Panasonic
BUSINESS

RZ970 Series

1-Chip DLP™ Projectors

PT-**RZ970/RW930/RX110** Series
PT-**RZ770/RW730** Series
PT-**RZ660/RW620** Series

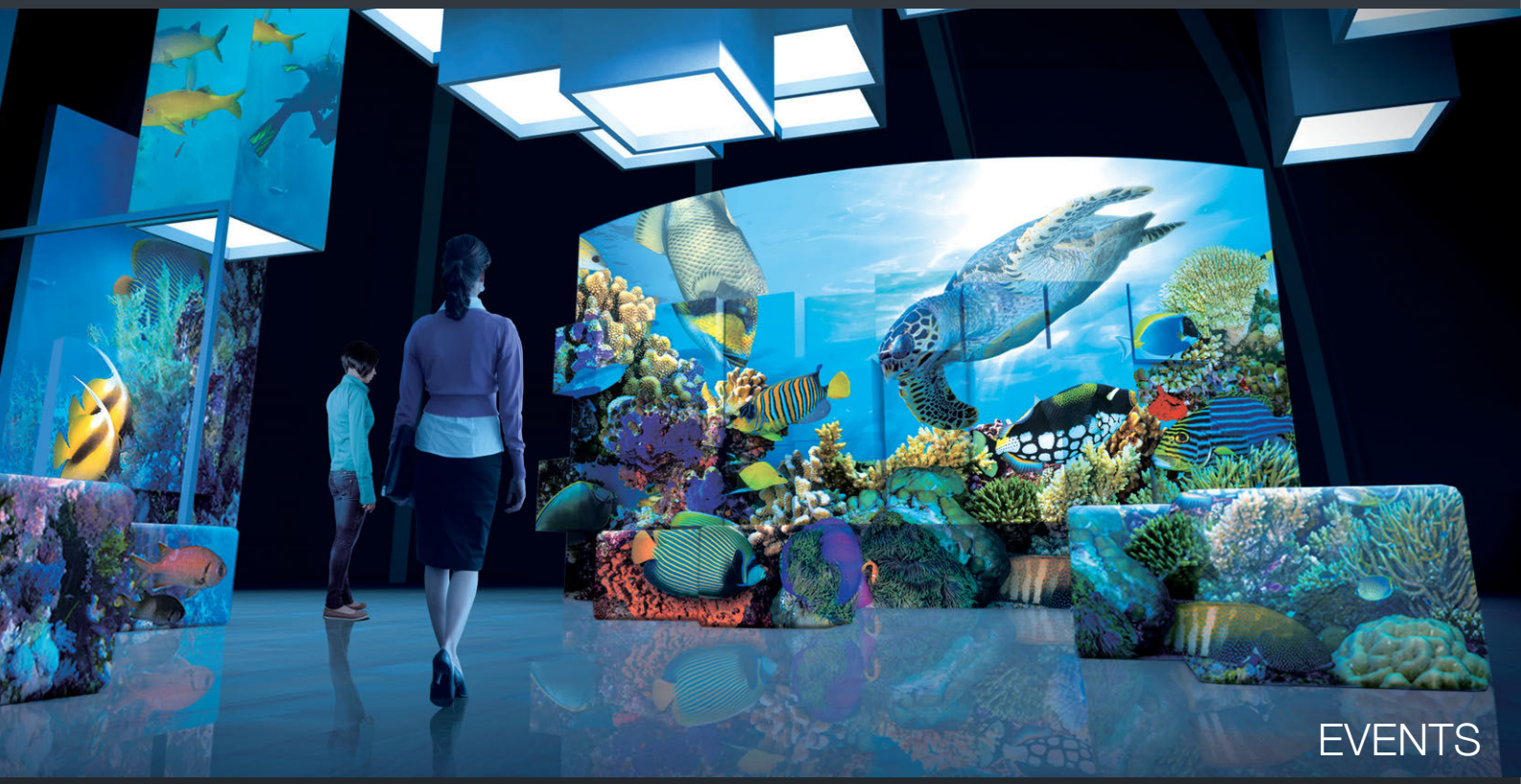
Unleash the Power of Your Imagination

SOLID SHINE LASER

Worldwide Olympic Partner

Worldwide Paralympic Partner

PICTURE BY DLP™ A TEXAS INSTRUMENTS TECHNOLOGY



Engineered for Elite Marathon Performance in Permanent or Temporary Installations

With immersive picture quality and practical features, potential application for Panasonic's PT-RZ970 Series projectors extends from permanent installation in museums, theaters, and control rooms through roles in exhibition/rental and staging. Powered by the acclaimed SOLID SHINE Laser drive and latest 1-Chip DLP™ technology, these projectors exceed expectations with low-maintenance stability and vivid color performance maintained for longer than competitive products over years of dependable 24/7 operation. The PT-RZ970 Series: made by professionals, for professionals.

High Picture Quality

Quick Start and Quick Off

Free 360° Install

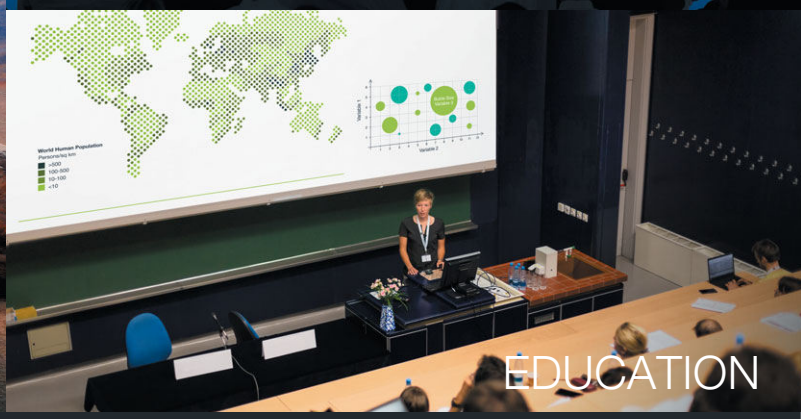
Dust-Resistant Optics

Economical

20,000 hours*1 Maintenance free

	PT-RZ970/RW930/RX110 Series			PT-RZ770/RW730 Series		PT-RZ660/RW620 Series	
	PT-RZ970/L	PT-RW930/L	PT-RX110/L	PT-RZ770/L	PT-RW730/L	PT-RZ660/L	PT-RW620/L
Resolution	WUXGA	WXGA	XGA	WUXGA	WXGA	WUXGA	WXGA
Brightness	10,000 lm (Center) 9,400 lm*		10,400 lm (Center) 10,000 lm*	7,200 lm (Center) 7,000 lm*		6,200 lm (Center) 6,000 lm*	
Contrast	10,000:1						

* Measured according to strict international ISO 21118 standards. Note: PT-RZ970L / RZ770L / RZ660L / RW930L / RW730L / RW620L / RX110L do not include a lens.



See the Advantages of Panasonic's Laser Technology

SOLID SHINE Laser and DLP™ Projection Balances Image Quality with 20,000-hour Maintenance-free*1 Endurance

Harnessing Full-Spectrum Color with Up to 10,400 lm (Center)*2 Brightness

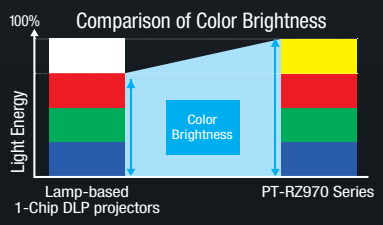
With next-generation DLP™ technology delivering high-resolution detail and dual laser modules outputting up to 10,400 lm (Center)*2 of brightness, Quartet Color Harmonizer to reduce energy loss from the light source, and robust heat-resistant phosphor wheel, the Panasonic SOLID SHINE Laser system produces scintillating images with unfailing reliability.

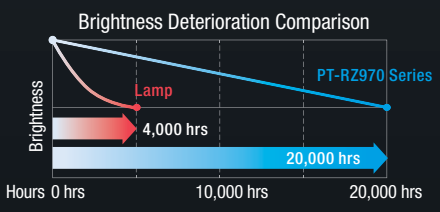
Superior White Balance and Color Reproduction

The Quartet Color Harmonizer wheel mechanism captures a wider color space than comparable projectors, which allows white to be reproduced realistically on screen. Some conventional projectors can't achieve an accurate white balance, so images can appear with a distracting greenish tint. Not the case with Panasonic SOLID SHINE Laser projectors.

SOLID SHINE Laser Maintains Picture Quality for Longer

Thanks to the long-lasting dual solid-state laser modules, there are no lamps to replace, and image color/brightness degrades very gradually in consistent, linear fashion. As well as reducing maintenance hassle, out-of-the-box picture quality is preserved longer.



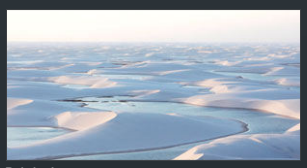


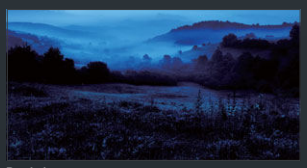
*1 At this time the brightness will have decreased to approximately half of its original level (Dynamic Contrast Mode: 3, Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after about 20,000 hours. Light source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required in a shorter period.
*2 PT-RZ970/RW930 features 10,000 lm, PT-RZ770/RW730 7,200 lm, PT-RZ660/RW620 6,200 lm, and PT-RX110 10,400 lm of brightness (measured at center of screen).

Powerful Brightness, Excellent Picture Quality, Lasting Reliability

Dynamic Contrast Function for High Contrast

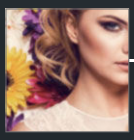
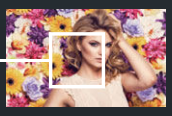
The PT-RZ970 Series directly modulates laser power output to achieve high contrast with low power consumption. Digitally controlled frame-by-frame scene-linking modulation ensures highly precise output adjustment, while accurate 10,000:1*3 contrast is delivered even when bright and dark scenes frequently interchange.

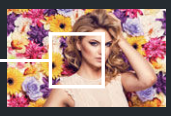

Bright Image


Dark Image

Detail Clarity Processor 3 Sharpens the Finest Details

This unique Panasonic circuit optimizes the sharpness of each image based on the super high, high, medium, and low frequency components of the extracted image information. The resulting images are expressed with natural, convincing realism.



Conventional Projector



Detail Clarity Processor 3

System Daylight View 3 for Sharp and Vivid Images in Bright Environments

Panasonic's premium System Daylight View 3 prevents images from washing out in well-lit environments and enhances brightness perception in multi-projector mapping applications by adjusting sharpness and gamma curves and correcting colors. The result is greater visual impact even in challenging conditions.

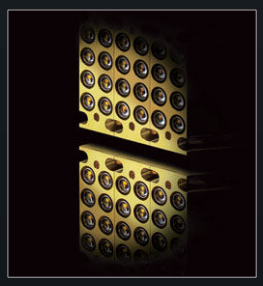

Conventional Projector


System Daylight View 3

Consistent, Stable Performance

Stable 24/7 Operation with Light-source Failover Protection

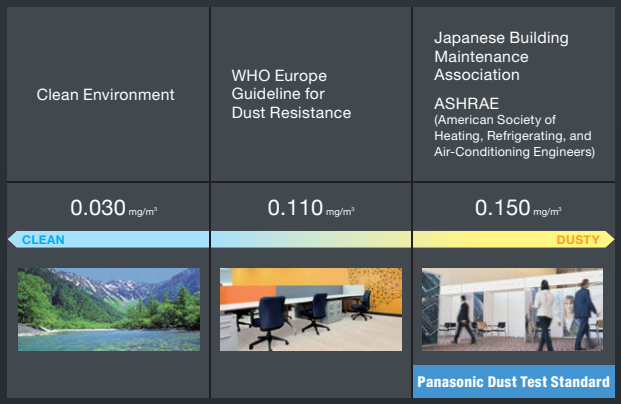
Dual Drive Laser Optical Engine groups laser diodes into two discrete modules. A failsafe redundancy circuit works to minimize brightness- and color-uniformity loss should a laser diode fail, making the PT-RZ970 Series ideal for mission-critical applications. Further, brightness decreases more gradually and consistently than lamp-based projectors over a 20,000-hour*4 maintenance-free projection period.



*3 With Dynamic Contrast Mode set to 3. *4 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 about 20,000 hours. 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.

Dust-Resistant Airtight Optical Block

The PT-RZ970 Series' optical block is airtight, ensuring consistent, long-lasting image quality for up to 20,000 hours*4 without maintenance. The optical block design passed stringent testing to assure utmost reliability in environments with up to 0.15 mg of particulate matter per cubic meter (based on American Society of Heating, Refrigerating, and Air-Conditioning Engineers [ASHRAE] and Japanese Building Maintenance Association guidelines). The structure prevents brightness degradation from dust intrusion.



Selectable Operational Modes Maintain Image Quality Longer

Approx. 20,000 Hours*4 of Continuous Operation

In Normal Mode, the PT-RZ970 Series can operate continuously for about 20,000 hours*4. In Eco Mode, this is extended to around 24,000 hours*4 of continuous operation. These modes enhance suitability for education and signage applications.

Up to 10 Years*5 Operation with Constant Brightness Modes

In environments where full brightness is not necessary, such as surveillance, control, and simulation rooms, constant operation modes extend light-source replacement to up to 87,600 hours*5 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-RZ970 Series can be customized to achieve your preferred balance of brightness performance or extended life.

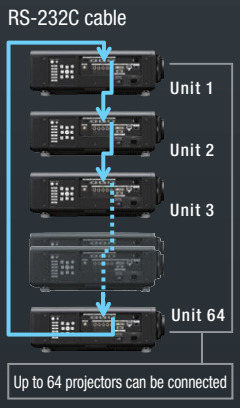
*5 With Operating Mode set to Long Life 3. Long Life Mode is tested in a rear-box projection environment, which is not compliant with ASHRAE. 24 hours/day x 365 days/year x 10 years = 87,600 hours. Replacement of parts other than the light source may be required in a shorter period.

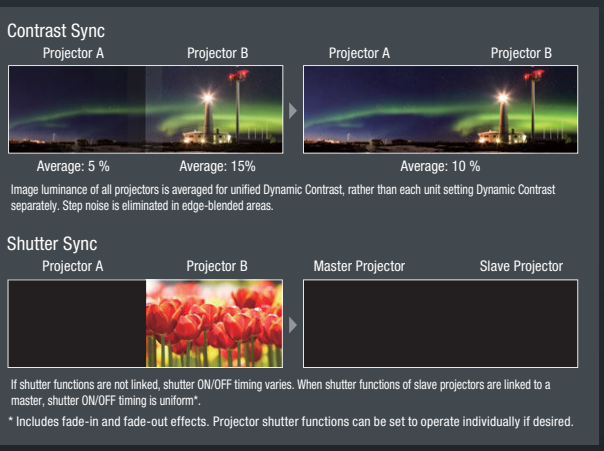
Versatile Installation Flexibility

Unique Contrast Sync and Shutter Sync Function

The PT-RZ970 Series is among the world's first to feature Contrast Sync and Shutter Sync functions (Patent Pending) for multi-screen and mapping applications. Contrast Sync allows the projectors' digitally modulated contrast function to be synchronized over the network for consistent picture quality across screens, while Shutter Sync incorporates a master/slave principle to synchronize shutter on/off timing between all networked projectors. It includes simultaneous fade-in and fade-out functions.

Note: Use of RS-232C straight cable is necessary for all connections. Consult your sales representative for further information.

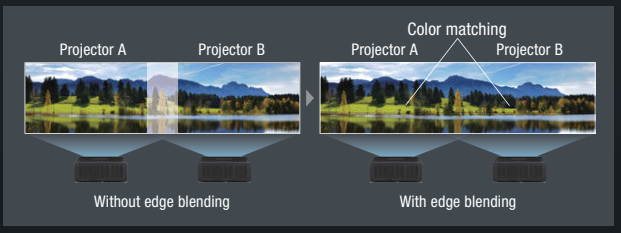




Multi-Screen Support System Seamlessly Connects Multiple Screens

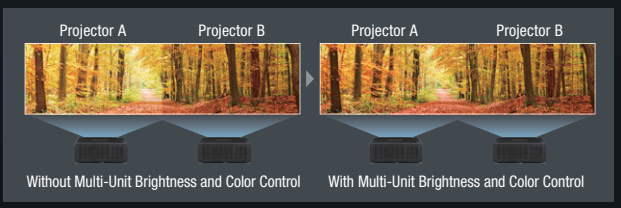
Edge Blending Edges of adjacent screens can be blended and their luminance controlled.

Color Matching Corrects for slight variations in the color reproduction range of individual projectors. PC software assures easy, accurate control.



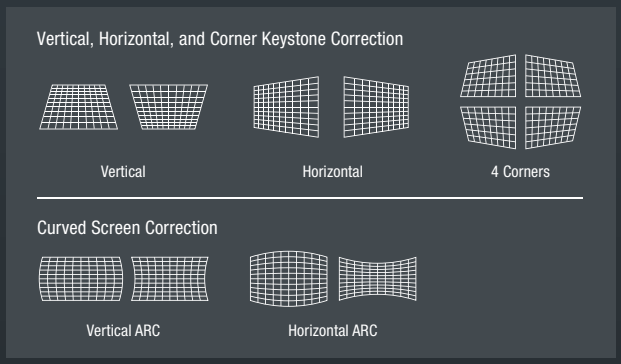
Multi-Unit Brightness and Color Control

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



Geometric Adjustment for Custom Screen Surfaces

Geo Adjustment adapts the image for projection onto spherical, cylindrical, and other specially shaped screens. Fine-tuning is performed with the remote control, with no external equipment needed. Paired with Multi-Screen Support System, highly creative mapping presentations are possible in variety of event and staging applications.

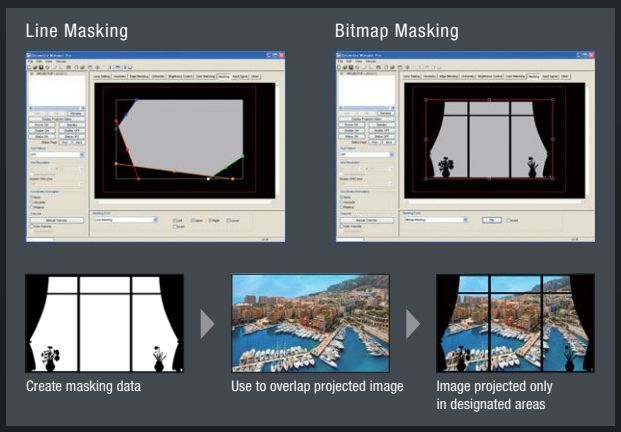


Geometry Manager Pro Software (PT-RZ970/RZ770/RZ660 Only)

Geometry Manager Pro software expands built-in functionality and makes complex adjustments easy. The free software package includes enhanced color matching and edge blending for multi-screen projection and adjustment of multiple screens over the network.

Optional ET-UK20 Upgrade Kit for Geometry Manager Pro (PT-RZ970/RZ770/RZ660 Only)

An optional ET-UK20 Upgrade Kit for Geometry Manager Pro adds creative masking capability using four lines or bitmap data as well as uniformity correction and correction area expansion.



Optional ET-CUK10*6 Series Auto Screen Adjustment Upgrade Kit (PT-RZ970/RZ770/RZ660 Only)

This optional kit activates the Auto Screen Adjustment plug-in software for Geometry Manager Pro, allowing you to set up multiple projectors automatically and simultaneously and save significant amounts of time and money. Performing multi-screen and curved-screen projection calibration in three quick steps using a camera*7 and PC connected to the projector network, this software encompasses geometric adjustment, edge blending, color matching, stacking, brightness, and black level.

*6 Available worldwide except the United States. *7 Supported cameras: Nikon D5200/D5300/D5500.

Reduce Inventory Costs with Shared Lenses

The PT-RZ970 Series shares optional lenses with the Panasonic 1-Chip DLP™ projector range, including the ET-DLE030 Ultra-Short-Throw Lens and ET-DLE085 Zoom Lens for long throw distances, reducing TCO for staging and event companies with large projector inventories. Lenses attach and detach with one-touch ease.

Easy System Flexibility

Single-Cable DIGITAL LINK Control and Video Connection

Upward HDBaseT™-compatible DIGITAL LINK supports transmission of 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)*8. Add an optional DIGITAL LINK Switcher or Digital Interface Box to further simplify installation in large venues while reducing cost and improving reliability at the same time.

*8 150 m (492 ft) transmission available only in Long Reach Mode with optional ET-YFB200G DIGITAL LINK Switcher for signals up to 1080/60p (dot-clock frequency 148.5 MHz). Transmission distance is up to 100 m (328 ft) in other cases.

Free 360-degree Rotation

Projection is possible in any direction vertically and horizontally, and the unit can be rotated 360 degrees for installation at any angle.

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

The PT-RZ970 Series is compatible with Art-Net DMX protocol for lighting management. This allows the projector to be connected to a lighting console, opening the door to a range of added functionality and control options. The included LAN/DIGITAL LINK terminal also supports Crestron Connected™ and PJLink™ (Class 1) for easy integration of these projectors into an existing AV network utilizing multiple device brands.

Quick Start and Quick Off

The laser light-source doesn't require any warm-up, so images appear almost instantly (in about 1 second*9) with PT-RZ970 Series projectors. There's also no cool-down period needed when turning the power off at the mains—the projector can be turned on and off any time as necessary.

*9 With Quick Startup Mode set to ON. Quick Startup Mode resets to OFF after duration set in Available Period expires. When Quick Startup Mode is set to ON, the projector continues to warm up, increasing power consumption. Image appears in about 9 seconds on Normal Standby Mode and about 12 seconds on Eco Standby Mode.

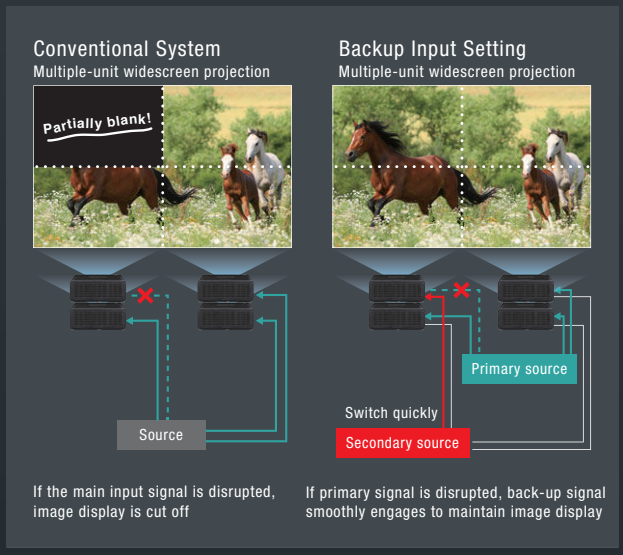
Multi Monitoring & Control Software

This free Panasonic software offers monitoring and control of up to 2,048 devices over a LAN network from a single PC. For monitoring, status for individual devices can be listed in groups, with more detailed information shown separately. Control functions include power ON/OFF, input switching, scheduling, and command inputs.

Backup Input Setting Optimizes Performance

This feature allows smooth switching to a backup input signal should the primary signal be disrupted*10, guaranteeing reliability for mission-critical control rooms, projection mapping, staging, and in other applications where image display must be maintained.

*10 Combination of primary/secondary input terminals is fixed. The Backup Input Setting is enabled only when the input signal to the primary and secondary terminals is the same.



Web Browser Control

These Panasonic SOLID SHINE Laser projectors can be easily operated remotely over a LAN network via a computer's web browser. Projectors can be configured to alert the operator via email if an error has occurred.

Early Warning Software ET-SWA100 Series (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, or when there are symptoms of trouble. This minimizes downtime to provide more stable operation.

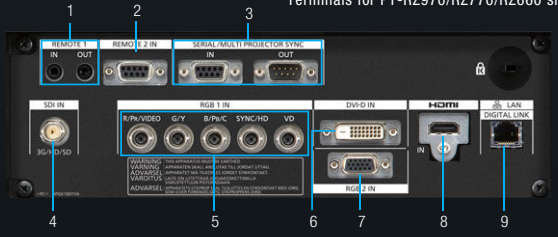
Other Valuable Features

- DICOM Simulation Mode offers easy-to-view X-ray photo reproduction*11
- Rec. 709 mode for HDTV projection to provide accurate colors
- Waveform Monitor for simple yet precise calibration
- Lens-centered design and a wide horizontal/vertical lens shift
- Shutter effect with fade in/fade out (configurable in 0.5-second intervals from 0.5 to 4.0 seconds, or to 5-, 7-, or 10-second intervals)
- PJLink™ compatibility
- P-in-P function*12
- Image rotation function
- On-screen menu rotatable in Portrait Mode
- Scheduling function
- 30 m (98 ft) long-range wireless remote control
- Anti-theft features including chain opening and security bar
- Customizable start-up logo
- ID assignment for up to 64 units
- Built-in test pattern
- Selectable 10-language on-screen menu (English, German, French, Spanish, Italian, Portuguese, Russian, Japanese, Chinese, Korean)
- RoHS Directive-compliant

*11 This product is not a medical instrument. Do not use for actual medical diagnosis. *12 The Picture-in-Picture function cannot be used with certain inputs and input signals.

Terminals

Terminals for PT-RZ970/RZ770/RZ660 shown.



1 Remote 1 input/output
2 Remote 2 input
3 Serial/Multi Projector Sync input/output
4 SDI input (PT-RZ970/RZ770/RZ660 only)
5 RGB 1 input
6 DVI-D input
7 RGB 2 input
8 HDMI input
9 LAN/ DIGITAL LINK

Optional Accessories

ET-DLE085
Zoom Lens

ET-DLE350
Zoom Lens

ET-DLE150
Zoom Lens

ET-DLE450
Zoom Lens

ET-DLE170*
Zoom Lens
*US/Europe only.
ET-DLE170 is equivalent of supplied lens.

ET-DLE055
Fixed-Focus Lens

ET-DLE250
Zoom Lens

ET-DLE030
Fixed-Focus Lens

ET-PKD120H
High Ceiling Mount Bracket

ET-PKD120S
Low Ceiling Mount Bracket

ET-PKD130B
Bracket Assembly

ET-PKD130H
High Ceiling Mount Bracket with 6-axis Adjustment Mechanism

NOTE:
Use ET-PKD120H, ET-PKD120S, and ET-PKD130H in combination with ET-PKD130B. ET-PKD130H is recommended when used with ET-DLE030.

ET-UK20 (PT-RZ970/RZ770/RZ660 Only)
Geometry Manager Pro Upgrade Kit

ET-CUK10 Series (PT-RZ970/RZ770/RZ660 Only)
Auto Screen Adjustment Upgrade Kit

Note: Available worldwide except in the United States.

ET-SWA100 Series
Early Warning Software

Note: Part number suffix may differ depending on the license type.

ET-YFB200G
DIGITAL LINK Switcher

ET-YFB100G
Digital Interface Box

Projection Distances

Unit: meters (feet)

Screen size (diagonal)		Distance to screen (A)														Fixed-focus lens*1	
		Zoom lenses															
		ET-DLE085		ET-DLE150		Supplied lens/ET-DLE170		ET-DLE250		ET-DLE350		ET-DLE450		ET-DLE055	
		min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.		
PT-RZ970/ RZ770/ RZ660 (16:10 aspect ratio)	1.27 (50″)	0.82 (2.7)	1.04 (3.4)	1.38 (4.5)	2.01 (6.6)	1.82 (6.0)	2.57 (8.4)	2.42 (7.9)	3.87 (12.7)	3.80 (12.5)	5.81 (19.1)	5.66 (18.6)	9.12 (29.9)	0.83 (2.7)	
	1.52 (60″)	1.00 (3.3)	1.25 (4.1)	1.66 (5.5)	2.43 (8.0)	2.20 (7.2)	3.10 (10.2)	2.92 (9.6)	4.65 (15.3)	4.59 (15.1)	7.00 (23.0)	6.85 (22.5)	11.01 (36.1)	1.00 (3.3)	
	1.78 (70″)	1.17 (3.9)	1.47 (4.8)	1.95 (6.4)	2.84 (9.3)	2.58 (8.5)	3.63 (11.9)	3.42 (11.2)	5.44 (17.9)	5.38 (17.6)	8.19 (26.9)	8.04 (26.4)	12.89 (42.3)	1.18 (3.9)	
	2.03 (80″)	1.35 (4.4)	1.68 (5.5)	2.23 (7.3)	3.25 (10.7)	2.95 (9.7)	4.16 (13.6)	3.92 (12.8)	6.23 (20.4)	6.16 (20.2)	9.38 (30.8)	9.23 (30.3)	14.78 (48.5)	1.35 (4.4)	
	2.29 (90″)	1.52 (5.0)	1.90 (6.2)	2.52 (8.3)	3.66 (12.0)	3.33 (10.9)	4.69 (15.4)	4.42 (14.5)	7.02 (23.0)	6.95 (22.8)	10.57 (34.7)	10.43 (34.2)	16.66 (54.7)	1.53 (5.0)	
	2.54 (100″)	1.70 (5.6)	2.11 (6.9)	2.81 (9.2)	4.08 (13.4)	3.71 (12.2)	5.21 (17.1)	4.92 (16.1)	7.81 (25.6)	7.74 (25.4)	11.76 (38.6)	11.62 (38.1)	18.55 (60.8)	1.70 (5.6)	
	3.05 (120″)	2.05 (6.7)	2.55 (8.4)	3.38 (11.1)	4.90 (16.1)	4.47 (14.7)	6.27 (20.6)	5.91 (19.4)	9.39 (30.8)	9.31 (30.6)	14.14 (46.4)	14.00 (45.9)	22.31 (73.2)	2.05 (6.7)	
	3.81 (150″)	2.57 (8.4)	3.19 (10.5)	4.24 (13.9)	6.14 (20.1)	5.60 (18.4)	7.86 (25.8)	7.41 (24.3)	11.75 (38.6)	11.68 (38.3)	17.71 (58.1)	17.58 (57.7)	27.97 (91.8)	2.58 (8.5)	
	5.08 (200″)	3.44 (11.3)	4.27 (14.0)	5.67 (18.6)	8.20 (26.9)	7.50 (24.6)	10.50 (34.5)	9.91 (32.5)	15.70 (51.5)	15.61 (51.2)	23.66 (77.6)	23.54 (77.2)	37.39 (122.7)	3.45 (11.3)	
	6.35 (250″)	4.31 (14.1)	5.35 (17.6)	7.10 (23.3)	10.26 (33.7)	9.39 (30.8)	13.14 (43.1)	12.41 (40.7)	19.64 (64.4)	19.55 (64.1)	29.61 (97.1)	29.50 (96.8)	46.81 (153.6)	–	
	7.62 (300″)	5.18 (17.0)	6.43 (21.1)	8.53 (28.0)	12.33 (40.4)	11.28 (37.0)	15.79 (51.8)	14.91 (48.9)	23.59 (77.4)	23.49 (77.1)	35.56 (116.7)	35.46 (116.3)	56.24 (184.5)	–	
	10.16 (400″)	6.93 (22.7)	8.59 (28.2)	11.39 (37.4)	16.45 (54.0)	15.07 (49.4)	21.07 (69.1)	19.90 (65.3)	31.48 (103.3)	31.36 (102.9)	47.46 (155.7)	47.38 (155.4)	75.08 (246.3)	–	
	12.70 (500″)	8.67 (28.5)	10.75 (35.3)	14.25 (46.7)	20.58 (67.5)	18.86 (61.9)	26.36 (86.5)	24.90 (81.7)	39.37 (129.2)	39.23 (128.7)	59.36 (194.7)	59.30 (194.6)	93.93 (308.2)	–	
	15.24 (600″)	10.42 (34.2)	12.91 (42.3)	17.11 (56.1)	24.70 (81.0)	22.64 (74.3)	31.65 (103.8)	29.89 (98.1)	47.25 (155.0)	47.11 (154.6)	71.25 (233.8)	71.22 (233.7)	112.77 (370.0)	–	
PT-RW930/ RW730/ RW620 (16:10 aspect ratio)	1.27 (50″)	0.87 (2.8)	1.09 (3.6)	1.45 (4.7)	2.12 (6.9)	1.91 (6.3)	2.70 (8.9)	2.54 (8.3)	4.06 (13.3)	4.00 (13.1)	6.11 (20.1)	5.96 (19.5)	9.59 (31.5)	0.87 (2.9)	
	1.52 (60″)	1.05 (3.4)	1.32 (4.3)	1.75 (5.7)	2.55 (8.4)	2.31 (7.6)	3.26 (10.7)	3.07 (10.1)	4.89 (16.0)	4.83 (15.8)	7.36 (24.2)	7.21 (23.6)	11.57 (38.0)	1.06 (3.5)	
	1.78 (70″)	1.23 (4.1)	1.54 (5.1)	2.05 (6.7)	2.98 (9.8)	2.71 (8.9)	3.81 (12.5)	3.59 (11.8)	5.72 (18.8)	5.65 (18.5)	8.61 (28.2)	8.46 (27.8)	13.55 (44.5)	1.24 (4.1)	
	2.03 (80″)	1.42 (4.7)	1.77 (5.8)	2.35 (7.7)	3.42 (11.2)	3.11 (10.2)	4.37 (14.3)	4.12 (13.5)	6.55 (21.5)	6.48 (21.3)	9.86 (32.3)	9.71 (31.9)	15.53 (51.0)	1.42 (4.7)	
	2.29 (90″)	1.60 (5.3)	2.00 (6.5)	2.65 (8.7)	3.85 (12.6)	3.50 (11.5)	4.92 (16.2)	4.64 (15.2)	7.38 (24.2)	7.31 (24.0)	11.11 (36.4)	10.96 (36.0)	17.51 (57.4)	1.61 (5.3)	
	2.54 (100″)	1.78 (5.9)	2.22 (7.3)	2.95 (9.7)	4.28 (14.0)	3.90 (12.8)	5.48 (18.0)	5.18 (16.9)	8.20 (26.9)	8.13 (26.7)	12.36 (40.5)	12.21 (40.1)	19.49 (63.9)	1.79 (5.9)	
	3.05 (120″)	2.15 (7.1)	2.68 (8.8)	3.55 (11.6)	5.15 (16.9)	4.70 (15.4)	6.59 (21.6)	6.21 (20.4)	9.86 (32.4)	9.79 (32.1)	14.86 (48.7)	14.72 (48.3)	23.45 (76.9)	2.16 (7.1)	
	3.81 (150″)	2.70 (8.9)	3.36 (11.0)	4.45 (14.6)	6.45 (21.2)	5.89 (19.3)	8.25 (27.1)	7.79 (25.5)	12.35 (40.5)	12.27 (40.2)	18.61 (61.0)	18.47 (60.6)	29.38 (96.4)	2.71 (8.9)	
	5.08 (200″)	3.61 (11.9)	4.49 (14.7)	5.95 (19.5)	8.61 (28.3)	7.88 (25.8)	11.03 (36.2)	10.41 (34.2)	16.49 (54.1)	16.40 (53.8)	24.85 (81.5)	24.73 (81.1)	39.28 (128.9)	3.63 (11.9)	
	6.35 (250″)	4.53 (14.9)	5.62 (18.4)	7.45 (24.5)	10.78 (35.4)	9.86 (32.4)	13.81 (45.3)	13.03 (42.8)	20.63 (67.7)	20.53 (67.4)	31.10 (102.0)	30.99 (101.7)	49.17 (161.3)	–	
	7.62 (300″)	5.45 (17.9)	6.76 (22.2)	8.95 (29.4)	12.95 (42.5)	11.85 (38.9)	16.58 (54.4)	15.65 (51.4)	24.77 (81.3)	24.67 (80.9)	37.34 (122.5)	37.25 (122.2)	59.06 (193.8)	–	
	10.16 (400″)	7.28 (23.9)	9.02 (29.6)	11.96 (39.2)	17.28 (56.7)	15.83 (51.9)	22.13 (72.6)	20.90 (68.6)	33.05 (108.4)	32.94 (108.1)	49.84 (163.5)	49.76 (163.3)	78.85 (258.7)	–	
	12.70 (500″)	9.11 (29.9)	11.29 (37.0)	14.96 (49.1)	21.61 (70.9)	19.80 (65.0)	27.68 (90.8)	26.14 (85.8)	41.34 (135.6)	41.20 (135.2)	62.33 (204.5)	62.28 (204.3)	98.64 (323.6)	–	
	15.24 (600″)	10.94 (35.9)	13.55 (44.5)	17.96 (58.9)	25.94 (85.1)	23.78 (78.0)	33.23 (109.0)	31.39 (103.0)	49.62 (162.8)	49.47 (162.3)	74.82 (245.5)	74.80 (245.4)	118.42 (388.5)	–	
PT-RX110 (4:3 aspect ratio)	1.27 (50″)	0.81 (2.6)	1.01 (3.3)	1.34 (4.4)	1.97 (6.5)	1.78 (5.8)	2.51 (8.2)	2.36 (7.7)	3.78 (12.4)	3.71 (12.2)	5.68 (18.6)	5.52 (18.1)	8.91 (29.2)	0.81 (2.7)	
	1.52 (60″)	0.98 (3.2)	1.22 (4.0)	1.62 (5.3)	2.37 (7.8)	2.15 (7.0)	3.03 (9.9)	2.85 (9.3)	4.55 (14.9)	4.48 (14.7)	6.84 (22.5)	6.69 (21.9)	10.75 (35.3)	0.98 (3.2)	
	1.78 (70″)	1.15 (3.8)	1.43 (4.7)	1.90 (6.2)	2.77 (9.1)	2.52 (8.3)	3.55 (11.6)	3.34 (11.0)	5.32 (17.5)	5.25 (17.2)	8.01 (26.3)	7.86 (25.8)	12.60 (41.3)	1.15 (3.8)	
	2.03 (80″)	1.32 (4.3)	1.64 (5.4)	2.18 (7.2)	3.18 (10.4)	2.89 (9.5)	4.06 (13.3)	3.83 (12.6)	6.09 (20.0)	6.02 (19.8)	9.17 (30.1)	9.02 (29.6)	14.44 (47.4)	1.32 (4.3)	
	2.29 (90″)	1.49 (4.9)	1.85 (6.1)	2.46 (8.1)	3.58 (11.7)	3.26 (10.7)	4.58 (15.0)	4.31 (14.2)	6.86 (22.5)	6.79 (22.3)	10.33 (33.9)	10.19 (33.4)	16.28 (53.4)	1.49 (4.9)	
	2.54 (100″)	1.66 (5.4)	2.07 (6.8)	2.74 (9.0)	3.98 (13.1)	3.63 (11.9)	5.10 (16.7)	4.80 (15.8)	7.63 (25.0)	7.56 (24.8)	11.50 (37.7)	11.35 (37.2)	18.12 (59.5)	1.66 (5.5)	
	3.05 (120″)	2.00 (6.6)	2.49 (8.2)	3.30 (10.8)	4.79 (15.7)	4.37 (14.3)	6.13 (20.1)	5.78 (19.0)	9.17 (30.1)	9.10 (29.9)	13.82 (45.3)	13.68 (44.9)	21.81 (71.5)	2.01 (6.6)	
	3.81 (150″)	2.51 (8.2)	3.12 (10.2)	4.14 (13.6)	6.00 (19.7)	5.48 (18.0)	7.68 (25.2)	7.24 (23.8)	11.49 (37.7)	11.41 (37.4)	17.31 (56.8)	17.18 (56.4)	27.33 (89.7)	2.52 (8.3)	
	5.08 (200″)	3.36 (11.0)	4.18 (13.7)	5.54 (18.2)	8.02 (26.3)	7.33 (24.0)	10.26 (33.7)	9.69 (31.8)	15.34 (50.3)	15.26 (50.1)	23.13 (75.9)	23.00 (75.5)	36.54 (119.9)	3.38 (11.1)	
	6.35 (250″)	4.21 (13.8)	5.23 (17.2)	6.94 (22.8)	10.03 (32.9)	9.18 (30.1)	12.85 (42.2)	12.13 (39.8)	19.20 (63.0)	19.11 (62.7)	28.94 (95.0)	28.83 (94.6)	45.75 (150.1)	–	
	7.62 (300″)	5.07 (16.6)	6.29 (20.6)	8.33 (27.3)	12.05 (39.5)	11.03 (36.2)	15.43 (50.6)	14.57 (47.8)	23.06 (75.6)	22.96 (75.3)	34.76 (114.0)	34.66 (113.7)	54.97 (180.3)	–	
	10.16 (400″)	6.77 (22.2)	8.40 (27.5)	11.13 (36.5)	16.08 (52.8)	14.73 (48.3)	20.60 (67.6)	19.45 (63.8)	30.77 (100.9)	30.65 (100.6)	46.39 (152.2)	46.31 (151.9)	73.39 (240.8)	–	
	12.70 (500″)	8.48 (27.8)	10.51 (34.5)	13.92 (45.7)	20.12 (66.0)	18.43 (60.5)	25.77 (84.5)	24.33 (79.8)	38.48 (126.2)	38.35 (125.8)	85.02 (190.4)	57.96 (190.2)	91.81 (301.2)	–	
	15.24 (600″)	10.18 (33.4)	12.62 (41.4)	16.72 (54.9)	24.15 (79.2)	22.13 (72.6)	30.94 (101.5)	29.22 (95.9)	46.19 (151.5)	46.05 (151.1)	69.65 (228.5)	69.61 (228.4)	110.23 (361.6)	–	

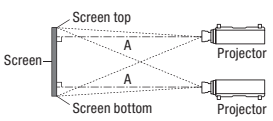
Unit: meters (feet)

Screen size (diagonal)		ET-DLE030 Ultra-Short-Throw Lens*2					
		Projection distance				Close-up system dimensions	
		(A)	(B)	(C)		(D)	(E)
PT-RZ970/ RZ770/ RZ660 (16:10 aspect ratio)	2.54 (100″)	0.82 (2.7)	0.65 (2.1)	0.11 (0.4)		0.43 (1.4)	0.63 (2.1)
	3.05 (120″)	0.98 (3.2)	0.81 (2.7)	0.28 (0.9)		0.53 (1.7)	0.73 (2.4)
	3.81 (150″)	1.23 (4.0)	1.06 (3.5)	0.52 (1.7)		0.68 (2.2)	0.88 (2.9)
	5.08 (200″)	1.63 (5.3)	1.46 (4.8)	0.93 (3.1)		0.93 (3.1)	1.13 (3.7)
	6.35 (250″)	2.04 (6.7)	1.87 (6.1)	1.34 (4.4)		1.18 (3.9)	1.38 (4.5)
	7.62 (300″)	2.45 (8.0)	2.28 (7.5)	1.74 (5.7)		1.43 (4.7)	1.63 (5.4)
	8.89 (350″)	2.85 (9.4)	2.68 (8.8)	2.15 (7.1)		1.69 (5.5)	1.89 (6.2)
PT-RW930/ RW730/ RW620 (16:10 aspect ratio)	2.54 (100″)	0.86 (2.8)	0.69 (2.3)	0.16 (0.5)		0.59 (1.9)	0.79 (2.6)
	3.05 (120″)	1.03 (3.4)	0.86 (2.8)	0.33 (1.1)		0.72 (2.4)	0.92 (3.0)
	3.81 (150″)	1.29 (4.2)	1.12 (3.7)	0.58 (1.9)		0.92 (3.0)	1.12 (3.7)
	5.08 (200″)	1.71 (5.6)	1.54 (5.1)	1.01 (3.3)		1.25 (4.1)	1.45 (4.8)
	6.35 (250″)	2.14 (7.0)	1.97 (6.5)	1.44 (4.7)		1.58 (5.2)	1.78 (5.8)
	7.62 (300″)	2.57 (8.4)	2.40 (7.9)	1.86 (6.1)		1.91 (6.3)	2.11 (6.9)
	8.89 (350″)	3.00 (9.8)	2.83 (9.3)	2.29 (7.5)		2.24 (7.3)	2.44 (8.0)
PT-RX110 (4:3 aspect ratio)	2.54 (100″)	0.80 (2.6)	0.63 (2.1)	0.10 (0.3)		0.41 (1.3)	0.61 (2.0)
	3.05 (120″)	0.96 (3.1)	0.79 (2.6)	0.26 (0.9)		0.50 (1.6)	0.70 (2.3)
	3.81 (150″)	1.20 (3.9)	1.03 (3.4)	0.49 (1.6)		0.65 (2.1)	0.85 (2.8)
	5.08 (200″)	1.60 (5.2)	1.43 (4.7)	0.89 (2.9)		0.88 (2.9)	1.08 (3.5)
	6.35 (250″)	1.99 (6.5)	1.83 (6.0)	1.29 (4.2)		1.12 (3.7)	1.32 (4.3)
	7.62 (300″)	2.39 (7.8)	2.23 (7.3)	1.69 (5.5)		1.36 (4.5)	1.56 (5.1)
	8.89 (350″)	2.79 (9.2)	2.62 (8.6)	2.09 (6.9)		1.60 (5.2)	1.80 (5.9)

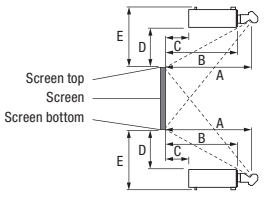
*1 Optical axis shift cannot be operated when using ET-DLE055. *2 Optical axis is fixed to center when using ET-DLE030.

Dimension Definitions

If using lens other than the ET-DLE030

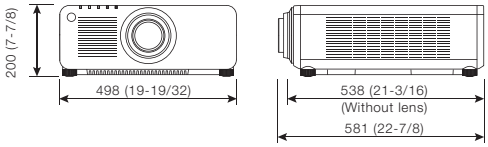


If using the ET-DLE030



Dimensions

unit: mm (inches)



Specifications

Model		PT-RZ970/RZ770/RZ660	PT-RW930/RW730/RW620	PT-RX110
Power supply		AC 100–240 V, 50/60 Hz		
Power consumption		**[PT-RZ970/RW930/RX110]** 1,050 W, Normal*: 742 W, Eco*: 617 W, Long Life 1*: 410–588 W, Long Life 2*: 375–588 W, Long Life 3*: 349–588 W, Shutter*: 82 W; **[PT-RZ770/RW730]** 825 W, Normal*: 593 W, Eco*: 508 W, Long Life 1*: 333–477 W, Long Life 2*: 310–477 W, Long Life 3*: 286–477 W, Shutter*: 72 W; **[PT-RZ660/RW620]** 700 W, Normal*: 499 W, Eco*: 428 W, Long Life 1*: 287–402 W, Long Life 2*: 262–402 W, Long Life 3*: 238–402 W, Shutter*: 69 W; **[Common]** Standby: 85 W with Quick Startup Mode set to ON, 0.2 W with Standby Mode set to Eco, 3 W with Standby Mode set to Normal **In conditions with an operating temperature of 25 °C [77 °F], altitude 700 m [2,297 ft], IEC62087: 2008 Broadcast Content, Picture Mode: Standard, Dynamic Contrast: 2.**		
DLP™ chip	Panel size	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	17.8 mm (0.7 in) diagonal (4:3 aspect ratio)
	Display method	DLP™ chip × 1, DLP™ projection system		
	Pixels	2,304,000 (1920 x 1200) pixels	1,024,000 (1280 x 800) pixels	786,432 (1024 x 768) pixels
Lens		Powered zoom (throw ratio 1.7–2.4:1), powered focus F 1.7–1.9, f 25.6–35.7 mm	Powered zoom (throw ratio 1.8–2.5:1), powered focus F 1.7–1.9, f 25.6–35.7 mm	
Light source		Laser diodes laser Class 1 (Class 3R for US models), light source life*1: 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)		1.27–15.24 m (50–600 in), 1.27–5.08 m (50–200 in) with ET-DLE055, 2.54–8.89 m (100–350 in) with ET-DLE030, 16:10 aspect ratio (except PT-RX110), 4:3 aspect ratio (PT-RX110)		
Brightness		PT-RZ970: 10,000 lm (Center)*2 / 9,400 lm*1 PT-RZ770: 7,200 lm (Center)*2 / 7,000 lm*1 PT-RZ660: 6,200 lm (Center)*2 / 6,000 lm*1	PT-RW930: 10,000 lm (Center)*2 / 9,400 lm*1 PT-RW730: 7,200 lm (Center)*2 / 7,000 lm*1 PT-RW620: 6,200 lm (Center)*2 / 6,000 lm*1	10,400 lm (Center)*2 / 10,000 lm*1
Center-to-corner uniformity*1		90 %		
Contrast*1		10,000:1 (Full On/Full Off, Dynamic Contrast Mode: 3)		
Resolution		1920 x 1200 pixels	1280 x 800 pixels	1024 x 768 pixels
Scanning frequency	SD-SDI	SMPTE ST 259 compliant, [YCBCR 4:2:2 10-bit] 480i (525i), 625i (576i)	—	
	HD-SDI	SMPTE ST 292 compliant, [YPBPR 4:2:2 10-bit] 750 (720)/60p, 750 (720)/50p, 1125 (1080)/60i, 1125 (1080)/50i, 1125 (1080)/25p, 1125 (1080)/24p, 1125 (1080)/24sF, 1125 (1080)/30p	—	
	3G-SDI	SMPTE ST 424 compliant, [RGB 4:4:4 12-bit/10-bit] 1125 (1080)/60i, 1125 (1080)/50i, 1125 (1080)/25p, 1125 (1080)/24p, 1125 (1080)/24sF, 1125 (1080)/30p, 2K/24p, 2K/25p, 2K/30p, [YPBPR 4:2:2 10-bit] 1125 (1080)/60p, 1125 (1080)/50p, 2K/48p, 2K/50p, 2K/60p	—	
	HDMI/DVI-D/DIGITAL LINK	525i (480i)*3, 625i (576i)*3, 525p (480p), 625p (576p), 750 (720)/60p, 750 (720)/50p, 1125 (1080)/60i, 1125 (1080)/50i, 1125 (1080)/25p, 1125 (1080)/24p, 1125 (1080)/24sF, 1125 (1080)/30p, 1125 (1080)/60p, 1125 (1080)/50p, 640 x 400–WUXGA*4 (1920 x 1200) (compatible with non-interlaced signals only), dot clock: 25–162 MHz		
	RGB	fH: 15–100 kHz, fV: 24–120 Hz, dot clock: 20–162 MHz		
	YPBPR (YCBCR)	fH: 15.73 kHz, fV: 59.9 Hz [525i (480i)], fH: 15.63 kHz, fV: 50 Hz [625i (576i)], fH: 45.00 kHz, fV: 60 Hz [750 (720)/60p], fH: 33.75 kHz, fV: 60 Hz [1125 (1080)/60i], fH: 28.13 kHz, fV: 50 Hz [1125 (1080)/50i], fH: 27.00 kHz,fV: 24 Hz [1125 (1080)/24p], fH: 33.75 kHz, fV: 30 Hz [1125 (1080)/30p], fH: 56.25 kHz, fV: 50 Hz [1125 (1080)/50p], fH: 31.50 kHz, fV: 59.9 Hz [525p (480p)], fH: 31.25 kHz, fV: 50 Hz [625p (576p)], fH: 37.50 kHz, fV: 50 Hz [750 (720)/50p], fH: 33.75 kHz, fV: 60 Hz [1125 (1080)/60i], fH: 28.13 kHz, fV: 25 Hz [1125 (1080)/25p], fH: 27.00 kHz, fV: 48 Hz [1125 (1080)/24sF], fH: 67.50 kHz, fV: 60 Hz [1125 (1080)/60p]		
	Video/YC	fH: 15.73 kHz, fV: 59.9 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)	+50 %, -16 % (powered)	+60 %, -16 % (powered)	+50 %, -13 % (+45 %, -13 % with ET-DLE085) (powered)
	Horizontal (from center of screen)	+30 %, -10 % (+28 %, -10 % with ET-DLE085) (powered)		
Keystone correction range		Vertical: ±40 ° (±22 ° with ET-DLE085/DLE055, +5 ° with ET-DLE085/DLE055/DLE030), horizontal: ±15 ° (Cannot be operated with ET-DLE085/DLE055/DLE030)		Vertical: ±40 ° (±22 ° with ET-DLE085/DLE055, +5 ° with ET-DLE030), Horizontal: ±15 ° (Cannot be operated with ET-DLE085/DLE055/DLE030
Keystone correction range with optional Upgrade Kit ET-UK20		Vertical: ±45 °(±40 ° with ET-DLE150/DLE250/supplied lens, ±22 ° with ET-DLE085/DLE055), horizontal: ±40 ° (±15 ° with ET-DLE085/DLE055), Up to a total of ±55 ° during simultaneous horizontal and vertical correction.	—	
Installation		Ceiling/floor, front/rear, free 360-degree installation		
Terminals	SDI IN	BNC × 1: 3G/HD/SD-SDI input	—	
	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		
	SERIAL/MULTI PROJECTOR SYNC IN	D-sub 9-pin (female) × 1 for contrast sync/shutter sync/external control (RS-232C compliant)		
	SERIAL/MULTI PROJECTOR SYNC OUT	D-sub 9-pin (male) × 1 for contrast sync/shutter sync/RS-232C link control		
	REMOTE 1 IN	M3 × 1 for wired remote control		
	REMOTE 1 OUT	M3 x 1 for link control (for wired remote control)		
	REMOTE 2 IN	D-sub 9-pin (female) × 1 for external control (parallel)		
	LAN/DIGITAL LINK	RJ-45 × 1 for network, DIGITAL LINK connection, 100Base-TX, compatible with Art-Net, PJLink™, Deep Color, HDCP		
Cabinet materials		Molded plastic		
Dimensions (W × H × D)		498 x 200*6 x 581 mm (19 19/32˝ x 7 7/8˝*6 x 22 7/8˝) (with supplied lens) 498 x 200*6 x 538 mm (19 19/32˝ x 7 7/8˝*6 x 21 3/16˝) (without lens)		
Weight*7		**PT-RZ970/RW930/RX110/RZ770/RW730**: Approx. 23.2 kg (51.1 lbs.) (with supplied lens), Approx. 22.4 kg (49.4 lbs.) (without lens) **PT-RZ660/RW620**: Approx. 23.1 kg (50.9 lbs.) (with supplied lens), Approx. 22.3 kg (49.2 lbs.) (without lens)		
Operation noise*1		**PT-RZ970/RW930/RX110**: 41 dB, **PT-RZ770/RW730**: 37 dB, **PT-RZ660/RW620**: 35 dB		
Operating environment		Operating temperature: 0–45 °C (32–113 °F)*8, operating humidity: 10–80 % (no condensation)		
Applicable software		Logo Transfer Software, Multi Monitoring & Control Software, Early Warning Software, Geometry Manager Pro*9 (ET-UK20*9 Upgrade Kit and ET-CUK*10 Auto Screen Adjustment Kit)		
Supplied accessories		Power cord, wireless/wired remote control unit, batteries (R03/AAA type x 2), software CD-ROM (Logo Transfer Software, Multi Monitoring & Control Software), projection lens cover, lens cover (models with lens only)		

Note: The PT-RZ970L/RZ770L/RZ660L/RW930L/RW730L/RW620L/RX110L delivers the same performance as the PT-RZ970/RZ770/RZ660/RW930/RW730/RW620/RX110, but comes without a lens.

*1 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2012 international standards. *2 Measured at center area of projector screen. Measurement method is in compliance with ISO/IEC 21118: 2012. Value is average of all products when shipped. May differ depending on actual unit. *3 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal). *4 WUXGA resolution is supported with CVT-RB signals (WUXGA60RB) and CVT signals (WUXGA50). *5 Optical axis shift is not supported on the ET-DLE055, and the optical axis is fixed with the ET-DLE030. *6 With legs at shortest position. *7 Average value. May differ depending on the actual unit. *8 When used in locations from 0 m to 4,200 m (0 ft to 13,780 ft) above sea level in Normal Mode, and from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level in other modes. If the ambient temperature exceeds 35 °C (95 °F) [30 °C (86 °F) for PT-RZ970/RW930/RX110] when used in locations from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level, or if it exceeds 25 °C (77 °F) when used in locations from 2,700 m to 4,200 m (8,858 ft to 13,780 ft) above sea level, the light output may be reduced to protect the projector. *9 Available only with PT-RZ970/RZ770/RZ660. *10 Available only with PT-RZ970/RZ770/RZ660. Available worldwide except the United States.

The cabinet for each model is available in black or white.

Black models

PT-RZ970B
PT-RW930B
PT-RX110B
PT-RZ770B
PT-RW730B
PT-RZ660B
PT-RW620B

[Models with supplied lens]

PT-RZ970LB
PT-RW930LB
PT-RX110LB
PT-RZ770LB
PT-RW730LB
PT-RZ660LB
PT-RW620LB

[Models without lens]

White models

PT-RZ970W
PT-RW930W
PT-RX110W
PT-RZ770W
PT-RW730W
PT-RZ660W
PT-RW620W

[Models with supplied lens]

PT-RZ970LW
PT-RW930LW
PT-RX110LW
PT-RZ770LW
PT-RW730LW
PT-RZ660LW
PT-RW620LW

[Models without lens]

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www.panasonic-center.at

All information included here is valid as of September 2016.

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