Introducing the PT-RZ21K. Panasonic’s dynamic new showstopping laser projector for large venues.
Panasonic’s groundbreaking PT-RZ21K Series 3-Chip DLP™ SOLID SHINE Laser projector combines flagship picture quality produced by the PT-DZ21K/DZ21K2 Series projector—current leader in multi-screen events staging—with the compact size and incredible durability of our mid-range PT-RZ970 Series laser projector. The PT-RZ21K Series is the world’s first 3-Chip DLP™ projector*2 to feature a filterless*1 cooling system and fully sealed optics, delivering unassailable reliability in dusty conditions. Handling is effortless with just two technicians. With 20,000-hour maintenance-free*3 operation and software for expedited multi-screen mapping calibration, the rugged yet lightweight PT-RZ21K Series delivers class-beating color reproduction with dramatically reduced running costs, making it the new first choice for events professionals.

**The New Gold Standard in 20,000 lm Laser Projection.**

**Compact and Filterless** for the Toughest Gigs.

3-Chip DLP™ Projector PT-RZ21K Series

<table>
<thead>
<tr>
<th>PT-RZ21K</th>
<th>Resolution</th>
<th>WUXGA</th>
<th>Brightness</th>
<th>21,000 lm (Center)<em>4 / 20,000 lm</em>5</th>
<th>Contrast</th>
<th>20,000:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-RS20K</td>
<td>SXGA+</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*1 Light source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required in a shorter period. *2 As of October 2017. *3 At this time, brightness will have decreased to approximately 50 % of its original level (NORMAL Mode, Dynamic Contrast Mode: 3, Image Mode: Dynamic, IEC62087: 2008 Broadcast Content, dust density of 0.15 mg/m³). Usage environment affects light-source lifespan. Replacement of parts other than the light source may be required in a shorter period. Panasonic recommends cleaning or checkup at point of purchase after approximately 20,000 hours. *4 Measured at center area of screen. *5 Measurement method is in compliance with ISO/IEC 21118:2012 international standards. Value is average of all products when shipped.
Revolutionizing Multi-projector Staging with SOLID SHINE Laser

**Flagship Picture Quality**

**Massive Brightness, Compact Body**
Combining SOLID SHINE Laser with next-generation 3-Chip DLP™ processing technology, the PT-RZ21K Series develops 21,000 lumens* of brightness with true spectrally-correct color performance superior to other lamp-based products. Dual solid-state laser-light sources and dual heat-resistant phosphor wheels work with three DLP™ modules (R/G/B) for intense brightness, true color accuracy, and high contrast on large screens.

* Luminance is measured at center of screen in NORMAL Mode.

**Dual-Drive Laser Design for Reliability in Dusty Environments**

**Dual-Laser Drive**
Solid-state laser diodes are grouped into two discrete modules. A redundancy circuit minimizes brightness- and color-uniformity loss should a laser diode fail, making the PT-RZ21K Series ideal for mission-critical applications.

**Sealed and Dustproof Optical Engine**
Hermetically sealed laser modules, durable filtering, and refined air-intake maintain brightness and extend life in dusty location. Product testing against severe guidelines assures stable operation in environments containing 0.150 mg of dust per cubic meter*.

* Dustproof tests are conducted to confirm operational effectiveness under conditions with 0.15 mg/m3 of particulate matter (based on tests by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers [ASHRAE], and the Japanese Building Maintenance Association). Measurements are made using acceleration tests.

**Supreme Flexibility**

**Free 360-degree Orientation**
SOLID SHINE Laser enables free 360-degree installation through any axis. Together with powered lens shift and wide range of optional lenses, the PT-RZ21K Series can project images from any orientation without picture distortion.

**Quick Start and Quick Off**
No warm-up or cool-down period is required when operating PT-RZ21K Series projectors. Images appear almost instantly, and the projector can be switched on and off whenever desired.

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**The World’s First* Large-Venue 3-Chip DLP™ Projector**

The Panasonic PT-RZ21K Series is the world’s first 3-Chip DLP™ laser projector* to eliminate need for a consumable air filter, enabling maintenance-free operational life of 20,000 hours** for the whole projector. This is achieved with a hermetically sealed optical engine and heat-sink-based internal cooling system with a one-way airflow.

The projector can operate continuously for long periods in large-scale event environments without regular maintenance, saving operators considerable time and money. With no filter, light-source lifespan of 20,000 hours, and controlled, linear picture degradation, the PT-RZ21K Series leads the field for low TCO.

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**Clean Environment WHO Europe Guideline for Dust Resistance**

<table>
<thead>
<tr>
<th>Clean Environment</th>
<th>WHO Europe</th>
<th>Japanese Building Maintenance Association ASHRAE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.030 mg/m³</td>
<td>0.110 mg/m³</td>
<td>0.150 mg/m³</td>
</tr>
</tbody>
</table>

* American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

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**Dual-Drive Laser Design for Reliability in Dusty Environments**

- Flagship Picture Quality
- Supreme Flexibility
- Massive Brightness, Compact Body
- Dual-Drive Laser Design for Reliability in Dusty Environments
- Sealed and Dustproof Optical Engine
- Free 360-degree Orientation
- Quick Start and Quick Off

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*1 As of October 2017. *2 Light-source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required in a shorter period. *3 At this time, brightness will have decreased to approximately 50 % of its original level (NORMAL Mode, Dynamic Contrast Mode: 3, Image Mode: Dynamic, IEC62087: 2008 Broadcast Content, dust density of 0.15 mg/m3). Usage environment affects light-source lifespan. Replacement of parts other than the light source may be required in a shorter period. Panasonic recommends cleaning or checkup at point of purchase after approximately 20,000 hours.
Taking Reference Quality Images to the Next Level

**Detail Clarity Processor 5**

Proprietary circuitry analyzes individual video frames to identify and clarify fine details and textures. Algorithms pull information from four frequency bandwidths, from super-high to low, to sharpen outlines, correct contours, and reduce ringing noise.

**120 Hz Real Motion Processor Reduces Motion Blur**

Real Motion Processor interpolates images for a 120 Hz frame-rate. Smooth 120 Hz reproduction is possible via simultaneous inputs (3G-SDI inputs or DVI-D/HDMI). Together with a refined optical engine to enhance focus, Real Motion Processor delivers a better sense of resolution, contrast, and fluidity.

**System Daylight View 3**

This premium technology stops pictures washing out in bright light and assures dramatic impact for mapping and multi-projector applications. It uses sensor information to correct sharpness, gamma curves, and colors to suit on-site conditions.

**NORMAl and ECO Modes**

The PT-RZ21K is designed for a set 20,000-hour operational lifespan out of the box, with no filter or light-source replacement required. In suitable environments, users can select ECO Mode to arrest brightness decline, useful for permanent installations when the projector is used continuously.

**Digital Link Connection**

Digital LINK transmits uncompressed Full HD video and control commands through a single CAT 5e or higher STP cable for distances of up to 150 m (492 ft)*2. Optional Digital LINK Switcher or Digital Interface Box further simplifies installation, reduces cabling and associated costs, and enhances reliability.

**90% Brightness Uniformity**

SOLID SHINE Laser delivers superior brightness uniformity thanks to accurate white balance control. Brightness uniformity is greater than 90 % when measured at screen corners, edges, and center.

**Guaranteed Laser Safety**

SOLID SHINE Laser technology is as safe for eyesight as any lamp-based projector. A diffusing lens reduces the concentration of beam energy, so accidental direct exposure will not result in damage to eyesight.

**Multi-screen Support System**

This system optimizes multiple screens with edge blending, color matching, and digital image enlargement functions.

- **Edge Blending:** Edges of adjacent screens can be blended and their luminance controlled.
- **Color Matching:** Corrects color reproduction variations of each projector via PC control software.
- **Digital Image Enlarging:** Digital zoom up to 10x (H/V)*3, and up to 100 units (10 x 10) can be edge-blended to create large multi-screen images.

*1 Refresh rate varies depending on vertical scanning frequency. *2 150 m (492 ft) transmission available only with ET-YFB200G DIGITAL LINK Switcher for signals up to 1080p. *3 While input resolution will not change, maintaining image quality is not possible for images enlarged.
Engineered for Ultimate Flexibility in Multi-screen Staging Applications

Contrast and Shutter Sync Function

Contrast Sync allows Dynamic Contrast Control to be synchronized for consistent picture quality across multiple screens. Shutter Sync, meanwhile, synchronizes shutter on/off timing.

Backup Input Guarantees Picture Display

Projectors switch instantly to a backup input if the primary signal is disrupted, so display is maintained in situations where projection must not be interrupted. No screen-blanking occurs during backup input switching.

New Multi Monitoring & Control Software

Making its debut with the PT-RZ21K Series, refreshed Panasonic Multi Monitoring & Control Software supports up to 2,048 devices over LAN and features system map visualization or auto-search of devices to be registered. The software is available with Early Warning functions (automatic free 90-day trial is available). These advanced functions enable real-time monitoring, abnormality detection, and advanced notification when servicing is required. Administrators can realize seamless control and real-time monitoring while preventing potential problems before they occur, saving time and enhancing system reliability.

Multi-unit Brightness and Color Control

Sensors detect color and brightness apparent on screen. Projectors automatically calibrate for a uniform multi-screen image, adding a layer of convenience and cost saving in both short-term and long-term events.

Active 3D Projection Capability

This projector series is compatible with active 3D projection technology. It supports an external transmitter and active-shutter glasses, or an active filter and passive glasses for viewing 3D images.

Geometry Manager Pro Software and Upgrade Kits

Geometry Manager Pro software expands onboard functionality and simplifies multi-screen setup. The free software enables multi-screen color-matching, edge-blending, and more via networked PC. Two optional plug-in kits are available: ET-UK20, which adds screen uniformity correction and creative masking functions, and ET-CUK10, which activates Auto Screen Adjustment for simultaneous and automatic setup of multiple projectors. The latter performs multi-screen and curved-screen calibration in three steps using a camera* and networked PC, simplifying adjustment, edge blending, color matching, stacking, brightness, and black level setup.

Compatible with Panasonic PT-DZ21K/ DZ21K2 Series 3-Chip DLP™ Projectors

The PT-RZ21K Series joins the Panasonic 3-Chip DLP™ projector family in sharing a range of mutually compatible optional accessories including frames and ultra-short-throw and zoom lenses. This reduces upgrade or replacement costs for events and staging companies with large inventories.

Supports Art-Net DMX, Crestron Connected™, and PJLink™

Art-Net DMX protocol for lighting management enables connection with lighting consoles for added functionality and control options. Crestron Connected™ and PJLink™ (Class 2) streamline integration into existing AV infrastructure.

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*1 Combination of primary/secondary input terminals is fixed. Switching to secondary input (or primary input) occurs automatically when the input signal for primary input (or secondary input) is disrupted. The Backup Input Setting is enabled only when the input signal to primary and secondary terminals is the same.

*2 Please contact your sales representative for further information.

*3 Supported cameras: Nikon D5200/D5300/D5500.
Supports BT.2020 Emulation and HDR

This imaging mode is similar to the DICOM Part 14 medical imaging standard, it allows for film-like resolution to X-ray presentations and tragic.

Auto power management compensates for voltage fluctuations.

1. REMOTE 1 terminal
2. REMOTE 2 terminal
3. RS-232C IN terminal
4. RS-232C OUT terminal
5. SPC/ IN terminal
6. SPC/ OUT terminal
7. HDMI IN terminal
8. HDMI OUT terminal
9. DIGITAL LINK terminal
10. DIGITAL OUT terminal
11. RF IN terminal
12. RF OUT terminal
13. AC IN terminal
14. AC OUT terminal

Power Management Reduces Downtime

Auto power management compensates for voltage fluctuations.

Wavelength Meter/Function

If using lens other than the ET-D75LE95

Supports BT.2020 Emulation and HDR

Standard. It reproduces a wider color gamut than conventional standards. Additionally, they support HDR (High Dynamic Range). Image reproduction is stunning, from deepest black to sparkling highlights.

Note: This product is not a medical instrument. Do not use for actual medical diagnosis.
**Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>ET-B721K</th>
<th>PT-RS20K</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power supply</strong></td>
<td>AC 200 V–240 V, 7.7 A, 50/60 Hz</td>
<td>AC 200 V–240 V, 7.7 A, 50/60 Hz</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>1,150 W (50/60 Hz) with Standby Mode set to ECO; 900 W (110/120 V)</td>
<td>1,150 W (50/60 Hz) with Standby Mode set to ECO; 900 W (110/120 V)</td>
</tr>
<tr>
<td><strong>DLP® chip</strong></td>
<td>Panel size: 24.4 mm (0.96 inches) diagonal (16:10 aspect ratio)</td>
<td>Panel size: 24.1 mm (0.95 inches) diagonal (4:3 aspect ratio)</td>
</tr>
<tr>
<td><strong>Display method</strong></td>
<td>DLP® chip; 5 × DLP® projection system</td>
<td>DLP® chip; 5 × DLP® projection system</td>
</tr>
<tr>
<td><strong>Lens</strong></td>
<td>6,012,000 pixels</td>
<td>6,410,000 pixels</td>
</tr>
<tr>
<td><strong>Refresh rate</strong></td>
<td>1400 x 1050 pixels</td>
<td>4,410,000 (1400 x 1050 x 3) pixels</td>
</tr>
<tr>
<td><strong>Light source</strong></td>
<td>Laser Diode (Laser class: Class 1; Laser mode: Class 3R for US models), Light source life: 20,000 hours (NORMAL Mode, brightness decreases to approx. 50 %) / 24,000 hours (ECO Mode, brightness decreases to approx. 50 %)</td>
<td>Laser Diode (Laser class: Class 1; Laser mode: Class 3R for US models), Light source life: 20,000 hours (NORMAL Mode, brightness decreases to approx. 50 %) / 24,000 hours (ECO Mode, brightness decreases to approx. 50 %)</td>
</tr>
<tr>
<td><strong>Screen size (diagonal)</strong></td>
<td>1.78–25.4 m ( 70–1,000 in) with 16:10 aspect ratio</td>
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</tr>
<tr>
<td><strong>Keystone correction range</strong></td>
<td>Vertical: ±45 ° (± 40 ° with ET-D75LE10/20, ±22 ° with ET-D75LE50, ±28 ° with ET-D75LE6), Optical axis shift*</td>
<td>Vertical: ±45 ° (± 40 ° with ET-D75LE10/20, ±22 ° with ET-D75LE50, ±28 ° with ET-D75LE6), Horizontal: ±15 °</td>
</tr>
<tr>
<td><strong>Center-to-corner uniformity</strong></td>
<td>90 %</td>
<td>90 %</td>
</tr>
<tr>
<td><strong>Operation noise</strong></td>
<td>46 dB</td>
<td>46 dB</td>
</tr>
<tr>
<td><strong>Dimensions (W × H × D)</strong></td>
<td>91.4 × 71.4 × 230 mm (3.6 × 2.8 × 9.1 in)</td>
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</tr>
<tr>
<td><strong>Weight</strong></td>
<td>48 lb (21.8 kg)</td>
<td>48 lb (21.8 kg)</td>
</tr>
<tr>
<td><strong>Operation environment</strong></td>
<td>Operating temperature: 0–45 °C (32–113 °F); Operating humidity: 5%–95% (no condensation)</td>
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</tr>
<tr>
<td><strong>Applicable software</strong></td>
<td>Logo Transfer Software, Multi Monitoring &amp; Control Software, Early Warning Software, Geometry Manager Pro (ET-UK20 Upgrade Kit), ET-CUK10 Auto Screen Adjustment Kit, Smart Projector Control</td>
<td>Logo Transfer Software, Multi Monitoring &amp; Control Software, Early Warning Software, Geometry Manager Pro (ET-UK20 Upgrade Kit), ET-CUK10 Auto Screen Adjustment Kit, Smart Projector Control</td>
</tr>
</tbody>
</table>

*1) Measured at center area of screen.
*2) Measured at center area of screen.
*3) Measured at center area of screen.
*4) Measurement, measuring conditions, and method of motion all comply with ISO 21118 international standards.
*5) Only compatible with dither frequency of ET Wire (pixel repetition signal).
*6) Optical axis shift is not supported on the ET-D75LE50.
*7) Operating temperature is 0–45 °C (32–113 °F) when used in locations from 1,400 m (4,600 ft) to 13,770 ft above sea level.

**Optional Accessories**

- ET-D75LE50: Fixed-Focus Lens
- ET-D75LE6: Fixed-Focus Lens
- ET-D75LE10: Zoom Lens
- ET-D75LE20: Zoom Lens
- ET-D75LE40: Zoom Lens
- ET-D75LE8: Zoom Lens
- ET-PKD20S: Projector Mount Bracket
- ET-PKD220S: Ceiling Mount Bracket for High Ceilings
- ET-PFD510*: Frame
- ET-EK20: Geometry Manager Pro Software Upgrade Kit
- ET-CUK10* / ET-CUK10P: Auto Screen Adjustment Upgrade Kit
- ET-SWA100 Series*: Early Warning Software
- ET-UK20: Geometry Manager Pro Software Upgrade Kit
- ET-D75MKS10*: DIGITAL LINK Switcher
- ET-PLF10*: Ceiling Mount Bracket for Low Ceilings
- ET-PKD20B: Projector Mount Bracket
- ET-PKD22B: Ceiling Mount Bracket
- ET-YFB200G: DIGITAL LINK Switcher
- ET-YFB100G: DIGITAL Interface Box

* *Note: ET-PKD20B Ceiling Mount Bracket for high ceilings and ET-PKD22B Ceiling Mount Bracket for low ceilings in combination with ET-PKD250S Projector Mount Bracket.

* Projector may require the latest firmware update. Calibration is required each time the lens is mounted.

- *1) When Standby Mode is set to ECO, network functions such as power on over LAN will not operate. Additionally, only certain commands can be received for external control using the serial terminal.
- *2) Refresh rate varies depending on scanning frequency.
- *3) Measured at center area of screen.
- *4) Measurement, measuring conditions, and method of motion all comply with ISO 21118 international standards.
- *5) Only compatible with dither frequency of ET Wire (pixel repetition signal).
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