

S P E C F I L E

PRODUCT NO.: PT-L785

PRODUCT NAME: Portable LCD Projector



MAJOR FEATURES

- High image quality
 - 3200 lumens
 - Progressive cinema scan (3/2 pulldown)
 - 3D digital comb filter
- Flexible system applications
 - Powered zoom/focus lens
 - Option lenses for various situations
 - Easy lens replacement
 - Multiple terminals including DVI
 - Designed for quiet operation
- Networking
 - Wired LAN system
 - Control/status monitoring capability via an Internet browser
 - E-mail message alert system for operating condition changes and parts replacement
- Other valuable features
 - Direct power off
 - Secure, anti-theft features
 - Easy lamp replacement
 - One-Touch Auto Setup
 - H/V keystone correction

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Specifications

Main Unit

Power supply:	100–240 V AC, 50/60 Hz
Power consumption:	380 W (during standby mode with fan stopped: Max. 11 W)
Optical system:	Light separation by dichroic mirror, prismatic synthesis
LCD panel:	Panel size: 1.0" diagonal (4:3 aspect ratio) with Micro Lens Array
	Display method: Transparent LCD panel (x 3, R/G/B)
	Drive method: Active matrix
	Pixels: 786,432 (1,024 x 768) x 3 (total of 2,359,296)
	Pixel configuration: Stripe
Lens:	Powered zoom/focus lens (1:1–1:1.3), F 1.7–2.1, f 40.7–52.8 mm
Lamp:	270 W UHM lamp
Projection size:	1,016–7,620 mm (40–300 inches) diagonally (4:3 aspect ratio)
Colors:	Full color (16.7 million colors)
Brightness:	3200 lumens (with supplied lens)
Center-to-corner uniformity ratio:	90%
Contrast ratio:	500:1
Resolution:	RGB: 1024 x 768 pixels Video: 760 TV lines
Scanning frequency:	
RGB:	Horizontal: 15–91 kHz, Vertical: 56–87 Hz
YPbPr:	480i/525i: Horizontal: 15.75 kHz, Vertical: 60 Hz 576i/625i: Horizontal: 15.63 kHz, Vertical: 50 Hz 480p/525p: Horizontal: 31.5 kHz, Vertical: 60 Hz 576p/625p: Horizontal: 31.25 kHz, Vertical: 50 Hz 720p/750p: Horizontal: 45 kHz, Vertical: 60 Hz 1080i/1125i: Horizontal: 33.75 kHz, Vertical: 60 Hz 1080i/1125i: Horizontal: 28.125 kHz, Vertical: 50 Hz
S-Video/Video:	NTSC/NTSC4.43/PAL-M/PAL-60: Horizontal: 15.75 kHz, Vertical: 60 Hz PAL/SECAM/PAL-N: Horizontal: 15.63 kHz, Vertical: 50 Hz
Optical axis shift:	10 : 0 (fixed)
Keystone correction angle:	Vertical: $\pm 35^\circ$ with no horizontal correction (with supplied lens) Horizontal: $\pm 7^\circ$ with no vertical correction (with supplied lens) * Correction range differs when both vertical and horizontal keystone distortions are corrected at the same time. Also it differs depending on input signal.
Installation:	Ceiling/desk, front/rear (menu selection)
Built-in speakers:	Size: 4 x 3 cm/1.6" x 1.2" (x 2) Output power: 2.0 W + 2.0 W
Terminals:	DVI-D IN: DVI-D 24-pin x 1 RGB1 IN: D-sub HD 15-pin x 1 G: 0.7 Vp-p (1.0 Vp-p for Sync on G), 75 Ω R, B: 0.7 Vp-p, 75 Ω HD/VD/SYNC: TTL, high impedance (positive/negative polarity) Y, Pb, Pr: Y: 1.0 p-p, 75 Ω , Pb, Pr: 0.7 Vp-p, 75 Ω RGB2 IN/RGB OUT: D-sub HD 15-pin x 1 G: 0.7 Vp-p (1.0 Vp-p for Sync on G), 75 Ω R, B: 0.7 Vp-p, 75 Ω HD/VD/SYNC: TTL, high impedance (positive/negative polarity) Y, Pb, Pr: Y: 1.0 p-p, 75 Ω , Pb, Pr: 0.7 Vp-p, 75 Ω * Selectable with on-screen menu. Serves as an output terminal for RGB1 or RGB3 input. RGB3 IN: 5-BNC x 1 G: 0.7 Vp-p (1.0 Vp-p for Sync on G), 75 Ω R, B: 0.7 Vp-p, 75 Ω HD/VD/SYNC: TTL, high impedance (positive/negative polarity) Y, Pb, Pr: Y: 1.0 p-p, 75 Ω , Pb, Pr: 0.7 Vp-p, 75 Ω AUDIO IN for RGB: M3 (L, R) x 1, 0.5 Vrms, common for DVI-D, RGB1, RGB2 and RGB3 inputs VIDEO IN: RCA x 1, 1.0 Vp-p, 75 Ω S-VIDEO IN: Mini DIN 4-pin x 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 Ω

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AUDIO IN for VIDEO/S-VIDEO:

RCA x 2 (L, R), 0.5 Vrms

AUDIO OUT: M3 (L, R) x 1, 0–2.0 Vrms (variable)

SERIAL: D-sub 9-pin (female) x 1, for external controller (RS-232C)

REMOTE IN: D-sub 9-pin (female) x 1, for external controller

LAN: RJ-45 x 1, 10Base-T/100Base-TX for network connection

Power cord length: 3 m

Cabinet material: ABS/PC

Dimensions (W x H x D): 290 x 137 x 406 mm (11-7/16" x 5-3/8" x 16"), with cable housing detached

Weight: 5.9 kg (13 lbs)

Operating environment:

Temperature: 0°–40°C (32°–104°F)

Humidity: 20%–80% (no condensation)

Remote Control Unit

Power supply: 3 V DC (button battery x 1)

Operation range: Approx. 7 m when operated from directly in front of the signal receptor)

Dimensions (W x H x D): 33 x 168 x 40 mm (1-5/16" x 6-5/8" x 1-9/16")

Weight: Approx. 108 g (3.8 oz.) (including batteries)

Accessories

Supplied accessories: Power cord, full-function remote control with laser pointer, battery for remote control, RGB cable, AV cable, cable housing

Optional accessories: User-replaceable lamp unit: ET-LA785

Ceiling mount bracket for high ceilings:

ET-PK780

Ceiling mount bracket for low ceilings:

ET-PK780S

1.3 - 1.7:1 zoom lens: ET-LE10

2.6 - 4.2:1 zoom lens: ET-LE20

4.0 - 5.6:1 zoom lens: ET-LE30

Wireless mouse receiver: ET-RMRC2

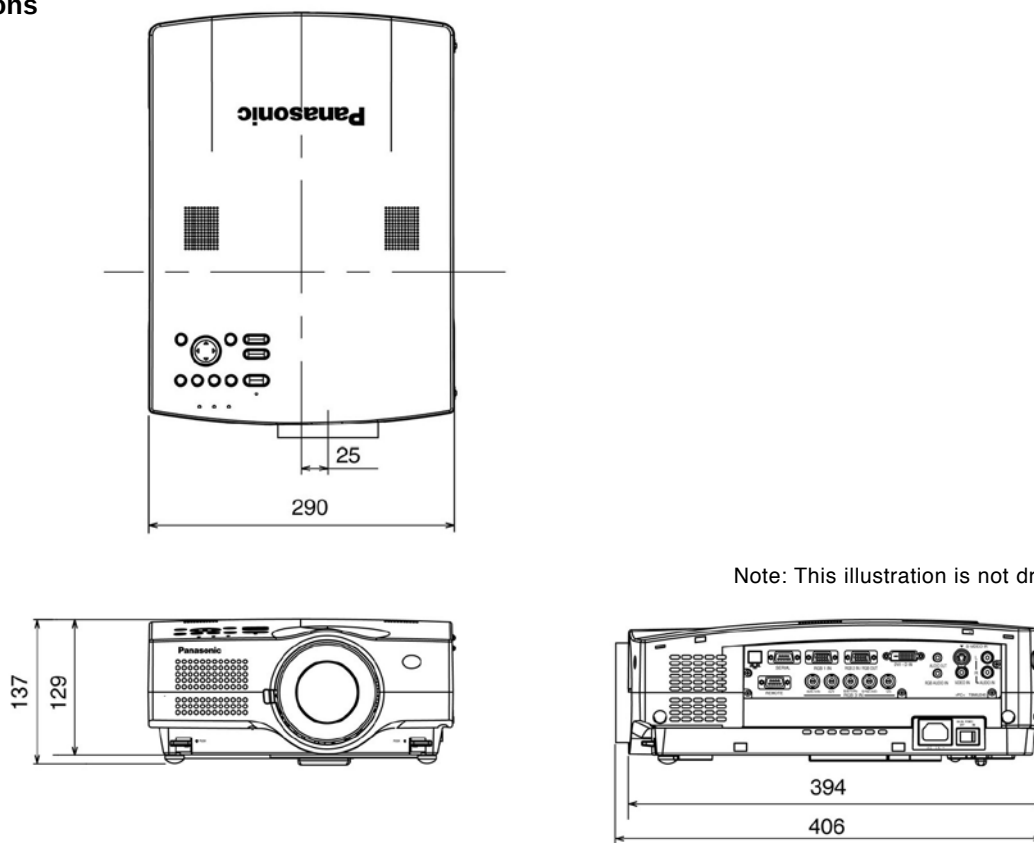
Weights and dimensions shown are approximate.
Specifications subject to change without notice.

Portable LCD Projector

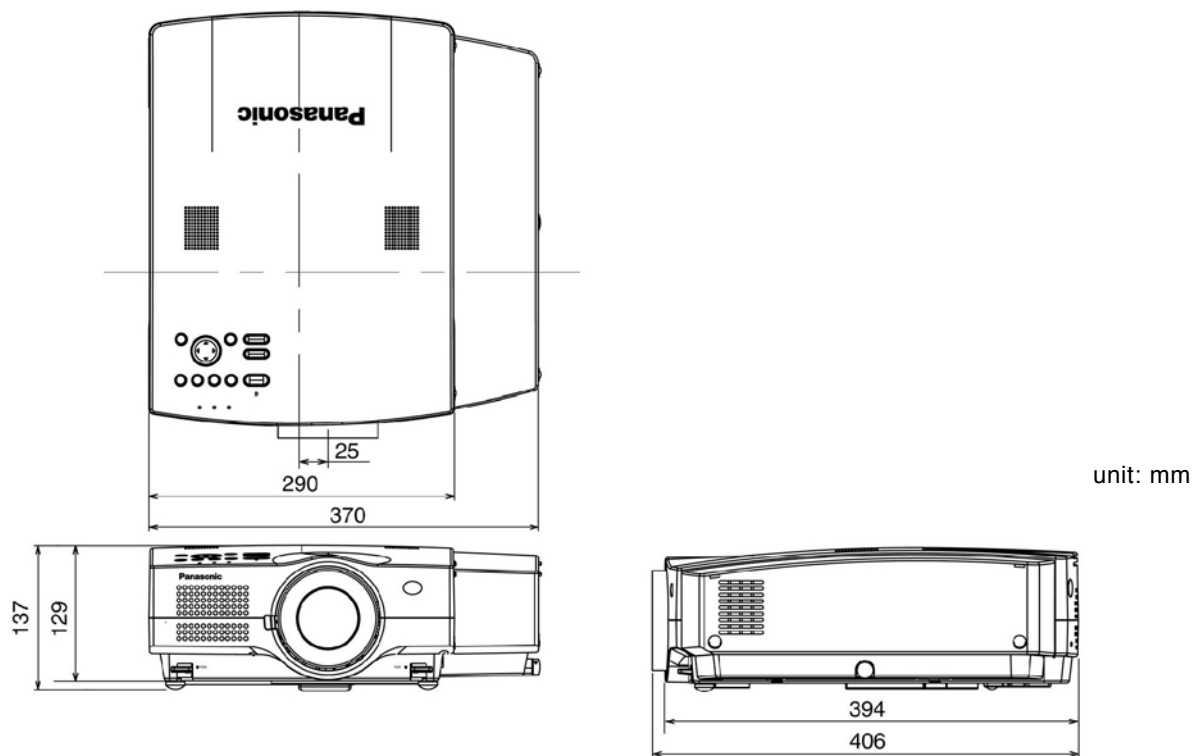
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Dimensions

unit: mm



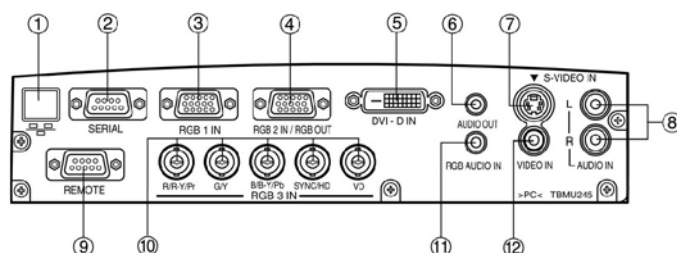
[With cable housing attached]



Portable LCD Projector

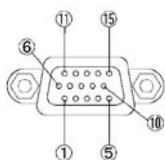
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Terminals



- 1 LAN (RJ-45)
- 2 Serial (RS-232C)
- 3 RGB1 input
- 4 RGB2 input/RGB output
- 5 DVI-D input
- 6 Audio output
- 7 S-Video input
- 8 Audio input for S-Video and video
- 9 Remote input
- 10 RGB3 input
- 11 Audio input for RGB
- 12 Video input

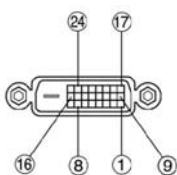
RGB1/RGB2 input connector pin assignment



no.	signal	no.	signal	no.	signal
1	R/PR	6	GND	11	NC
2	G/Y	7	GND	12	SDA*
3	B/PB	8	GND	13	HD/SYNC
4	GND	9	NC	14	VD
5	GND	10	GND	15	SCL*

* Effective when connected to a PC having proper functions.

DVI-D input connector pin assignment



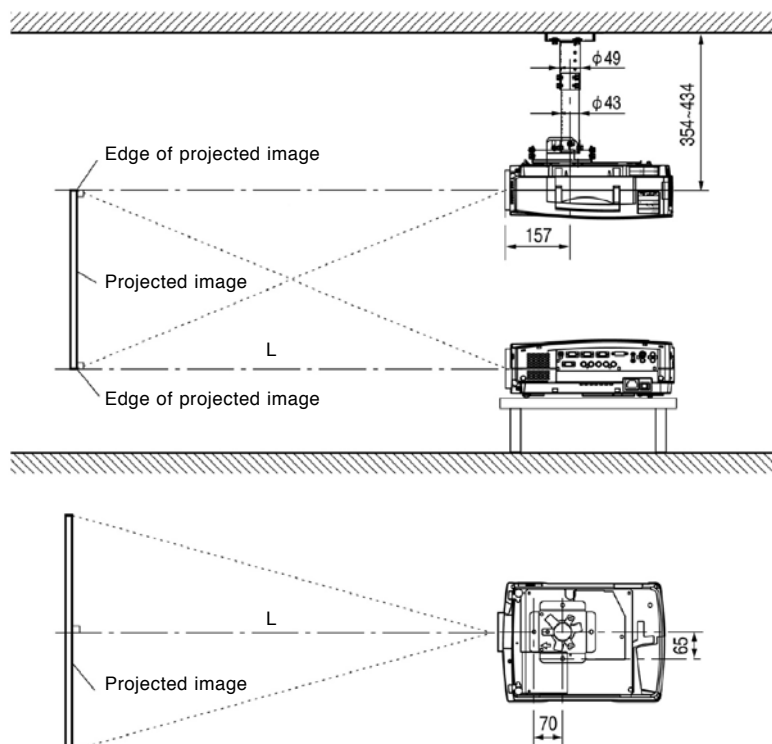
no.	signal	no.	signal	no.	signal
1	T, M, D, S data 2-	9	T, M, D, S data 1-	17	T, M, D, S data 0-
2	T, M, D, S data 2+	10	T, M, D, S data 1+	18	T, M, D, S data 0+
3	T, M, D, S data 2/4 shield	11	T, M, D, S data 1/3 shield	19	T, M, D, S data 0/5 shield
4	T, M, D, S data 4-	12	T, M, D, S data 3-	20	T, M, D, S data 5-
5	T, M, D, S data 4+	13	T, M, D, S data 3+	21	T, M, D, S data 5+
6	DDC clock	14	+5 V	22	T, M, D, S clock shield
7	DDC clock	15	GNC	23	T, M, D, S clock +
8	NC	16	Hot plug detection	24	T, M, D, S clock -

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Standard setting-up positions

unit: mm



L: Projection distance between the screen and the surface of the lens

NOTE:

Illustrations show the projector installed using optional ceiling bracket ET-PK780.

Note: This illustration is not drawn to scale.

Projection distance (screen aspect ratio 4:3)

Screen size (4:3)	Throw distance											
	With ET-LE10			with supplied lens			With ET-LE20			With ET-LE30		
	min.	recommended*	max.	min.	recommended*	max.	min.	recommended*	max.	min.	recommended*	max.
1.0 m 40" (3.3')	1.1 m 3.6'	1.3 m 4.3'	1.3 m 4.3'	1.6 m 5.2'	1.9 m 6.2'	2.0 m 6.6'	2.1 m 6.9'	2.5 m 8.2'	3.3 m 10.8'	3.4 m 11.2'	4.6 m 15.1'	4.6 m 15.1'
1.3 m 50" (4.2')	1.3 m 4.3'	1.7 m 5.6'	1.7 m 5.6'	2.0 m 6.6'	2.4 m 7.9'	2.6 m 8.5'	2.7 m 8.9'	3.2 m 10.5'	4.2 m 13.8'	4.2 m 13.8'	5.8 m 19.0'	5.8 m 19.0'
1.5 m 60" (5.0')	1.6 m 5.2'	2.0 m 6.6'	2.0 m 6.6'	2.4 m 7.9'	2.9 m 9.5'	3.1 m 10.2'	3.2 m 10.5'	3.9 m 12.8'	5.0 m 16.4'	5.0 m 16.4'	6.9 m 22.6'	6.9 m 22.6'
1.8 m 70" (5.8')	1.9 m 6.2'	2.4 m 7.9'	2.4 m 7.9'	2.8 m 9.2'	3.4 m 11.2'	3.6 m 11.8'	3.8 m 12.5'	4.5 m 14.8'	5.9 m 19.4'	5.8 m 19.0'	8.1 m 26.6'	8.1 m 26.6'
2.0 m 80" (6.7')	2.2 m 7.2'	2.7 m 8.9'	2.7 m 8.9'	3.2 m 10.5'	3.9 m 12.8'	4.2 m 13.8'	4.3 m 14.1'	5.2 m 17.1'	6.8 m 22.3'	6.6 m 21.7'	9.2 m 30.2'	9.2 m 30.2'
2.3 m 90" (7.5')	2.4 m 7.9'	3.1 m 10.2'	3.1 m 10.2'	3.6 m 11.8'	4.4 m 14.4'	4.7 m 15.4'	4.9 m 16.1'	5.9 m 19.4'	7.7 m 25.3'	7.4 m 24.3'	10.4 m 34.1'	10.4 m 34.1'
2.5 m 100" (8.3')	2.7 m 8.9'	3.5 m 11.5'	3.5 m 11.5'	4.0 m 13.1'	4.9 m 16.1'	5.3 m 17.4'	5.4 m 17.7'	6.5 m 21.3'	8.5 m 27.9'	8.2 m 26.9'	11.5 m 37.7'	11.5 m 37.7'
3.0 m 120" (10.0')	3.2 m 10.5'	4.2 m 13.8'	4.2 m 13.8'	4.8 m 15.7'	5.9 m 19.4'	6.3 m 20.7'	6.6 m 21.7'	7.9 m 25.9'	10.3 m 33.8'	9.9 m 32.5'	13.8 m 45.3'	13.8 m 45.3'
3.8 m 150" (12.5')	4.0 m 13.1'	5.2 m 17.1'	5.2 m 17.1'	6.1 m 20.0'	7.4 m 24.3'	7.9 m 25.9'	8.2 m 26.9'	9.9 m 32.5'	12.9 m 42.3'	12.3 m 40.4'	17.3 m 56.8'	17.3 m 56.8'
5.1 m 200" (16.7')	5.4 m 17.7'	7.0 m 23.0'	7.0 m 23.0'	8.1 m 26.6'	9.8 m 32.2'	10.6 m 34.8'	11.0 m 36.1'	13.3 m 43.6'	17.2 m 56.4'	16.3 m 53.5'	23.0 m 75.5'	23.0 m 75.5'
6.4 m 250" (20.8')	6.7 m 22.0'	8.8 m 28.9'	8.8 m 28.9'	10.1 m 33.1'	12.3 m 40.4'	13.3 m 43.6'	13.8 m 45.3'	16.6 m 54.5'	21.6 m 70.9'	20.4 m 66.9'	28.7 m 94.2'	28.7 m 94.2'
7.6 m 300" (25.0')	8.1 m 26.6'	10.6 m 34.8'	10.6 m 34.8'	12.2 m 40.0'	14.8 m 48.6'	16.0 m 52.5'	16.5 m 54.1'	20.0 m 65.6'	26.0 m 85.3'	24.4 m 80.1'	34.5 m 113.2'	34.5 m 113.2'

*Recommended throw distances when the unit is set up as a fixed-type projector.

• Figures shown above are approximate.

• Images may be distorted when the throw distance is adjusted to the minimum.

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Calculation of the projection distance

For a screen size different from examples shown on the previous page, use the equation below to calculate the projection distance.

Aspect ratio 4 : 3

- ET-LE10
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0270 - 0.0523$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.0355 - 0.0509$
- Supplied lens
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0407 - 0.0800$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.0538 - 0.0774$
- ET-LE20
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0554 - 0.1340$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.0871 - 0.1360$
- ET-LE30
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0809 + 0.1040$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.1147 + 0.0960$

Aspect ratio 16 : 9

- ET-LE10
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0294 - 0.0523$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.0387 - 0.0509$
- Supplied lens
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0443 - 0.0800$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.0586 - 0.0774$
- ET-LE20
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0604 - 0.1340$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.0949 - 0.1360$
- ET-LE30
 - minimum $L (m) = (\text{diagonal screen size in inches}) \times 0.0881 + 0.1040$
 - maximum $L (m) = (\text{diagonal screen size in inches}) \times 0.1250 + 0.0960$

RGB signal compatibility

This projector accepts up to 91 kHz horizontal scanning frequency and 162 MHz dot clock.

NOTE:

The display resolution of this projector is 1024 x 768 pixels. If the display resolution indicated in the above data does not match this resolution, the input signal will be converted to 1024 x 768 pixels.

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