Panasonic BUSINESS

Evolution Reaches a New Peak

PT-RZ31K Series
3-Chip DLP™ Projectors

PT-RZ31K
PT-RS30K
The evolution of 3-Chip DLP™ SOLID SHINE Laser culminates in the PT-RZ31K Series, a flagship forged by end-user experience with 31,000-lumen (Center/High Mode)*1 of brightness for rental/staging events. Convenient on-site rigging and dust-resistant optics push service-free projection beyond 20,000 hours*2 in Normal Mode for permanent installations. In every detail, these flagships make elite performance last longer.

**PT-RZ31K SERIES**

<table>
<thead>
<tr>
<th>Resolution</th>
<th>PT-RZ31K</th>
<th>PT-RS30K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brightness</td>
<td>31,000 lm (Center)<em>1 / 30,000 lm</em>3</td>
<td>30,000 lm</td>
</tr>
<tr>
<td>Contrast</td>
<td>20,000:1</td>
<td>20,000:1</td>
</tr>
</tbody>
</table>

*1 Luminance measured at center of screen in High Mode. Operation in High Mode may reduce maintenance timing in comparison to use in Normal Mode. *2 At this time the brightness will have decreased to approximately 50% of its original level (Normal Mode, Dynamic Contrast Mode: 2, Image Mode: Dynamic, ISO21118: 2008). Dust density of 0.15 mg/m³. Optional Long Life Filter is required for continuous 20,000 hours operation. In High Mode, no maintenance required for 4,000 hours. *3 Luminance measured in High Mode. Operation in High Mode may reduce maintenance timing in comparison to use in Normal Mode.

**Lighting Up the Rio 2016 Olympic Games Opening Ceremony**

As Official Worldwide Olympic Partner, Panasonic supplied about 110 projectors—including a prototype PT-RZ31K Series SOLID SHINE Laser projector—to light up the Opening Ceremony at the Rio 2016 Olympic Games. Chosen for high brightness, brilliant color performance, and advanced mapping capabilities, the projectors performed flawlessly throughout the event.

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SOLID SHINE Laser: World-beating Performance, Stability, and Stamina

Outstanding Picture Quality

Superior Brightness Meets True-to-Life Color Accuracy

Combining 3-Chip DLP™ imaging with original SOLID SHINE Laser Phosphor technology, the PT-RZ31K Series produces detail-rich and vividly colored pictures with best-in-class* 31,000 lumens brightness (Center)** in High Mode. Dual solid-state laser light-sources and specially engineered heat-resistant phosphor wheels work together with three DLP™ modules (R/G/B) for outstanding brightness, color accuracy, and contrast in large venues.

**1 Claim for Laser Phosphor projectors in its class accurate as of April 2017.
**2 Luminance measured at center of screen in High Mode. Operation in High Mode may reduce maintenance timings in comparison to use in Normal Mode.

Operational Mode Brightness

<table>
<thead>
<tr>
<th>Operational Mode</th>
<th>Brightness</th>
<th>Operational Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Mode</td>
<td>31,000 lm (Center)*2 / 30,000 lm</td>
<td>75 % brightness after 8,000 hours</td>
</tr>
<tr>
<td>Normal Mode</td>
<td>26,000 lm (Center) / 25,000 lm</td>
<td>75 % brightness after 20,000 hours</td>
</tr>
</tbody>
</table>

Note: Operational hours time at which brightness decreases to approximately 50 % in Normal Mode, or 20,000 hours (Dynamic Contrast Mode: 1, Image Mode: Standard, **X500/700**: 2004 Broadcasting Content, dust density of 0.15 mg/m³). Optional Long Life Filter is required for 20,000 hours continuous operation in High Mode. Brightness will have declined to approximately 50 % of its original level after 8,000 hours operation.

Stable, Reliable Operation

Dual-Laser Optical Engine Assures Failsafe Reliability

Dual-Drive Laser Optical Engine groups laser diodes into two discrete modules. A redundancy circuit works to minimize brightness- and color-uniformity loss should a laser diode fail, making the PT-RZ31K Series ideal for mission-critical applications where picture presentation must be maintained.

Dustproof Optics Extend Longevity

The PT-RZ31K Series has hermetically sealed laser modules, durable filtering, and a new air-intake system to extend life and maintain picture quality in dusty locations. SOLID SHINE Laser products are tested against more severe guidelines than other projectors for 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.

Flexible Installation

Flexible 360-degree Installation

SOLID SHINE Laser enables 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 temporarily or in permanent applications.

Quick Start, Quick Off

The laser light-source doesn’t require any time to warm up, so images appear almost instantly with PT-RZ31K Series projectors. There’s also no cool-down period when turning the power off at the mains—the projector can be turned on and off any time as necessary.
Next-Generation Systems Present Amazing Images

120 Hz*1 Drive Reduces Motion Blur
Real Motion Processor interpolates images for a 120 Hz*1 frame-rate. Smooth, stutter-free 120 Hz*1 reproduction is also possible using simultaneous inputs (two 3G-SDI inputs or DVI-D/HDMI combination). Together with a refined optical engine that enhances focus, Real Motion Processor delivers a better sense of resolution, contrast, and fluidity of motion, particularly with fast-paced scenes.

Detail Clarity Processor 5 Provides Pin-sharp Insight
Proprietary circuitry analyzes individual frames to clarify areas of the image containing fine details and textures. Algorithms pull information from the super-high, high, medium, and low frequency bands of the signal, sharpening outlines, correcting contours, and reducing ringing noise.

System Daylight View 3 Optimizes for Mapping and Bright Conditions
Panasonic’s premium System Daylight View 3 stops pictures washing out in bright light and enhances impact in mapping and multi-projector applications. It uses sensor information to adjust sharpness, manipulate gamma curves, and correct colors to suit on-site conditions.

Selectable Operational Modes
Select your preferred operational mode to control brightness decline according to application. High Mode maintains 70% brightness over 8,000 hours*2 with linear declination and minimal fluctuation. In Normal Mode, linear brightness decline is about 50% over 20,000 hours*3 of continuous operation with no maintenance required.

Dynamic Contrast Adds to Depth and Realism
Digital frame-by-frame scene-linking modulation ensures precise laser light output adjustment for 20,000:1*4 contrast even when bright and dark scenes frequently interchange, all while reducing power consumption.

Power Management Reduces Downtime
Auto power management compensates for voltage fluctuations. Image display is maintained at a reduced brightness even if voltage drops below specified requirements, rather than shutting the projector off.

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

Efficient Cooling System Enhances Reliability
The light source’s liquid-cooling system features a redesigned air intake and solid aluminum radiator to suppress temperature rises, allowing stable operation in temperatures up to 45 °C (113 °F)*4 and reducing noise to 49 dB.

Optimal Long Life Filter for 20,000-hour*6 Service-free Operation
Long Life Filter includes an electrostatic Micro Cut Filter that collects minute dust particles with an ion effect. With dust-resistant cabinet, this enables 20,000 hours*6 of projection in Normal Mode with no maintenance.

Filter Replacement Period

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>Operational Mode: High</th>
<th>Operational Mode: Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplied Filter</td>
<td>4,000 hours</td>
<td>4,000 hours</td>
</tr>
<tr>
<td>Long Life Filter</td>
<td>8,000 hours</td>
<td>12,000 hours</td>
</tr>
<tr>
<td>(Optional ET-EMFU330)</td>
<td></td>
<td></td>
</tr>
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</table>

*1 Refresh-rate varies depending on vertical scanning frequency. *2 In High Mode. Filter replacement is required after 4,000 hours for optional Long Life filter, and 2,000 hours for supplied filter. Measured in Dynamic Contrast Mode 3 with ET-EMF330. *3 In Normal Mode. Optional Long Life Filter required for continuous 20,000 hours operation. Filter replacement required after 4,000 hours for supplied filter. *4 With Dynamic Contrast Mode set to 3. *5 Light output may be reduced to protect certain projectors depending on environmental conditions. Please refer to specifications for individual projector models for details on operating temperatures in various conditions. *6 In Normal Mode. 4,000 hours for High Mode. When using optional filter, 4,000 hours for Normal Mode and 2,000 hours for High Mode. Usage environment may affect filter replacement cycle.
Built-in Geo Adjustment for Unique Screen Surfaces

Geo Adjustment adapts images for projection onto specially shaped screens with fine-tuning via remote control. Enhanced with Multi-Screen Support System, Geo Adjustment makes creative mapping presentations easy.

Common Lenses Cut Your Inventory Costs

The PT-RZ31K Series share optional lenses with Panasonic’s 3-Chip DLP™ projector range, potentially reducing inventory for rental/staging professionals, while also supporting the ET-D75LE95 Ultra-Short Throw Lens.

Terminals for Every Application

Connect any source device to the PT-RZ31K Series via its array of terminals including 3G-SDI, DIGITAL LINK, DVI-D, and HDMI.

Active 3D Projection Capability

The PT-RZ31K 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.

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 for long-term events.

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

The PT-RZ31K Series supports Art-Net DMX protocol for lighting management. This enables connection with lighting consoles for added functionality and control options. Crestron Connected™ and PJLink™ (Class 1) also streamline integration into existing AV infrastructure.

Contrast Sync Function for Multi-screen Configurations

Contrast Sync function for multi-screen applications allows the dynamic contrast control to be synchronized for consistent picture quality across screens, while Shutter Sync synchronizes shutter on/off timing.

Single-Cable DIGITAL LINK Video and Control 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)*. Optional DIGITAL LINK Switcher or Digital Interface Box further simplifies installation, reduces cabling and associated costs, and enhances reliability.

Backup Input Setting Assures Reliability

Projectors smoothly switch to a backup input signal should the primary input signal be disrupted**, enhancing reliability in mission critical control rooms and in applications such as projection mapping displays and staging events where image display must be maintained.

Multi-screen Support System Seamlessly Connects Multiple Screens

- **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)**. Up to 100 units (10 x 10) can be edge-blended to create large multi-screen images.

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Eyebolt-ready for Crane Installations

Eyebolts allow the PT-RZ31K Series to hang from a crane, simplifying rigging at large-scale events for rental/staging professionals.

Supports rigging at angles greater than 60°
Specifications

Model: PT-RZ31K

- **Power supply**: AC 220–240 V, 50/60 Hz; AC 100–200 V, 50/60 Hz (brightness is restricted with lower voltage)
- **Power consumption**: 2,870 W (0.3 W with Standby Mode set to Eco*1, 4 W with Standby Mode set to Normal) 
- **Zoom Lens**: 24.1 mm (0.95 inches) diagonal (4:3 aspect ratio) 
- **Panel size**: 6,912,000 (1920 x 1200 x 3) pixels
- **Refresh rate**: 120 Hz*2
- **Lens Motor Cover**: ET-PLF10*

Optional Accessories

- **ET-D75LE95**: 31,000 lm (Center)* 4*6 /30,000 lm* 4*5 (High Mode), 26,000 lm (Center)* 4*6 /25,000 lm*4*5 (Normal Mode), 12,000 lm (Long Life 1 Mode), 10,000 lm (Long Life 2 Mode), 8,000 lm (Long Life 3 Mode)

- **ET-YFB100G**: Early Warning Software

- **ET-UK20**: Auto Screen Adjustment Upgrade Kit(Except in the United States)

- **ET-YFB200G**: DIGITAL LINK Switcher

- **ET-YFB100G**: Digital Interface Box

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**Model**: PT-RS50K

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- **ET-YFB100G**: Digital Interface Box

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*1 When Stability Mode is set to ECO, network functions such as power on over LAN will not operate. Additionally, only certain commands can be secured for external control using the serial terminal. *2 Refresh rates vary depending on vertical scanning frequency. *3 Brightness will have decreased to approximately 70% of its original level after 8,000 hours operation. *4 With lens other than ET-D75LE95 and power supply AC 200 V. *5 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2012 international standards. Value is average of all products shipped. *6 Mismated at certain area of projector screen. Measurement method is compliant with ISO/IEC 21118: 2012 international standards. Value is average of all products shipped. *7 Only compatible with one click of remote control. Measurements are taken under ISO/IEC 21118: 2012 conditions (27 °C, 50% RH) without any filter. *8 WUXGA resolution is supported when the signals are compliant with VESA CVT-RB (Coordinated Video Timing - Reduced Bandwidth). *9 Optical axis shift is not supported on the ET-D75LE50. *10 With legs at shortest position. *11 Excluding legs. *12 Average value. May differ depending on test environment. *13 With long-life filter. Spectra is measured under ISO/IEC 21118: 2012 conditions (27 °C, 50% RH) without any filter. Some products may not achieve the same performance.