

Panasonic®

PT-D9610U PT-D9510U

Large Venue DLP™-Based Projectors

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

High-Fidelity Projectors

- Ultra-high contrast ratio of 1,000:1
- Built-in multi-screen edge blending technology
- Network functions including remote control and status monitoring
- Abundant options for versatile system configurations
- Low-noise design
- One-touch auto setup



Sophisticated High-Contrast, Multi-Screen Projection



The PT-D9610U and PT-D9510U debut as the latest flagship models for Panasonic's large-venue DLP™-based projectors. These exciting models inherit Panasonic's brilliant picture quality, advanced functions and easy maintenance, and add a host of new technologies, an extremely high contrast ratio, and a new wired-maintenance function. Panasonic's edge blending function also makes it easy to project high-quality images onto multiple screens. The PT-D9610U and PT-D9510U are fully equipped for either permanent or event applications, and are ideal for convention halls, sports arenas, control centers, and post production display for digital cinema. These exciting new projectors clearly show Panasonic's leadership position in DLP™-based systems.



Emmy Award-Winning Technology

At the core of the PT-D9610U and PT-D9510U is the unique format re-sizing technology used in our Emmy Award-winning universal format converter (UFC). This revolutionary technology automatically converts a multitude of image formats to the native resolution of the projector so that the maximum resolution for each format is displayed.

Edge Blending

The edge blending technology of the PT-D9610U and PT-D9510U makes it possible to display full-motion images over the entire span of a multi-screen projection without any discernible lines between projected images.



High Brightness, High Contrast

1,000:1 contrast ratio

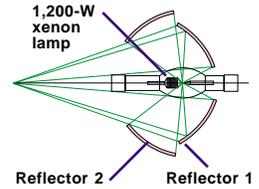
Panasonic's newly developed optical system and dynamic lamp control system with AI have achieved a remarkable 1,000:1 contrast ratio. This combines with a brightness of 12,000 (PT-D9610U) / 10,000 (PT-D9510U) ANSI lumens to deliver crisp, high-resolution images in virtually any viewing environment. Contrast can be switched between Super, High and Normal as conditions require.

Bright 12,000/10,000 ANSI lumens

The PT-D9610U and PT-D9510U feature a DLP system equipped with three Digital Micromirror Device (DMD) chips. This joins with Panasonic's original optical system and 1,600-W xenon lamp to achieve 12,000 ANSI lumens for the PT-D9610U and 10,000 ANSI lumens for the PT-D9510U. The xenon lamp reproduces natural colors and stunning brightness.

High-efficiency optical system

Panasonic's unique optical system maximizes lamp light efficiency. Thanks to a highly condensing dual reflector system and wide convergence angle, the compact PT-D9610U and PT-D9510U offer a very bright light source.



Dual reflector lamp system

Contrast mode and light output

contrast mode:	Super	High	Normal
brightness:	7,000 6,000	12,000 10,000	12,000 10,000
contrast ratio:	1,000:1 1,000:1	550:1 450:1	550:1 450:1
note:	Highest contrast ratio.	While the values are the same as those of Normal mode, the AI function gives the impression of higher contrast.	Used it is desired to turn AI off and project the source as it is.

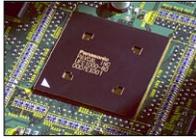
upper: PT-L9610U
Lower: PT-L9510U



Digital Light Processing, DLP, Digital Micromirror Device and DMD are trademarks of Texas Instruments Incorporated.

UFC for faithful moving pictures

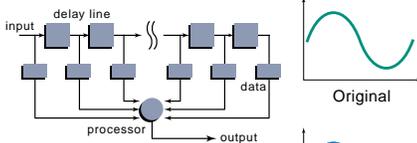
Each projector is equipped with Panasonic's Emmy Award-winning universal format converter (UFC), a high-precision digital filter that greatly improves the moving image smoothness. Projected images move smoothly and naturally, and viewers cannot perceive individual pixels.



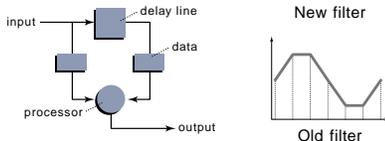
High-performance original UFC chip

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.

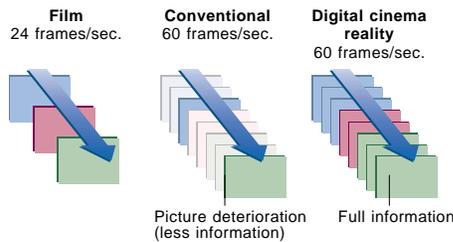
Digital processing

The PT-D9610U and PT-D9510U incorporate a host of Panasonic-developed video-processing technologies designed to ensure superior reproduction of moving pictures from a variety of sources. High-speed DSP chips enable interlaced-to-progressive (IP)

conversion for HD sources, complete with digital cinema reality (DCR) and digital noise reduction (DNR).

- 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 moving source, helping to reproduce the image with quality faithful to the original.
- Full compatibility with digital format (optional)
- High resolution: PT-D9610U: SXGA native, UXGA max., PT-D9510U: XGA native, UXGA max.

Digital Cinema Reality



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

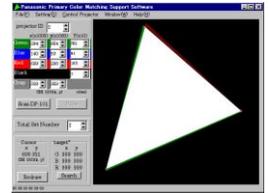
Artificial Intelligence (AI)

AI technology dynamically refreshes image settings like brightness, contrast and gamma for each individual scene. This ensures that details remain crisp and clear, even in dimly and brightly lit scenes.

Multi-Screen

Color matching

When several PT-D9610U or PT-D9510U units are used together, this function corrects for slight variations in the color 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 color-matching function is available (for up to 9 units) even when you're not conducting a multi-screen presentation.



Color-matching software

Edge blending

This function controls the brightness at overlapping image edges to assure uniform, natural-looking multi-screen images. When projecting HD sources with a single projector, part of the DMD device is unused. In multi-screen projections with two projectors, the DMD device works fully to increase the image's horizontal resolution while



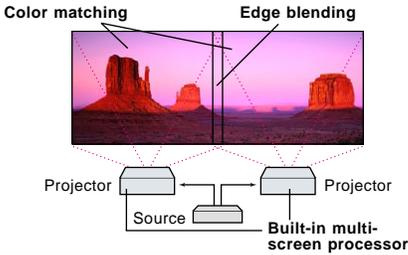
Overlapping image edges



maintaining the maximum vertical resolution.

Built-in multi-screen processor

The PT-D9610U and PT-D9510U can project large, multi-screen images without any additional equipment. Up to 100 units (10 x 10) can be used at a time.



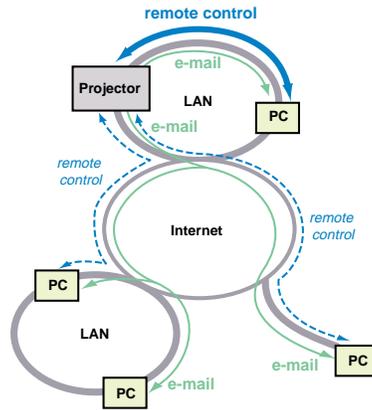
The built-in multi-screen processor enables enlarged multi-screen projection without using any additional special equipment. Color matching and edge blending make it easier to obtain proper multi-screen picture quality.

Maintenance

Network functions

The PT-D9610U and PT-D9510U are network-ready, with interfaces for 10Base-T and 100Base-TX provided as standard equipment. All functions can be controlled from a personal computer on a local area network (LAN) via a standard Web browser without any additional application software. By assigning a TCP/IP address to the projectors, you can monitor their operation over LAN or the Internet.

The PT-D9610U and PT-D9510U will even send an e-mail message to alert you of any operating errors or notify you when the lamp needs to be replaced, giving you an advanced level of maintenance ease and reliability.



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

In addition to the supplied boards for network and remote control, up to three optional board modules can be installed to match a variety of input source signals, including

digital serial component signals.



Two sets of terminal boards (network and remote control) are supplied. Up to three optional boards can be installed.

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 24,000 ANSI lumens. The lens axis shift function helps eliminate image distortion by allowing the precise positioning of the projected images.

Low Noise Design

Using an Active Noise Control (ANC) technology and advanced design structure, the low and high frequency noises are effectively cancelled. Because the control effect is monitored by microphones, optimal silencing is obtained at all times. So, images are presented in a pleasant, quiet 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
- Easy-handling frame



Specifications

Main Unit	200-240 V AC, 50/60 Hz	Video:	560 TV lines (with optional ET-MD95VM2)
Power supply:	2,200 W (1,900 VA)(2.8 W at standby mode)	Screen size:	100"-600" diagonal (aspect ratio: 4:3)
Power consumption:			100"-180" diagonal with ET-D95LE9 (aspect ratio: 4:3)
Color system:	PAL/PAL-M/PAL-NTSC/M-NTSC/SECAM (with optional ET-MD95VM2)	Lens shift: Vertical:	10:0-0:10 (powered)
		Horizontal:	8:2-2:8 (powered)
Scanning frequency:	fh 15-100 kHz, fv 24-120 Hz	Installation:	Ceiling/desk, front/rear (menu selection)
RGB:	480i: fh 15.75 kHz, fv 60 Hz		
YPbPr:	625i: fh 15.63 kHz, fv 50 Hz	Keystone correction:	±10°
	480p: fh 31.5 kHz, fv 60 Hz	Terminals:	
	720p: fh 45 kHz, fv 60 Hz	LAN:	RJ-45, 10Base-T/100Base-TX
	1035i: fh 33.75 kHz, fv 60 Hz	Serial:	D-sub 9-pin
	1080i: fh 33.75 kHz, fv 60 Hz	RS-232C/422 IN:	D-sub 9-pin x 1
Video/S-Video:	PAL/PAL-M/SECAM: fh 15.63 kHz, fv 50s Hz	RS-232C/422 OUT:	D-sub 9-pin x 1
	PAL-M/NTSC/M-NTSC: fh 15.75 kHz, fv 60 Hz	REMOTE 1 IN:	D-sub 9-pin x 1
		REMOTE 2 IN:	M3 jack x 1
		REMOTE 2 OUT:	M3 jack x 1
DMD™:	DLP™ system	Power cord length:	2.5 m (8'2")
PT-D9610U:	1.1" (diagonal) DMD™ (x 3)	Cabinet material:	Aluminum + PPE plastic
PT-D9510U:	0.9" (diagonal) DMD™ (x 3)	Dimensions (W x H x D):	753 x 428 x 1,051 mm
Pixels:	PT-D9610U: 1,310,720 (1,280 x 1,024) x 3	Weight:	100 kg
	PT-D9510U: 786,482 (1,024 x 768) x 3	Operating temperature:	0°-40°C (32°-104°F), 0°-35°C (32°-95°F) at high mode
Screen aspect ratio:	PT-D9610U: 5:4 (16:9 compatible)	Operating humidity:	10%-80% (no condensation)
	PT-D9510U: 4:3 (16:9 compatible)	Safety regulations:	
Lens:	Optional	UL1950, C-UL, EN60950, FCC class A, EN50082-1, EN55022 (B), EN61000-3-2, EN61000-3-3, VDE, CB Certificate, C-tick	
Lamp:	1,600 W xenon lamp	Supplied accessories:	Wireless/wired remote control unit, Batteries for remote control unit, Remote control cable
Colors:	Full color (16,777,216 colors)	Optional accessories:	
Brightness:		For PT-L9610E:	
PT-D9610U:	12000 ANSI lumens (at high mode), 10000 ANSI lumens (at normal mode)	Zoom lens (1.5-2.0:1):	ET-D95LE5 • Zoom lens (2.0-2.5:1): ET-D95LE6 • Zoom lens (2.5-4.0:1): ET-D95LE7 • Zoom lens (4.0-7.0:1): ET-D95LE8
PT-D9510U:	10000 ANSI lumens (at high mode), 9000 ANSI lumens (at normal mode)	For PT-L9510E:	
Contrast ratio:		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
PT-D9610U:	1000:1 (all white/all black) at contrast super mode (brightness switches to 7,000 ANSI lumens at super mode)	Common:	
	550:1 (all white/all black) at contrast high/normal mode	Replacement lamp unit:	ET-LAD9610 • Ceiling mount bracket: ET-DFD95 • Dual stacking mount bracket: ET-DFD95 • RGB/YPbPr input board: ET-MD95RGB • Video/S-Video/Y/CbCr input board: ET-MD95VM • SDI (480i/576i) input board: ET-MD95SD1 • SDI (480i/576i/480p) input board: ET-MD95SD2 • SDI (720p/1035i/1080i/1080p) input board: ET-MD95SD3 • TMDS input board: ET-MD95T
PT-D9510U:	1000:1 (all white/all black) at contrast super mode (brightness switches to 6,000 ANSI lumens at super mode)		
	450:1 (all white/all black) at contrast high/normal mode		
Resolution:			
RGB:	PT-D9610U: 1280 x 1024 dots		
	PT-D9510U: 1024 x 768 dots (with optional ET-MD95RGB)		

PT-D9610U standard setting-up position examples (aspect ratio: 5:4)

Screen size	L										H					
	zoom										fixed		zoom		fixed	
	ET-D95LE5		ET-D95LE6		ET-D95LE7		ET-D95LE8		ET-D95LE9	ET-D95LE9	ET-D95LE9/D95LE7/D95LE8	ET-D95LE9/D95LE7/D95LE8	ET-D95LE9	ET-D95LE9		
	min.	max.	min.	max.	min.	max.	min.	max.								
100"	3,203	4,194	4,226	5,172	5,033	7,927	8,066	13,905	1,927	0-1,587	793	0-1,587	-793			
150"	4,732	6,226	6,299	7,655	7,512	11,891	12,035	20,858	2,765	0-2,380	1,190	0-2,380	-1,190			
200"	6,261	8,257	8,332	10,139	9,991	15,855	16,004	27,810	3,602	0-3,173	1,587	0-3,173	-1,587			
300"	9,320	12,320	12,398	15,107	14,948	23,784	23,941	41,715	-	0-4,760	-	0-4,760	-			
400"	12,379	16,383	16,464	20,074	19,906	31,712	31,879	55,620	-	0-6,347	-	0-6,347	-			
500"	15,438	20,446	20,530	25,042	24,863	39,640	39,816	69,525	-	0-7,934	-	0-7,934	-			
600"	18,496	24,509	24,595	30,010	29,820	47,568	47,753	83,430	-	0-9,520	-	0-9,520	-			

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

PT-D9510U standard setting-up position examples (aspect ratio: 4:3)

Screen size	L								H					
	zoom								fixed		zoom		fixed	
	ET-D95LE1		ET-D95LE2		ET-D95LE3		ET-D95LE9	ET-D95LE9	ET-D95LE1/D95LE2/D95LE3	ET-D95LE2/D95LE3	ET-D95LE1/D95LE3	ET-D95LE9	ET-D95LE9	
	min.	max.	min.	max.	min.	max.								
100"	3,261	5,197	5,270	8,221	8,196	14,142	2,398	0-1,524	762	0-1,524	-762			
150"	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"	6,307	10,229	10,314	16,281	16,318	28,312	-	0-3,048	-	0-3,048	-			
300"	9,353	15,261	15,357	24,340	24,440	42,482	-	0-4,572	-	0-4,572	-			
400"	12,399	20,293	20,401	32,399	32,562	56,651	-	0-6,096	-	0-6,096	-			
500"	15,455	25,325	25,445	40,458	40,684	70,821	-	0-7,620	-	0-7,620	-			
600"	18,491	30,357	30,488	48,517	48,806	84,991	-	0-9,144	-	0-9,144	-			

Panasonic

Panasonic is the brandname of Matsushita Electric.

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Options

Lenses

ET-D95LE1 Zoom lens (1.5-2.5 : 1)	ET-D95LE5 Zoom lens (1.5-2.0 : 1)
ET-D95LE2 Zoom lens (2.5-4.0 : 1)	ET-D95LE6 Zoom lens (2.0-2.5 : 1)
ET-D95LE3 Zoom lens (4.0-7.0 : 1)	ET-D95LE7 Zoom lens (2.5-4.0 : 1)
ET-D95LE9 Fixed short focus lens (for rear projection) (0.8 : 1) <small>The PT-D9510E needs modification to attach the ET-D95LE9.</small>	ET-D95LE8 Zoom lens (4.0-7.0 : 1)

Boards

ET-MD95VM2 Video/S-Video/Y/CbCr input board



ET-MD95RGB RGB/YPbPr 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 TMDS input board



Brackets

ET-PKD95 Ceiling mount bracket



ET-DFD95 Dual stacking mount bracket



Lamp

ET-LAD9610 Replacement lamp unit

