Panasonic CONNECT

PT-MZ20K Series
LCD Projectors

PT-MZ20KL / PT-MZ17KL
PT-MZ14KL / PT-MZ11KL

세계에서 가장 가볍고, 작고, 조용한 20,000lm LCD 레이저 프로젝터

■ Main Features

01 | 세계에서 가장 가볍고, 작고, 조용한 20,000lm급 LCD 프로젝터

컴팩트한 23kg(50.7lbs) 바디, 조용한 42dB 작동소음의 동급 최강의 경량 20,000루멘 LCD 레이저 프로젝터를 소개합니다.
최적화된 광학 엔진 탑재로 16,000lm 급 PT-MZ16KL와 동일한 본체 크기로 25% 향상된 밝기를 제공하며 조명이 밝은 공간에서도 선명한 투사를 보장합니다.

02 | 에너지 절약 설계로 문제 발생을 최소화

멀티 레이저 광학 엔진 및 백업 입력신호 지원으로 문제 발생 시에도 지속적인 투사가 가능하며, 20,000시간 동안 광원 및 필터의 유지보수 없이 투사가 가능합니다. 또한, 이번 시리즈의 고휘도 프로젝터 MZ20KL 모델은 친환경 프로젝션을 실현하기 위해 동급 기종 중 최저 소비전력을 달성 하였습니다.

03 | 세계 최초 AC100-240V로 최대 20,000lm 밝기 구현

PT-MZ20K 시리즈는 업계 최초로 AC 100~240V 전원으로 최대 밝기 투사를 지원하는 20,000lm급 프로젝터로 고전압 전원 공급 설계가 불필요합니다.
또한, NFC 기능, ET-EMU100 초단초점 줌 렌즈를 포함한 다양한 옵션 렌즈 라인업 및 지오프로용 업그레이드 키트 호환 등을 지원합니다.

White Models

Black Models

PT-MZ20K Series

	PT-MZ20KL	PT-MZ17KL	PT-MZ14KL	PT-MZ11KL
Light Output	20,000 lm[5]	16,500 lm[5]	14,000 lm[5]	11,000 lm[5]
Resolution	WUXGA (1920 x 1200, 16:10)			

동급 대비 가장 밝고 조용한 경량 프로젝터

시장내 동급 제품 중 가장 작고 가벼운 20,000루멘 LCD 레이저 프로젝터인 MZ20K 시리즈는 어떠한 장소에서든 유연한 설치가 가능하며 회의에서 에듀테인먼트에 이르기까지 다양한 환경에서 밝고 몰입감 있는 투사를 제공합니다. 세련된 본체 스타일은 공간 환경과 조화를 이룹니다. 또한, 42dB의 조용한 작동소음으로 소음이 제한된 환경에서도 활용이 가능하며, 하이브리드 회의실, 박물관 또는 강의실에서 사용에 적합합니다.

완벽하게 균형 잡힌 밝기와 색상

MZ20K 시리즈는 고효율 광학 엔진 탑재로 밝은 투사환경에서도 몰입형 고대비 이미지 투사를 구현하는 동시에 광원 손실을 최소화하고 풍부한 색상과 높은 밝기의 균형을 유지하는 파나소닉의 기술인 Pure White Generator를 탑재하였습니다. Dynamic Contrast NX에는 이미지의 밝은 영역과 어두운 영역을 보다 정확하게 감지하는 새로운 장면 인식 회로가 탑재되어 있으며, 상세 선명도 프로세서 탑재로 텍스트를 선명하게 표현합니다.

세계 최초, AC 100-240V로 구동 가능한 20,000lm 프로젝터

MZ20KL은 표준 AC 콘센트에서 AC 100-240V로 20,000lm을 투사가 가능한 세계 최초의 프로젝터로 특별한 전원 공급 장치 설계가 없이도 운용이 가능하며, 업데이트된 기능으로 손쉬운 설치 및 운영이 가능합니다.
주요 기능으로는 Geo Pro 업그레이드 키트, Remote Preview LITE, NFC 기능, 정보 모니터, 4K 입력 신호 지원, 곡면 스크린을 위한 블랙 레벨 조정 및 8개의 옵션 렌즈가 있습니다.

친환경적인 설계

MZ20K 시리즈는 지속가능한 투사를 위해 동급 프로젝터 대비 적은 에너지를 소비하여 투사가 가능하며, 광원 및 필터 교체 시간이 20,000시간으로 연장되어 불필요한 낭비를 최소화 하였습니다. 또한, 수냉식 쿨링 시스템 장착 및 안정적인 작동을 위한 방진 구조를 갖추고 있습니다. Multi-Laser Drive Engine 설계로 다이오드 오류 발생 시 밝기 손실을 최소화하고 추가 백업 입력 기능으로 기본 신호가 중단된 경우에도 지속적인 이미지 투사가 가능합니다.

■ Other Features

- Supports Art-Net DMX, PJLink™, Crestron Connected™ V2, Crestron XiO Cloud™, Extron XTP®, and IPv6[12]
- Direct Power Off function
- Quick Startup and Quick Off
- DICOM Simulation Mode
- Multi-Screen Support System
- Multi-Unit Brightness and Color Control
- Waveform Monitor function
- Power management system

1 Light output of PT-MZ20KL. As of November 2022, based on publicly available dimensions, weight, and operation noise values for LCD laser projectors with 20,000 lm brightness and above. 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 PT-MZ20KL in NORMAL Mode. Noise levels of other models in NORMAL Mode are 38 dB for PT-MZ17KL and 35 dB for PT-MZ14KL/MZ11KL. 3 As of November 2022, based on LCD laser projectors with 20,000 lm brightness and above according to internal research. 4 Light output of PT-MZ20KL. Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped. 5 Geometry Manager Pro software for Windows® and preactivated upgrade kits require projector registration. Visit PASS to register your projector and download free software. 6 Projectors sold in some countries or regions require an ET-NUK10 Upgrade Kit available from PASS to activate NFC function. See NFC Regional Compatibility List for details. 7 Input signals are converted to the projector's display resolution upon playback. 4K/60p signals are supported via HDMI and DIGITAL LINK terminals. 4K/60p and 4K/50p signals input via DIGITAL LINK are supported in YPbPr 4:2:0 format only. 8 PT-MZ17KL/MZ14KL/MZ11KL are also compatible with previously released ET-EMS600/EMT700/EMT800 lenses. 9 As of November 2022, based on publicly available power consumption values for LCD laser projectors with 20,000 lm brightness and above according to internal research. 10 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [3], temperature 30 ℃ [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). Replacement of parts other than the light source may be required in a shorter period. Estimated time until light output declines to 50 % varies depending on environment. Filter cleaning cycle varies depending on environment. Filter can be washed and reused up to two times. 11 Primary Input (HDMI 1) and Backup Input (HDMI 2) terminal assignment is fixed. Input signals to primary and backup inputs must be identical. 12 Wired LAN only.

Specifications

Model		PT-MZ20KL	PT-MZ17KL	PT-MZ14KL	PT-MZ11KL
Projector type		LCD projector			
LCD Panel	Size	25.4 mm (1.0 in) diagonal (16:10 aspect ratio)			
	Display system	Transparent LCD panel (x 3, R/G/B)			
	Pixels	2,304,000 (1920 x 1200 pixels)			
Light source		Laser diode			
Light output[1,2]		20,000 lm	16,500 lm	14,000 lm	11,000 lm
Time until light output declines to 50 %[3]		20,000 hours (NORMAL/QUIET)			
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] set to [3].)			
Screen size (diagonal)		2.03–15.24 m (80–600 in), 2.54–10.16 m (100–400 in) with ET-EMU100, 16:10 aspect ratio	2.03–15.24 m (80–600 in), 2.54–10.16 m (100–400 in) with ET-EMU100, 2.03–12.70 m (80–500 in) with ET-EMT800[4], 16:10 aspect ratio		
Center-to-corner zone ratio[1]		85 %			
Lens		Optional (no lens included with this model)			
Lens shift (from center of screen)	Vertical	±60 % (+50 %, -20 % with ET-EMU100, ±40 % with ET-EMW200, ±50 % with ET-EMW300) (powered)			
	Horizontal	±20 % (±19 % with ET-EMW200) (powered)			
Keystone correction range		Vertical: ±45 ° (±5 ° with ET-EMU100, ±14 ° with ET-EMW200/ET-EMW300, ±22 ° with ET-EMW400/ET-EMW500), Horizontal: ±40 ° (±0 ° with ET-EMU100, ±8 ° with ET-EMW200/ET-EMW300, ±15 ° with ET-EMW400/ET-EMW500). When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding a total of 55 °.			
Terminals	SDI IN	BNC x 1: 3G/HD-SDI input			
	HDMI IN	HDMI 19-pin x 2 (Compatible with HDCP 2.3, Deep Color, 4K/60p signal input[5]), CEC supported			
	SERIAL/MULTI PROJECTOR SYNC IN	D-sub 9-pin (female) x 1 for external control (RS-232C compliant)			
	SERIAL/MULTI PROJECTOR SYNC OUT	D-sub 9-pin (male) x 1 for link control (RS-232C compliant)			
	REMOTE 1 IN	D-sub 9-pin (female) × 1 for external control (parallel)			
	REMOTE 2 IN	M3 x 1 for wired remote control			
	REMOTE 2 OUT	M3 x 1 for link control (for wired remote control)			
	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], Art-Net, HDCP 2.3, Deep Color, 4K/60p signal input[5])			
	LAN	RJ-45 x 1 for network connection, 10Base-T, 100Base-TX (Compatible with PJLink™ [Class 2], Art-Net)			
	DC OUT	USB connector (Type A) x 1 for power supply (Output: 5 V / 2 A)			
	USB	USB connector (Type A) x 1 for optional AJ-WM50 Series Wireless Module, for USB memory			
Power supply		AC 100–240 V, 50/60 Hz			
Power consumption[6]	Maximum power consumption	1100 W (11.2–4.6 A) (1120 VA)	950 W (9.6–4.0 A) (960 VA)	800 W (8.1–3.3 A) (810 VA)	615 W (6.3–2.7 A) (630 VA)
	On-mode power consumption (Operating mode) [NORMAL]	1050 W (AC 100–120 V), 1000 W (AC 200–240 V)	880 W (AC 100–120 V), 850 W (AC 200–240 V)	720 W (AC 100–120 V), 690 W (AC 200–240 V)	540 W (AC 100–120 V), 520 W (AC 200–240 V)
	[QUIET]	630 W (AC 100–120 V), 610 W (AC 200–240 V)	580 W (AC 100–120 V), 560 W (AC 200–240 V)	460 W (AC 100–120 V), 445 W (AC 200–240 V)	360 W (AC 100–120 V), 340 W (AC 200–240 V)
Filter		Included (Estimated maintenance time: approx. 20,000 hours[7])			
Operation noise[1]		42 dB (NORMAL), 36 dB (QUIET)	38 dB (NORMAL), 32 dB (QUIET)	35 dB (NORMAL), 30 dB (QUIET)	
Dimensions (W x H x D)		Approx. 650 x 185 x 440 mm (25 19/32″ x 7 9/32″ x 17 5/16″) (excluding feet and protrusions), 650 x 211 x 440 mm (25 19/32″ x 8 5/16″ x 17 5/16″) (excluding protrusions, feet at shortest position)			
Weight[8]		Approx. 23.0 kg (50.7 lbs)	Approx. 22.5 kg (49.6 lbs)		
Operating environment		Operating temperature: 0–45 ℃ (32–113 °F)[9], operating humidity: 10–80 % (no condensation)			
Applicable software		Logo Transfer Software, Multi Monitoring & Control Software, Early Warning Software, Geometry Manager Pro, Projector Network Setup Software, Smart Projector Control for iOS/Android™			

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 [OPERATING MODE] is set to [NORMAL]. This is the value when the Zoom Lens (Model No.: ET-EMS650) is used. The value varies depending on the lens. 3 Around this time, light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast contents, NORMAL Mode, [DYNAMIC CONTRAST] set to [3], under conditions with 30 ℃ (86 °F), 700 m (2,297 ft) above sea level, and 0.15 mg/m³ of particulate matter. Estimated time until light output decreases to 50 % will vary depending on environment. 4 ET-EMT800 is compatible with PT-MZ17KL/MZ14KL/MZ11KL only. It cannot be used with PT-MZ20KL. 5 4K signals are converted to the projector's resolution (1920 x 1200 pixels) upon projection. 4K/60p and 4K/50p signals input via DIGITAL LINK are supported in YPbPr 4:2:0 format only. 6 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. On-mode power consumption measured at 25 ℃ (77 °F) operating temperature at an altitude of 700 m (2,297 ft). 7 Under conditions of 0.15 mg/m³ of particulate matter. Estimated maintenance time varies depending on environment. Filter can be washed and reused up to two times. 8 Average value. May differ depending on the actual unit. 9 Note that the projector cannot be used at altitudes 2,700 m (8,858 ft) or higher above sea level. In the following operating environments, light output may be reduced to protect the projector: when the projector is used at altitudes below 1,400 m (4,593 ft) and ambient temperature is 35 ℃ (95 °F) or higher; when the projector is used at altitudes between 1,400 m (4,593 ft) and 2,700 m (8,858 ft) exclusive and ambient temperature is 30 ℃ (86 °F) or higher. The operating environment temperature should be between 0 ℃ (32 °F) and 40 ℃ (104 °F) when the optional AJ-WM50 Series Wireless Module is attached.

추가 악세사리

- **Zoom Lens**
  ET-EMU100 (0.330–0.353:1) / ET-EMW200 (0.480–0.550:1) / ET-EMW300 (0.550–0.690:1) / ET-EMW400 (0.690–0.950:1) / ET-EMW500 (0.950–1.36:1) / ET-EMS650 (1.35–2.10:1)[1] / ET-EMS600 (1.35–2.10:1)[2] / ET-EMT750 (2.10–4.14:1)[1] / ET-EMT700 (2.10–4.14:1)[2] / ET-EMT850 (4.14–7.40:1)[1] / ET-EMT800 (4.14–7.40:1)[2]
  1 ET-EMS650, ET-EMT750, and ET-EMT850 will be available from CY2023 Q1. 2 ET-EMS600, ET-EMT700, and ET-EMT800 are compatible with PT-MZ17KL/MZ14KL/MZ11KL only. They cannot be used with PT-MZ20KL.
- **Replacement Filter** ET-RFM100

- **Ceiling Mount Bracket**
  ET-PKD120H (for high ceilings) / ET-PKD120S (for low ceilings) / 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
- **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.
- **NFC Upgrade Kit** ET-NUK10
  Note: Availability may vary by country or region.
- **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 ℃ (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

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**