

# Panasonic

## PT-DZ13K Series

3-Chip DLP™ Projectors

PT-DZ13K  
PT-DS12K  
PT-DW11K  
PT-DZ10K

### The New Era of Professional Visual Imaging



# Higher Brightness, Picture Quality and Reliability—All in a Compact Body

The Panasonic PT-DZ13K Series of 3-chip DLP™ projectors combine high levels of picture quality, reliability, function and system expandability into a compact body. Packed with original, advanced Panasonic technology, these projectors supply the flexibility to meet a wide range of applications.



## High Brightness and Picture Quality

### Compact Yet Bright

Panasonic's original dual-lamp system\*1, with its new 380 W\*2 lamp, helps to make the body compact, while providing a full 12,000 lm\*3 of brightness with 120 VAC operation. The replacement lamp unit (ET-LAD310A/ET-LAD310AW) can be used with all of the PT-DZ8700/PT-DZ110X Series\*4 projectors. This reduces the number of lamp types that need to be kept in stock when multiple projectors are used.

### Full-HD Ready WUXGA Resolution

The PT-DZ13K/DZ10K features native WUXGA resolution for full-HD viewing. This brings you lifelike projection of intricate, highly detailed images.

### Dynamic Iris for a High 10,000:1\*5 Contrast Ratio

Panasonic's Dynamic Iris uses a scene-linking aperture mechanism to achieve a remarkable 10,000:1\*5 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 superhigh-, high-, medium-, and low-frequency components of the extracted image information. The resulting images have more natural, lifelike expression.

#### PT-DZ13K

**WUXGA 12,000 lm**

#### PT-DS12K

**SXGA+ 12,000 lm**

#### PT-DW11K

**WXGA 11,000 lm**

#### PT-DZ10K

**WUXGA 10,600 lm**



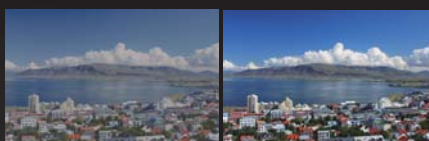
Without Detail Clarity Processor 3



PT-DZ13K Series with 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 12,000 lm\*2, it provides highly comfortable viewing even in bright lighting, and allows viewers to concentrate easily on the images.

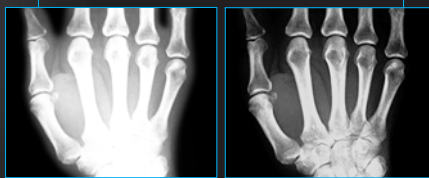


Without System Daylight View 2

PT-DZ13K Series with System Daylight View 2

### DICOM Simulation Mode\*6

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

### Active 3D Projection Capability (PT-DZ13K/DS12K/DW11K)

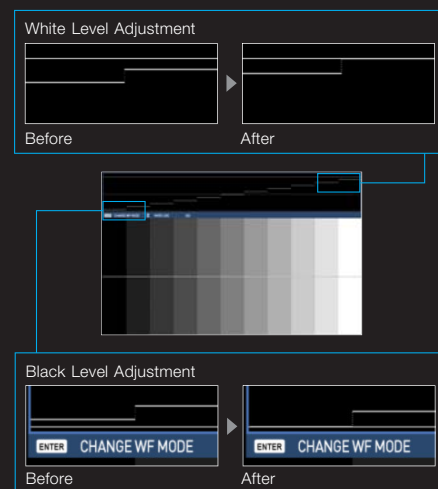
The series is compatible with both passive and active 3D projection systems.

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.



### 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-DZ13K Series projector you can view the waveforms on the screen and adjust the settings either automatically or manually as you prefer.



### 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.

### 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

\*1 If the projector is to be operated continuously 24 hours a day / 7 days a week, use the dual-lamp optical system's alternating lamp operation (lamp changer) function. The projector cannot be operated continuously 24 hours a day / 7 days a week in dual-lamp mode. Allow a minimum of two hours per week of non-operation time per lamp if using the dual-lamp mode.

\*2 For the PT-DZ13K/DS12K/DW11K. 355 W lamp for the PT-DZ10K.

\*3 The PT-DW11K has 11,000 lm of brightness and PT-DZ10K has 10,600 lm brightness.

\*4 PT-DZ8700/DS8500/DW8300/DZ110X/DS100X/DW90X.

\*5 Full on/off, with dynamic iris set to "3".

\*6 This product is not a medical instrument. Do not use it for actual medical diagnosis.

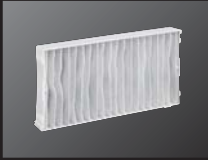
## Reliability and Stability

### 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.

### Eco Filter that Needs No Maintenance for up to 12,000 Hours\*7

The Eco Filter has an electrostatic Micro Cut Filter that collects minute dust particles with an ion effect. 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.\*8



### Low TCO and an Environmentally Friendly Design

The PT-DZ13K Series projectors lower the total cost of ownership because they have a lamp replacement cycle of up to 2,500 hours.\*9 Their environmentally friendly design also includes a low power consumption of 1,000 W.

### Easy Lamp Replacement

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.



### Optional Smoke Cut Filter ET-SFD320

The projector can be equipped with an optional, extra-strong air filter to prevent the entry of smoke, such as those used for special effects at events and stage performances.



## System Integration Flexibility

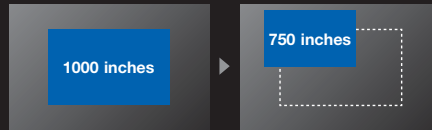
### Flexible Installation

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.



### Lens Memory\*10

The settings of projection size, lens shift position, and focus/zoom can be stored in memory and recalled for instant switching.



### A Wide Selection of Lenses (optional)

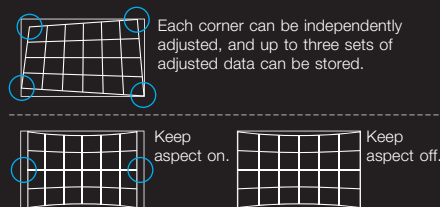
Choose from a wide lineup of lenses for your system, including short-throw, long-throw zoom and fixed-throw lenses for rear projection use. The additional lenses make it easy to adapt your projector to the installation site. The lenses attach and detach with one-touch ease.

### New Geometric Adjustment\*11 for Specially Shaped Screens (PT-DZ13K/DS12K)

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.



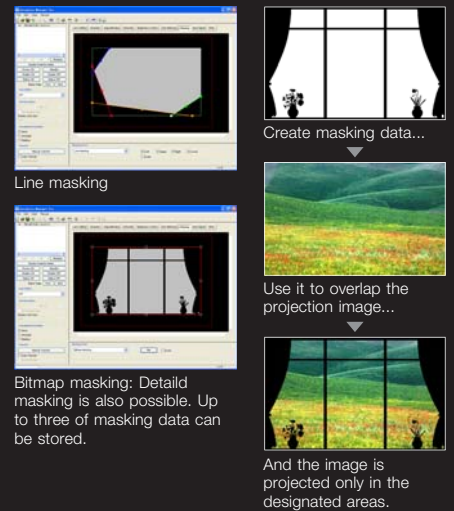
You can keep the aspect on when correcting curves. To make effective use of the screen area, you can also turn the aspect-keeping function off.

## Crestron RoomView™ and AMX Device Discovery

The LAN terminal allows a computer connected to the network to use Crestron RoomView™ application software to manage and control system devices. Besides, The AMX Device Discovery technology is built in the PT-DZ13K Series projector.

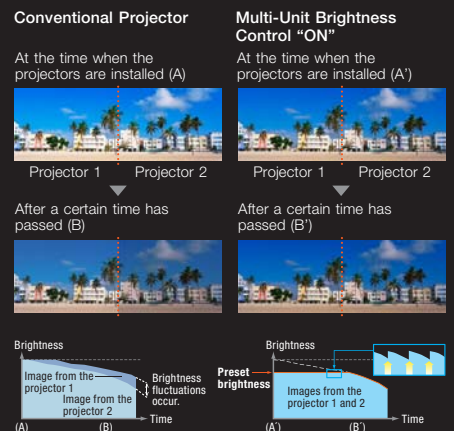
### Optional Upgrade Kit Featuring Geometry Manager Pro (PT-DZ13K/DS12K)

The new Geometry Manager Pro software included in the optional upgrade kit supports Color Matching, Edge Blending, uniformity correction, and other useful functions for multiprojector setups (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.



### 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."



## Multi-Screen Support System Seamlessly Connects Multiple Screens

### • Edge Blending

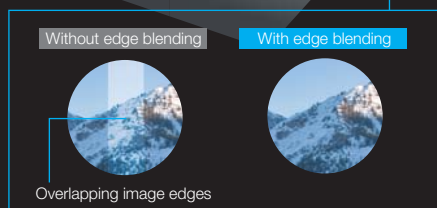
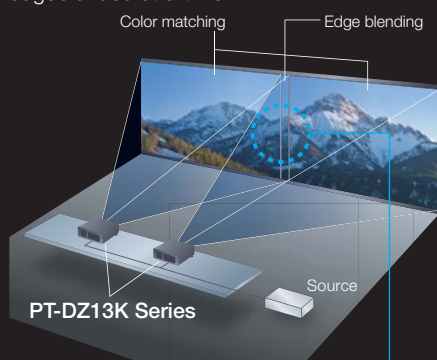
The edges of adjacent screens can be blended and their luminance controlled.

### • 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-DZ13K Series can project large, multiscreen images without any additional equipment. Up to 100 units can be edgeblended at a time.



## Portrait Mode Capability (optional)<sup>\*12</sup>

Portrait projection is possible by mounting the optional ET-LAD320P or ET-LAD320PW lamp units, updating the projector's firmware to MAIN Ver. 2.00 or later, and installing the projector with its terminal side surface facing downward.



## Multiple Terminals with HD-SDI Compatibility

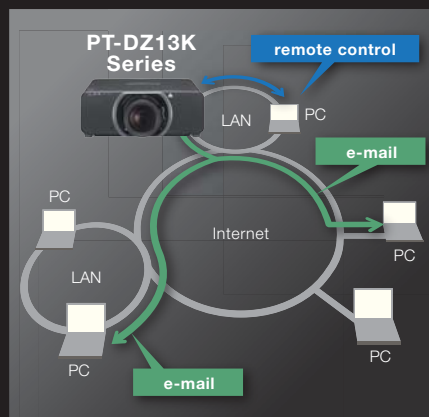
The PT-DZ13K Series has an array of terminals, including two SDI (Dual Link HD-SDI, 3G SDI and HD SDI),<sup>\*13</sup> 3D sync<sup>\*14</sup>, DVI-D and HDMI terminals.

## 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-DZ13K 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.



## Other Valuable Features

- PJLink™ compatibility
- P-in-P function<sup>\*15</sup>
- Mechanical lens shutter with fade in/out effect
- Scheduling function
- Direct power off
- 30 m long-range wireless remote control with LED backlight
- 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



The PT-DZ13K Series projector are carefully manufactured at the Panasonic factory in Japan, under strict quality control. This is another, very important advantage of a Panasonic projector.

## 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 (0.2 W for 120 V AC).<sup>\*16</sup>
- Auto Power Save activates standby mode when no signal is input.

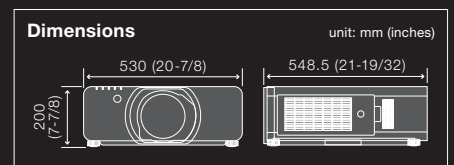
- \*7 The usage environment affects the filter maintenance cycle.
- \*8 When washing with water, please follow the procedures listed in the operating instructions. Also, we recommend replacing the filter with a new one after it has been washed and reused twice. If the filter is not sufficiently clean after washing, replace it with a new one.
- \*9 With the LAMP POWER set to HIGH mode, 3,500 hours for the PT-DZ10K. With the LAMP POWER set to NORMAL mode. The usage environment affects the lamp replacement cycle.
- \*10 The settings stored in memory and the projection condition after recall may not match perfectly.
- \*11 For the PT-DZ13K/DS12K only. The PT-DZ10K has the same Geometric Adjustment function that is featured on the previous models. The PT-DW11K features neither of them.
- \*12 Please contact the 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 becomes 500 hours, and this cycle is affected by the usage environment. In Portrait mode, the maximum brightness becomes 10,600 lm for the PT-DZ13K/DS12K and 9,600 lm for the PT-DW11K.
- \*13 For the PT-DZ13K and PT-DS12K only. The PT-DZ10K has one SDI connector and does not accept dual-link HD SDI signals.
- \*14 Not featured on the PT-DZ10K.
- \*15 This function cannot be used with some input signals and selected inputs.
- \*16 With the standby mode set to Eco.



## Specifications

Model		PT-DZ13K	PT-DS12K	PT-DW11K	PT-DZ10K	
Power supply		120 V, 220–240 V AC, 50/60 Hz				
Power consumption		120 V AC	220–240 V AC			
		1,000 W (1,030 VA) (0.2 W with standby mode set to eco.*1 6 W with standby mode set to normal. Both with fan stopped.)	980 W (1,010 VA) (0.3 W with standby mode set to eco.*1 9 W with standby mode set to normal. Both with fan stopped.)		925 W (1,010 VA)	
Dissipation BTU		120 V: max. 3,413 BTU/hour (without light output: 3,249 BTU/hour). 220–240 V: max. 3,311 BTU/hour (without light output: 3,147 BTU/hour)				
DLP™ chip		Panel size Display method Pixels				
		24.4 mm (0.96 in) diagonal (16:10 aspect ratio) DLP™ chip × 3, DLP™ projection system 2,304,000 (1,920 × 1,200) × 3, total of 6,912,000 pixels	24.1 mm (0.95 in) diagonal (4:3 aspect ratio) DLP™ chip × 3, DLP™ projection system 1,470,000 (1,400 × 1,050) × 3, total of 4,410,000 pixels		21.6 mm (0.85 in) diagonal (16:9 aspect ratio) DLP™ chip × 3, DLP™ projection system 1,049,088 (1,366 × 768) × 3, total of 3,147,264 pixels	
Lens		Optional powered zoom/focus and fixed-focus lenses				
Lamp		380 W UHM lamps (HIGH mode) × 2			355 W UHM lamps (NORMAL mode) × 2	
Screen size (diagonal)		1.78–25.4 m (70–1,000 in), 1.78–15.24 m (70–600 in) with the ET-D75LE8, 16:10 aspect ratio	1.78–25.4 m (70–1,000 in), 1.78–15.24 m (70–600 in) with the ET-D75LE8, 4:3 aspect ratio		1.78–25.4 m (70–1,000 in), 1.78–15.24 m (70–600 in) with the ET-D75LE8, 16:9 aspect ratio	
Brightness*2		12,000 lm*3 (dual-lamp)			11,000 lm*4 (dual-lamp)	
Center-to-corner uniformity*2		90 %				
Contrast*2		10,000:1 (full on/off, with DYNAMIC IRIS set to "3")				
Resolution		1,920 × 1,200 pixels (Input signals that exceed this resolution will be converted to 1,920 × 1,200 pixels.)	1,400 × 1,050 pixels (Input signals that exceed this resolution will be converted to 1,400 × 1,050 pixels.)		1,366 × 768 pixels (Input signals that exceed this resolution will be converted to 1,366 × 768 pixels.)	
Scanning frequency		SDI				
		Dual-link HD-SDI	SMPTE ST 372 compliant, [RGB 4:4:4 12-bit/10-bit] 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p [X'Y'Z': 4:4:4 12-bit] 2,048 × 1,080/24p, 2,048 × 1,080/24sF		–	
		3G-SDI	SMPTE ST 424 compliant, [RGB 4:4:4 12-bit/10-bit] 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p [YPbPr 4:2:2 10-bit] 1080/50p, 1080/60p,		–	
		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		–	
		SD-SDI	SMPTE ST 259 compliant, [YCbCr 4:2:2 10-bit] 480i, 576i		–	
HDMI/DVI-D		480p, 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 YPbPr (YCbCr)		fh: 15.75 kHz, fv: 60 Hz [480i (525i)] fh: 45.00 kHz, fv: 60 Hz [720 (750)/60p] fh: 28.13 kHz, fv: 50 Hz [1080 (1125)/50i] fh: 33.75 kHz, fv: 30 Hz [1080/30p] fh: 31.50 kHz, fv: 60 Hz [480p (525p)] fh: 37.50 kHz, fv: 50 Hz [720 (750)/50p] fh: 28.13 kHz, fv: 25 Hz [1080/25p] fh: 67.50 kHz, fv: 60 Hz [1080/60p] fh: 15.63 kHz, fv: 50 Hz [576i (625i)] fh: 33.75 kHz, fv: 60 Hz [1035/60i] fh: 27.00 kHz, fv: 24 Hz [1080/24p] fh: 56.25 kHz, fv: 50 Hz [1080/50p] fh: 31.25 kHz, fv: 50 Hz [576p (625p)] fh: 33.75 kHz, fv: 60 Hz [1080 (1125)/60i] fh: 27.00 kHz, fv: 48 Hz [1080/24sF]				
Video / Y/C		fh: 15.75 kHz, fv: 60 Hz [NTSC/NTSC 4.43/PAL-M/PAL60], fh: 15.63 kHz, fv: 50 Hz [PAL/PAL-N/SECAM]				
Optical axis shift*6		Vertical	±5 % (±4 % with the ET-D75LE6) from center of screen (powered)		±5 % (±4 % with the ET-D75LE6) from center of screen (powered)	
		Horizontal	±20 % (±15 % with the ET-D75LE6) from center of screen (powered)		±20 % (±15 % with the ET-D75LE6) from center of screen (powered)	
Keystone correction range		Vertical: ±40°*7, horizontal: ±15°			Vertical: ±40°*7, horizontal: ±15°	
Keystone correction range with optional Upgrade Kit ET-UK20		Vertical ±40° and horizontal ±40° with the ET-D75LE1/LE2/LE10/LE20, vertical ±45° and horizontal ±40° with the ET-D75LE3/LE4/LE30/LE40, vertical ±22° and horizontal ±15° with the ET-D75LE5/LE50, vertical ±28° and horizontal ±15° with the ET-D75LE6			–	
Installation		Ceiling/floor, front/rear, portrait*8				
Terminals		SDI 1 IN SDI 2 IN	BNC × 1 (3G/HD/SD-SDI) BNC × 1 (HD/SD-SDI)		[SDI IN] BNC × 1 (3G/HD/SD-SDI)	
		3D SYNC IN/OUT 3D SYNC OUT	BNC × 1 (3D timing signal) BNC × 1 (3D timing signal)		–	
		DVI-D IN HDMI IN	DVI-D 24-pin × 1 (DVI 1.0 compliant, compatible with HDCP, compatible with single link only) HDMI 19-pin × 1 (Deep Color, compatible with HDCP)			
		RGB 1 IN RGB 2 IN	BNC × 5 (RGB/YPbPr/YCbCr/YC × 1) 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, compliant with PLink™)			
Cabinet materials		Molded plastic				
Dimensions (W × H × D)		530 × 200*9 × 548.5 mm (20-7/8 × 7-7/8*9 × 21-19/32 in) (optional lens not included)				
Weight*10		Approximately 24 kg (52.9 lbs) (optional lens not included)				
Operation noise*2		45 dB (dual lamp operation with lamp HIGH mode), 43 dB (dual lamp operation with lamp MIDDLE mode), 37 dB (dual lamp operation with lamp ECO mode)			43 dB (dual lamp operation with lamp NORMAL mode), 37 dB (dual lamp operation with lamp ECO mode)	
Operating environment		Operating temperature: 0–45 °C (32–113 °F)*11, operating humidity: 10–80 % (no condensation)				
Applicable software		Logo Transfer Software, Multi Projector Monitoring & Control Software				
		Geometry Manager Pro (included in the ET-UK20)			–	
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 network will not operate, and the serial output terminal cannot be used. 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 In Portrait mode, the maximum brightness becomes 10,600 lm. \*4 In Portrait mode, the maximum brightness becomes 9,600 lm. \*5 WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking). \*6 Optical axis shift cannot be operated with the ET-D75LE50. \*7 ±22° with the ET-D75LE50, ±28° with the ET-D75LE6. \*8 Requires optional lamp units for portrait mode. \*9 With legs at shortest position. \*10 Average value. May differ depending on the actual unit. \*11 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-SFD320 Smoke Out 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. WITH THE ET-LAD320P/LAD320PW MOUNTED FOR THE PORTRAIT MODE: The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F). The operating temperature range is 0 °C to 35 °C (32 °F to 95 °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-SFD320 Smoke Out Filter, the operating temperature range is 0 °C to 30 °C (32 °F to 86 °F), and the projector cannot be used in places at high altitude.







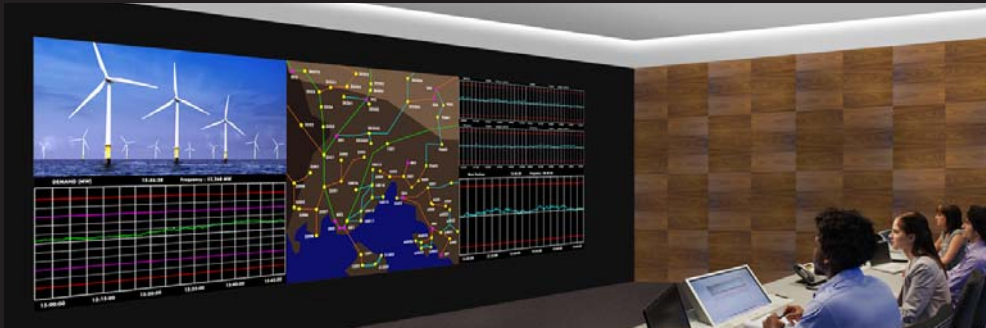
High education



Large auditoriums / hotels



Museums / entertainment



Control / command rooms

# Panasonic®

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 Projector Global Web Site – [panasonic.net/avc/projector](http://panasonic.net/avc/projector)  
 Facebook – [www.facebook.com/panasonicprojector](http://www.facebook.com/panasonicprojector)  
 YouTube – [www.youtube.com/user/PanasonicProjector](http://www.youtube.com/user/PanasonicProjector)

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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 2013.

PT-DZ13KG1 Printed in Japan.