

# Panasonic

BUSINESS

## PT-RZ12K Series

3-Chip DLP™ Projectors

PT-RZ12K  
PT-RS11K



Taking Laser Projection to a Whole New Level.



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\*1, flexible installation, failsafe reliability, and a wealth of powerful features for creative visual presentations in large spaces.

3-Chip DLP™ Projectors

PT-RZ12K	12,000 lm	WUXGA
PT-RS11K	12,000 lm	SXGA+



## 3-Chip DLP™ Projection Meets Next-Generation SOLID SHINE Laser

### Bright and Vivid Picture Quality

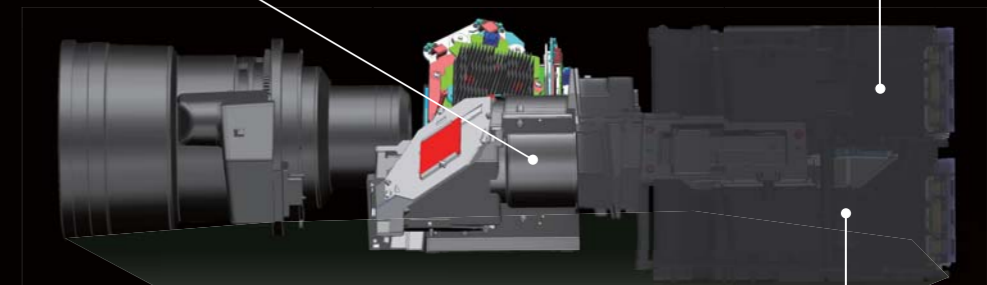
Combining 3-Chip DLP™ imaging with Panasonic's original SOLID SHINE Laser technology, the PT-RZ12K Series achieves truly stunning picture quality. Two powerful solid-state laser light sources, a heat-resistant phosphor wheel, and three independent DLP™ chips for red, green, and blue ensures class-leading brightness, color accuracy, and contrast.



Heat-resistant phosphor wheel ensures high brightness and excellent reliability for long periods.

### 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.



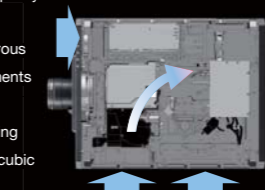
### Eco Filter Extends Replacement to 20,000 Hours\*2

The Eco Filter has an electrostatic Micro Cut Filter that collects minute dust particles with an ion effect. It joins 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.



### 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.



### Ultra-Durable Laser Optical Engine for Continuous 24-hour Operation

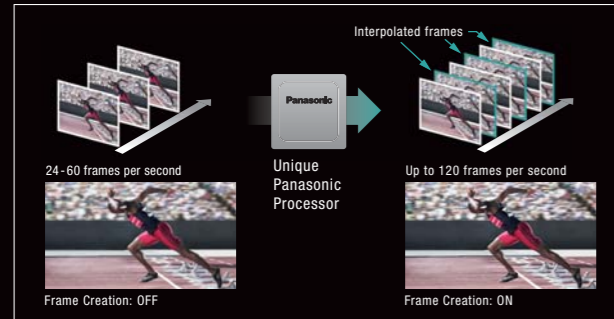
Dual Drive Laser Optical Engine uses two discrete light sources grouping laser diodes into modules. A failsafe laser light source redundancy circuit ensures minimal reduction in brightness and color uniformity in the event of laser diode failure, making PT-RZ12K Series ideal for mission-critical applications. 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.

\*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. Replacement of parts other than the light source may be required in a shorter period. \*2 Usage environment may affect filter maintenance cycle. \*3 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. \*4 Dustproof tests are conducted to confirm operational effectiveness under conditions with 0.15 mg/m<sup>3</sup> 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. \*5 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 in locations from 1,400 m to 4,200 m (4,593 ft to 13,780 ft) above sea level. When operational mode is set to Eco or Long Life 1/2/3, operating temperature is from 0 °C (32 °F) to 45 °C (113 °F). When used with Smoke Cut Filter, 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. 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 temperature. When projector is operating at high temperature, brightness will decrease correspondingly.

## 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\*6 frame-rate, resulting in incredibly smooth and realistic reproduction of motion. Further, images of up to 120 Hz\*9 can be displayed with Dual-link 3G-SDI, DVI-D, and HDMI simultaneous inputs.

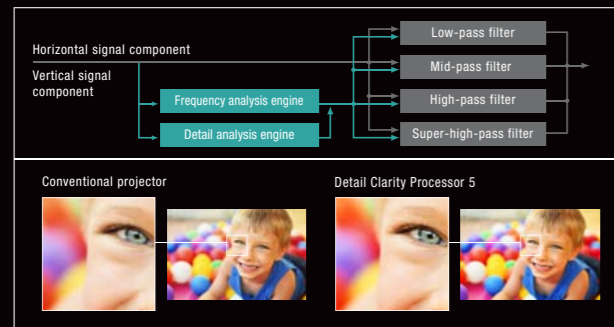


### Dynamic Contrast Achieves High 20,000:1\*7 Contrast

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.

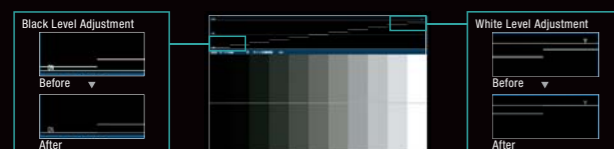
### Detail Clarity Processor 5 Clarifies and Enhances Fine Details

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.



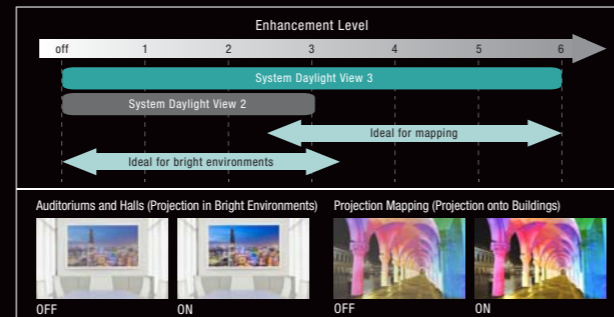
### Waveform Monitor Function

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.



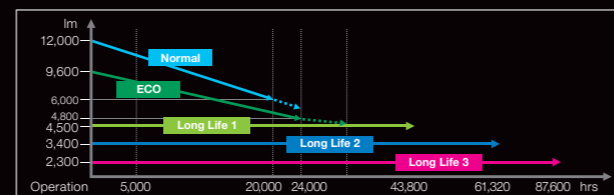
### Selectable Operational Modes Maintain Image Quality Longer

- Approx. 20,000 Hours\*9 of Continuous Operation (Normal Mode)

In Normal Mode with maximum 12,000 lm brightness, PT-RZ12K Series returns approximately 20,000 hours\*9 light-source service life. Eco Mode at 9,600 lm extends light source replacement to approximately 24,000 hours\*9. These modes are suitable for roles in education or for signage applications.

- Up to 10 Years\*10 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\*10 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.

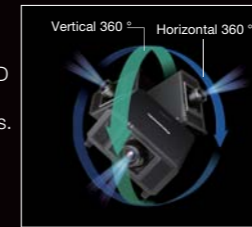
### Active 3D Projection Capability

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.

## 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.



### Single-Cable DIGITAL LINK Connection

Transmit Video, Audio, and Control Signals Up to 150 m (492 ft)\*11. 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)\*11. 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.

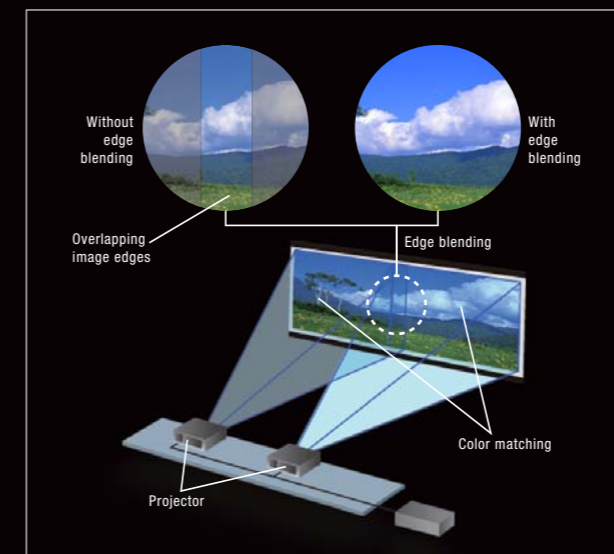


### Quick Start, Quick Off

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.

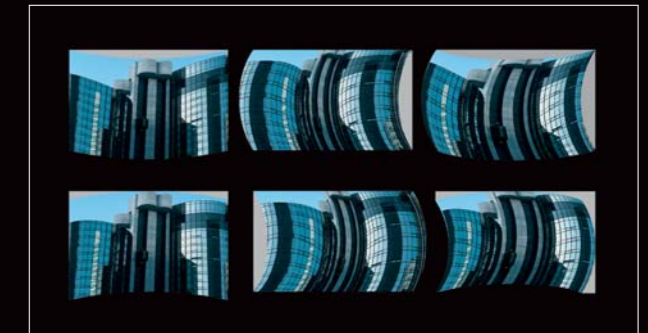
### Multi-Screen Support System Seamlessly Connects Multiple Screens

- 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)\*12. Up to 100 units (10 x 10) can be edge-blended at a time to create large, multi-screen images.



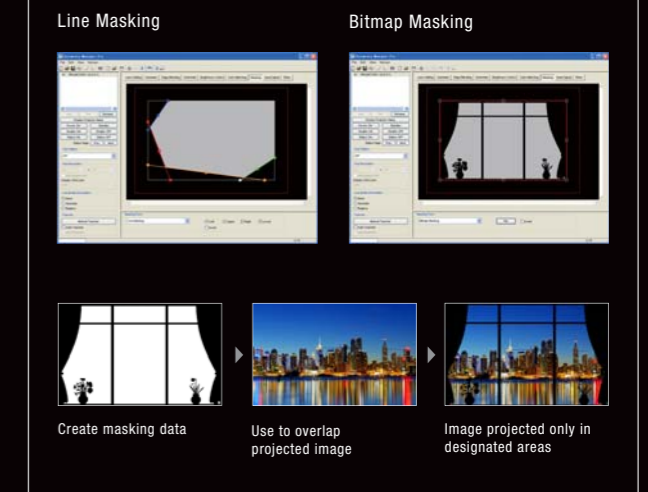
### Geometric Adjustment for Specially Shaped Screens

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.



### 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\*13.



### 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.

\*6 Refresh-rate varies depending on vertical scanning frequency. \*7 With Dynamic Contrast Mode set to 3. \*8 This product is not a medical instrument. Do not use for actual medical diagnosis. \*9 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. Replacement of parts other than the light source may be required in a shorter period. \*10 With Operating Mode set to Long Life 3, in which mode brightness is lowered to 2,300 lm. 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 production is discontinued, after which time Panasonic cannot guarantee their availability. \*11 150 m (492 ft) transmission available only with ET-YFB200G switcher for signals up to 1080p. \*12 While the input resolution will not change, maintaining image quality is not possible for images enlarged horizontally and vertically via the digital zoom function. \*13 Available worldwide except in the United States.



# Specifications

Model	PT-RZ12K	PT-RS11K	
Power supply	AC 100–240 V, 50/60 Hz		
Power consumption	1200 W (0.3 W with Standby Mode set to Eco, 4 W with Standby Mode set to Normal) Normal Mode: 800 W, Eco Mode: 680 W, Long Life 1 Mode: 620 W, Long Life 2 Mode: 590 W, Long Life 3 Mode: 550 W (Operating temperature: 25 °C, Altitude: 700 m, IEC62087: 2008 Broadcast Content, Image Mode: Dynamic, Dynamic Contrast Mode: 3)		
DLP™ chip	Panel size	24.4 mm (0.96 inches) diagonal (16:10 aspect ratio)	24.1 mm (0.95 inches) diagonal (4:3 aspect ratio)
	Display method	DLP™ chip × 3, DLP™ projection system	
	Pixels	6,912,000 (1920 × 1200 × 3) pixels	4,410,000 (1400 × 1050 × 3) pixels
Refresh rate	120 Hz*1		
Lens	Optional (no lens included with this model)		
Light source	Laser diodes laser Class 1 (Class 3R for US models) Light source life*2: 20,000 hours (Normal Mode) / 24,000 hours (Eco Mode), At this time the brightness will have decreased to approximately half of its original level.		
Screen size (diagonal)	1.78–25.4 m (70–1000 in) with 16:10 aspect ratio 1.78–15.24 m (70–600 in) with the ET-D75LE8, 16:10 aspect ratio 3.05–15.24 m (120–600 in) with the ET-D75LE90, 16:10 aspect ratio	1.78–25.4 m (70–1000 in) with 4:3 aspect ratio 1.78–15.24 m (70–600 in) with the ET-D75LE8, 4:3 aspect ratio 3.05–15.24 m (120–600 in) with the ET-D75LE90, 4:3 aspect ratio	
Brightness*2	12,000 lm		
Center-to-corner uniformity*2	90 %		
Contrast*2	20,000:1 (Full On/Full Off, Dynamic Contrast Mode: 3)		
Resolution	1920 × 1200 pixels	1400 × 1050 pixels	
Scanning frequency	SDI	SD-SDI: SMPTE ST 259 compliant, [YCbCr 4:2:2 10-bit] 480i, 576i	
		Single link HD-SDI: SMPTE ST 292 compliant, [YPbPr 4:2:2 10-bit] 720/60p, 720/50p, 1035/60i, 1080/60i, 1080/50i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p	
		Dual link HD-SDI: SMPTE ST 372 compliant, [RGB 4:4:4 12-bit/10-bit] 1080/60i, 1080/50i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p, 2048 × 1080/24p, 2048 × 1080/24sF, [X'Y'Z' 4:4:4 12-bit] 2048 × 1080/24p, 2048 × 1080/24sF	
	3G-SDI: SMPTE ST 424 compliant, [RGB 4:4:4 12-bit/10-bit] 1080/60i, 1080/50i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p, [YPbPr 4:2:2 10-bit] 1080/60p, 1080/50p		
	Dual link 3G-SDI: SMPTE ST 425 compliant, [YPbPr 4:4:4 12-bit/10-bit] 1080/60p, 1080/50p, 2048 × 1080/60p, 2048 × 1080/50p, 2048 × 1080/48p, [RGB 4:4:4 12-bit/10-bit] 1080/60p, 1080/50p, 2048 × 1080/60p, 2048 × 1080/50p, 2048 × 1080/48p		
HDMI/DVI-D	Compatible with HDCP, 480i*3, 576i*3, 480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p, 1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p, 640 × 480–WUXGA*4 (1920 × 1200) (compatible with non-interlaced signals only), dot clock: 25–162 MHz		
RGB	fh: 15–100 kHz, fv: 24–120 Hz, dot clock: 162 MHz or lower		
YPbPr (YCbCr)	fh: 15.73 kHz, fv: 59.94 Hz [480i (525i)], fh: 15.63 kHz, fv: 50 Hz [576i (625i)], fh: 31.47 kHz, fv: 59.94 Hz [480p (525p)], fh: 31.25 kHz, fv: 50 Hz [576p (625p)], fh: 45.00 kHz, fv: 60 Hz [720 (750)/60p], fh: 37.50 kHz, fv: 50 Hz [720 (750)/50p], fh: 33.75 kHz, fv: 60 Hz [1035 (1125)/60i], fh: 33.75 kHz, fv: 60 Hz [1080 (1125)/60i], fh: 28.13 kHz, fv: 50 Hz [1080 (1125)/50i], fh: 28.13 kHz, fv: 25 Hz [1080 (1125)/25p], fh: 27.00 kHz, fv: 24 Hz [1080 (1125)/24p], fh: 27.00 kHz, fv: 48 Hz [1080 (1125)/24sF], fh: 33.75 kHz, fv: 30 Hz [1080 (1125)/30p], fh: 67.50 kHz, fv: 60 Hz [1080 (1125)/60p], fh: 56.25 kHz, fv: 50 Hz [1080 (1125)/50p]		
Video/YC	H: 15.75 kHz, fv: 60 Hz (NTSC/NTSC4.43/PAL-M/PAL60), fh: 15.63 kHz, fv: 50 Hz (PAL/PAL-N/SECAM)		
Optical axis shift*5	Vertical (from center of screen)	±5.5 % (±4.4 % with the ET-D75LE6, +7.3 % – +7.8 % with the ET-D75LE90) (powered)	±5.0 % (±4.0 % with the ET-D75LE6, +7.1 % [fixed] with the ET-D75LE90) (powered)
	Horizontal (from center of screen)	±2.0 % (±1.5 % with the ET-D75LE6, ±6 % with the ET-D75LE90) (powered)	±3.0 % (±2.0 % with the ET-D75LE6, fixed with the ET-D75LE90) (powered)
Keystone correction range	Vertical: ±40 ° (± 22 ° with ET-D75LE50, ±28 ° with ET-D75LE6, +5 ° with ET-D75LE90), horizontal: ±15 ° (0 ° with ET-D75LE90)		
Keystone correction range with optional Upgrade Kit ET-UK20	Vertical: ±45 ° (± 40 ° with ET-D75LE10/20, ±22 ° with ET-D75LE50, ±28 ° with ET-D75LE6, +5 ° with ET-D75LE90), horizontal: ±40 ° (±15 ° with ET-D75LE50/6, 0 ° with ET-D75LE90), Up to a total of ±55 ° during simultaneous horizontal and vertical correction.		
Installation	Horizontal/vertical, free 360-degree installation		
Terminals	SDI IN 1	BNC × 1: 3G/HD/SD-SDI input, Dual-link HD-SDI (LINK-A), Dual-link 3G-SDI (LINK 1)	
	SDI IN 2	BNC × 1: 3G/HD/SD-SDI input, Dual-link HD-SDI (LINK-B), Dual-link 3G-SDI (LINK 2)	
	HDMI IN	HDMI 19-pin × 1 (Deep Color, compatible with HDCP)	
	DVI-D IN	DVI-D 24-pin × 1 (DVI 1.0 compliant, compatible with HDCP, compatible with single link only)	
	RGB 1 IN	RGB × 1 (BNC × 5): RGB/YPbPr/YCbCr/YC/VIDEO	
	RGB 2 IN	D-sub HD 15-pin (female) × 1: RGB/YPbPr/YCbCr	
	3D SYNC 1 IN/OUT	BNC × 1: 3D timing signal	
	3D SYNC 2 OUT	BNC × 1: 3D timing signal	
	SERIAL IN	D-sub 9-pin (female) × 1 for external control (RS-232C compliant)	
	SERIAL OUT	D-sub 9-pin (male) × 1 for link control	
	REMOTE 1 IN	M3 × 1 for wired remote control, link control	
	REMOTE 1 OUT	M3 × 1 for wired remote control, link control	
	REMOTE 2 IN	D-sub 9-pin (female) × 1 for external control (parallel)	
DIGITAL LINK/LAN	RJ-45 × 1 for network, DIGITAL LINK connection, 100Base-TX, compatible with Art-Net, P.J.LINK™ (class 1), Deep Color, HDCP		
Cabinet materials	Molded plastic		
Dimensions (W × H × D)	578 × 270 × 725 mm (22 3/4" × 10 5/8" × 28 17/32") (Not including legs or protruding parts) 578 × 323.5 × 740 mm (22 3/4" × 12 23/32" × 29 1/8") (Including legs at shortest position and protruding parts)		
Weight*6	Approximately 44 kg (97 lbs.) (optional lens not included)		
Operation noise*2	43 dB		
Operating environment	Operating temperature: 0–50 °C (32–122 °F)*7, operating humidity: 10–80 % (no condensation)		
Applicable software	Logo Transfer Software, Multi Monitoring & Control Software, Early Warning Software, Geometry Manager Pro [ET-UK20 Upgrade Kit and ET-CUK10*8 Auto Screen Adjustment Upgrade Kit]		
Supplied accessories	Power cord × 1 (x 2 for "E" model), wireless/wired remote control unit, batteries (R6/AA type × 2), software CD-ROM (Logo Transfer Software, Multi Monitoring & Control Software), lens fixing screw		

\*1 Refresh-rate varies depending on vertical scanning frequency. \*2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. \*3 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal). \*4 WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking). \*5 Optical axis shift is not supported on the ET-D75LE50. \*6 Average value. May differ depending on the actual unit. \*7 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 in locations from 1,400 m to 4,200 m (4,593 ft to 13,780 ft) above sea level. When operational mode is set to Eco or Long Life 1/2/3, operating temperature is from 0 °C (32 °F) to 45 °C (113 °F). When used with Smoke Cut Filter, 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. 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 temperature. When projector is operating at high temperature, brightness will decrease correspondingly. \*8 Available worldwide except in the United States.

# Panasonic®



For more information about Panasonic projectors, please visit:  
 Projector Global Website – [panasonic.net/avc/projector](http://panasonic.net/avc/projector)  
 Facebook – [www.facebook.com/panasonicprojector](http://www.facebook.com/panasonicprojector)  
 YouTube – [www.youtube.com/user/PanasonicProjector](http://www.youtube.com/user/PanasonicProjector)

[www.panasonic-center.at](http://www.panasonic-center.at)

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