Introducing the PT-RQ22K/PT-RZ21K Series.
Panasonic's dynamic new showstopping laser projector for large venues.

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PT-RQ22K/PT-RZ21K Series 3-Chip DLP™ Projectors

Graphic is simulated.

PT-RQ22K
PT-RZ21K
PT-RS20K

* PT-RQ22K only

Resolution 5120 x 3200 Pixels
(QUAD PIXEL DRIVE: ON)

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.

For more information about Panasonic projectors, please visit:
Projector Global Website – https://panasonic.net/cns/projector/
Facebook – www.facebook.com/panasonicprojector
YouTube – www.youtube.com/user/PanasonicProjector
**Explore New Possibilities with the World’s Smallest and Lightest 20,000-lm-class Laser Phosphor Projectors**

The PT-RZ21K/PT-RQ22K Series gives staging innovators an edge where the limits of projection are routinely tested.

As the world’s smallest and lightest 20,000-lm-class laser projector, the RZ22K series can be easily handled by just two people and delivers 20,000-lumen performance thanks to hermetically sealed optics and maintenance free gas-free cooling. And now, Panasonic unveils the groundbreaking PT-RQ22K, the world’s smallest and lightest 20,000-lm-class 4K+ laser projector. It shares the same maintenance-free design while delivering unassailable 4K+ image-quality. Together with a lens lineup that’s compatible with all large-venue projectors, the PT-RZ21K/PT-RQ22K Series makes world-class projection smooth and cost-effective.

**Inside the 4K+ Image**

**Achieving 4K+ with Original Pixel Quadrupling Technology**

Better-than-4K resolution is achieved by employing a high-speed 5120 x 3200-pixel (4K+/16:10) chip that shifts each pixel vertically and horizontally, quadrupling the pixel count. Working in concert with Real Motion Processor 240 Hz frame-creation, Quad Pixel Drive technology produces film-like 5120 x 3200-pixel (4K+/16:10) images. As well as silk-smooth video, this powerful processing engine renders text in the finest detail for lectures and presentations.

**Real Motion Processor**

Real Motion Processor uses sophisticated algorithms to create three additional frames for each image, boosting native 60 fps to 240 frames per second*. The result is smooth and realistic motion rendering, particularly useful for the broadcast of sporting events and other high-speed video. Further, images can be displayed with SDI, DVI-D, and HDMI simultaneous inputs*1. A refined optical engine enhances focus performance for a lifelike sense of resolution, contrast, and fluidity.

* Refresh-rate varies depending on vertical scanning frequency. Note that 240 Hz frame-rate is down-sampled to 60 Hz when projecting at 4K+ resolution. PT-RZ21K/PT-RS20K boosts frame-rate to a maximum of 120 Hz.

**Screen Resolution**

Pixel Quadrupling Technology

This technology not only creates ultra-high resolution pictures that exceed standard 4K resolution, but also realizes 5120 x 3200-pixel (4K+) physical resolution, significantly increasing pixel density.

**Resolution Handling**

4K Source 3840 x 2160 (16:9) Upscaling 5120 x 2880 (16:9)

**Ultra High Resolution**

Beyond Ultra HD

5120 x 3200*

* Maximum physical resolution.

**2.5K Pixels**

Original Pixel (2.5K) Pixel Quadrupling x4 Pixel Density 4K+* Pixels

**4K+ Image**

A B

C D

0.5x

Real Motion Processor Reduces Motion Blur

Real Motion Processor uses sophisticated algorithms to create three additional frames for each image, boosting native 60 fps to 240 frames per second*. The result is smooth and realistic motion rendering, particularly useful for the broadcast of sporting events and other high-speed video. Further, images can be displayed with SDI, DVI-D, and HDMI simultaneous inputs*1. A refined optical engine enhances focus performance for a lifelike sense of resolution, contrast, and fluidity.

* 1 HDMI and DVI-D terminals available only on optional SLOT NX boards. Separate Adjustment and Upgrade NX terminals are not supported with simultaneous video signal input.

**Real Motion Processor**

High-speed 300 frames per second creates images up to 5120 x 3200 pixels (4K+60 Hz) resolution.

**4K+ Image**

A B

C D

0.5x

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Delivering Film-like 4K+ Projection at Highest Brightness
The PT-RQ22K projects bright, film-like 4K+ (5120 x 3200) images without image degradation from day one. Equipped with a high performance Solid State Laser (SSL) Light Source, the PT-RQ22K projects 20,000 lumens for an ultra-high-resolution experience. When HDR video is input via HDMI®*1 or DIGITAL LINK, the projector parses the signal’s information to correct sharpness, gamma contours, and reducing ringing noise. Exclusive new-generation circuitry analyzes images and frames in real time to present a balanced image of the original with expanded dynamic range by six-step optimizer is effective with video and video game applications where maximum brightness isn’t always necessary, such as digital signage, presentations, live events, or to demanding home theater environments. Panasonic recommends cleaning or checkup at point of purchase after every 30,000-hour period (approximately). Estimated maintenance time for lamp replacement for PT-RQ22K is 20,000-hours (NORMAL Mode) and 25,000-hours (ECO Mode). For Black Level Adjustment, White Level Adjustment and Frame Delay Adjustment for Multi-projection, please consult your authorized dealer or contact us for further information.

Supports BT.2020 Emulation and HDR
The PT-RQ22K/PT-RZ21K Series has emulation and HDR for BT.2020. It reproduces a wider color gamut featuring expanded dynamic range for high-contrast scenes. When HDR video is input via HDMI®*1 or DIGITAL LINK, the projector parses the signal’s information to correct sharpness, gamma contours, and reducing ringing noise. Exclusive new-generation circuitry analyzes images and frames in real-time to present a balanced image of the original with expanded dynamic range by six-step optimizer is effective with video and video game applications where maximum brightness isn’t always necessary, such as digital signage, presentations, live events, or to demanding home theater environments.

New Noise Reduction Function Enhances HDR Reproduction
Motion noise in dark areas of the video image can be eliminated with Panasonic’s non-digital noise-reduction technology. The new way of approaching noise reduction is to adjust the V-range with the special feature of the image reproduction being shining, from deepest blacks to sparkling highlights.

Clear and natural picture quality across multiple screens.
Function of slave projectors are linked to a master, shutter ON/OFF timing is uniform*. Panasonic recommends cleaning or checkup at point of purchase after every 30,000-hour period (approximately). Estimated maintenance time for lamp replacement for PT-RQ22K is 20,000-hours (NORMAL Mode) and 25,000-hours (ECO Mode). For Black Level Adjustment, White Level Adjustment and Frame Delay Adjustment for Multi-projection, please consult your authorized dealer or contact us for further information.
Over-Engineered for Consistently Bright, Dependable, and Efficient Projection

Filterless Laser Design Delivers 20,000-hour** Maintenance-Free Operation

This Panasonic PT-RQ22K/PT-RZ21K Series is the world’s first filterless laser projector designed** to eliminate filters from its design, enabling maintenance-free operation for 20,000 hours*. This is achieved with hermetically sealed optics and carbon fiber-plate cooling with one-way airflow. The projector’s operational continuity is preserved without regular maintenance, saving operation time and money. With no filters to replace and controlled brightness, the PT-RQ22K/PT-RZ21K Series saves you real money.

Dual-Drive Laser with Dust Resistance

These projectors are virtually dustproof to preserve the stunning brightness delivered by dual solid-state laser modules, which feature redundancy security. Hermetically sealed optical block helps prevent failures and extends brightness. Emitting the desired wavelengths in a highly uniform intensity pattern within a very small area in dually environments, these projectors only brighten for longer.

Backup Input Guarantees Picture Display

Projections with reliability by backup input** should be primary signals be disturbed, so display is maintained in situations where projection must not be interrupted. This makes switching easier during backup input switching.

Color Matching

Optical engine’s hermetic and dust resistance helps prevent failures and extends brightness. Equipped with dual solid-state laser modules, which feature redundancy security. Hermetically sealed optical block helps prevent failures and extends brightness. Emitting the desired wavelengths in a highly uniform intensity pattern within a very small area in dually environments, these projectors only brighten for longer.

Hermetically shielded optical block maintains stable temperature by emitting less than 0.1 mg/m3 of particulate matter. Panasonic recommends cleaning before use at dust test standards for operation.”

Multi-screen projection

• Edge-blended to create large multi-screen images.
• Overlapping image edges
• Enlargement functions.
• Geometric Adjustment with Free Grid Correction via Remote Control

Panasonic Multi-Monitoring & Control Software supports up to 2,048 devices over LAN and features system map visualization and auto-search of devices to be registered. The free software is available with Early Warning functions (automatic free 90-day trial activation). These advanced functions include real-time monitoring, automatic discovery, and notification before servicing is required. Administrators can achieve seamless control and real-time monitoring while preventing potential problems, saving time, and enhancing operation reliability.

Projector Management and Control Software

Single-Cabin DIGITAL LINK Video Control

DIGITAL LINK transmits video and control commands through a single CAT 5e or higher STP cable for distances of up to 150 m (492 ft) up to 4K video and 6G-SDI video for 4K color.” Optional DIGITAL LINK Output Option for PT-RZ21K Series guarantees reliable and redundant cabling and assembly.

Smart Projector Control

Smart Projector Control is a powerful smartphone app that enables remote operation of supported Panasonic projectors. It includes Smart Projector Control on a iPhone or Android phone, tablet, or keyboard for your compatible Panasonic projector models with PT-LAN and control the function of a projector including lens adjustment, input switching, COOLIN, and more.

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Geometric Adjustment with Free Grid Correction via Remote Control

Panasonic has equipped a new Free Grid Feature to existing Geometric Adjustment that enables convenient grid-based image adjustment using the projector’s remote controller. Grid resolutions of 2 x 2, 3 x 3, 5 x 5, 9 x 9, or 17 x 17 points can be projected and angles of the image reshaped. This correction is easily performed by adjusting control points located at grid-line intersections. Move freely between grid resolutions to achieve the desired level of granularity without losing work progress. This clever data saving feature allows technicians to smoothly create distortion-free projection in a wide range of installation situations.

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Geometric Manager Pro Software and Upgrade Kits

Download free Geometry Manager Pro software to expand geometric and media source setup and calibration capabilities beyond your PC. The software includes two upgrade kits that can be optionally added with paid key codes.

ET-COR2 adds auto-correction and advanced creative masking capabilities. ET-COR3 adds Basic Frame Adjustment which enables installation setups (including camera-correction control) of multiple projectors for multi-screen applications using a compatible camera. This streamlines edge-blending, color matching, black level, cloning, and brightness uniformity calibration.

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Specifications

<table>
<thead>
<tr>
<th>Terminals</th>
<th>PT-RQ22K</th>
<th>PT-RZ21K</th>
<th>PT-RS20K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>AC 200 V–240 V, 8.5 A, 50/60 Hz</td>
<td>AC 200 V–240 V, 8.5 A, 50/60 Hz</td>
<td>AC 200 V–240 V, 8.5 A, 50/60 Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>1,650 W (0.3 W with Standby Mode set to ECO* 6, 4 W with Standby Mode set to NORMAL)</td>
<td>1,510 W (0.3 W with Standby Mode set to ECO* 6, 4 W with Standby Mode set to NORMAL)</td>
<td>1,510 W (0.3 W with Standby Mode set to ECO* 6, 4 W with Standby Mode set to NORMAL)</td>
</tr>
<tr>
<td>Weight</td>
<td>49.0 kg (108 lbs)</td>
<td>49.0 kg (108 lbs)</td>
<td>49.0 kg (108 lbs)</td>
</tr>
<tr>
<td>Dimensions (W x H x D)</td>
<td>900 mm x 700 mm x 335 mm (35 1/2˝ x 27 1/2˝ x 13˝)</td>
<td>900 mm x 700 mm x 335 mm (35 1/2˝ x 27 1/2˝ x 13˝)</td>
<td>900 mm x 700 mm x 335 mm (35 1/2˝ x 27 1/2˝ x 13˝)</td>
</tr>
<tr>
<td>Operation noise*2</td>
<td>46 dB</td>
<td>46 dB</td>
<td>46 dB</td>
</tr>
<tr>
<td>Light source</td>
<td>Laser Diode</td>
<td>Laser Diode</td>
<td>Laser Diode</td>
</tr>
<tr>
<td>Refresh rate*1</td>
<td>120 Hz</td>
<td>120 Hz</td>
<td>120 Hz</td>
</tr>
<tr>
<td>Resolution</td>
<td>1920 x 1200 pixels</td>
<td>1920 x 1200 pixels</td>
<td>1920 x 1200 pixels</td>
</tr>
<tr>
<td>Screen size (diagonal)</td>
<td>1.78–25.4 m (70–1,000 in) with 16:10 aspect ratio, 1.78–15.24 m (70–600 in) with the ET-D75LE8 / ET-D3LET80, 16:10 aspect ratio, 1.78–15.24 m (70–600 in) with the ET-D75LE95, 4:3 aspect ratio, 1.78–15.24 m (70–600 in) with the ET-D75LE95</td>
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</tr>
<tr>
<td>Center-to-corner uniformity*2</td>
<td>3-Chip DLP™ projector</td>
<td>3-Chip DLP™ projector</td>
<td>3-Chip DLP™ projector</td>
</tr>
<tr>
<td>Brightness</td>
<td>20,000:1 (Full On/ Full Off, Dynamic Contrast Mode: 3)</td>
<td>20,000:1 (Full On/ Full Off, Dynamic Contrast Mode: 3)</td>
<td>20,000:1 (Full On/ Full Off, Dynamic Contrast Mode: 3)</td>
</tr>
<tr>
<td>Laser Diode power</td>
<td>2,304,000 (1920 × 1200) × 3, total of 6,912,000 pixels</td>
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<td>2,304,000 (1920 × 1200) × 3, total of 6,912,000 pixels</td>
</tr>
<tr>
<td>Light output</td>
<td>600 mm x 307 mm* 7 x 745 mm (23 5/8˝ x 12 3/32˝ x 29 11/32˝) (including protruding parts);</td>
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</tr>
<tr>
<td>Keystone correction range with optional Lens shift</td>
<td>Optional (no lens included with this model)</td>
<td>Optional (no lens included with this model)</td>
<td>Optional (no lens included with this model)</td>
</tr>
<tr>
<td>Laser Diode power</td>
<td>90 %</td>
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</tr>
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