Panasonic

PT-**DZ870** Series

1-Chip DLP™ Projectors

PT-**DZ870**
PT-**DZ870**L
PT-**DW830**
PT-**DW830**L
PT-**DX100**
PT-**DX100**L

A Bright 10,000 lm*, Stunning Colors and Highly Flexible Projection
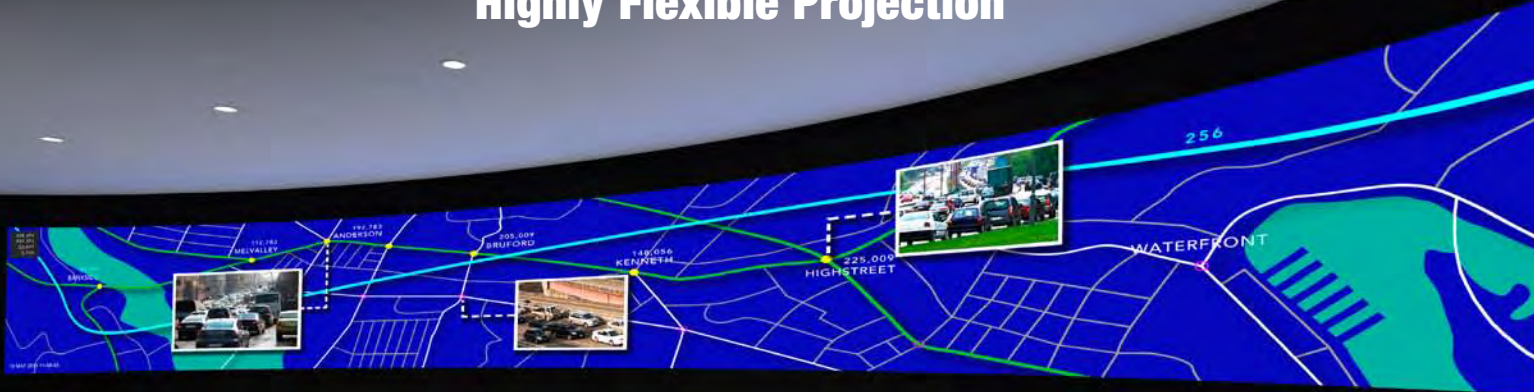
* For the PT-DX100/DX100L. 8,500 lm for the PT-DZ870/DZ870L and PT-DW830/DW830L.

PT-**DZ870**K PT-**DZ870**LK	PT-**DW830**K PT-**DW830**LK	PT-**DX100**K PT-**DX100**LK		PT-**DZ870**W PT-**DZ870**LW	PT-**DW830**W PT-**DW830**LW	PT-**DX100**W PT-**DX100**LW
WUXGA	WXGA	XGA		WUXGA	WXGA	XGA
8,500 lm	8,500 lm	10,000 lm		8,500 lm	8,500 lm	10,000 lm

The PT-DZ870LK/DZ870LW, PT-DW830LK/DW830LW, and PT-DX100LK/DX100LW are not equipped with a lens.
The cabinet for each model is available in black (PT-DZ870K/DW830K/DX100K) or white (PT-DZ870W/DW830W/DX100W).
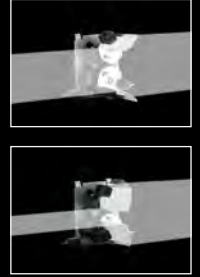
PICTURE BY
DLP™
A TEXAS INSTRUMENTS TECHNOLOGY

Flagship Quality in a 1-Chip DLP™ Projector

Panasonic has raised the level of its top-end 1-chip DLP™ projector even further with the new PT-DZ870 Series. It features many of the advanced functions that are found in our flagship 3-chip DLP™ projector. It also includes the Dynamic RGB Booster, which achieves stunning image quality with high levels of color reproduction and brightness, and an optical block with dust-resistant structure. These features enable a degree of color reproduction that approaches our highest level projectors, and a raised level of reliability. It satisfies professional users' demands for higher return on investment (ROI), lower total cost of ownership (TCO), superior performance, and expanded application flexibility. Geometric adjustment, portrait projection, 3D projection, and multi-screen projection further increase flexibility in use. If you want truly creative imaging, you'll find it in the PT-DZ870 Series.

Vivid Picture Quality with High Brightness

Bright 10,000/8,500 lm from Compact Body
A unique lamp drive system has helped to make the body compact, while two newly developed, high-output, 420 W lamps provide high brightness of 10,000 lm for the PT-DX100 and 8,500 lm for the PT-DZ870/DW830.

Dynamic Iris for a High 10,000:1[1] Contrast Ratio
Panasonic's Dynamic Iris uses a scene-linking aperture mechanism to achieve a remarkable 10,000:1[1] contrast without lowering its high brightness. This helps to reproduce deeper, richer blacks, and provides images with more detailed textures.

The New Dynamic RGB Booster Enhances Both Brightness and Color Reproduction

Panasonic's RGB Booster achieves high image quality with levels of color reproduction and brightness that make each color stand out. It combines Panasonic's proprietary Vivid Color Control technology with a Lamp Modulation Drive System for a 1-chip DLP™ projector that produces bright and vivid colors. This has been further advanced in the PT-DZ870 Series with the development of the Dynamic RGB Booster. Images are analyzed frame by frame, and scene-linking and realtime modulation are used to achieve high brightness and vivid color reproduction.

• Vivid Color Control

This technology optimizes the use of the color wheel segments. It increases the brightness of each RGB color by minimizing the unallocated portions between the colors, to produce truly vivid coloring.

• Lamp Modulation Drive System

Conventional system:
Because the lamp power was fixed, color reproduction was enhanced by sacrificing brightness.
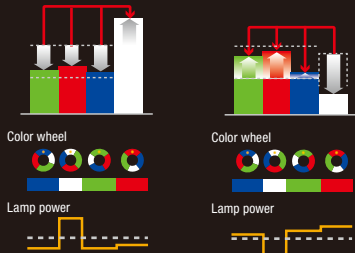
Color wheel

Lamp power
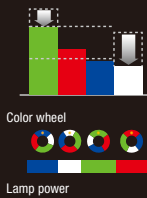
Dynamic RGB Booster: Images are analyzed frame by frame, and the lamp output is modulated to match each scene. This achieves optimal brightness and color reproduction for a wide variety of scenes. coloring.
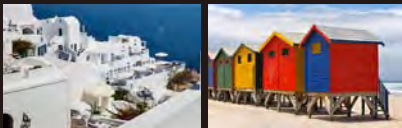
Bright scenes   Colorful scenes

Color wheel   Color wheel

Lamp power   Lamp power

The boost amount is controlled in real time as the images are projected.

Detail Clarity Processor 3 Gives Natural Clarity to Even the Finest Details

This unique Panasonic circuit optimizes the sharpness of each image, based on the super-high-, high-, medium-, and lowfrequency components of the extracted image information. The resulting images have more natural, lifelike expression.
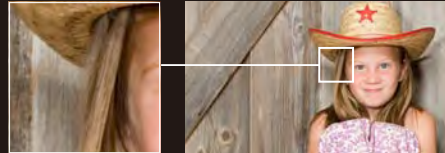
Conventional sharpness control

Detail Clarity Processor 3

System Daylight View 2 for Enhanced Color Perception

This unique Panasonic technology optimizes image quality to improve the color perception of the projected image in bright rooms. With a brightness of 10,000 lm[*2], it provides highly comfortable viewing even in bright lighting, and allows viewers to concentrate easily on the images.
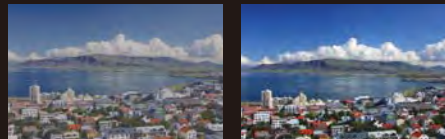
Without System Daylight View 2   With System Daylight View 2

DICOM Simulation Mode[*3]

This imaging mode is similar to DICOM part 14, which is a medical imaging standard. It reproduces X-ray images with remarkable clarity.

Normal mode   DICOM simulation mode

Rec. 709 Mode for HDTV Projection

Optimal color reproduction can be achieved by selecting this mode, compliant with ITU-R Recommendation BT.709, when images from an HDTV source are projected.

Waveform Monitor Function

When the output level of the source device fluctuates due to the performance of the device or its cable connections, the original black and white levels of the image content cannot be reproduced correctly. With the PT-DZ870 Series projector you can view the waveforms on the screen and adjust the settings either automatically or manually as you prefer.

White Level Adjustment

Before   After

Black Level Adjustment

Before   After
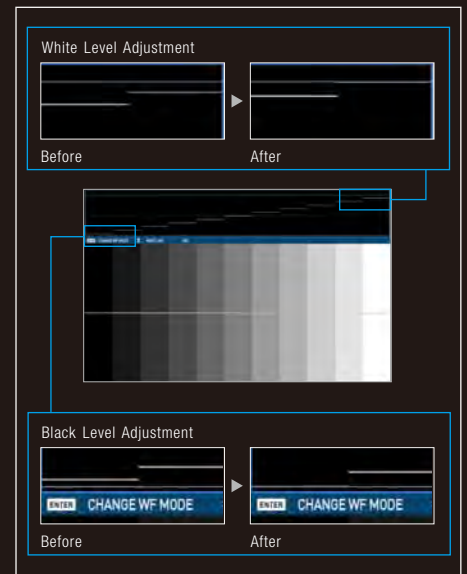
Full-HD Ready WUXGA Resolution

The PT-DZ870 features native WUXGA resolution for full-HD viewing. This brings you lifelike projection of intricate, highly detailed images.

Advanced Technologies for Excellent Image Quality

• 3D color management system
• Full 10-bit image processing
• Progressive cinema scan (3:2 pulldown)
• Dynamic sharpness control
• Digital noise reduction
• IP conversion
• AI scene control
• 2:2 pulldown mode
• sRGB compatibility

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*1   Full on/off, with dynamic iris on.
*2   For the PT-DX100/DX100L. 8,500 lm for the PT-DZ870/DZ870L and PT-DW830/DW830L.
*3   This product is not a medical instrument. Do not use it for actual medical diagnosis.

Easy Maintenance and Superior Reliability

System Integration Flexibility

Panasonic's Original Dual Lamp System

This system eliminates the interruption if a lamp should fail (in dual-lamp operation mode). The Lamp Relay mode also operates the lamps alternately to enable 24/7 projection.

Long Lamp Life Contributes to Low TCO

The PT-DZ870 Series projectors lower the total cost of ownership because they have a lamp replacement cycle of up to 4,000 hours[*4].

Lamp mode	Brightness (lumens)		Lamp replacement cycle (hours)[*4]
	PT-DZ870 PT-DW830	PT-DX100	
Dual: Normal	8,500	10,000	3,000
Dual: Eco	6,800	8,000	4,000
Single: Normal	4,250	5,000	6,000
Single: Eco	3,400	4,000	8,000

Filter-Less Dust-Resistant Optical Engine

• A Heat-Pipe Cooling System Maintains Stable Operation up to 45°C[*5]

A new optical cooling system featuring a heat pipe block suppresses temperature rises inside the projector and allows stable operation up to an ambient temperature of 45°C (113°F)[*5]. The use of this heat-pipe cooling system also achieves quiet operation, enabling viewers to concentrate on the presentation or on quiet movie scenes.

• Dust-Resistant Optical Block

The optical block, the heart of the projector, is hermetically sealed to resist the effects of dust and other particles in the air, which makes it possible to remove the air filters for optics. It also contributes to the low TCO.

Easy Lamp Replacement [*6]

For easier maintenance, you can replace the lamp from the rear. This makes it easy to replace a lamp unit while the projector is still in the mounting bracket or dual stacked.

DIGITAL LINK—The Single Cable Solution

• Transmits Digital Signals up to 100 m (328 ft) with a Single Cable

Equipped with a DIGITAL LINK terminal, the PT-DZ870 Series projector allows transmission of HDMI, uncompressed HD digital video, audio[*7] and control signals (Ethernet, RS-232C) for up to 100 meters (328 feet) through a single CAT5e (STP) cable or higher. This simplifies cabling and system upgrades, making it ideal for ceiling-mounted and other permanent installations.

• Optional ET-YFB100G Digital Interface Box for Easy Setup

Used together with the new ET-YFB100G Digital Interface Box, or other compatible equipment[*8], the installation of this projector is easier than ever, without any need for external receivers. The input signal can also be easily switched[*9] from control panel or remote control of the projector to enable attractive presentations or lessons using multimedia content.
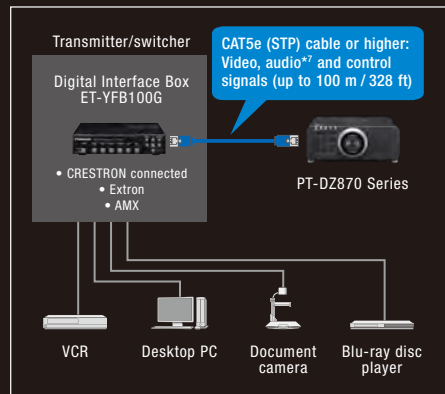
For details on other manufacturers' equipment, visit our Projector Global Web Site:
panasonic.net/avc/projector

Art-Net[*10] Compatible

The PT-DZ870 Series projector is compatible with the Art-Net protocol for lighting management. Art-Net compatibility lets you connect the projector to the lighting console, and operate functions such as shutter on/off, input change, power on/off, etc., together with the light control.

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. The PC software assures easy, accurate control.

• Multi-Screen Processor

The PT-DZ870 Series can project large, multi-screen images without any additional equipment. Up to 100 (10 × 10) units can be edge-blended at a time.
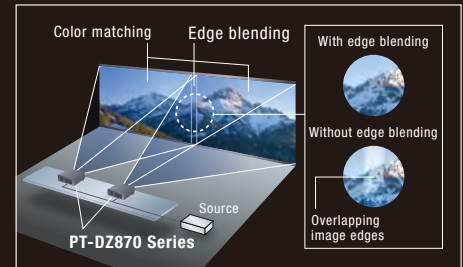
Multi-Unit Brightness Control

This function automatically corrects the brightness fluctuations that occur over time in the individual projectors of a multi-screen system. Up to eight projectors can be controlled by connecting to each other via a hub, and this can be increased to a maximum of 2,048 projectors by using "Multi Projector Monitoring & Control Software Ver. 2.8."

New Geometric Adjustment for Specially Shaped Screens (PT-DZ870)

This function adjusts the image for projection onto spherical, cylindrical and other specially shaped screens. You can make the adjustment easily using only the remote control, with no external equipment needed.

Flexible calibration lets you project onto curved surfaces.
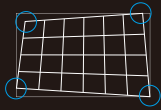
Each corner can be independently adjusted, and up to three sets of adjusted data can be stored.
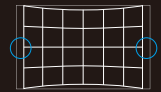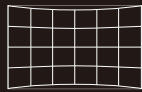
Keep aspect on.　　　Keep aspect off.

You can keep the aspect on when correcting curves. To make effective use of the screen area, you can also turn the aspect-keeping function off.

Optional Upgrade Kit ET-UK20 Featuring Geometry Manager Pro (PT-DZ870)

The new Geometry Manager Pro software included in the optional upgrade kit supports Color Matching, Edge Blending, uniformity correction, and other useful functions for multi-projector set-ups (max. 32 units). It also allows creative masking using four lines or bitmap data. And its flexible and complex geometric adjustment capability suits a wide variety of screen shapes.

Line masking

Bitmap masking: Detailed masking is also possible with an image of up to 1,920 by 1,200.
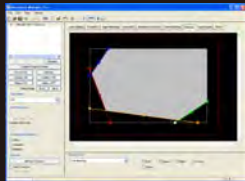
Create masking data...
▼
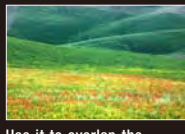
Use it to overlap the projection image...
▼

And the image is projected only in the designated areas.

Active 3D Projection Capability

The PT-DZ870 Series is compatible with both passive and active 3D projection systems. It combines with either a separate, external 100/120/144 Hz drive with IR emitter and active shutter glasses, or an active filter and passive glasses, for viewing 3D images.

Flexible Installation

The wide adjustment range of the powered horizontal/vertical lens shift function can be easily adjusted with the remote control. The unit can also be rotated 360 degrees vertically, to accommodate various installation conditions. The lens-centered design contributes to easy installation.

Portrait Mode Capability (Optional)*11

Portrait projection is possible by mounting the optional ET-LAD120P or ET-LAD120PW lamp units, updating the projector's firmware*12, and installing the projector with its terminal side surface facing downward.

Multiple Terminals with HD-SDI Compatibility

The PT-DZ870 Series has an array of terminals, including 3D sync, DVI-D and HDMI terminals. The PT-DZ870 also features an SDI (SD-, HD-, and 3G-SDI) input terminal.

Multi Projector Monitoring & Control Software Ver. 2.8

Panasonic's original Multi Projector Monitoring & Control Software Ver. 2.8 freeware lets you control and monitor multiple projectors at the same time over a wired LAN. If a problem occurs, an alarm message is sent to the monitoring/controlling PC.

Web Browser Control

The PT-DZ870 Series can be easily operated remotely over a LAN network, because it is all done using the computer's familiar web browser. Furthermore, the projector sends an e-mail message to notify the operator when an error has occurred, or a lamp needs to be replaced.

A Wide Selection of Lenses (Optional)

A wide variety of lenses add versatility and flexibility to projector installation. Long-throw zoom lenses, a short-throw lens, and an ultra-short-throw lens, in particular, make it easier to adapt your projector to the installation site compared with other brand systems. The lenses attach and detach with one-touch ease.

Other Valuable Features

- PJLink™ compatibility
- P-in-P function*13
- Mechanical lens shutter with fade in/out effect
- Scheduling function
- Direct power off
- 30 m long-range wireless remote control
- Anti-theft features with chain opening
- Control device setup function
- 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

Ecology-Conscious Design

- No halogenated flame retardants are used in the cabinet.
- Lead-free solder is used to mount components to the printed circuit boards.
- Stand-by power consumption of only 0.3 W.*14
- Auto Power Save activates standby mode when no signal is input.

All PT-DZ870 Series projectors are carefully manufactured at the Panasonic factory in Japan, under strict quality control. This is another, very important advantage of a Panasonic projector.

*11 Please contact your sales representative with regard to the frame for portrait orientation. Installation is possible only with the terminal side facing downward. Horizontal rotation and vertical rotation are both limited to 15 degrees. Also, the lamp replacement cycle is 1,000 hours with LAMP POWER set to NORMAL mode in dual lamp operation, and is affected by the usage environment. *12 Firmware will be available by September 2013. *13 This function cannot be used with some input signals and selected inputs. *14 With the STANDBY MODE set to ECO.

Terminals
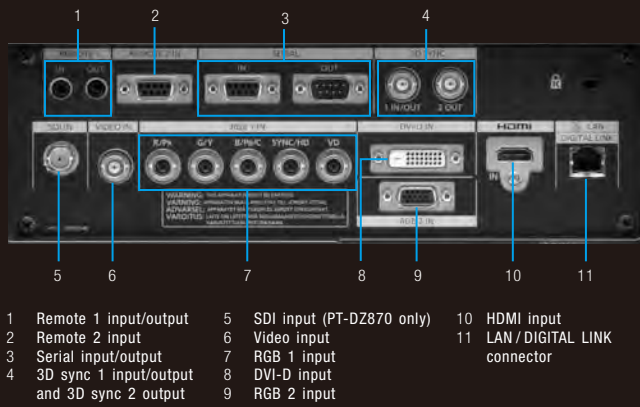
1	Remote 1 input/output	5	SDI input (PT-DZ870 only)	10	HDMI input
2	Remote 2 input	6	Video input	11	LAN / DIGITAL LINK connector
3	Serial input/output	7	RGB 1 input		
4	3D sync 1 input/output and 3D sync 2 output	8	DVI-D input		
		9	RGB 2 input		

Black/white models

The cabinet for each model is available in black (PT-DZ870K/DW830K/DX100K) or white (PT-DZ870W/DW830W/DX100W).

PT-DZ870K/DW830K/DX100K

PT-DZ870W/DW830W/DX100W

The PT-DZ870LK/DZ870LW, PT-DW830LK/DW830LW, and PT-DX100LK/DX100LW are not equipped with a lens.

PT-DZ870LK/DW830LK/DX100LK

PT-DZ870LW/DW830LW/DX100LW

Optional Accessories

ET-DLE030
Fixed-focus lens

ET-DLE085
Zoom lens

ET-DLE150
Zoom lens

NOTE: The ET-DLE030 will be available by July 2013.

ET-DLE250
Zoom lens

ET-DLE350
Zoom lens

ET-DLE450
Zoom lens

ET-DLE055
Fixed-focus lens

ET-PKD120H
High-ceiling mount bracket

ET-PKD130H
High-ceiling mount bracket with 6-axis adjustment mechanism

NOTE: Recommended when used with the ET-DLE030.

ET-LAD120
Replacement lamp unit (one bulb)

ET-LAD120W
Replacement lamp unit (a set of two bulbs)

ET-PKD120S
Low-ceiling mount bracket

ET-PKD130B
Attachment for ceiling mount bracket

ET-LAD120P
Replacement lamp unit for portrait mode (one bulb)

ET-LAD120PW
Replacement lamp unit for portrait mode (a set of two bulbs)

ET-YFB100G
Digital interface box

Brackets included for various installation needs, including server rack (EIA standards) mounting.

ET-UK20
Upgrade Kit (Geometry Manager Pro included)

Featuring the superb color rendition, light weight, and excellent TCO, the PT-DZ870 Series meet the versatile needs of professionals.

Higher education

Museums / entertainment

Specifications

| Model	PT-DZ870/DZ870L	PT-DW830/DW830L	PT-DX100/DX100L
Power supply	120–240 V AC, 10–5.2 A, 50/60 Hz		
Power consumption	1,030 W (1,060 VA)(0.3 W when STANDBY MODE set to ECO*1, 3 W when STANDBY MODE set to NORMAL)		
Dissipation BTU	3,516 BTU/hour (without light: 3,400 BTU/hour for the PT-DZ870/DZ870L/DW830/DW830L, 3,379 BTU/hour for the PT-DX100/DX100L)		
DLP™ chip — Panel size / Display method / Pixels	17.0 mm (0.67 inches) diagonal (16:10 aspect ratio) / DLP™ chip × 1, DLP™ projection system / 2,304,000 (1,920 × 1,200) pixels	16.5 mm (0.65 inches) diagonal (16:10 aspect ratio) / DLP™ chip × 1, DLP™ projection system / 1,024,000 (1,280 × 800) pixels	17.8 mm (0.7 inches) diagonal (4:3 aspect ratio) / DLP™ chip × 1, DLP™ projection system / 786,432 (1,024 × 768) pixels
Lens — PT-DZ870/DW830/DX100	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	
Lens — PT-DZ870L/DW830L/DX100L	Optional powered zoom/focus lenses and fixed-focus lens		
Lamp	420 W UHM lamp × 2		
Screen size (diagonal)	1.27–15.24 m (50–600 in), 1.27–5.08 m (50–200 in) with the ET-DLE055, 2.54–8.89 m (100–350 in) with the ET-DLE030, 16:10 aspect ratio		1.27–15.24 m (50–600 in), 1.27–5.08 m (50–200 in) with the ET-DLE055, 2.54–8.89 m (100–350 in) with the ET-DLE030, 4:3 aspect ratio
Brightness*2	8,500 lm (dual-lamp, LAMP MODE: NORMAL)		10,000 lm (dual-lamp, LAMP MODE: NORMAL)
Center-to-corner uniformity*2	90 %		
Contrast*2	10,000:1 (full on/full off, in dynamic iris 3 mode)		
Resolution	1,920 × 1,200 pixels	1,280 × 800 pixels (Input signals that exceed this resolution will be converted to 1,280 × 800 pixels.)	1,024 × 768 pixels (Input signals that exceed this resolution will be converted to 1,024 × 768 pixels.)
Scanning frequency — SDI 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, [YPBPR 4:2:2 10-bit] 1125(1080)/60p, 1125(1080)/50p	–	
Scanning frequency — HD-SDI	SMPTE ST 292 compliant, [YPBPR 4:2:2 10-bit] 750(720)/60p, 750(720)/50p, 1125(1035)/60i, 1125(1080)/60i, 1125(1080)/50i, 1125(1080)/25p, 1125(1080)/24p, 1125(1080)/24sF, 1125(1080)/30p		
Scanning frequency — SD-SDI	SMPTE ST 259 compliant, [YCBCR 4:2:2 10-bit] 525i(480i), 625i(576i)		
Scanning frequency — HDMI/DVI-D / RGB / YPBPR (YCBCR)	HDMI/DVI-D: fH: 15–100 kHz, fv: 24–120 Hz, dot clock: 25–162 MHz; RGB: fH: 15–100 kHz, fv: 24–120 Hz, dot clock: 162 MHz or lower; YPBPR (YCBCR): fH: 15.75 kHz, fv: 60 Hz [480i (525i)], fH: 31.50 kHz, fv: 60 Hz [480p (525p)], fH: 15.63 kHz, fv: 50 Hz [576i (625i)], 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]
Scanning frequency — Video/YC	fH: 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*3	Vertical +50%, horizontal ±10%, powered	Vertical +60%, horizontal ±10%, powered	Vertical +50%*4, horizontal ±10%, powered
Keystone correction range	Vertical ±40° *5/6, horizontal ±15° *7/8	Vertical ±40° *9	
Keystone correction range with the optional upgrade kit ET-UK20	Vertical ±45° *10/11, horizontal ±40° *10/12	–	
Installation	Ceiling/floor, front/rear		
Terminals — SDI IN	BNC × 1 (3G/HD/SD-SDI)	–	
Terminals — HDMI IN / DVI-D IN / RGB 1 IN / RGB 2 IN / 3D SYNC 1 IN/OUT / 3D SYNC 2 OUT / VIDEO IN / SERIAL IN / SERIAL OUT / REMOTE 1 IN / REMOTE 1 OUT / REMOTE 2 IN / LAN / DIGITAL LINK	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: BNC × 5 (RGB/YPBPR/YCBCR/YC × 1); RGB 2 IN: D-Sub HD 15-pin (female) × 1 (RGB/YPBPR/YCBCR × 1); 3D SYNC 1 IN/OUT: BNC × 1; 3D SYNC 2 OUT: BNC × 1; VIDEO IN: BNC × 1 (composite video); 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; REMOTE 1 OUT: M3 × 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 and DIGITAL LINK (video/network/serial control) connection, 100Base-TX, compatible with Art-Net, compliant with PJLink™, Deep Color, compatible with HDCP)		
Cabinet materials	Molded plastic		
Dimensions (W × H × D) — PT-DZ870/DW830/DX100 / PT-DZ870L/DW830L/DX100L	PT-DZ870/DW830/DX100: 498 × 200*13 × 556 mm (19-19/32 × 7-7/8*13 × 21-7/8 in)(with supplied lens); PT-DZ870L/DW830L/DX100L: 498 × 200*13 × 513 mm (19-19/32 × 7-7/8*13 × 20-3/16 in) (without lens)		
Weight*14 — PT-DZ870/DW830/DX100 / PT-DZ870L/DW830L/DX100L	PT-DZ870/DW830/DX100: Approximately 18.3 kg (40.3 lbs) (with supplied lens); PT-DZ870L/DW830L/DX100L: Approximately 17.6 kg (38.8 lbs) (without lens)		
Operation noise	40 dB (LAMP MODE: NORMAL), 35 dB (LAMP MODE: ECO)		
Operating environment*2	Operating temperature: 0–45 °C (32–113 °F)*15, operating humidity: 10%–80% (no condensation)		
Supplied accessories	Power cord with secure lock, wireless/wired remote control unit, batteries (R03/AAA type × 2), software CD-ROM (Logo Transfer Software, Multi Projector Monitoring & Control Software)		

*1 When the STANDBY MODE is set to ECO, network functions such as power on over the LAN will not operate. Also, only certain commands can be received for external control using the serial terminal. *2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. *3 Optical axis shift cannot be operated with the ET-DLE055. *4 +45% with the ET-DLE085. *5 ±30° with the ET-DLE085/DLE055 and +5° with the ET-DLE030. *6 ±20° (±8° with the ET-DLE085/DLE055) when using both the KEYSTONE and CURVED corrections of the Geometric Adjustment function. *7 When using the KEYSTONE corrections of the Geometric Adjustment function. *8 ±15° (±8° with the ET-DLE085/DLE055) when using both the KEYSTONE and CURVED corrections of the Geometric Adjustment function. *9 Not operable with the ET-DLE030. *10 Up to a total of ±55° during simultaneous horizontal and vertical correction. *11 ±40° with the ET-DLE150/DLE250/supplied lens, ±22° with the ET-DLE085/DLE055 and +5° with the ET-DLE030. *12 ±15° with the ET-DLE085/DLE055 (±8° when using both the KEYSTONE and CURVED corrections of the Geometric Adjustment function). *13 With legs at shortest position. *14 Average value. May differ depending on models. *15 The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F) when the fan control is set to High Altitude mode (for altitudes from 1,400 m to 2,700 m (4,593 ft to 8,858 ft) above sea level). Also, if the ambient temperature exceeds 40 °C (104 °F) (35 °C (95 °F) in High Altitude mode) when the projector is being used with Lamp Select set to Dual and Lamp Power set to High, the light output may be reduced approximately 20% to protect the projector.

Dimensions unit: mm (inches)

498 (19-19/32) · 556 (21-7/8) · 200 (7-7/8)
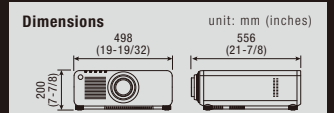
NOTES ON USE

1. Do not install the projector in locations that are subject to excessive water, humidity, steam, or oily smoke. Doing so may result in fire, malfunction, or electric shock.
2. The projector uses a high-voltage mercury lamp that contains high internal pressure. This lamp may break, emitting a loud sound, or fail to illuminate, due to impact or extended use.
3. The projector uses a high-wattage lamp that becomes very hot during operation. Please observe the following precautions:
   - Never place objects on top of the projector while it is operation.
   - Make sure there is an unobstructed space of 500 mm (19-11/16 inches) or more around the projector's exhaust openings.
   - Do not stack projector units directly on top of one another for the purpose of stacked (stacked) projection. When stacking projector units, be sure to provide the amount of space indicated between them. These space requirements also apply to installation where only one projector unit is operating at one time and the other unit is used as a backup.
   - If the projector is placed in a box or enclosure, temperature of the air surrounding the projector must be between 0 °C (32 °F) and 40 °C (104 °F). Also make sure the projector's intake and exhaust openings are not blocked. Take particular care to ensure that hot air from the exhaust openings is not sucked into the intake.
4. If the projector is to be operated continuously 24 hours a day / 7 days a week, use the multi-lamp optical system's alternating lamp operation function (Lamp Relay mode). The projector can be operated continuously 24 hours a day / 7 days a week in dual-lamp operation mode. Allow a minimum of two hours per week of non-operation time per lamp if using the dual-lamp operation mode.
5. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
   - The length of time that it takes for the lamp to break or fail to illuminate varies greatly depending on individual lamp characteristics and usage conditions.
   - The brightness of the lamp will gradually decrease with use.
   - The usage environment affects the lamp replacement cycle.
6. Because the ET-DLE055/DLE030 is a fixed short-throw lens, the lens shift function cannot be used with it.
7. Due to natural characteristics of lamps, screen brightness may vary (flicker). This is not an indication of faulty lamp performance.

Projection Distance

PT-DZ870 (16:10 aspect ratio)
unit: meters (feet)

Diagonal image size [throw ratio]	ET-DLE085 [0.8–1.0:1] min.	max.	ET-DLE150 [1.3–1.9:1] min.	max.	Supplied lens [1.7–2.4:1] min.	max.	ET-DLE250 [2.3–3.6:1] min.	max.	ET-DLE350 [3.6–5.4:1] min.	max.	ET-DLE450 [5.4–8.6:1] min.	max.	ET-DLE055 [0.8:1]
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)	5.82 (19.1)	5.66 (18.6)	9.12 (29.9)	0.83 (2.7)
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)
2.54 [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)
3.81 [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)	23.68 (77.6)	23.54 (77.2)	37.39 (122.7)	3.45 (11.3)
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-DW830 (16:10 aspect ratio)
unit: meters (feet)

Diagonal image size [throw ratio]	ET-DLE085 [0.8–1.0:1] min.	max.	ET-DLE150 [1.4–2.0:1] min.	max.	Supplied lens [1.8–2.5:1] min.	max.	ET-DLE250 [2.4–3.8:1] min.	max.	ET-DLE350 [3.8–5.7:1] min.	max.	ET-DLE450 [5.6–9.0:1] min.	max.	ET-DLE055 [0.8:1]
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)
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)
2.54 [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)	5.16 (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)
3.81 [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)
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)	118.43 (388.5)	– (–)

PT-DX100 (4:3 aspect ratio)
unit: meters (feet)

Diagonal image size [throw ratio]	ET-DLE085 [0.8–1.0:1] min.	max.	ET-DLE150 [1.3–2.0:1] min.	max.	Supplied lens [1.8–2.5:1] min.	max.	ET-DLE250 [2.4–3.7:1] min.	max.	ET-DLE350 [3.7–5.6:1] min.	max.	ET-DLE450 [5.5–8.9:1] min.	max.	ET-DLE055 [0.8:1]
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)	5.53 (18.1)	8.91 (29.2)	0.81 (2.7)
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)
2.54 [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)
3.81 [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)
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)	58.02 (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 (361.7)	– (–)

PT-DZ870 with ET-DLE030 (16:10 aspect ratio)
unit: meters (feet)

Diagonal image size	L1 Throw ratio 0.38:1	L2 Throw ratio 0.39:1	L3	L4	A1	A2
2.54 [100″]	0.82 (2.7)	0.84 (2.8)	0.65 (2.1)	0.14 (0.5)	0.43 (1.4)	0.63 (2.1)
3.81 [150″]	1.23 (4.0)	1.25 (4.1)	1.06 (3.5)	0.55 (1.8)	0.68 (2.2)	0.88 (2.9)
5.08 [200″]	1.63 (5.4)	1.66 (5.4)	1.47 (4.8)	0.95 (3.1)	0.93 (3.1)	1.13 (3.7)
7.62 [300″]	2.45 (8.0)	2.47 (8.1)	2.28 (7.5)	1.77 (5.8)	1.43 (4.7)	1.63 (5.4)
8.89 [350″]	2.85 (9.4)	2.88 (9.4)	2.69 (8.8)	2.18 (7.1)	1.69 (5.5)	1.89 (6.2)

PT-DX100 with ET-DLE030 (4:3 aspect ratio)
unit: meters (feet)

Diagonal image size	L1 Throw ratio 0.39:1	L2 Throw ratio 0.41:1	L3	L4	A1	A2
2.54 [100″]	0.80 (2.6)	0.82 (2.7)	0.63 (2.1)	0.12 (0.4)	0.41 (1.3)	0.61 (2.0)
3.81 [150″]	1.20 (3.9)	1.22 (4.0)	1.03 (3.4)	0.52 (1.7)	0.65 (2.1)	0.85 (2.8)
5.08 [200″]	1.60 (5.2)	1.62 (5.3)	1.43 (4.7)	0.92 (3.0)	0.88 (2.9)	1.08 (3.6)
7.62 [300″]	2.39 (7.8)	2.42 (7.9)	2.23 (7.3)	1.71 (5.6)	1.36 (4.5)	1.56 (5.1)
8.89 [350″]	2.79 (9.2)	2.81 (9.2)	2.62 (8.6)	2.11 (6.9)	1.60 (5.3)	1.80 (5.9)

PT-DW830 with ET-DLE030 (16:10 aspect ratio)
unit: meters (feet)

Diagonal image size	L1 Throw ratio 0.40:1	L2 Throw ratio 0.41:1	L3	L4	A1	A2
2.54 [100″]	0.86 (2.8)	0.88 (2.9)	0.69 (2.3)	0.18 (0.6)	0.59 (1.9)	0.79 (2.6)
3.81 [150″]	1.29 (4.2)	1.31 (4.3)	1.12 (3.7)	0.61 (2.0)	0.92 (3.0)	1.12 (3.7)
5.08 [200″]	1.71 (5.6)	1.74 (5.7)	1.51 (5.1)	1.04 (3.4)	1.25 (4.1)	1.45 (4.7)
7.62 [300″]	2.57 (8.4)	2.59 (8.5)	2.40 (7.9)	1.89 (6.2)	1.91 (6.3)	2.11 (6.9)
8.89 [350″]	3.00 (9.8)	3.02 (9.9)	2.83 (9.3)	2.32 (7.6)	2.24 (7.3)	2.44 (8.0)

L1: Distance from the mirror surface to the screen.
L2: Distance from the tip of lens to the screen.
L3: Distance from the projector front to the screen.
L4: Distance from the projector rear to the screen.
A1: Height from the edge of the screen to the top of the projector.
A2: Height from the edge of the screen to the bottom of the projector.

NOTE: L4 is not the distance from the projector's rear panel to a wall, but the distance from the projector's rear panel to the screen. Provide an exhaust cooling space of 500 mm (1 foot 8 inches) or more between the rear panel of the projector and a wall or other obstruction. If installing it in an enclosed space, add a separate air conditioning or ventilation system. If ventilation is insufficient, exhaust heat may accumulate and trip the projector's protective circuit.

ET-DLE030—The Lens with the World's Shortest Throw*

Panasonic's new ET-DLE030 ultra-short-throw lens enables 100-inch projection from a 0.8 m (2.7 ft) distance. It's a powerful solution for the hassles of installation in a narrow space.

The photo shows the ET-DLE030 attached to the PT-DZ870K.

Digital signage for retail store displays

Digital signage for train stations

NOTE: The usage examples shown above are simulated images. In actual installation, a predetermined amount of space must be provided around the projector.

* For detachable lenses as of August 2013.

Panasonic®

ISO 9001
JQA-QMA14392

ISO 14001 JACO
EC98J2010   051

UKAS MANAGEMENT SYSTEMS

Factories of Visual System Division have received ISO 14001:2004 — the Environmental Management System certification (except for third parties' peripherals).

All information included here is valid as of August 2013.

PT-DZ870G2 Printed in Japan.