Taking Laser Projection to a Whole New Level.

Panasonic CONNECT

PT-RZ12K Series
3-Chip DLP™ Projectors

PT-RZ12K
PT-RS11K

Lenses sold separately.
Reference Laser Performance That Lasts Longer

The 12,000 lm PT-RZ12K 3-Chip DLP™ Series projectors combine class-leading imaging with the practical advantages of Panasonic SOLID SHINE Laser technology: minimal picture quality degradation over long periods in continuous use, 20,000-hour maintenance-free operation**, flexible installation, failsafe reliability, and a wealth of powerful features for creative visual presentations in large spaces.

3-Chip DLP™ Projectors

<table>
<thead>
<tr>
<th>Model</th>
<th>Lumen</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-RZ12K</td>
<td>12,000 lm</td>
<td>WUXGA</td>
</tr>
<tr>
<td>PT-RS11K</td>
<td>12,000 lm</td>
<td>SXGA+</td>
</tr>
</tbody>
</table>
Bright and Vivid Picture Quality
Combining 3-Chip DLP™ imaging with Panasonic’s original SOLID SHINE Laser technology, the PT-RZ12K Series achieves truly stunning picture quality. Two powerful solid-state laser light sources, a heat-resistant phosphor wheel, and three independent DLP™ chips for red, green, and blue ensures class-leading brightness, color accuracy, and contrast.

Accurate Color Reproduction
The PT-RZ12K Series captures a more accurate Rec. 709-compliant color space than comparable laser projectors. A blue laser ensures greater precision while an expanded color gamut improves white balance accuracy.

Eco Filter Extends Replacement to 20,000 Hours*2
The Eco Filter has an electrostatic Micro Cut Filter that collects minute dust particles with an ion effect. It pairs with a dust-resistant cabinet to enable long-term use even in punishing conditions. A long maintenance cycle of up to 20,000 hours*2 reduces hassle, and the eco-friendly washable filter*3 can be reused, reducing cost and waste.

Dustproof for Ultimate Endurance
The PT-RZ12K Series has hermetically sealed laser modules, a long-life Eco Filter, and a new air-intake system to extend life and maintain picture quality in locations with dust contamination. SOLID SHINE Laser products exceed rigorous dustproofing requirements for operation in environments containing 0.150 mg of dust per cubic meter*4.

Ultra-Durable Laser Optical Engine for Continuous 24-hour Operation
Dual Drive Laser Optical Engine uses two discrete light sources grouping laser diodes into modules. A failsafe laser light source redundancy circuit ensures minimal reduction in brightness and color uniformity in the event of laser diode failure, making the PT-RZ12K Series ideal for mission-critical applications. Further, brightness decreases gradually and in a linear rather than exponential fashion (as is common to lamp-based projectors) over its 20,000-hour*1 maintenance-free service life.

Efficient Cooling System Assures Reliable Operation
The PT-RZ12K Series employs a newly developed direct liquid cooling system for the laser light source that features a redesigned air intake and a solid aluminum heat sink to suppress temperature rises. This allows stable operation in ambient temperatures of up to 50 °C (122 °F)*5 while reducing operating noise to just 43 dB.

Footnotes:
*1 At this time the brightness will have decreased to approximately half of its original level (Dynamic Contrast Mode: 3, Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after every 20,000-hour period (approximately). Light source lifetime may be reduced depending on environmental conditions.
*2 Please follow the procedures listed in the operating instructions when washing the filter with water. Replacement is recommended after filter has been washed and reused twice, or if filter is not sufficiently clean after washing.
*3 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). Measurements are made using acceleration tests.
*4 When operational mode is set to Normal, operating temperature is from 0 °C (32 °F) to 50 °C (122 °F), and operating temperature is from 0 °C (32 °F) to 45 °C (113 °F) when used with Smoke Cut Filter. When operated in locations over 2,700 m (8,858 ft) with operational mode set to Eco or Long Life 1/2/3, operating temperature is from 0 °C (32 °F) to 40 °C (104 °F). Projector cannot be used in locations over 2,700 m (8,858 ft) with operational mode set to Eco or Long Life 1/2/3.
*5 When used with Smoke Cut Filter, the projector cannot be used in locations over 1,400 m (4,593 ft). Light source brightness may decrease depending on operating conditions.
Magnificent Image Quality and Reliable Operation

Original Panasonic Technology Reduces Motion Blur
Together with a unique high-speed Real Motion Processor chip, Panasonic has refined the PT-RZ12K Series’ optical engine to enhance focus performance for a better sense of resolution, contrast, and fluidity. Real Motion Processor creates supplemental frames and interpolates for a fast 120 Hz** frame-rate, resulting in incredibly smooth and realistic reproduction of motion. Further, images of up to 120 Hz** can be displayed with Dual-link 3G-SDI, DVI-D, and HDMI simultaneous inputs.

Dynamic Contrast Achieves High 20,000:1*7 Contrast
PT-RZ12K Series projectors directly modulate laser power output to enable high contrast and reduce power consumption. Digitally controlled frame-by-frame scene-linking modulation ensures highly precise light output adjustment, and accurate 20,000:1*7 contrast is achieved even when bright and dark scenes suddenly or frequently interchange. There is also almost no drop in contrast after extended use.

Detail Clarity Processor 5 Clarifies and Enhances Fine Details
This proprietary circuit analyzes each individual image frame by frame to clarify areas containing fine details and textures. A new processing algorithm pulls hidden information from the super high, high, medium, and low frequency bands, sharpening outlines, correcting contours, and reducing ringing noise to improve the sense of resolution and clarity of fine details.

Waveform Monitor Function
When source device output level fluctuates due to the performance of the device or its cable connections, the original black and white levels of the image cannot be reproduced correctly. The PT-RZ12K Series displays the waveforms on screen where they can be adjusted either automatically or manually as preferred.

System Daylight View 3 Improves Color Perception
This proprietary technology optimizes image quality to improve color perception of images projected onto external or internal walls and other surfaces or in environments with bright ambient light. With a brightness of 12,000 lm, the PT-RZ12K Series delivers clear and comfortable viewing even with the lights on.

DICOM Simulation Mode**
This imaging mode is similar to the DICOM Part 14 medical imaging standard. It lends a film-like resolution to X-ray images, making the PT-RZ12K Series ideal for medical presentations and training.

Selectable Operational Modes Maintain Image Quality Longer
- **Approx. 20,000 Hours** of Continuous Operation (Normal Mode)
In Normal Mode with maximum 12,000 lm brightness, PT-RZ12K Series returns approximately 20,000 hours** light-source service life. Eco Mode at 9,600 lm extends light source replacement to approximately 24,000 hours**. These modes are suitable for roles in education or for signage applications.
- **Up to 10 Years** Operation with Constant Brightness Modes
In environments where very high brightness is not necessary, such as surveillance, control, and simulation rooms, constant operation modes extend light source replacement to up to 87,600 hours** in Long Life 3 Mode—about 10 years of 24/7 projection—with consistent brightness and color.
- **User Operating Mode**
In addition to preset operating modes, the PT-RZ12K Series can be customized to achieve your preferred balance of brightness or extended life. Brightness can be set from 2,300 to 12,000 lm or the lifetime set to a maximum of 10 years.

Active 3D Projection Capability
The PT-RZ12K Series is compatible with active 3D projection technology. It supports a separate, external 100/120/144 Hz drive, IR emitter, and active-shutter glasses, or an active filter and passive glasses for viewing 3D images.
**Single-Cable DIGITAL LINK Connection**

Transmit Video, Audio, and Control Signals Up to 150 m (492 ft)*

DIGITAL LINK supports transmission of uncompressed HD video, audio, and control commands through a single cable (CAT 5e or higher STP cable) for distances of up to 150 m (492 ft)*. Add an optional ET-YFB200G DIGITAL LINK Switcher or ET-YFB100G Digital Interface Box to further simplify installation complexity in large venues while reducing cost and improving reliability at the same time.

**Quick Start, Quick Off**

The laser light source does not require any warm-up time, so images appear almost instantly with PT-RZ12K Series projectors. There's also no cooling time required when turning the power off. Users can turn the projector on and off immediately as many times as necessary.

**Multi-Screen Support System Seamlessly Connects Multiple Screens**

- **Edge Blending:** The edges of adjacent screens can be blended and their luminance controlled.
- **Color Matching:** This function corrects for slight variations in the color reproduction range of individual projectors. PC software assures easy, accurate control.
- **Digital Image Enlarging:** PT-RZ12K Series features a digital zoom function that allows images to be enlarged up to 10 times (horizontally and vertically)*. Up to 100 units (10 x 10) can be edge-blended at a time to create large, multi-screen images.

**Optional Upgrade Kit (ET-UK20) Featuring Geometry Manager Pro**

New Geometry Manager Pro software included in Panasonic's optional upgrade kit (ET-UK20) supports color matching, edge blending, uniformity correction, and other useful functions for multi-projector setups up to a maximum of 64 units. It also enables creative masking using four lines or bitmap data. Its flexible yet sophisticated geometric adjustment capability suits a wide variety of screen shapes. Further, PT-RZ12K Series projectors support the optional ET-CUK10 Auto Screen Adjustment Upgrade Kit.

**Multi Monitoring & Control Software**

This software lets you control and monitor multiple projectors at the same time over wired LAN. If a problem occurs, an alert is sent to the monitoring/controlling PC. Terminal panel is LED illuminated and control panel buttons backlit for easy operation in the dark.

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* Refresh rate varies depending on vertical scanning frequency. * With Dynamic Contrast Mode set to 3. * This product is not a medical instrument. Do not use for actual medical diagnosis. * At this time the brightness will have decreased to approximately half of its original level (Dynamic Contrast Mode: 3, Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after every 20,000-hour period (approximate). Light source (laser) may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required in a shorter period. * For Operating Mode set to Long Life 3, in which mode brightness is lowered to 2,300 lum. 24 hours/day x 365 days/year x 10 years = 87,600 hours. Replacement of parts other than the light source may be required in a shorter period. Replacement parts are kept in stock for at least eight years after projector is discontinued, after which time Panasonic cannot guarantee their availability. * ET-YFB200G transmission only with ET-YFB200G switcher for signals up to 1080p. *2 While the input resolution will not change, maintaining image quality is not possible for images enlarged horizontally and vertically via the digital zoom function.

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**System and Installation Flexibility with Powerful Functionality**

**Flexible Setup and Smooth Operation**

Unlike conventional lamp-based projectors, the PT-RZ12K Series’ SOLID SHINE Laser system allows free 360-degree installation through any axis. Together with powered lens shift and a wide range of optional lenses, the projector can be mounted in any way desired without picture distortion.

**Geometric Adjustment for Specially Shaped Screens**

This function adjusts the image for projection onto spherical, cylindrical, and other specially shaped screens. Adjustments can be easily made using only the remote control, with no external equipment needed. New 4-Corner Adjustment and Keep Aspect Off functions also simplify fine adjustment.

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Backup Input Setting Assures Reliability and Optimizes Performance

The Backup Input Setting allows the signal to be switched to the backup input signal as smoothly as possible should the primary input signal be disrupted*14. This function ensures high reliability and is ideal for mission-critical control rooms, projection mapping, staging, and other applications where image display should not be interrupted.

Multi-Unit Brightness/Color Control

This function automatically corrects brightness and color fluctuations that occur over time in individual projectors in a multi-screen system. Up to eight projectors connected by a hub can be controlled increasing to a maximum of 2,048 projectors with Multi Monitoring & Control Software.

Effective Lighting Management

Connect any source device to the PT-RZ12K Series via its array of terminals including 3G-SDI, DIGITAL LINK, DVI-D, and HDMI.

Early Warning Software ET-SWA100 (Optional)

Early Warning Software monitors the status of projectors and displays connected to an intranet, and informs the operator when an abnormality is detected or predicted, and when there are symptoms of trouble. This minimizes downtime to provide more stable operation.

Generous Connectivity

PT-RZ12K Series is compatible with Art-Net DMX protocol for lighting management. Art-Net compatibility allows the projector to be connected to a lighting console with easy control of functions such as shutter on/off, input change, power on/off, etc., together with lighting control.

Backup Input Setting Conventional System

[Diagram showing conventional system and backup input setting]

[Description of terminal connections and functions]

Dimensions

PT-RZ12K/RS11K

[Dimensions chart and diagram]
## Projection Distance

**PT-RZ12K (16:10 aspect ratio)**

<table>
<thead>
<tr>
<th>Image Size</th>
<th>min.</th>
<th>max.</th>
<th>min.</th>
<th>max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET-D75LE8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-D75LE10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-D75LE30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PT-RS11K (4:3 aspect ratio)**

<table>
<thead>
<tr>
<th>Image Size</th>
<th>min.</th>
<th>max.</th>
<th>min.</th>
<th>max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET-D75LE8</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-D75LE10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET-D75LE30</td>
<td></td>
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</tbody>
</table>

### Optional Accessories

- **ET-D75LE6**: Zoom lens
- **ET-D75LE10**: Zoom lens
- **ET-D75LE30**: Zoom lens
- **ET-D75LE40**: Zoom lens
- **ET-PK520H**: Ceiling mount bracket (for high ceiling)
- **ET-PK520S**: Ceiling mount bracket (for low ceiling)
- **ET-UK20**: Geometry Manager Pro Upgrade Kit
- **ET-CUK10**: Auto Screen Adjustment Upgrade Kit
- **ET-SWA100 Series**: Early Warning Software
- **ET-YFB200G**: Digital Link Switcher
- **ET-YFB100G**: Digital Interface Box

### Replacement Filters

- **ET-SFR330**: Smoke cut filter
- **ET-SFR340**: Smoke cut filter
- **ET-EMF330**: Replacement filter unit
- **ET-FLF10**: Lens Fixed Attachment
- **ET-PFDS10**: Frame

*This attachment may be required in some installation environments.*

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### Projection Distance

<table>
<thead>
<tr>
<th>PT-RZ12K (16:10 aspect ratio)</th>
<th>PT-RS11K (4:3 aspect ratio)</th>
<th>unit: meters (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projection Distance</td>
<td>Projection Distance</td>
<td></td>
</tr>
<tr>
<td><strong>ET-D75LE8</strong></td>
<td><strong>ET-D75LE10</strong></td>
<td><strong>ET-D75LE30</strong></td>
</tr>
<tr>
<td><strong>ET-D75LE40</strong></td>
<td><strong>ET-D75LE10</strong></td>
<td><strong>ET-D75LE30</strong></td>
</tr>
</tbody>
</table>

### Geometry Manager Pro Upgrade Kit

- **ET-PK520H**: Ceiling mount bracket (for high ceiling)
- **ET-PK520S**: Ceiling mount bracket (for low ceiling)

Note: ET-PK520H/PKD520S used in combination with ET-PK520B (sold separately).
### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>PT-RZ12KG3</th>
<th>PT-RS11K</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power supply</strong></td>
<td>AC 200 V (±10%), 50/60 Hz</td>
<td>AC 100–240 V, 50/60 Hz</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>6,912,000 (1920 x 1200 x 3) pixels</td>
<td>3.05–15.24 m (120–600 in) with the ET-D75LE90, 4:3 aspect ratio</td>
</tr>
<tr>
<td><strong>DLP® chip</strong></td>
<td>Panel size 24.4 mm (0.96 inches) diagonal (4:3 aspect ratio)</td>
<td>24.1 mm (0.95 inches) diagonal (4:3 aspect ratio)</td>
</tr>
<tr>
<td><strong>Screen size (diagonal)</strong></td>
<td>1.78–25.4 m (70–1000 in) with 16:10 aspect ratio</td>
<td>1.78–25.4 m (70–1000 in) with 4:3 aspect ratio</td>
</tr>
<tr>
<td><strong>Brightness</strong></td>
<td>1,000 lm</td>
<td>3.05–15.24 m (70–600 in) with ET-D75LE90, 4:3 aspect ratio</td>
</tr>
<tr>
<td><strong>Center-to-corner uniformity</strong></td>
<td>90 %</td>
<td>3.05–15.24 m (70–1000 in) with the ET-D75LE90, 4:3 aspect ratio</td>
</tr>
<tr>
<td><strong>Contrast</strong></td>
<td>±10 % (±5 % with the ET-D75LE90, 4:3 aspect ratio)</td>
<td>±10 % (±5 % with the ET-D75LE90, 4:3 aspect ratio)</td>
</tr>
<tr>
<td><strong>Keystone correction range with optional axis shift</strong></td>
<td>Vertical: ±45 ° (±40 ° with the ET-D75LE90, 4:3 aspect ratio)</td>
<td>Horizontal/vertical, free 360-degree installation</td>
</tr>
<tr>
<td><strong>Keystone correction range with optional upgrade kit ET-UK20</strong></td>
<td>Vertical: ±45 ° (±40 ° with the ET-D75LE90, 4:3 aspect ratio)</td>
<td>Up to a total of ±55 ° during simultaneous horizontal and vertical correction.</td>
</tr>
</tbody>
</table>
| **Installation** | Optical axis shift (Vertical from center of screen) | Installation:
Horizontal/vertical, free 360-degree installation |
| **Terminals** | Optical axis shift (Horizontal from center of screen) | Installation:
Horizontal/vertical, free 360-degree installation |
| **Cabinet materials** | Moulded plastic | Cabinet materials:
Polystyrene, foam, etc. |
| **Dimensions (W x H x D)** | 578 x 270 x 725 mm (22.72 x 10.83 x 28.57 in) (not including legs or protruding parts) | 4,410,000 (1400 x 1050 x 3) pixels |
| **Weight** | Approximately 44 kg (97 lbs) (optional lens not included) | Weight:
Approximately 44 kg (97 lbs) (optional lens not included) |
| **Operation** | Operating temperature: 0–50 °C (32–122 °F), operating humidity: 10–90 % (no condensation) | Operation:
Operating temperature: 0–50 °C (32–122 °F), operating humidity: 10–90 % (no condensation) |

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* DLP® logos are trademarks of Texas Instruments. The projection distances and throw ratios given in this leaflet are for use only as guidelines. For more detailed information, please consult the dealer from whom you are purchasing the product.

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For more information about Panasonic projectors, please visit:

Projector Global Website – https://panasonic.net/pn/cjs/projector/
Facebook – www.facebook.com/panasonicprojectoranddisplay
YouTube – www.youtube.com/user/PanasonicProjector

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.