

3-Chip DLP™ Projector

PT-RQ50K

Note: Product availability varies by country or region.

Revolutionizing the
Visual Experience with
50,000 lm¹ Brightness,
Native 4K Resolution,
And Vivid Color



Note: Lens sold separately.

■ Main Features

01 | Breathtaking, Color-rich Native 4K Images

Serving flawless Native 4K (4096 x 2160) images, the PT-RQ50K features a laser engine combining one red and two blue lasers operating at different wavelengths, delivering spectacular brightness and rich, accurate color reproduction. Deployed at sporting events, arena concerts, outdoor mapping attractions, or museum exhibitions, the PT-RQ50K's refined power will exceed the highest expectations.

02 | All-in-One Body Design Streamlines Logistics

Compact all-in-one design with integrated cooling streamlines transport and installation. NFC function² allows setup prep without AC power, while dual power supplies (US/JP only) support setup and checks on mains power before high-voltage is connected. Works with FMP50 Series box-type processors³ for simplified multi-projection, and features Remote Preview and Information Monitor for pre-show checks and real-time status updates.

03 | Original Cooling System Secures Projection Stability

Dynamic Digital Control and a dedicated cooling circuit regulate the red laser for stable color balance under temperature shifts. The main liquid-cooling system—enhanced by a finless radiator—boosts cooling efficiency and reliability, while dust-resistant optical engine and filterless design enable 20,000 hours⁴ of maintenance-free operation.

	PT-RQ50K
Light Output	50,000 lm ¹ / 50,000 lm (ANSI) ⁵ / 51,000 lm (Center) ⁶
Resolution	Native 4K (4096 x 2160 pixels)



¹ When [OPERATING MODE] is set to [NORMAL]. Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. ² Projectors sold in some countries or regions require an ET-NUK10 Upgrade Kit available from PASS to activate NFC function. ³ ET-FMP50/FMP20 box-type media processors are sold separately. ⁴ Around this time, the light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast Contents, NORMAL Mode, Dynamic Contrast [3], temperature 35 °C (95 °F), elevation 700 m (2,297 ft) with 0.15 mg/m³ of airborne particulate matter. Panasonic Projector & Display Corporation recommends a checkup at the point of purchase after about 20,000 hours. Light-source lifetime may be reduced depending on the environmental conditions. Replacement of parts other than the light source may be required in a shorter period. Estimated maintenance time varies depending on the environment. ⁵ When [OPERATING MODE] is set to [NORMAL]. Measurement, measuring conditions, and method of notation all comply with American National Standards Institute standards. Value is the average of all products when shipped. ⁶ Average light output value of all shipped products measured at the center of the screen in NORMAL Mode. ⁷ YPbPr 4:2:0 format only for 4K/60p and 4K/50p signals input via DIGITAL LINK.

Red and Blue Lasers for Deep, Accurate Color

A combination of two blue and one red laser module expands color-gamut reproduction, saturating the screen in lavish color and drawing the audience deeper into the artist's world. Optimized blue-laser wavelengths achieve truer blue while the red laser intensifies red expression for a greater sense of realism.

Compact All-in-One Body with Built-in Cooling

PT-RQ50K delivers seamless Native 4K projection in a compact, lightweight all-in-one body with built-in cooling, streamlining logistics for large-scale events. A finless radiator supports the main liquid-cooling system, while a discrete red-laser circuit with Dynamic Digital Control ensures excellent image consistency.

¹ Around this time, the light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast Contents, NORMAL Mode, Dynamic Contrast [3], temperature 35 °C (95 °F), elevation 700 m (2,297 ft) with 0.15 mg/m³ of airborne particulate matter. Panasonic Projector & Display Corporation recommends a checkup at the point of purchase after about 20,000 hours. Light-source lifetime may be reduced depending on the environmental conditions. Replacement of parts other than the light source may be required in a shorter period. Estimated maintenance time varies depending on the environment. ² Check device and OS compatibility at the App Store or the Google Play store. For more information, please visit our global website. ³ 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. ⁴ Some mobile devices do not support projector auto-focus function. ⁵ Combination of primary and backup input terminals is fixed, and signals to primary and backup terminals must be identical.

Specifications

Model		PT-RQ50K
Projector type		3-Chip DLP™ projector
DLP™ chip	Panel size	35.1 mm (1.38 in) diagonal (17:9 aspect ratio)
	Display method	DLP™ chip x 3, DLP™ projection system
	Number of pixels	8,847,360 (4096 x 2160 pixels) x 3
Light source		Laser diodes (Blue LD, Red LD)
Light output ¹		50,000 lm ² / 50,000 lm (ANSI) ² / 51,000 lm (Center) ⁴
Time until light output declines to 50 % ⁵		20,000 hours (NORMAL)
Resolution		Native 4K (4096 x 2160 pixels)
Contrast ratio ²		20,000:1 (Full On/Full Off, Dynamic Contrast Mode: 3)
Screen size [diagonal]		2.54–38.1 m (100–1,500 in) with optional lenses for PT-RQ50K, 17:9 aspect ratio
Center-to-corner zone ratio ²		90 %
Lens		Optional lenses for PT-RQ50K (no lens included with this model)
Lens shift	Vertical (from center of screen)	±45 % (±25 % with ET-D3QT600; ±30 % with ET-D3QT700/ET-D3QT800; ±40 % with ET-D3QW300; -8 %, +50 % with ET-D3QW200) (powered)
	Horizontal (from center of screen)	±16 % (±8 % with ET-D3QT600; ±10 % with ET-D3QT700/ET-D3QT800; ±14 % with ET-D3QW300; 0 %, +17 % with ET-D3QW200) (powered)
Keystone correction range		Vertical: ±40° (±15° with ET-D3QW200, ±28° with ET-D3QW300); Horizontal: ±40° (±5° with ET-D3QW200, ±15° with ET-D3QW300)
Terminals	MULTI PROJECTOR SYNC IN	BNC x 1
	MULTI PROJECTOR SYNC OUT	BNC x 1
	SERIAL IN	D-sub 9-pin (female) x 1 for external control (RS-232C compliant)
	SERIAL OUT	D-sub 9-pin (male) x 1 for link control (RS-232C compliant)
	REMOTE 1 IN	M3 stereo mini-jack x 1 for wired remote control
	REMOTE 1 OUT	M3 stereo mini-jack x 1 for link control
	REMOTE 2 IN	D-sub 9-pin (female) x 1 for external control (parallel)
	DIGITAL LINK	RJ-45 x 1 for network and DIGITAL LINK connections (HDBase™ compliant), PJLink™ (Class 2) compatible, 100Base-TX, Art-Net compatible, HDCP 2.2 compatible, Deep Color compatible
	LAN	RJ-45 x 1 for network connection, PJLink™ (Class 2) compatible, 10Base-T/100Base-TX, Art-Net compatible
	DC OUT	USB connector (Type A) x 2 for power supply only (DC 5 V, total of 2 A)
	USB	USB connector (Type A) x 1 for optional Wireless Module (AJ-WM50 Series) / USB Memory Stick
	Expansion Slot 1	Interface Board for 12G-SDI (ET-MDN12G10) supplied
	Expansion Slot 2	Optional interface boards, SLOT NX compatible
Power supply		Single-phase AC 200–240 V, 50/60 Hz; Single-phase AC 100–120 V, 50/60 Hz (Brightness restricted to one fifth with voltage of 100–120 V)
Power consumption		4,100 W (AC 100–120 V: 1,100 W, Standby Mode: 6 W)
Operation noise ²		52 dB
Dimensions (W x H x D)		720 x 445 x 1,070 mm (28 11/32" x 17 17/32" x 42 1/8") (excluding handle, adjuster feet, and other protruding parts)
Weight ⁷		Approx. 126 kg (278 lbs) (without lens)
Operating environment		Operating temperature: 0–45 °C (32–113 °F) ^{8, 9, 10} , operating humidity: 10–80 % (no condensation)
Applicable software		Logo Transfer Software, Multi Monitoring & Control Software, Geometry Manager Pro, Smart Projector Control for iOS/Android™

¹ When [OPERATING MODE] is set to [NORMAL]. ² Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is the average of all products when shipped. ³ Measurement, measuring conditions, and method of notation all comply with American National Standards Institute standards. Value is the average of all products when shipped. ⁴ Average light-output value of all shipped products measured at the center of the screen. ⁵ Around this time, light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast contents, NORMAL Mode, Dynamic Contrast [3], under conditions with 35 °C (95 °F), 700 m (2,297 ft) above sea level, and 0.15 mg/m³ of particulate matter. Estimated time until light output declines to 50 % varies depending on environment. ⁶ When PT-RQ50K's handle is attached, vertical lens-shift range is -8 % – +50 %. Vertical lens-shift range is -50 % – +50 % with PT-RQ50K's supplied handle removed. Please refer to instruction guide for details on how to remove the handle. ⁷ Average value. May differ depending on the actual unit. ⁸ The operating environment temperature should be between 0 °C (32 °F) and 40 °C (104 °F) if the projector is used at an altitude between 1,400 m (4,593 ft) and 4,200 m (13,780 ft). ⁹ When optional AJ-WM50 Wireless Module is attached, operating temperature range becomes 0–40 °C (32–104 °F). ¹⁰ When using the projector at an altitude lower than 2,700 m (8,858 ft) above sea level, and the operating environment temperature becomes 30 °C (86 °F) or higher, the light output may be reduced to protect the projector. When using the projector at an altitude between 2,700 m (8,858 ft) and 4,200 m (13,780 ft), and the operating environment temperature becomes 25 °C (77 °F) or higher, the light output may be reduced to protect the projector.

Optional Accessories

- **Zoom Lens**
ET-D3QW200 (0.55–0.65:1) / ET-D3QW300 (1.11–1.70:1) / ET-D3QS400 (1.43–2.09:1) / ET-D3QT500 (2.00–3.41:1) / ET-D3QT600 (2.69–3.88:1) / ET-D3QT700 (3.89–5.47:1) / ET-D3QT800 (4.97–7.76:1)
- **Interface Board for 12G-SDI Input (Input x 2, Input/Output x 2)**
ET-MDN12G10
- **Interface Board for HDMI™ (HDCP 2.2) Input (Input x 2)**
ET-MDNHM10

- **Interface Board for DVI-D (Input x 2)**
ET-MDNVDV10
- **Interface Board for DisplayPort™ (Input x 2)**
ET-MDNPD10

- **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).

Other Features

- Smart Projector Control app² with NFC Function² supports setting adjustment with projector off, auto-focus via smartphone camera⁴
- Information Monitor complements physical controls with text-based LCD
- Power supplies (US/JP only) support 100–120 V for setup and 200–240 V for full brightness projection
- Lens lineup includes ET-D3QW200 Short-Throw Zoom Lens (0.55–0.65:1), supports AFO (Active Focus Optimizer) and Auto Lens ID functions
- Backup Input switches to backup signal if primary signal is interrupted⁵
- Gradation Smoother to reduce color banding on the fly

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For more information about Panasonic projectors, please visit:

Projector Global Website – <https://docs.connect.panasonic.com/projector/>
Facebook – www.facebook.com/panasonicprojectoranddisplay
YouTube – www.youtube.com/user/PanasonicProjector
LinkedIn – <https://www.linkedin.com/company/panasonic-projector-and-display/>
X – https://x.com/Panasonic_PND/

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