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**S P E C F I L E**

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**Product Number :** PT-**MZ670/MZ670L**

**Product Name :** LCD Projectors

Specifications

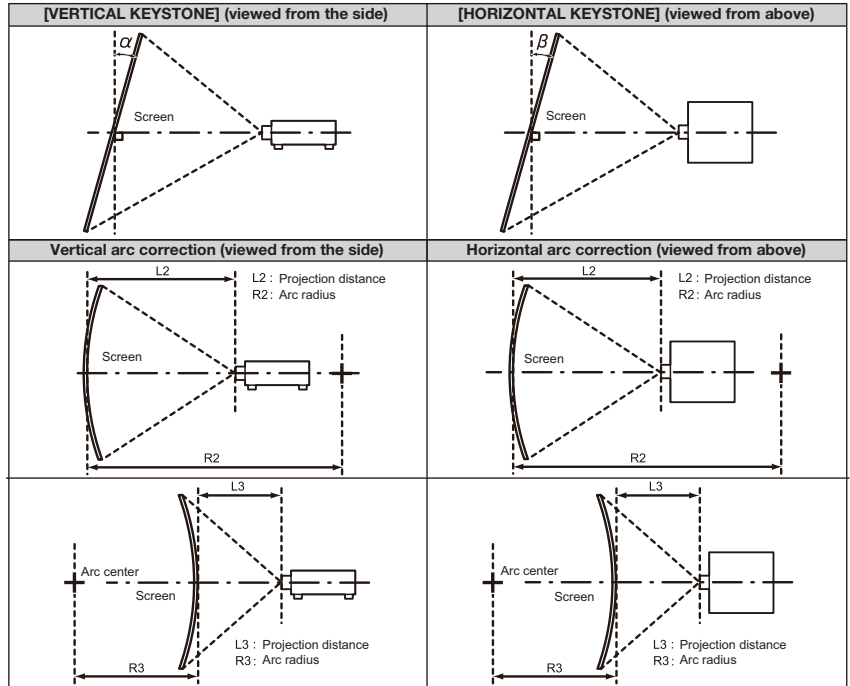
Main unit

Power supply		AC 100-240 V, 50/60 Hz
Power consumption*		525W (during standby) Approx. 0.5 W (When [STANDBY MODE] is set to [ECO]) Approx. 22 W (When [STANDBY MODE] is set to [NORMAL]) Approx. 47 W(When [IN STANDBY MODE] in [AUDIO SETTING] is set to [ON], maximum audio is output, and USB memory is inserted in the <VIEWER/PAIRING> terminal) Approx. 115 W(When [QUICK STARTUP] is set to [ON], [IN STANDBY MODE] in [AUDIO SETTING] is set to [ON], maximum audio is output, and the power is supplied from the <DC OUT> terminal)
BTU value		Max 1,792BTU
LCD panel	Panel size	19.3 mm (0.76 inches) diagonal (16:10 aspect ratio)
	Display method	Transparent LCD panel (x 3, R/G/B)
	Drive method	Active matrix method
	Pixels	2,304,000 (1920 x 1200) x 3, total of 6,912,000 pixels
Lens	PT-MZ670	Powered zoom (1.6x), focus lenses, F 1.7–2.3, f 26.8–45.5 mm Throw ratio 1.6–2.8:1
	PT-MZ670L	Optional powered zoom/focus lenses and fixed-focus lens
Light source		Laser Diode Laser class 1(Class3R for US models)
Illumination life of set		Varies depending on operation mode setting. 20,000 hours at half luminance * IEC62087: 2008 Broadcast contents, Dynamic contrast [2], Temperature: 30°C (86F), Under conditions of 0.15 mg/m <sup>3</sup> of particulate matter
Projection size		1.02–10.16 m (40–400 inches) diagonally, 16:10 aspect ratio
Colors		Full color (16,777,216 colors)
Light output *1		6,500 lumens (Input signals: PC, Operating mode: Normal, Dynamic mode)
Center-to-corner uniformity		90%
Contrast ratio*1		3,000,000:1(all white/all black)(Dynamic Contrast 1 or 2) (Input signals: PC, Operating mode: Normal, Dynamic mode)
Resolution		WUXGA 1920 x 1200 pixels
Scanning frequency	RGB	fH: 15- 91kHz, fV: 24 - 100Hz, dot clock: 162 MHz or less
	YPbPr (YCbCr)	480i (525i): fH 15.73 kHz; fV 59.94 Hz, 576i (625i): fH 15.63 kHz; fV 50 Hz, 480p (525p): fH 31.47 kHz; fV 59.94 Hz, 576p (625p): fH 31.25 kHz; fV 50 Hz, 720 (750)/60p: fH 45.00 kHz; fV 60 Hz, 720 (750)/50p: fH 37.50 kHz; fV 50 Hz, 1080 (1125)/60i: fH 33.75 kHz; fV 60 Hz, 1080 (1125)/50i: fH 28.13 kHz; fV 50 Hz, 1080 (1125)/25p: fH 28.13 kHz; fV 25 Hz, 1080 (1125)/24p: fH 27.00 kHz; fV 24 Hz, 1080 (1125)/24sF: fH 27.00 kHz; fV 48 Hz, 1080 (1125)/30p: fH 33.75 kHz; fV 30 Hz, 1080 (1125)/60p: fH 67.50 kHz; fV 60 Hz, 1080 (1125)/50p: fH 56.25 kHz; fV 50 Hz
	Video	fH: 15.73 kHz / 15.63 kHz fV: 59.94 Hz / 50 Hz [NTSC/NTSC4.43/PAL/PAL60/PAL-N/PAL-M/SECAM]
	HDMI/DIGITAL LINK	•Moving image signal resolution: 480i (525i)*2, 576i (625i)*2, 480p (525p), 576p (625p), 720 (750)/60p, 720 (750)/50p, 1080 (1125)/60i, 1080 (1125)/50i, 1080 (1125)/25p, 1080 (1125)/24p, 1080 (1125)/24sF, 1080 (1125)/30p, 1080 (1125)/60p, 1080 (1125)/50p Still image signal resolution: 640 x 400 to 1920 x 1200 (non-interlace) •Dot clock frequency: 25 MHz to 162 MHz

Keystone correction range

Projection Lens Model No.	Throw ratio	Only [KEYSTONE] used*3		[KEYSTONE] and [CURVED] used together				Only [CURVED] used	
		Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
Standard zoom lens/ET-ELS20*	1.6-2.8	$\pm 25$	$\pm 30$	$\pm 20$	$\pm 15$	0.9	1.8	0.5	1.0
ET-ELW21	0.8	$\pm 22$	$\pm 15$	$\pm 8$	$\pm 8$	1.7	4.3	1.0	2.6
ET-ELW22	0.8-1.0	$\pm 22$	$\pm 15$	$\pm 8$	$\pm 8$	1.7	4.3	1.0	2.6
ET-ELW20	1.2-1.7	$\pm 25$	$\pm 30$	$\pm 20$	$\pm 15$	1.2	3.1	0.7	1.8
ET-ELT20	2.7-4.5	$\pm 25$	$\pm 30$	$\pm 20$	$\pm 15$	0.6	1.1	0.3	0.6
ET-ELT21	4.4-7.1	$\pm 25$	$\pm 30$	$\pm 20$	$\pm 15$	0.4	0.7	0.2	0.4

\* Available only in the US, Canada and Europe.



Optical axis shift

Vertical  $\pm 67\%$ , Horizontal  $\pm 35\%$  (Supplied lens/ET-ELS20/ET-ELW20/ET-ELT20/ET-ELT21)

Vertical  $\pm 60\%$ , Horizontal  $\pm 30\%$  (ET-ELW22)

NOTE: Optical axis shift function cannot be operated when used with the ET-ELW21.

Ceiling/desk/AUTO, front/rear, 360 degree free installation

Installation

Speaker

4.0 cm round-type x 1

Maximum usable volume output

10 W (monaural)

Terminals

HDMI 1 IN

HDMI 19 pin, HDCP and Deep color compatible

HDMI 2 IN

HDMI 19 pin, HDCP and Deep color compatible

RGB 1 IN

BNC (female) x 5, RGB/Y P<sub>B</sub>/P<sub>R</sub> (C<sub>B</sub>/C<sub>R</sub>)

RGB 2 IN

D-Sub 15 p (female) x 1, RGB/Y P<sub>B</sub>/P<sub>R</sub> (C<sub>B</sub>/C<sub>R</sub>)

MONITOR OUT

D-Sub 15 p (female) x 1, RGB/Y P<sub>B</sub>/P<sub>R</sub> (C<sub>B</sub>/C<sub>R</sub>)

VIDEO IN

Pin jack x 1

AUDIO IN 1

M3 stereo jack x 1(L-R)

AUDIO IN 2

M3 stereo jack x 1(L-R)

AUDIO IN 3

Pin jack x 2(L-R)

VARIABLE AUDIO OUT

M3 jack, 0 V[rms] to 2.0 V[rms] variable, output impedance 2.2 k ohms and less

SERIAL IN

D-sub 9 pin, RS-232C compliant, for computer control use

REMOTE 1

D-Sub 9 p (female) x 1, for external control (parallel)

REMOTE 2

M3 jack x 1(L-R) for link control (for wired remote control)

LAN

RJ-45 x 1 for network connection, 10/100Base-TX, compliant with PLink™(Class 2)

DIGITAL LINK / LAN

RJ-45 x 1 for network and DIGITAL LINK (video/network/serial control)

VIEWER / PAIRING

USB type-A x 1

DC OUT

USB type-A x 1(DC 5V, 2A(Max) )

Power cord length

3.0m(9ft 10in)

Cabinet materials

Molded plastic

LCD Projectors

Dimensions (W × H × D)	PT-MZ670	560 × 205*4× 443mm (22-1/16 × 8-1/16*4× 17-7/16inches) (with supplied lens)
	PT-MZ670L	560 × 205*4× 428mm (22-1/16 × 8-1/16*4× 16-27/32inches) (without lens)
Weight*5	PT-MZ670	Approx. 16.9 kg (37.3 lbs) (with supplied lens)
	PT-MZ670L	Approx. 16.1 kg (35.5 lbs) (without lens)
Noise level*1		32dB (Operating mode: NORMAL/ECO), 26dB (Operating mode: QUIET)
Operating environment	Temperature	0°C (32°F) to 45°C (113°F) The projector cannot be used at an altitude of 2,700 m (8,858') or higher above sea level. The light output may decrease to protect the projector when the operating environment temperature exceeds 36 °C (96.8 °F).
	Humidity	20% to 80% (no condensation)

**Remote control unit**

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

**Wireless LAN\*6**

Compliance standards	IEEE802.11a/b/g/n
Transmission method	DSSS, OFDM
Modulation method	DBPSK, DQPSK, CCK, BPSK, QPSK, 16QAM, 64QAM, MIMO
Transmission speed	IEEE802.11b Maximum 11 Mbps IEEE802.11g/a Maximum 54 Mbps IEEE802.11n Maximum 300 Mbps
Communication distance	Approx. 30 m (98'5") (depending on the operating environment)
Frequency band (Channels used)	
for PT-MZ670, PT-MZ670L,;	IEEE802.11b/g/n: 2.412 GHz - 2.462 GHz (Channels 1 to 11) IEEE802.11a/n: 5.180 GHz - 5.240 GHz (W52), 5.260 GHz - 5.320 GHz, 5.660 GHz - 5.700 GHz (Channels 36/40/44/48 (W52) , Channels 52/56/60/64 (W53, Channels 132/136/140 (part of W56))
for PT-MZ670A, PT-MZ670LA:	IEEE802.11b/g/n: 2.412 GHz - 2.462 GHz (Channels 1 to 11) IEEE802.11a/n: 5.745 GHz - 5.805 GHz (W58: excluding ch165) , 5.280 GHz - 5.320 GHz (W53: excluding ch 52), 5.745 GHz - 5.805 GHz (W58: excluding ch 165) (Channels 149/153/157/161 (W58: excluding ch 165))
*for Taiwan	5.280 GHz - 5.320 GHz (W53: excluding ch 52), 5.745 GHz - 5.805 GHz (W58: excluding ch 165)(Channels 56/60/64 (W53: excluding ch 52), Channels 149/153/157/161 (W58: excluding ch 165))
for PT-MZ670D, PT-MW630D :	IEEE802.11b/g/n: 2.412 GHz - 2.472 GHz (Channels 1 to 13) IEEE802.11a/n: 5.180 GHz - 5.240 GHz (W52) , 5.745 GHz - 5.805 GHz (W58: excluding ch165), 5.745 GHz - 5.825 GHz (W58), 5.260 GHz - 5.320 GHz (W53) (Channels 36/40/44/48 (W52), Channels 149/153/157/161 (W58: excluding ch 165), Channels 149/153/157/161/165 (W58), Channels 52/56/60/64 (W53))
Security	When connected in infrastructure mode 128 bits/64 bits WEP, WPA-PSK <TKIP/AES>, WPA2-PSK <TKIP/AES>, WPA-EAP/WPA2-EAP <PEAP (MS-CHAPv2)/PEAP (GTC)/EAP-TTLS (MD5) / EAP-TTLS (MS-CHAPv2)/EAP-FAST (MS-CHAPv2)/EAP-FAST (GTC)>

**Other Applications**

Multi Monitoring and Control Software  
Logo Transfer Software  
Wireless PJ (for iOS/Android)  
Smart Projector Control (for iOS/Android)

**Supplied accessories**

Wireless remote control unit (× 1)  
Power cord (3.0m × 1) (× 2 for UK and Asia)  
CD-ROM (Operating Instructions × 1)  
Batteries for remote control (R03/AAA type × 2)  
Power cord holder (× 1)  
Instruction manual (Basic guide)  
Application guide

**Optional accessories**

Ceiling Mount Bracket	for High ceilings	ET-PKD120H
Ceiling Mount Bracket	for Low ceilings	ET-PKD120S
Ceiling Mount Bracket	Projector Mount Bracket	ET-PKE301B*7
Wireless Module Unit		ET-WM300
Replacement Filter Unit		ET-RFM100
Digital Interface Box		ET-YFB100G
DIGITAL LINK switcher		ET-YFB200G
Easy Wireless Stick		ET-UW100 *The availability of ET-UW100 varies depending on the country.
Early Warning Software		ET-SWA100 series*8
Fixed-focus lens		ET-ELW21
Zoom lens		ET-ELW22
Zoom lens		ET-ELW20
Zoom lens		ET-ELS20 *Available with US, Canada and Europe area only
Zoom lens		ET-ELT20/ET-ELT22
Zoom lens		ET-ELT21/ET-ELT23

Weights and dimensions shown are approximate. Specifications subject to change without notice.

\*1 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.

\*2 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal) for 480i(525i) and 576i(625i)

\*3 When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding total of 55°.

\*4 When adjustable feet shortened.

\*5 Average value. May differ depending on models.

\*6 Can be used when the ET-WM300 (option) is installed.

\*7 When the projector is mounted to the existing Ceiling Mount Bracket (in combination with the Model No.: ET-PKD120H (for High Ceilings) or ET-PKD120S (for Low Ceilings), and the Model No.: ET-PKE300B (Projector Mount Bracket)), it is necessary to replace the drop-prevention wire rope with the one corresponding to this projector. Consult your dealer. Drop-prevention set (service model no.: DPPW1004ZA/X1)

\*8 The suffix of the Model No. differs according to the license type.