

Panasonic

PT-D8600E PT-D8500E

Large Venue DLP™ Projectors

PAL/PAL-M/PAL-N/SECAM/NTSC/M-NTSC

Outstanding Brightness for Multi-Screen Presentations

- Newly-developed optical system delivers ultra-bright 7000 ANSI lumens
- Superior re-sizing and digital processing for outstanding moving pictures
- Built-in multi-screen edge blending technology
- Abundant options for versatile system configurations
- Low-noise design
- Motorized focus for easy set up



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Sophisticated Multi-Screen Projection

Panasonic's DLP™ projectors for large venues earned wide acclaim for their brightness, high image quality, and easy operation. Now they are joined by the newest members of Panasonic's DLP™ projector family — the PT-D8600E, SXGA and PT-D8500E, XGA — that inherit the same superb functions and add new features that make it easy to project high-quality images on multiple screens. The new PT-D8600E and PT-D8500E are fully equipped for either permanent or event applications, and are ideal for convention halls, sports arenas, control centres, and post-production display for digital cinema.



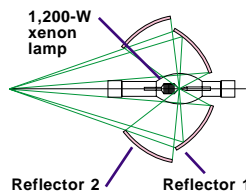
High Brightness, Suberb Quality

7000 ANSI lumens

The PT-D8600E and PT-D8500E features a DLP™ system equipped with three Digital Micromirror Device (DMD™) chips. This, together with Panasonic's original optical system and 1,200-W xenon lamp, achieves 7,000 ANSI lumens of brightness. Contrast is as high as 450:1. The xenon lamp reproduces natural colours and stunning brightness.

High-efficiency optical system

Panasonic's unique optical system is highly efficient, using lamp light with minimal waste. Thanks to a highly condensing dual reflector system and a wide convergence angle, the PT-D8600E and PT-D8500E offer a very bright light source housed in a compact package.

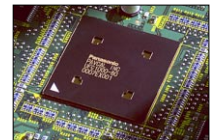


Dual reflector lamp system

UFC for faithful moving pictures

Each projector is equipped with Panasonic's Emmy Award-winning universal format converter (UFC), a high-precision digital filter that greatly improves the moving image smoothness. Projected images move

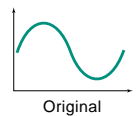
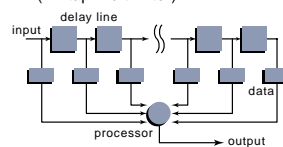
smoothly and naturally, and viewers cannot perceive individual pixels.



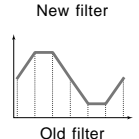
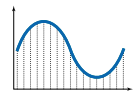
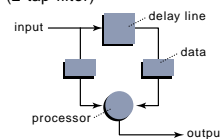
High-performance original UFC chip

Digital Filter Comparison

Panasonic's new filter (24-tap multi-filter)



Conventional filter (2-tap filter)

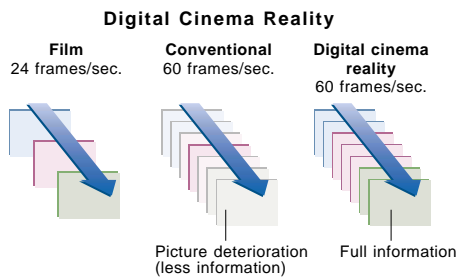


Panasonic's high-precision digital filter converts formats with a level of smoothness that is suitable for moving picture signals.

Digital processing

The PT-D8600E and PT-D8500E incorporate a host of Panasonic-developed video-processing technologies designed to ensure superior reproduction of moving pictures from a variety of sources. The built-in **digital detail enhancer** checks and corrects the quality of 368,000 pixels in each image to improve sharpness and clarity. The **digital cinema reality** circuit provides progressive processing optimized for a 24-frames/sec





Digital cinema reality circuit preserves full image quality as it converts each frame of a movie source to TV signals.

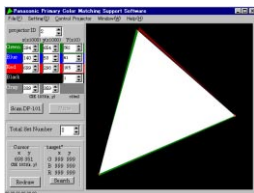
moving source, helping to reproduce the image with quality faithful to the original.

- Full compatibility with digital format (optional)
- High resolution: PT-D8600E: SXGA native, UXGA max., PT-D8500E: XGA native, UXGA max.

Multi-Screen

Colour matching

When several PT-D8600E or PT-D8500E units are used together, this function corrects for slight



variations in the colour reproduction range of individual units. The PC software assures easy, accurate control. To simplify the setup process, you can adjust the units before delivery to the installation site. The colour-matching function is available (for up to 9 units) even when you're not conducting a multi-screen presentation.

Edge blending

This function controls the brightness at overlapping image edges to assure uniform, natural-looking multi-screen images.

With edge blending



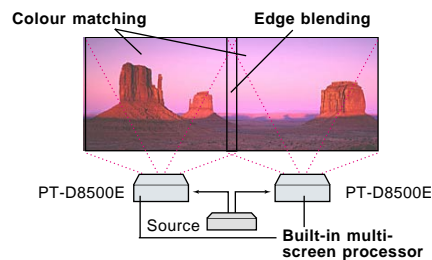
Without edge blending



Overlapping image edges

Built-in multi-screen processor

The PT-D8600E and PT-D8500E can project large, multi-screen images without any additional equipment. Up to 100 units (10 x 10) can be used at a time.



The built-in multi-screen processor enables enlarged multi-screen projection without using any additional special equipment. Colour matching and edge blending make it easier to obtain proper multi-screen picture quality.

Abundant Options

Lenses

A wide variety of optional lenses allow the user to project wide-screen images—100 to 600 inches diagonally—to accommodate a range of site conditions. Options include three types of zoom lenses and one fixed short-focus lens.

Boards

Each model is equipped with an RGB/YBP/PR input board. In addition, up to three optional input board modules can be installed to match a variety of input source signals, including digital serial component signals.

Installation

A ceiling bracket is available as an option. The dual stacking mount bracket allows the user to assemble a system that provides brightness of up to 14,000 ANSI lumens. The lens axis shift function helps eliminate image distortion by allowing the precise positioning of the projected images.

Low Noise Design

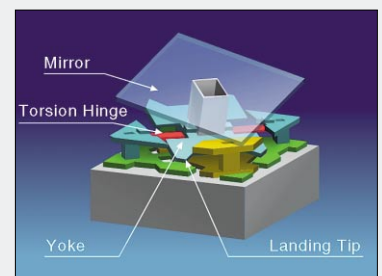
The PT-D8600E's and PT-D8500E's special acoustic design achieves a significant reduction in cooling fan noise. Its hermetically sealed cabinet and centralized exhaust duct combine to give your presentations a pleasant, serene environment.

Other Features

- Auto setup
- Digital keystone correction
- Parallel remote connector
- RS-232C/RS-422 remote in/out connectors
- Wireless/wired remote control
- Motorized focus
- Ceiling/floor, front/rear projection

What is a Digital Light Processing (DLP™) Projector?

A DLP™ projector builds images on screen by digitally controlling the reflected angle of incident light, converging it with a prism and passing the image through a lens onto the screen. To control the incident light, it uses a Digital Micromirror Device (DMD™) made up of many 16 x 16 µm metallic mirrors arranged on a silicon chip. The PT-D8600E and PT-D8500E have three DMD™ chips. This 3-chip system is better suited for natural rendition in brilliant colours. Because reflectance is higher than with LCD projectors, light is used more efficiently for higher brightness. With a narrow dot-to-dot space, it can smoothly reproduce both natural images and sharply contoured computer graphics.



Digital Micromirror Device

Specifications

Power supply:	200–240 V AC, 50/60 Hz	Horizontal:	8:2–2:8 (powered)
Power consumption:	1,900 W (1,900 VA)(2.8 W at standby mode)	Installation:	Ceiling/desk, front/rear (menu selection)
Colour system:	PAL/PAL-M/PAL-N/NTSC/M-NTSC/SECAM (with optional ET-MD95VM2)	Noise level:	43 dB
Scanning frequency:		Keystone correction:	±10°
RGB:	fh 15–100 kHz, fv 24–120 Hz Bandwidth: 162 MHz	Terminals:	
YPbPr:	480i: fh 15.75 kHz, fv 60 Hz 576i: fh 15.63 kHz, fv 50 Hz 480p: fh 31.5 kHz, fv 60 Hz 720/60p: fh 45/44.955 kHz, fv 60/59.94 Hz 1035/60i: fh 33.75/33.716 kHz, fv 60/59.94 Hz 1080/50i: fh 28.125 kHz, fv 60 Hz 1080/60i: fh 33.75/33.716 kHz, fv 50/59.94 Hz 1080/24p: fh 27/26.973 kHz, fv 24/23.976 Hz	RGB/YPbPr:	BNC x 5 G: 0.7 Vp-p (1.0 Vp-p for Sync on G), 75 Ω R, B: 0.7 Vp-p, 75 Ω HD/SYNC, VD: 0.6–4.0 Vp-p, high impedance (positive/negative polarity)
Video/S-Video:	PAL/PAL-M/SECAM: fh 15.63 kHz, fv 50 Hz PAL-M/NTSC/M-NTSC: fh 15.75 kHz, fv 60 Hz	YPbPr:	Y: 1.0 Vp-p, 75 Ω, Pb/Pr: ±0.35 Vp-p, 75 Ω
DMD™:	0.9" (diagonal) DMD™ (x 3), DLP™ system	RS-232C/422 IN:	D-sub 9-pin x 1 (for external control)
Pixels:	PT-D8600E: 1,310,720 (1,280 x 1,024) x 3 PT-D8500E: 786,432 (1,024 x 768) x 3	RS-232C/422 OUT:	D-sub 9-pin x 1 (for external control)
Screen aspect ratio:	4:3 (16:9 compatible)	REMOTE 1:	D-sub 9-pin x 1 (for external control)
Lens:	Optional	REMOTE 2:	M3 jack x 1 (for wired remote control)
Lamp:	1,200 W xenon lamp	Power cord length:	2.5 m (8'2")
Lamp life:	1,500 hours (at normal mode) 1,000 hours (at high mode)	Cabinet material:	Aluminum + PPE plastic
Colours:	Full colour (16,777,216 colours)	Dimensions (W x H x D):	680 x 390 x 973 mm (26-3/4" x 15-11/32" x 38-5/16")
Brightness:	7000 ANSI lumens (at high mode) 6000 ANSI lumens (at normal mode)	Weight:	80 kg (176.4 lbs.)
Uniformity (CCR):	More than 90%	Operating temperature:	0°–40°C (32°–104°F) 0°–35°C (32°–95°F) at high mode
Contrast ratio:	450:1 (all white/all black)	Operating humidity:	10%–80% (no condensation)
Resolution:		Safety regulations:	CE, VDE, C-Tick, CB certificate, EN55022 Class B, EN55024
RGB: PT-D8600E:	1280 x 1024 pixels	Supplied accessories:	Wireless/wired remote control unit, Batteries for remote control unit, Remote control cable
PT-D8500E:	1024 x 768 pixels	Optional accessories:	
Video:	560 TV lines (with optional ET-MD95VM2)	Replacement lamp unit:	ET-LAD8500
Screen size:	100°–600° diagonal (aspect ratio: 4:3) 100°–180° diagonal with ET-D95LE9 (aspect ratio: 4:3)	Ceiling mount bracket:	ET-PKD95
Lens shift:		Dual stacking mount bracket:	ET-DFD95
Vertical:	10:0–0:10 (powered)	Zoom lens (1.5-2.5:1):	ET-D95LE1
		Zoom lens (2.5-4.0:1):	ET-D95LE2
		Zoom lens (4.0-7.0:1):	ET-D95LE3
		Fixed short focus lens (0.8:1):	ET-D95LE9
		Video/S-Video/YCbCr input board:	ET-MD95VM2
		SDI (480i/576i) input board:	ET-MD95SD1
		SDI (480i/576i/480p) input board:	ET-MD95SD2
		SDI (720p/1035i/1080i/1080-24p) input board:	ET-MD95SD3
		TMD5 input board:	ET-MD95T

Projection setting examples

L: Projection distance between the screen and the centre of the front feet of the projector.
H: Height from the edge of screen to centre of lens.

E1: Height from the lower edge of screen to centre of lens.
E2: Height from the upper edge of screen to centre of lens.
upper: PT-D8600E
lower: PT-D8500E

Screen size	L						H				
	zoom						fixed ET-D95LE9	E1		E2	
	ET-D95LE1		ET-D95LE2		ET-D95LE1			zoom	fixed	zoom	fixed
min.	max.	min.	max.	min.	max.	ET-D95LE1/ D95LE2/ D95LE3	ET-D95LE9	ET-D95LE1/ D95LE2/ D95LE3	ET-D95LE9		
100°	3,145	5,006	5,078	7,915	7,887	13,603	2,316	0-1,587	793	0-1,587	-793
	3,261	5,197	5,270	8,221	8,196	14,142	2,398	0-1,524	762	0-1,524	-762
150°	4,610	7,426	7,504	11,791	11,793	20,418	3,348	0-2,380	1,190	0-2,380	-1,190
	4,784	7,713	7,792	12,251	12,257	21,227	3,471	0-2,286	1,143	0-2,286	-1,143
200°	6,075	9,846	9,929	15,667	15,700	27,233	—	0-3,173	—	0-3,173	—
	6,307	10,229	10,314	16,281	16,318	28,312	—	0-3,048	—	0-3,048	—
250°	7,540	12,267	12,355	19,543	19,606	34,049	—	0-3,967	—	0-3,967	—
	7,830	12,745	12,835	20,310	20,379	35,397	—	0-3,810	—	0-3,810	—
300°	9,005	14,687	14,781	23,420	23,513	40,864	—	0-4,760	—	0-4,760	—
	9,353	15,261	15,357	24,340	24,440	42,482	—	0-4,572	—	0-4,572	—
400°	11,935	19,527	19,633	31,172	31,326	54,494	—	0-6,347	—	0-6,347	—
	12,399	20,293	20,401	32,399	32,562	56,651	—	0-6,096	—	0-6,096	—
500°	14,866	24,368	24,485	38,925	39,139	68,125	—	0-7,934	—	0-7,934	—
	15,455	25,325	25,445	40,458	40,684	70,821	—	0-7,620	—	0-7,620	—
600°	17,796	29,209	29,336	46,677	46,951	81,756	—	0-9,520	—	0-9,520	—
	18,491	30,357	30,488	48,517	48,806	84,991	—	0-9,144	—	0-9,144	—

unit: mm

Options

Lenses

ET-D95LE1

Zoom lens
(1.5-2.5 : 1)



ET-D95LE2

Zoom lens
(2.5-4.0 : 1)



ET-D95LE3

Zoom lens
(4.0-7.0 : 1)



ET-D95LE9

Fixed short focus lens
(for rear projection)
(0.8 : 1)



Projectors need modification to attach the ET-D95LE9.

Boards

ET-MD95VM2

Video/S-Video/YCbCr input board



ET-MD95SD1

SDI (480i/576i) input board



ET-MD95SD2

SDI (480i/576i/480p) input board



ET-MD95SD3

SDI (720p/1035i/1080i/1080-24p) input board



ET-MD95T

TMD5 input board



Brackets

ET-PKD95

Ceiling mount bracket



ET-DFD95

Dual stacking mount bracket



Lamp

ET-LAD8500

Replacement lamp unit



Panasonic

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