Panasonic

PT-DZ16K

3-Chip DLP™ Projector

Long-Lasting 16,000 lm of Brightness
and
Abundant Features in a Compact Body

PICTURE BY DLP™ A TEXAS INSTRUMENTS TECHNOLOGY

Versatile Design for Large-Venue Applications

The Panasonic PT-DZ16K is a 1080p-compatible, high-performance, Full-HD projector with excellent durability and low TCO (Total Cost of Ownership). It is ideal for a wide range of applications requiring high brightness and long-term operation, such as museums, entertainment facilities, churches, and large auditoriums.

SPLENDID IMAGES FROM A COMPACT BODY

Incredible 16,000 lm of Brightness

Panasonic's unique quad-lamp system, with its high-power 420 W UHM lamps, has helped to make the body extremely compact while providing an astounding 16,000 lm of brightness.

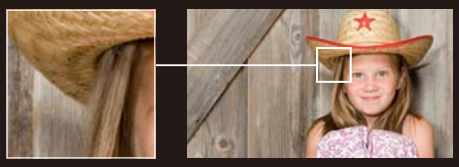
Lamp mode	Brightness (lumens)	Lamp replacement cycle (hours)*1
Quad	16,000	3,000
Triple	12,000	4,000
Dual	8,000	6,000
Single	4,000	12,000

Dynamic Iris for a High 10,000:1*2 Contrast Ratio

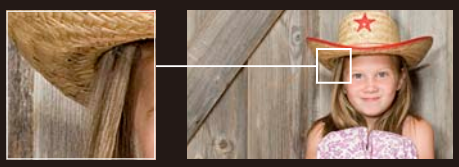
Panasonic's Dynamic Iris uses a scene-linking aperture mechanism to achieve a remarkable 10,000:1*2 contrast without lowering its high brightness. This helps to reproduce deeper, richer blacks, and provides images with more detailed textures.

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 low-frequency 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 16,000 lm, it provides highly comfortable viewing even in bright lighting, and allows viewers to concentrate easily on the images.

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-DZ16K you can view the waveforms on the screen and adjust the settings either automatically or manually.

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 • Fine-adjustable color temperature

HIGH RELIABILITY AND LOW TCO WITH EASY MAINTENANCE

Low TCO with up to 3,000-Hours*1 Lamp Replacement Cycle

The PT-DZ16K lowers the total cost of ownership (TCO) because it has a lamp replacement cycle of up to 3,000 hours.*1

Environmentally Friendly Design

The PT-DZ16K's environmentally friendly design includes a low power consumption of 2,150 W.

Four-Lamp System Enables Stable, Extended Operation

The four-lamp system allows the projector to keep working even if a lamp should fail. The Lamp Relay mode also operates the lamps alternately to enable 24/7 projection. Quad, Triple, Dual and Single Lamp modes can be used.

Easy Lamp Replacement

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

Liquid Cooling System Attains a High Level of Reliability

This liquid cooling system directly cools the DLP™ chip to improve performance and enable operation up to 45 °C (113 °F).*3 It allows quiet (48 dB) and versatile use while stabilizing performance. It also helps to make the body compact. And the system is hermetically sealed, so you don't need to replenish the liquid.

Eco Filter That Needs No Maintenance for up to 12,000 Hours*4

The Eco Filter has an electrostatic Micro Cut Filter that uses an ion effect to collect minute dust particles. It combines with the dust-resistant cabinet to enable long-term use even under harsh conditions. Its maintenance cycle of up to 12,000 hours reduces hassle, and the environmental design lets you wash the filter with water and reuse it.*5

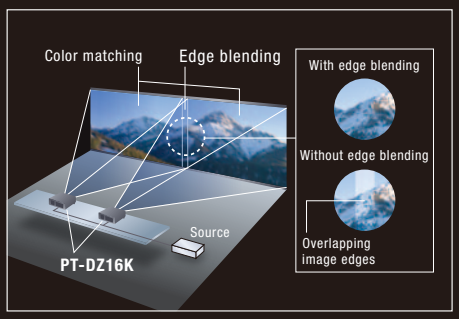
SYSTEM AND INSTALLATION FLEXIBILITY WITH DIVERSE FUNCTIONS

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° vertically, to accommodate various installation conditions. The lens-centered design contributes to easy installation.

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-DZ16K can project large, multi-screen images without any additional equipment. Up to 100 units (10 × 10) can be edge-blended at a time.



***1** The usage environment affects the lamp replacement cycle. ***2** Full on/off, with dynamic iris set to "3." ***3** 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). When the projector is used with the ET-SFR510 Smoke Cut Filter, the operating temperature range is 0 °C to 35 °C (32 °F to 95 °F), and the projector cannot be used in places at high altitude. ***4** The usage environment affects the filter maintenance cycle. ***5** When washing with water, please follow the procedures listed in the operating instructions. Also, we recommend replacing the filter with a new one after it has been washed and reused twice. If the filter is not sufficiently clean after washing, replace it with a new one.

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 them 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."

Geometric Adjustment for Specially Shaped Screens
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.

Multiple Terminals
The PT-DZ16K has a wide array of terminals, including 3G/HD/SD-SDI, DVI-D, HDMI and two RGB inputs.

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

Other Valuable Features
• DICOM simulation mode*6 • Mechanical lens shutter with fade in/out effect • P-in-P function*7 • 30 m (98.4 ft) long-range wireless remote control with LED backlight • ID assignment for up to 64 units • Control device setup function • Built-in test pattern • Selectable 10-language on-screen menu (English, German, French, Spanish, Italian, Portuguese, Russian, Japanese, Chinese, and Korean) • RoHS Directive compliant • Anti-theft features with chain opening

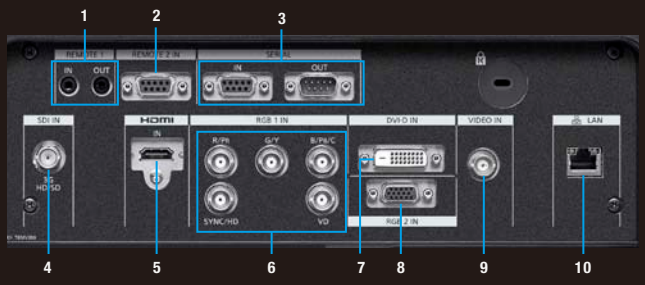
Ecology-Conscious Design

• 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*8. • Auto Power Save activates standby mode when no signal is input.

made in Japan

Each PT-DZ16K is carefully manufactured at a Panasonic factory in Japan, under strict quality control. This is another, very important advantage of a Panasonic projector.

Terminals



1 Remote 1 input/output
2 Remote 2 input
3 Serial input/output
4 SDI input
5 HDMI input
6 RGB 1 input
7 DVI-D input
8 RGB 2 input
9 Video input
10 LAN connector

Projection Distance

16:9 aspect ratio — unit: meters (feet)

Diagonal image size	Throw distance												
	ET-D75LE6 0.9–1.1:1		ET-D75LE10 1.3–1.7:1		ET-D75LE20 1.7–2.4:1		ET-D75LE30 2.4–4.7:1		ET-D75LE40 4.6–7.4:1		ET-D75LE8 7.3–13.8:1		ET-D75LE50 0.7:1
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
1.78 [70"]	1.40 (4.6)	1.67 (5.5)	1.96 (6.4)	2.53 (8.3)	2.53 (8.3)	3.68 (12.1)	3.66 (12.0)	7.14 (23.4)	7.07 (23.2)	11.36 (37.3)	11.16 (36.6)	21.28 (69.8)	1.04 (3.4)
2.54 [100"]	2.03 (6.6)	2.42 (7.9)	2.83 (9.3)	3.67 (12.0)	3.65 (12.0)	5.31 (17.4)	5.28 (17.3)	10.28 (33.7)	10.16 (33.3)	16.29 (53.5)	16.11 (52.9)	30.55 (100.2)	1.51 (5.0)
3.81 [150"]	3.07 (10.1)	3.67 (12.0)	4.29 (14.1)	5.55 (18.2)	5.52 (18.1)	8.03 (26.3)	7.97 (26.2)	15.50 (50.9)	15.32 (50.3)	24.52 (80.4)	24.36 (79.9)	46.00 (150.9)	2.31 (7.6)
5.08 [200"]	4.11 (13.5)	4.92 (16.1)	5.75 (18.9)	7.44 (24.4)	7.39 (24.2)	10.74 (35.2)	10.67 (35.0)	20.73 (68.0)	20.48 (67.2)	32.75 (107.4)	32.61 (107.0)	61.46 (201.6)	3.10 (10.2)
7.62 [300"]	6.19 (20.3)	7.41 (24.3)	8.67 (28.5)	11.21 (36.8)	11.13 (36.5)	16.17 (53.1)	16.06 (52.7)	31.18 (102.3)	30.80 (101.1)	49.20 (161.4)	49.11 (161.1)	92.37 (303.1)	4.68 (15.4)
10.16 [400"]	8.28 (27.1)	9.91 (32.5)	11.59 (38.0)	14.99 (49.2)	14.86 (48.8)	21.60 (70.9)	21.45 (70.4)	41.64 (136.6)	41.12 (134.9)	65.65 (215.4)	65.60 (215.2)	123.28 (404.5)	6.27 (20.6)
12.70 [500"]	10.36 (34.0)	12.40 (40.7)	14.51 (47.6)	18.76 (61.6)	18.60 (61.0)	27.03 (88.7)	26.84 (88.0)	52.09 (170.9)	51.44 (168.8)	82.11 (269.4)	82.10 (269.4)	154.19 (505.9)	7.85 (25.8)
15.24 [600"]	12.44 (40.8)	14.90 (48.9)	17.44 (57.2)	22.54 (73.9)	22.33 (73.3)	32.46 (106.5)	32.23 (105.7)	62.54 (205.2)	61.76 (202.6)	98.56 (323.4)	98.60 (323.5)	185.10 (607.3)	9.44 (31.0)
25.40 [1000"]	20.77 (68.2)	24.88 (81.6)	29.12 (95.5)	37.63 (123.5)	37.28 (122.3)	54.17 (177.7)	53.79 (176.5)	104.36 (342.4)	103.05 (338.1)	164.38 (539.3)	164.59 (540.0)	– (–)	15.78 (51.8)

Optional Accessories

ET-D75LE6
Zoom lens

ET-D75LE40
Zoom lens

ET-PKD510H
High-ceiling mount bracket

ET-LAD510
Replacement lamp unit (one bulb)

ET-LAD510F
Replacement lamp unit (a set of four bulbs)

ET-D75LE10
Zoom lens

ET-D75LE8
Zoom lens

ET-EMF510
Replacement filter

ET-PKD510S
Low-ceiling mount bracket

ET-D75LE20
Zoom lens

ET-D75LE50
Fixed-focus lens

ET-SFR510
Smoke cut filter

ET-D75LE30
Zoom lens

ET-PFD510
Frame

ET-SWA100
Early Warning Software

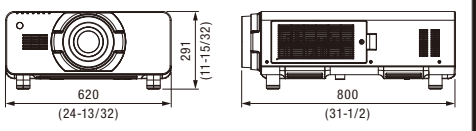
***6** This product is not a medical instrument. Do not use it for medical diagnosis. ***7** This function cannot be used with some input signals and selected inputs. ***8** With the STANDBY MODE set to ECO. When the STANDBY MODE is set to ECO, network functions such as power on over the LAN will not operate. Also, only certain commands can be received for external control using the serial terminal.

Specifications

Model		PT-**DZ16K**
Power supply		200–240 V AC, 50/60 Hz (Max current requirements: 11.5 A @200 V)
Power consumption		2,150 W (0.3 W with STANDBY MODE set to ECO*1, 9 W with STANDBY MODE set to NORMAL.)
DLP™ chip	Panel size	24.1 mm (0.95 in) diagonal (16:9 aspect ratio)
	Display method	DLP™ chip × 3, DLP™ projection system
	Pixels	2,073,600 (1,920 × 1,080) × 3, total of 6,220,800 pixels
Lens		Optional powered zoom and fixed-focus lenses
Lamp		420 W UHM lamp × 4, replacement cycle of up to 3,000 hours*2
Screen size (diagonal)		1.78–25.4 m (70–1000 in), 1.78–15.24 m (70–600 in) with the ET-D75LE8, 16:9 aspect ratio
Brightness*3		16,000 lm (four-lamp)
Center-to-corner uniformity*3		90 %
Contrast*3		10,000:1 (full on/off, with dynamic iris set to "3")
Resolution		1,920 × 1,080 pixels
Scanning frequency	SDI	
	SD-SDI	SMPTE ST 259 compliant, [YCBCR 4:2:2 10-bit] 480i, 576i
	HD-SDI	SMPTE ST 292 compliant, [YCBCR 4:2:2 10-bit] 720/50p, 720/60p, 1035/60i, 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p
	3G-SDI	SMPTE ST 424 compliant, [YPBPR 4:2:2 10-bit] 1080/50p, 1080/60p, [RGB 4:4:4 12-bit/10-bit] 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p
	HDMI/DVI-D	480i*4, 480p, 576i*4, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p, 1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p VGA (640 × 480)–WUXGA*5 (1,920 × 1,200), 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: 59.94 Hz [480i (525i)] / fH: 37.50 kHz, fv: 50.00 Hz [720 (750)/50p] / fH: 27.00 kHz, fv: 24.00 Hz [1080/24p] fH: 31.47 kHz, fv: 59.94 Hz [480p (525p)] / fH: 33.75 kHz, fv: 60.00 Hz [1035/60i] / fH: 27.00 kHz, fv: 48.00 Hz [1080/24sF] fH: 15.63 kHz, fv: 50.00 Hz [576i (625i)] / fH: 33.75 kHz, fv: 60.00 Hz [1080 (1125)/60i] / fH: 33.75 kHz, fv: 30.00 Hz [1080/30p] fH: 31.25 kHz, fv: 50.00 Hz [576p (625p)] / fH: 28.13 kHz, fv: 50.00 Hz [1080 (1125)/50i] / fH: 67.50 kHz, fv: 60.00 Hz [1080/60p] fH: 45.00 kHz, fv: 60.00 Hz [720 (750)/60p] / fH: 28.13 kHz, fv: 25.00 Hz [1080/25p] / fH: 56.25 kHz, fv: 50.00 Hz [1080/50p]
	Video / Y/C	fH: 15.73 kHz, fv: 59.94 Hz [NTSC/NTSC4.43/PAL-M/PAL60], fH: 15.63 kHz, fv: 50.00 Hz [PAL/PAL-N/SECAM]
Optical axis shift		Vertical: ±60 % (±50 % with the ET-D75LE6) from center of screen (powered), horizontal: ±20 % (±15 % with the ET-D75LE6) from center of screen (powered)
Keystone correction range		Vertical: ±40°*6 (±22°*6 with the ET-D75LE50, ±28° with the ET-D75LE6), horizontal: ±15°*6
Installation		Ceiling/floor, front/rear
Terminals	SDI IN	BNC × 1 (3G/HD/SD-SDI)
	DVI-D IN	DVI-D 24-pin × 1 (DVI 1.0 compliant, compatible with HDCP, compatible with single link only)
	HDMI IN	HDMI 19-pin × 1 (Deep Color, compatible with HDCP)
	RGB 1 IN	BNC × 5 (RGB/YPBPR/YCBCR/YC × 1)
	RGB 2 IN	D-Sub HD 15-pin (female) × 1 (RGB/YPBPR/YCBCR × 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	RJ-45 × 1 (for network connection, 10Base-T/100Base-TX, compatible with Art-Net, compliant with PJLink™)
Cabinet materials		Molded plastic
Dimensions (W × H × D)		620 × 291*7 × 800 mm (24-13/32 × 11-15/32*7 × 31-1/2 in) (optional lens not included)
Weight*9		Approximately 43 kg (94.8 lbs) (optional lens not included)
Operation noise*8		48 dB (quad lamp operation)
Operating environment		Operating temperature: 0–45 °C (32–113 °F)*9, operating humidity: 10–80 % (no condensation)
Applicable software		Logo Transfer Software, Multi Projector Monitoring & Control Software
Supplied accessories		Power cord with secure lock, wireless/wired remote control unit, batteries (R6/AA type × 2)

***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** The usage environment affects the lamp replacement cycle. ***3** Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. ***4** Pixel repetition signals only. (dot clock: 27.0 MHz) ***5** WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking). ***6** Correction range is limited during simultaneous horizontal and vertical correction. ***7** With legs at shortest position. ***8** Average value. May differ depending on the actual unit. ***9** 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). When the projector is used with the ET-SFR510 Smoke Cut Filter, the operating temperature range is 0 °C to 35 °C (32 °F to 95 °F), and the projector cannot be used in places at high altitude.

Dimensions unit: mm (inches)



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 large sound, or fail to illuminate, due to impact or extended use.
3. The projector uses of 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 multiple (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 (lamp changer) function. The projector can be operated continuously 24 hours a day / 7 days a week in four-lamp operation mode, but it will automatically operate with three lamps for 8 hours of the 24 hours / 7 days.
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.
6. Because the ET-D75LE50 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.

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For more information about Panasonic projectors, please visit:
Projector Global Web Site – **panasonic.net/avc/projector**
Facebook – **www.facebook.com/panasonicprojector**
YouTube – **www.youtube.com/user/PanasonicProjector**

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EC98J2010 051

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

All information included here is valid as of April 2014.

PT-DZ16KG1 Printed in Japan.