 4K/30p signal input ⁵ , CEC supported ⁶ Audio Signal: Linear PCM (Sampling frequency: 48 kHz/44.1 kHz/32 kHz)		
	HDMI OUT		HDMI 19pin x 2 Deep Color, compatible with HDCP 1.4, 4K/30p signal input ⁵ , CEC supported ⁶ Audio Signal: Linear PCM (Sampling frequency: 48 kHz/44.1 kHz/32 kHz)		
	COMPUTER 1 IN		D-sub 15pin (female) x 1		
		RGB	0.7 V [p-p], 75 ohms (1.0 V [p-p], 75 ohms for sync on G) HD/SYNC, VD: TTL, high impedance, positive/negative automatic		
		YP _B P _R	Y: 1.0 V [p-p], including sync signal, P _B /P _R (C _B /C _R): 0.7 V [p-p], 75 ohms		
		I F BF R	M3 stereo mini-jack x 2 0.5 V [rms], input Impedance 22 k Ohms and more		

LCD Projector

Terminals	AUDIO OUT	M3 stereo mini-jack x 1			
		0 V [rms] to 2.0 V [rms] variable, output Impedance 2.2 k ohms and less			
	SERIAL IN	D-sub 9-pin (female) x 1			
		for computer control (RS-232C compliant)			
	LAN	RJ-45 x 1			
		for network control, 10Base-T, 100Base-TX			
	DIGITAL LINK/LAN	RJ-45 x 1			
		for network and DIGITAL LINK connection, HDBase-T [™] compliant, 100Base-TX, compatible with PJLinkTM (Class 2), HDCP 1.4, Deep Color, 4K/30p signal input ⁶ USB connector (Type A) x 1			
	USB				
	(VIEWER/WIRELESS/DC OUT)	for Memory Viewer function, optional Wireless Module AJ-WM50,			
		power supply (DC 5 V, maximum 2 A)			
Supported Internet p	rotocol version	IPv4			
Power cord length		2.0 m [6 ft 7 in]			
Cabinet materials		Molded plastic			
Dimensions (W x H x	D)	495 x 160 x 421 mm [19 31/64 x 6 19/64 x 16 37/64 in] (with feet at shortest position) (TBD)			
Weight with supplied	d lens ⁷	Approx. 9.6 kg (21.3 lbs) (TBD)			
Operating noise ¹		36 dB (NORMAL/ECO), 27 dB (QUIET) (TBD)			
Laser Classification	Laser Class	Class 1 (IEC/EN 60825-1:2014) (TBD)			
	Risk Group	Risk Group 2 (IEC 62471-5:2015) (TBD)			
Operating environment	Operating environment temperature	0-45 °C (32-113 °F) ⁸			
	Operating environment humidity	20%-80% (no condensation)			

Remote control unit

Power supply	3V DC (AAA/R03/LR03 battery x 2)
Operation range	Approx. 30 m [98 ft 5 in] (when operated directly in front of signal receptor)
Dimensions (W x H x D)	48 x 145 x 27 mm [1 7/8 x 5 23/32 x 1 1/16 in]
Weight ⁷	Approx. 102 g (3.60 ozs.) including batteries

Supplied accessories

Wireless remote control unit (x 1) Power cord (x 2 for Europe & Asia model/ x 1 for other countries) Batteries for remote control (R03/AAA type x 2)

Other Applications

Multi Monitoring & Control Software (for Windows) Projector Network Setup Software (for Windows) Logo Transfer Software (for Windows) Presenter Light Software (for Windows)⁹ Wireless Projector App (for iOS/Android)¹⁰

Supported services of Control via LAN

PJLink[™] (Class2) Crestron Connected[™] AMX Device Discovery

PT-CMZ50

Optional accessories

	for high ceiling	ET-PKD120H		
Ceiling Mount Bracket	for highCeiling (6Axis adjustment)	ET-PKD130H		
	for low ceiling	ET-PKD120S		
Projector Mount Bracket	for ceiling mount bracket	ET-PKE301B		
Wall Mount Bracket		ET-WBC100		
Replacement Filter Unit		ET-RFV500		
DIGITAL LINK switcher		ET-YFB200G		
Digital Interface Box		ET-YFB100G		
Wireless Module		AJ-WM50 Series Note: product availability may vary by country or region. The suffix at the end of the model number is omitted. Operating Temperature: 0-40 °C (32-104 °F).		
Early Warning Software		ET-SWA100 series Note: part number suffix may differ depending on the license type.		
Wireless Presentation Sys	tem PressIT	TY-WPS1 (basic set) Note: visit https://panasonic.net/cns/prodisplays/pressit/for more information.		

Weights and dimensions shown are approximate. Specifications subject to change without notice.
Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped.
Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 °C (86 °F), elevation 700 m (2,297 ft) with 0.15 mg/m³ of particulate matter). Estimated time until light output declines to 50 % varies depending on environment.
Resolution decreases when using this function. 6-Point Screen Correction, V/H Keystone Correction, and curved-screen correction are not available when using this function, and range of correct adjustment is limited.

3 Resolution decreases when using this function. 6-Point Screen Correction, V/H Keystone Correction, and curved-screen correction are not available when using this function, and correr adjustment is limited.
4 When Digital Zoom Extender is set to 80 %.
5 4K signals are converted to the projector's resolution upon projection.
6 Depending on the connected CEC command-compatible device, the link control may not operate normally.
7 Average value. May dier depending on the actual unit.
8 Light output is limited at operating temperatures higher than 30 °C (86 °F), and projectors cannot be operated at altitudes higher than 2,700 m (8,858 ft) above sea level. When optional AJ-WMSO Series Wireless Module is attached, operating temperature range becomes 0-40 °C (32-104 °F).
9 When using Presenter Light Software, images are projected with 1280 x 800 dots or 1024 x 768 dots onto the screen. Also, your PC display resolution may be forcibly changed, and audio playback disrupted or become noisy, while images and sound are being transmitted.
10 When using the Wireless Projector app, display resolution diers depending on your iOS/Android™ device and the display device. The maximum supported display resolution is WXGA (1280 x 800).



PT-CMZ50

Terminals



1	COMPUTER IN	6	LAN
2	USB (VIEWER/WIRELESS DC OUT 5V 2A)	7	LAN/DIGITAL LINK
3	HDMI IN 1	8	AUDIO IN
4	HDMI IN 2	9	AUDIO OUT
5	HDMI OUT	10	SERIAL IN

Dimensions

unit : mm [inch] NOTE: This illustration is not drawn to scale.



Projected image and throw distance

Install the projector referring to the projected image size and projection distance. Image size and image position can be adjusted in accordance with the screen size and screen position.



Note

- This illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.
- This illustration is not drawn to scale.

L1	Projection distance
L2	Projection distance
н	Distance between projector and screen

Unit: feet

PT-CMZ50

LCD Projector

Projection distance

A \pm 5 % error in listed projection distances may occur.

When [SCREEN ADJUSTMENT] is used, distance is corrected to become smaller than the specified image size.

Screen aspect ratio 16:10

Screen asp	Screen aspect ratio 16:10 Unit: meters								
Throw ratio		0.235:1			Digital Zoom Extender ¹				
THOW	Viatio		0.255.1	0.235	-0.288:1				
Diagonal (SD)		Projection distance (L1)	Projection distance (L2)	Distance between projector and screen (H) ²	Longest projection distance (L1)	Projection distance (L2)			
[60 in]	1.52	-	-	-	-	-			
[65 in]	1.65	-	-	-	0.42	0.016			
[70 in]	1.78	-	-	-	0.44	0.044			
[75 in]	1.91	-	-	-	0.47	0.072			
[80 in]	2.03	0.41	0.010	0.13	0.50	0.10			
[85 in]	2.16	0.43	0.033	0.15	0.53	0.13			
[90 in]	2.29	0.46	0.055	0.16	0.56	0.16			
[95 in]	2.41	0.48	0.078	0.17	0.59	0.19			
[100 in]	2.54	0.50	0.10	0.18	0.61	0.21			
[110 in]	2.79	0.55	0.15	0.20	-	-			
[120 in]	3.05	0.59	0.19	0.23	-	-			

1 When Digital Zoom Extender is set to 80%.

2 When Digital Zoom Extender function is not used.

Screen aspect ratio 16:10

Digital Zoom Extender¹ 0.235:1 Throw ratio 0.235-0.288:1 Distance between Longest Projection distance Projection distance Projection distance Diagonal (SD) projector and screen projection distance (L1) (L2) (L2) (H)² (L1) [60 in] 1.52 --[65 in] 1.65 ---1.38 0.05 [70 in] 1.78 1.44 0.14 _ _ _ [75 in] 1.91 1.54 0.24 _ _ _ [80 in] 2.03 1.35 0.03 0.43 1.64 0.33 0.11 1.74 [85 in] 2.16 1.41 0.49 0.43 [90 in] 2.29 1.51 0.18 0.52 1.84 0.52 [95 in] 2.41 1.57 0.26 0.56 1.94 0.62 [100 in] 2.54 1.64 0.33 0.59 2.00 0.69 [110 in] 2.79 1.80 0.49 0.66 -_ [120 in] 3.05 1.94 0.62 0.75 --

When Digital Zoom Extender is set to 80%.

2 When Digital Zoom Extender function is not used.

Screen aspect ratio 16:9

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Screen aspect ratio 16:9 Unit: meters								
Throw ratio		0.234:1			Digital Zoom Extender ¹			
THOV	Vialio		0.234.1		0.234	-0.287:1		
Diagonal (SD)		Projection distance (L1)	Projection distance (L2)	Distance between projector and screen (H) ²	Longest projection distance (L1)	Projection distance (L2)		
[60 in]	1.52	-	-	-	-	-		
[65 in]	1.65	-	-	-	0.43	0.026		
[70 in]	1.78	-	-	-	0.46	0.055		
[75 in]	1.91	-	-	-	0.48	0.084		
[80 in]	2.03	0.42	0.020	0.19	0.51	0.11		
[85 in]	2.16	0.44	0.043	0.21	0.54	0.14		
[90 in]	2.29	0.47	0.067	0.23	0.57	0.17		
[95 in]	2.41	0.49	0.090	0.24	0.60	0.20		
[100 in]	2.54	0.51	0.11	0.26	0.61	0.21		
[110 in]	2.79	0.56	0.16	0.29	-	-		
[120 in]	3.05	0.61	0.21	0.32	-	-		

When Digital Zoom Extender is set to 80%.
 When Digital Zoom Extender function is not used.

Screen aspect ratio 16.9

Screen asp	Screen aspect ratio 16:9 Unit: feet							
Throw ratio		0.234:1			Digital Zoom Extender ¹			
Infov	VIALIO		0.234.1		0.234	-0.287:1		
Diagonal (SD)		Projection distance (L1)	Projection distance (L2)	Distance between projector and screen (H) ²	Longest projection distance (L1)	Projection distance (L2)		
[60 in]	1.52	-	-	-	-	-		
[65 in]	1.65	-	-	-	1.41	0.09		
[70 in]	1.78	-	-	-	1.51	0.18		
[75 in]	1.91	-	-	-	1.57	0.28		
[80 in]	2.03	1.38	0.07	0.62	1.67	0.36		
[85 in]	2.16	1.44	0.14	0.69	1.77	0.46		
[90 in]	2.29	1.54	0.22	0.75	1.87	0.56		
[95 in]	2.41	1.61	0.30	0.79	1.97	0.66		
[100 in]	2.54	1.67	0.36	0.85	2.00	0.69		
[110 in]	2.79	1.84	0.52	0.95	-	-		
[120 in]	3.05	2.00	0.69	1.05	-	-		

When Digital Zoom Extender is set to 80%.
 When Digital Zoom Extender function is not used.

TENTATIVE

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Screen asp	Screen aspect ratio 4:3 Unit: meters								
Throw ratio			0.279:1	Digital Zoom Extender ¹					
THOV	VIALIO		0.279.1		0.279	-0.342:1			
Diagonal (SD)		Projection distance (L1)	Projection distance (L2)	Distance between projector and screen (H) ²	Longest projection distance (L1)	Projection distance (L2)			
[60 in]	1.52	-	-	-	0.43	0.032			
[65 in]	1.65	-	-	-	0.46	0.064			
[70 in]	1.78	0.41	0.007	0.13	0.50	0.096			
[75 in]	1.91	0.43	0.032	0.14	0.53	0.13			
[80 in]	2.03	0.46	0.058	0.16	0.56	0.16			
[85 in]	2.16	0.48	0.083	0.17	0.59	0.19			
[90 in]	2.29	0.51	0.11	0.19	0.62	0.22			
[95 in]	2.41	0.54	0.13	0.20	-	-			
[100 in]	2.54	0.56	0.16	0.21	-	-			
[110 in]	2.79	0.61	0.21	0.24	-	-			
[120 in]	3.05	-	-	-	-	-			

When Digital Zoom Extender is set to 80%.
 When Digital Zoom Extender function is not used.

Screen aspect ratio 4.3

Screen aspect ratio 4:3 Unit: feet							
Throw ratio		0.279:1			Digital Zoom Extender ¹		
			0.279.1	0.279-0.342:1			
Diagonal (SD)		Projection distance (L1)	Projection distance (L2)	Distance between projector and screen (H) ²	Longest projection distance (L1)	Projection distance (L2)	
[60 in]	1.52	-	-	-	1.41	0.10	
[65 in]	1.65	-	-	-	1.51	0.21	
[70 in]	1.78	1.35	0.02	0.43	1.64	0.31	
[75 in]	1.91	1.41	0.10	0.46	1.74	0.43	
[80 in]	2.03	1.51	0.19	0.52	1.84	0.52	
[85 in]	2.16	1.57	0.27	0.56	1.94	0.62	
[90 in]	2.29	1.67	0.36	0.62	2.03	0.72	
[95 in]	2.41	1.77	0.43	0.66	-	-	
[100 in]	2.54	1.84	0.52	0.69	-	-	
[110 in]	2.79	2.00	0.69	0.79	-	-	
[120 in]	3.05	-	-	-	-	-	

When Digital Zoom Extender is set to 80%.
 When Digital Zoom Extender function is not used.

Formula for calculating the projection distance

To use a projected image size not listed in this manual, check the projected image size SD (m) and use the respective formula to calculate the value.

The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.) When calculating the value using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula.

				Unit: meters		
Aspect ratio		16 : 10	16 : 9	4:3		
Screen height (SH)		=0.530 X SD	=0.490 X SD	=0.6 X SD		
Screen width (SW)		=0.848 X SD	=0.872 X SD	=0.8 X SD		
	Without Digital Zoom Extender	=0.1782 X SD + 0.0485	=0.1831 X SD + 0.0485	=0.2017 X SD + 0.0485		
Projection distance (L1) ¹	Digital Zoom Extender	=0.1782 X SD/X + 0.0485	=0.1831 X SD/X + 0.0485	=0.2017 X SD/X + 0.0485		
Projection distance (L2)	Without Digital Zoom Extender	=0.0100+(L1-0.4105)				
riojection distance (L2)	Digital Zoom Extender					
Distance between projector and screen (H)	Without Digital Zoom Extender	=0.0933 X SD - 0.0562	=0.1231 X SD - 0.0562	=0.1056 X SD - 0.0562		

1 X in the formulas represents the setting value of [DIGITAL ZOOM EXTENDER] (100%=1.00, 95%=0.95, 90%=0.90, 85%=0.85, 80%=0.80,...).

Panasonic

Note

The value for L (distance to screen) varies slightly within ±5% depending on the zoom lens characteristics.
When keystone correction is used, the image is corrected in the direction that reduces its projected size.

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Installable angle

Install the projector at an angle within the range shown below.



Notes on projector placement and operation

- 1. Never place objects on top of the projector while it is operating.
- 2. Make sure there is the unobstructed space as shown below or more around the projector's exhaust openings. In addition to this space, also ensure that there is a sufficient work space for removing and installing filter and other parts.
- 3. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.
- 4. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.



LCD Projector

List of compatible signals

The following table specifies the type of signals compatible with the projector. This projector supports the signal with \checkmark in the compatible signal column.

Signal type	Ci I	Resolution (Display Resolution)	Scanning freq.		Dot clock freg.	compatible signal		
	Signal name		Horizontal (kHz)	Vertical (Hz)	(MHz)	COMPUTER	HDMI	COMPUTE
Video Signal	480i (525i)	712 x 483i	15.7	59.9	13.5	√	-	-
	576i (625i)	702 x 575i	15.6	50.0	13.5	√	_	-
	480/60p	720 x 480	31.5	59.9	27.0	√ 	√	✓
	576/50p	720 x 576	31.3	50.0	27.0	✓	√	✓
	720/60p	1280 x 720	45.0	60.0 ¹	74.3	√ ✓	√	✓
	720/50p	1280 x 720	37.5	50.0	74.3	√ ✓	\checkmark	✓
	1080/60i	1920 x 1080i	33.8	60.0 ¹	74.3	✓	√	✓
	1080/50i	1920 x 1080i	28.1	50.0	74.3	✓	√	√
	1080/24p	1920 x 1080	27.0	24.0 ¹	74.3	✓	\checkmark	√
	1080/24sF	1920 x 1080i	27.0	48.0 ¹	74.3	✓	\checkmark	√
	1080/25p	1920 x 1080	28.1	25.0	74.3	✓	√	✓
	1080/30p	1920 x 1080	33.8	30.0 ¹	74.3	✓	√	√
	1080/60p	1920 x 1080	67.5	60.0 ¹	148.5	√ ✓	\checkmark	√
	1080/50p	1920 x 1080	56.3	50.0	148.5	✓	\checkmark	√
	3840 x 2160/24p	3840 x 2160	54.0	24.0 ¹	297.0	_	√	✓
	3840 x 2160/25p	3840 x 2160	56.3	25.0	297.0		✓	✓
	3840 x 2160/30p	3840 x 2160	67.5	30.0 ¹	297.0	_	\checkmark	√
	4096 x 2160/24p	4096 x 2160	54.0	24.0 ¹	297.0	_	\checkmark	√
	4096 x 2160/25p	4096 x 2160	56.3	25.0	297.0	_	√	√
	4096 x 2160/30p	4096 x 2160	67.5	30.0 ¹	297.0	_	√	✓
	640 x 480/60	640 x 480	31.5	59.9	25.2	✓	\checkmark	√
	800 x 600/60	800 x 600	37.9	60.3	40.0	✓	√	√
	1024 x 768/50	1024 x 768	39.6	50.0	51.9	✓	√	√
	1024 x 768/60	1024 x 768	48.4	60.0	65.0	✓	√	1
	1024 x 768/70	1024 x 768	56.5	70.1	75.0	√ ✓	\checkmark	√
	1024 x 768/75	1024 x 768	60.0	75.0	78.8	✓	√	1
	1152 x 864/75	1152 x 864	67.5	75.0	108.0	✓	\checkmark	√
	1152 x 864/85	1152 x 864	77.1	85.0	119.7	✓	√	✓
	1280 x 720/60	1280 x 720	44.8	59.9	74.5	✓	\checkmark	√
	1280 x 768/60	1280 x 768	47.7	60.0	80.1	✓	√	1
	1280 x 800/50	1280 x 800	41.3	50.0	68.0	✓	\checkmark	✓
Computer Signal	1280 x 800/60	1280 x 800	49.7	59.8	83.5	√ ✓	√	✓
	1280 x 800/75	1280 x 800	62.8	74.9	106.5	✓	\checkmark	√
	1280 x 800/85	1280 x 800	71.6	84.9	122.5	✓	√	1
	1280 x 960/60	1280 x 960	60.0	60.0	108.0	✓	√	✓
	1280 x 1024/60	1280 x 1024	64.0	60.0	108.0	√ ✓	√	✓
	1280 x 1024/75	1280 x 1024	80.0	75.0	135.0	✓ ✓	V	V
	1280 x 1024/85	1280 x 1024	91.1	85.0	157.5	V	✓	V
	1366 x 768/60	1366 x 768	47.7	59.8	85.5	V	<i>\</i>	V
	1400 x 1050/60	1400 x 1050	65.3	60.0	121.8	<i>√</i>	√	V
	1400 x 1050/75	1400 x 1050	82.2	75.0	155.9	V	V	V
	1440 x 900/60	1440 x 900	55.9	59.9	106.5	√ √	<u> </u>	V
	1600 x 900/60	1600 x 900	55.9	60.0	119.0	V	√	V
	1600 x 1200/60	1600 x 1 200	75.0	60.0	162.0	√ √	<u> </u>	✓ ✓
	1680 x 1050/60	1680 x 1 050	65.3	60.0	146.3	√ √	<i>\</i>	V
	1920 x 1080/50	1920 x 1080	55.6	49.9	141.5	√ √	<u>ر</u>	V
	1920 x 1200/50	1920 x 1200	61.8	49.9	158.3	√ √	<u> </u>	√
	1920 x 1200/60RB	1920 x 1200 ³	74.0	60.0	154.0	V	√	V
	1920 x 720	1920 x 720	46.0	60.0	95.0	V	√	V
	1920 x 810	1920 x 810	51.7	60.0	107.0	√ 	<i></i>	√
	QXGA_2048 x 1536	2048 x 1536	95.5	60.0	267.3	_	<u> </u>	V (
	2560 x 1080/50p	2560 x 1080	56.3	50.0	186.6		√	V
	2560 x 1080/60p	2560 x 1080	46.0	60.0 ¹	198.0	_	V	V
	3240 x 1080	3240 x 1080	69.0	60.0	237.1	-	\checkmark	✓

It also supports signals with vertical scanning frequency of 1 / 1.001 times.
 VESA CVT-RB (Reduced Blanking)-compliant

Note

• A signal with a different resolution is converted to the number of display dots. 1920 x 1200

- The "i" at the end of the resolution indicates an interlaced signal.
 When interlaced signals are connected, flickering may occur on the projected image.
 Even the above signals exist, some image signals recorded in special method may not be displayed.













	1



