Panasonic ideas for life

S P E C   F I L E

Product Number : PT-**DW8300**U

Product Name : 3-Chip DLP® Projector

Specifications

Main unit

Power supply		120 V AC, 10 A, 60 Hz
Power consumption		920 W (970 VA) (0.2 W with standby mode set to ECO*[1]. 6 W with standby mode set to NORMAL. Both with fan stopped.)
DLP® chip	Panel size	21.6 mm (0.85 inches) diagonal (16:9 aspect ratio)
	Display method	DLP® chip × 3 (R, G, B), DLP® projection system
	Pixels	1,049,088 (1,366 × 768) × 3, total of 3,147,264 pixels
Lens		Optional powered zoom/focus lenses
Lamp		355 W UHM lamps (× 2) (dual lamp system)
Screen size		70–600 inches (70–300 inches with the ET-D75LE5), 16:9 aspect ratio
Brightness*[2]		9,600 lumens (dual lamp, high mode)
Center-to-corner uniformity*[2]		90%
Contrast*[2]		10,000:1 (full on/full off, in dynamic iris 3 mode)
Resolution		1,366 × 768 pixels (Input signals that exceed this resolution will be converted to 1,366 × 768 pixels.)
Scanning frequency	HDMI/DVI-D/RGB	Horizontal: 15–100 kHz, vertical: 24–120 Hz, Dot clock: 162 MHz or lower
	YPBPR (YCBCR)	525i (480i): f_H 15.75 kHz; f_V 60 Hz,
		625i (576i): f_H 15.63 kHz; f_V 50 Hz,
		525p (480p): f_H 31.50 kHz; f_V 60 Hz,
		625p (576p): f_H 31.25 kHz; f_V 50 Hz,
		750 (720)/60p: f_H 45.00 kHz; f_V 60 Hz,
		750 (720)/50p: f_H 37.50 kHz; f_V 50 Hz,
		1035/60i: f_H 33.75 kHz; f_V 60 Hz,
		1125 (1080)/60i: f_H 33.75 kHz; f_V 60 Hz,
		1125 (1080)/50i: f_H 28.13 kHz; f_V 50 Hz,
		1080/25p: f_H 28.13 kHz; f_V 25 Hz,
		1080/24p: f_H 27.00 kHz; f_V 24 Hz
		1080/24sF: f_H 27.00 kHz; f_V 48 Hz,
		1080/30p: f_H 33.75 kHz; f_V 30 Hz
		1080/60p: f_H 67.50 kHz; f_V 60 Hz,
		1080/50p: f_H 56.25 kHz; f_V 50 Hz
	S-Video/Video	Horizontal: 15.75/15.63 kHz, vertical: 50/60 Hz, (NTSC, NTSC4.43, PAL, PAL60, PAL-N, PAL-M, SECAM)
Optical axis shift		±70% (±60% with the ET-D75LE6) from center of screen, powered ±30% (±20% with the ET-D75LE6) from center of screen, powered
Keystone correction range		Vertical: ±40° (±22° with the ET-D75LE5, ±28° with the ET-D75LE6)
Installation		Ceiling/floor, front/rear

Terminals*³	HDMI IN	HDMI 19-pin × 1, Deep Color, compatible with HDCP,
		480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p,
		1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p
		(non-interlaced signals only),
		VGA (640 × 480)–WUXGA*² (1,920 × 1,200),
		dot clock: 25–162 MHz
		NOTE: Compatible with non-interlaced signals only.
	DVI-D IN	DVI-D 24-pin × 1, DVI 1.0 compliant, HDCP compatible,
		for single link only
		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*² (1,920 × 1,200),
		dot clock: 25–162 MHz
		NOTE: Compatible with non-interlaced signals only.
	RGB 1 IN	BNC × 5
	RGB	R: 0.7 Vp-p, 75 ohms,
		G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms,
		B: 0.7 Vp-p, 75 ohms
		HD/VD, SYNC: High impedance, TTL (positive/negative), 75 ohms
	YP$_B$P$_R$ (YC$_B$C$_R$)	Y: 1.0 Vp-p (including sync signal), P$_B$/P$_R$ (C$_B$/C$_R$): 0.7 Vp-p, 75 ohms
		NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.
	RGB 2 IN	D-sub HD 15-pin (female) × 1
	R, G, B	R: 0.7 Vp-p, 75 ohms,
		G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms,
		B: 0.7 Vp-p, 75 ohms
		HD/VD, SYNC: High impedance, TTL (positive/negative), 75 ohms
	YP$_B$P$_R$ (YC$_B$C$_R$)	Y: 1.0 Vp-p (including sync signal), P$_B$/P$_R$ (C$_B$/C$_R$): 0.7 Vp-p, 75 ohms
		NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.
	VIDEO IN	BNC × 1, 1.0 Vp-p, 75 ohms
	S-VIDEO IN	Mini DIN 4-pin × 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms
	SERIAL IN	D-sub 9-pin × 1 (RS-232C compliant) for external controller
	SERIAL OUT	D-sub 9-pin × 1 for link control
	REMOTE 1 IN	M3 jack × 1 for wired remote control
	REMOTE 1 OUT	M3 jack × 1 for link control
	REMOTE 2 IN	D-sub 9-pin × 1 for external control (parallel)
	LAN	RJ-45 × 1 for network connection, 100Base-TX/10Base-T, compliant
		with PJLink™ (class 1)
Power cord length		3.0 m (9 ft 10 in)
Cabinet materials		Molded plastic
Dimensions (W × H × D):		530 mm × 200 mm*⁵ × 548.5 mm*⁶
		(20-7/8˝ × 7-7/8˝ *⁵ × 21-19/32˝ *⁶) (without lens)
Weight		Approx. 24 kg (52.9 lbs)*⁷(without lens)
Operating temperature		0°–45°C (32°–113°F)*⁸
Operating humidity		10%–80% (no condensation)

Remote control unit

Power supply	3 V DC (AA type battery × 2)
Operation range*⁹	Approx. 30 m (98 ft 5 in) when operated from directly signal receptor
Dimensions (W × H × D)	51 × 176 × 28 mm (2˝ × 6-15/16˝ × 1-3/32˝)
Weight	Approx. 134 g (4.7 oz) (including batteries)

Supplied accessories

Power cord with security lock (× 1)
Wireless/wired remote control unit (× 1)
Batteries for remote control (AA type × 2)
Safety wire rope (× 1)

Optional accessories

Zoom lens (1.0–1.2:1)	ET-D75LE6
Zoom lens (1.4–1.9:1)	ET-D75LE10
Zoom lens (1.8–2.7:1)	ET-D75LE20
Zoom lens (2.7–5.2:1)	ET-D75LE30
Zoom lens (5.2–8.2:1)	ET-D75LE4
Zoom lens (8.2–15.4:1)	ET-D75LE8
Fixed-focus lens (0.8:1)	ET-D75LE5
Lens motor cover	ET-D75MC1
High-ceiling mount bracket	ET-PKD310H
Low-ceiling mount bracket	ET-PKD310S
Attachment for ceiling mount bracket	ET-PAD310
Frame	ET-PFD310
Smoke cut filter	ET-SFD310
Replacement lamp (one bulb)	ET-LAD310
Replacement lamp (a set of two bulbs)	ET-LAD310W
Replacement filter unit	ET-ACF310

Weights and dimensions shown are approximate. Specifications subject to change without notice.
*1 When the standby mode is set to ECO, LAN-based network functions such as the standby ON function will not operate.
*2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*3 The SYNC/HD and VD inputs do not accept the tri-level sync signal.
*4 WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).
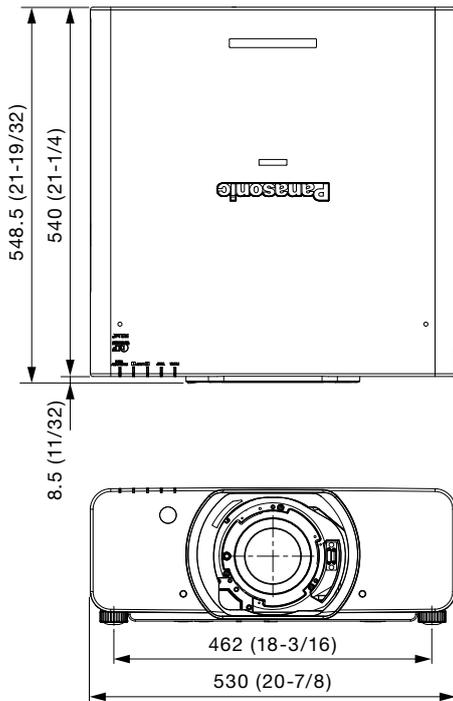*5 With legs at shortest position.
*6 Excluding the optional lens.
*7 Average value (excluding the optional lens). May differ depending on models.
*8 The operating temperature range is 0°C (32°F) to 40°C (104°F) when used in High-Altitude mode (1,400 m (4,593 ft) to 2,700 m (8,858 ft)).
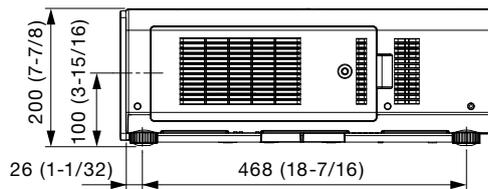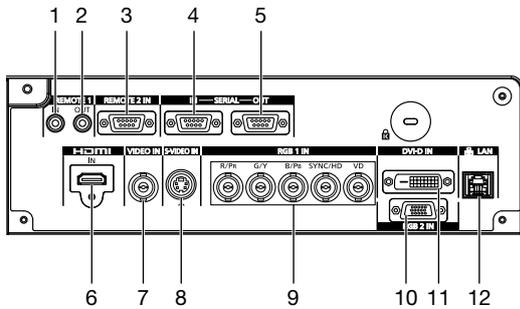*9 Operation range differs depending on environments.

Dimensions

unit : mm (inch)
NOTE: This illustration is not drawn to scale.

548.5 (21-19/32)
540 (21-1/4)
8.5 (11/32)

462 (18-3/16)
530 (20-7/8)

200 (7-7/8)
100 (3-15/16)
26 (1-1/32)
468 (18-7/16)

Terminals

1	Remote 1 input	7	Video input
2	Remote 1 output	8	S-Video input
3	Remote 2 input	9	RGB 1 input
4	Serial input	10	RGB 2 Input
5	Serial output	11	DVI-D input
6	HDMI input	12	LAN connector

PT-**DW8300**U

Standard setting-up position (when installed using the ET-PKD310H)

Ø60.5
(2-3/8)

*2 340–420
(13-3/8–16–17/32)
*2 436–516
(17-5/32–20-5/16)

Upper edge of projected image

H

L

Projected image

L

Lower edge of projected image

*1 198   342
(7-25/32) (13-15/32)
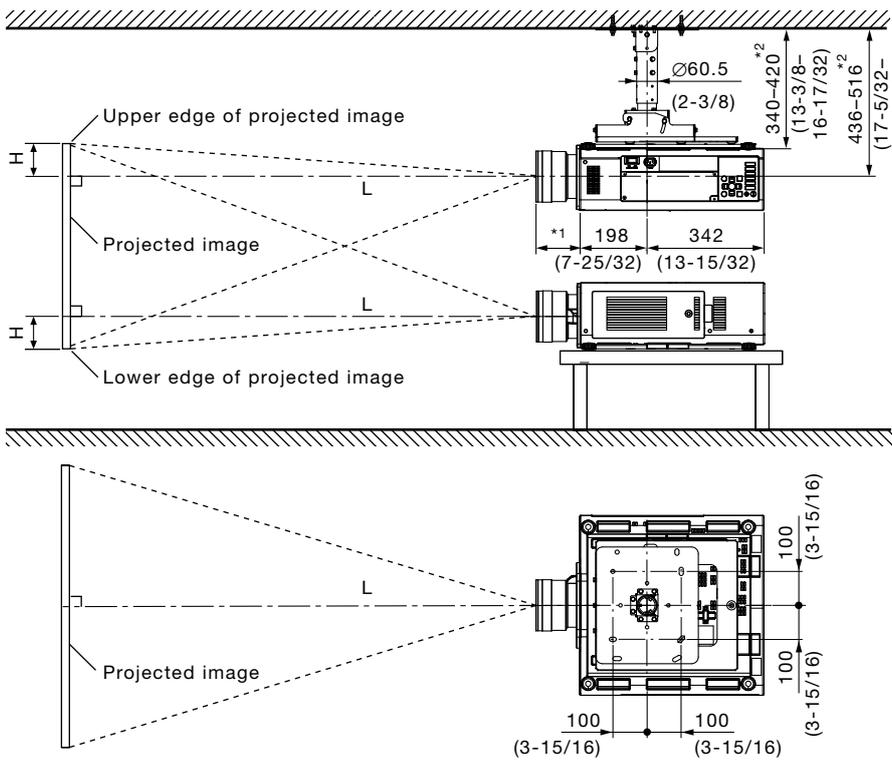
*1 When the lens protrudes to the maximum.
  212 mm (8-11/32˝) with the ET-D75LE6
  125 mm (4-29/32˝) with the ET-D75LE10
  114 mm (4-1/2˝) with the ET-D75LE1
  121 mm (4-3/4˝) with the ET-D75LE20
  99 mm (3-29/32˝) with the ET-D75LE2
  121 mm (4-3/4˝) with the ET-D75LE30
  102 mm (4-1/32˝) with the ET-D75LE3
  126 mm (4-31/32˝) with the ET-D75LE4
  254 mm (10˝) with the ET-D75LE8
  202 mm (7-15/16˝) with the ET-D75LE5

*2 Adjustable in 40 mm (1-9/16˝) steps.

unit : mm (inch)

L

Projected image

100 (3-15/16)
100 (3-15/16)

100   100
(3-15/16) (3-15/16)

Caution:
• All construction work should be done by a qualified technician.
• When mounting to the ceiling, use the special mounting bracket. To prevent the projector from swaying or dropping, attach the wire that is included with the projector between the mounting bracket and the ceiling.

Projection distance for 16:9 aspect ratio screen

(ET-D75LE6/D75LE10/D75LE20/D75LE30/D75LE4/D75LE8/D75LE5)

Unit: millimeters

Screen size (inch, diagonal)	Distance to screen (L)												Fixed-focus ET-D75LE5 Fixed-focus lens	Height from the edge of screen to center of lens (H)		
	Zoom													Zoom lenses		Fixed-focus lens*
	ET-D75LE6 Zoom lens		ET-D75LE10 Zoom lens		ET-D75LE20 Zoom lens		ET-D75LE30 Zoom lens		ET-D75LE4 Zoom lens		ET-D75LE8 Zoom lens			Except ET-D75LE6	ET-D75LE6	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.				
70	1,560	1,865	2,183	2,824	2,819	4,101	4,074	7,944	7,943	12,713	12,430	23,652	1,151	-174 – 1,046	-87 – 959	436
80	1,791	2,142	2,507	3,242	3,234	4,704	4,672	9,104	9,094	14,544	14,261	27,083	1,328	-199 – 1,195	-100 – 1,096	498
90	2,022	2,419	2,831	3,661	3,649	5,306	5,270	10,264	10,246	16,375	16,092	30,513	1,504	-224 – 1,345	-112 – 1,233	560
100	2,253	2,696	3,155	4,080	4,063	5,909	5,869	11,424	11,397	18,206	17,923	33,943	1,681	-249 – 1,494	-125 – 1,370	623
120	2,715	3,250	3,803	4,918	4,892	7,114	7,065	13,745	13,699	21,867	21,585	40,804	2,033	-299 – 1,793	-149 – 1,644	747
150	3,408	4,081	4,775	6,175	6,136	8,921	8,860	17,225	17,153	27,359	27,077	51,095	2,563	-374 – 2,241	-187 – 2,055	934
200	4,563	5,466	6,396	8,269	8,210	11,933	11,850	23,025	22,909	36,512	36,232	68,246	3,445	-498 – 2,989	-249 – 2,740	1,245
250	5,718	6,851	8,016	10,363	10,283	14,946	14,841	28,826	28,666	45,666	45,386	85,398	4,327	-623 – 3,736	-311 – 3,424	1,556
300	6,873	8,236	9,636	12,458	12,356	17,958	17,832	34,626	34,422	54,819	54,541	102,549	5,209	-747 – 4,483	-374 – 4,109	1,868
400	9,183	11,006	12,877	16,646	16,502	23,983	23,814	46,227	45,934	73,126	72,850	136,852	–	-995 – 5,977	-498 – 5,479	–
500	11,493	13,776	16,118	20,835	20,649	30,008	29,796	57,828	57,447	91,433	91,159	171,157	–	-1,245 – 7,472	-623 – 6,849	–
600	13,803	16,546	19,359	25,024	24,795	36,033	35,778	69,429	68,960	109,740	109,468	205,458	–	-1,494 – 8,966	-747 – 8,219	–

Unit: feet

Screen size (inch, diagonal)	Distance to screen (L)												Fixed-focus ET-D75LE5 Fixed-focus lens	Height from the edge of screen to center of lens (H)		
	Zoom													Zoom lenses		Fixed-focus lens*
	ET-D75LE6 Zoom lens		ET-D75LE10 Zoom lens		ET-D75LE20 Zoom lens		ET-D75LE30 Zoom lens		ET-D75LE4 Zoom lens		ET-D75LE8 Zoom lens			Except ET-D75LE6	ET-D75LE6	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.				
70	5.2	6.2	7.2	9.3	9.3	13.5	13.4	26.1	26.1	41.8	40.8	77.6	3.8	-0.6 – 3.4	-0.3 – 3.2	1.4
80	5.9	7.1	8.3	10.7	10.7	15.5	15.4	29.9	29.9	47.8	46.8	88.9	4.4	-0.7 – 4.0	-0.4 – 3.6	1.7
90	6.7	8.0	9.3	12.1	12.0	17.5	17.3	33.7	33.7	53.8	52.8	100.2	5.0	-0.8 – 4.5	-0.4 – 4.1	1.9
100	7.4	8.9	10.4	13.4	13.4	19.4	19.3	37.5	37.4	59.8	58.9	111.4	5.6	-0.9 – 5.0	-0.5 – 4.5	2.1
120	9.0	10.7	12.5	16.2	16.1	23.4	23.2	45.1	45.0	71.8	70.9	133.9	6.7	-1.0 – 5.9	-0.5 – 5.4	2.5
150	11.2	13.4	15.7	20.3	20.2	29.3	29.1	56.6	56.3	89.8	88.9	167.7	8.5	-1.3 – 7.4	-0.7 – 6.8	3.1
200	15.0	18.0	21.0	27.2	27.0	39.2	38.9	75.6	75.2	119.8	118.9	224.0	11.4	-1.7 – 9.9	-0.9 – 9.0	4.1
250	18.8	22.5	26.3	34.0	33.8	49.1	48.7	94.6	94.1	149.9	149.0	280.2	14.2	-2.1 – 12.3	-1.1 – 11.3	5.2
300	22.6	27.1	31.7	40.9	40.6	59.0	58.6	113.7	113.0	179.9	179.0	336.5	17.1	-2.5 – 14.8	-1.3 – 13.5	6.2
400	30.2	36.2	42.3	54.7	54.2	78.7	78.2	151.7	150.8	240.0	239.1	449.0	–	-3.3 – 19.7	-1.7 – 18.0	–
500	37.8	45.2	52.9	68.4	67.8	98.5	97.8	189.8	188.5	300.0	299.1	561.6	–	-4.1 – 24.6	-2.1 – 22.5	–
600	45.3	54.3	63.6	82.1	81.4	118.3	117.4	227.8	226.3	360.1	359.2	674.1	–	-5.0 – 29.5	-2.5 – 27.0	–

• The value for L (distance to screen) varies slightly depending on the zoom lens characteristics.
• At the shortest projection distance, the zoom lens characteristics may cause slight image distortion.
• When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.
NOTE: When the fixed-focus lens is mounted, the optical lens shift function cannot be used.

3-Chip DLP® Projector

Projection distance for 16:9 aspect ratio screen
(ET-D75LE1/D75LE2/D75LE3)

Unit: millimeters

Screen size (inch, diagonal)	Distance to screen (L)						Height from the edge of screen to center of lens (H)
	ET-D75LE1 Zoom lens		ET-D75LE2 Zoom lens		ET-D75LE3 Zoom lens		
	min.	max.	min.	max.	min.	max.	
70	2,322	3,103	3,137	4,719	4,730	7,937	-174 – 1,046
80	2,664	3,561	3,597	5,408	5,419	9,088	-199 – 1,195
90	3,007	4,019	4,056	6,098	6,108	10,240	-224 – 1,345
100	3,349	4,476	4,516	6,787	6,798	11,391	-249 – 1,494
120	4,035	5,392	5,435	8,166	8,176	13,693	-299 – 1,793
150	5,062	6,765	6,814	10,234	10,244	17,147	-374 – 2,241
200	6,775	9,053	9,112	13,680	13,691	22,904	-498 – 2,989
250	8,488	11,341	11,409	17,127	17,137	28,660	-623 – 3,736
300	10,201	13,630	13,707	20,574	20,584	34,416	-747 – 4,483
400	13,626	18,206	18,303	27,467	27,477	45,929	-995 – 5,977
500	17,052	22,783	22,898	34,360	34,371	57,441	-1,245 – 7,472
600	20,477	27,360	27,494	41,254	41,264	68,954	-1,494 – 8,966

Unit: feet

Screen size (inch, diagonal)	Distance to screen (L)						Height from the edge of screen to center of lens (H)
	ET-D75LE1 Zoom lens		ET-D75LE2 Zoom lens		ET-D75LE3 Zoom lens		
	min.	max.	min.	max.	min.	max.	
70	7.7	10.2	10.3	15.5	15.6	26.1	-0.6 – 3.4
80	8.8	11.7	11.9	17.8	17.8	29.9	-0.7 – 4.0
90	9.9	13.2	13.4	20.1	20.1	33.6	-0.8 – 4.5
100	11.0	14.7	14.9	22.3	22.4	37.4	-0.9 – 5.0
120	13.3	17.7	17.9	26.8	26.9	45.0	-1.0 – 5.9
150	16.7	22.2	22.4	33.6	33.7	56.3	-1.3 – 7.4
200	22.3	29.8	29.9	44.9	45.0	75.2	-1.7 – 9.9
250	27.9	37.3	37.5	56.2	56.3	94.1	-2.1 – 12.3
300	33.5	44.8	45.0	67.5	67.6	113.0	-2.5 – 14.8
400	44.8	59.8	60.1	90.2	90.2	150.7	-3.3 – 19.7
500	56.0	74.8	75.2	112.8	112.8	188.5	-4.1 – 24.6
600	67.2	89.8	90.3	135.4	135.4	226.3	-5.0 – 29.5

- The value for L (distance to screen) varies slightly depending on the zoom lens characteristics.
- At the shortest projection distance, the zoom lens characteristics may cause slight image distortion.
- When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.

NOTE: When the fixed-focus lens is mounted, the optical lens shift function cannot be used.

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Calculation of the projection distance

For a screen size different from the above, use the equation below to calculate the projection distance.

Aspect ratio 16:9

Zoom lenses

ET-D75LE6	minimum	L (mm) = (diagonal screen size in inches) × 23.1 – 56.6
	maximum	L (mm) = (diagonal screen size in inches) × 27.7 – 73.6
ET-D75LE10	minimum	L (mm) = (diagonal screen size in inches) × 32.4 – 85.7
	maximum	L (mm) = (diagonal screen size in inches) × 41.9 – 108.5
ET-D75LE1	minimum	L (mm) = (diagonal screen size in inches) × 34.3 – 76.0
	maximum	L (mm) = (diagonal screen size in inches) × 45.8 – 100.4
ET-D75LE20	minimum	L (mm) = (diagonal screen size in inches) × 41.5 – 83.2
	maximum	L (mm) = (diagonal screen size in inches) × 60.2 – 116.2
ET-D75LE2	minimum	L (mm) = (diagonal screen size in inches) × 46.0 – 79.5
	maximum	L (mm) = (diagonal screen size in inches) × 68.9 – 106.4
ET-D75LE30	minimum	L (mm) = (diagonal screen size in inches) × 59.8 – 113.1
	maximum	L (mm) = (diagonal screen size in inches) × 116.0 – 176.5
ET-D75LE3	minimum	L (mm) = (diagonal screen size in inches) × 68.9 – 95.8
	maximum	L (mm) = (diagonal screen size in inches) × 115.1 – 121.6
ET-D75LE4	minimum	L (mm) = (diagonal screen size in inches) × 115.1 – 115.8
	maximum	L (mm) = (diagonal screen size in inches) × 183.1 – 101.3
ET-D75LE8	minimum	L (mm) = (diagonal screen size in inches) × 183.1 – 386.2
	maximum	L (mm) = (diagonal screen size in inches) × 343.0 – 359.8

Fixed-focus lens

ET-D75LE5		L (mm) = (diagonal screen size in inches) × 17.6 – 83.5

• Distances calculated with the above equations will include slight deviations.
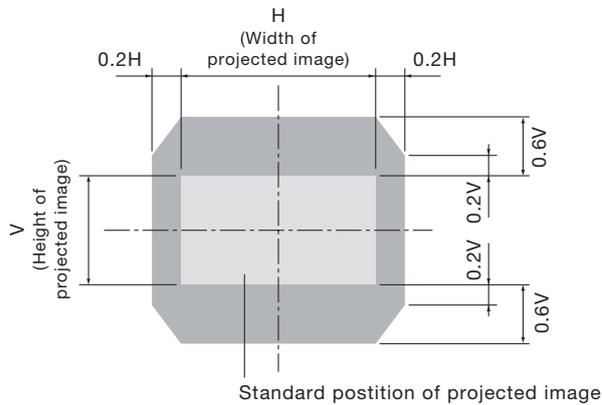
Shift range

Optical axis shift function allows to shift the position of a projected image as shown below.

• **When the lens except the ET-D75LE6 is mounted**

H
(Width of projected image)

0.3H

0.3H

0.7V

0.2V 0.2V

0.2V

0.7V

V
(Height of projected image)

Standard postition of projected image

• **When the ET-D75LE6 is mounted**

H
(Width of projected image)

0.2H

0.2H

0.6V

0.2V 0.2V

0.2V

0.6V

V
(Height of projected image)
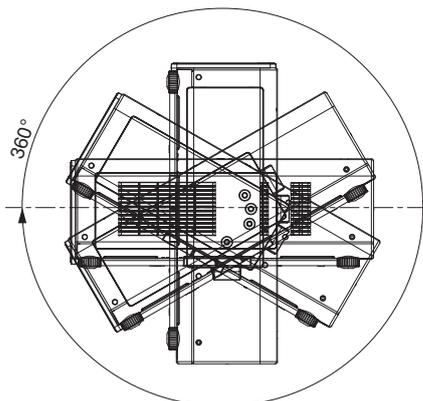
Standard postition of projected image
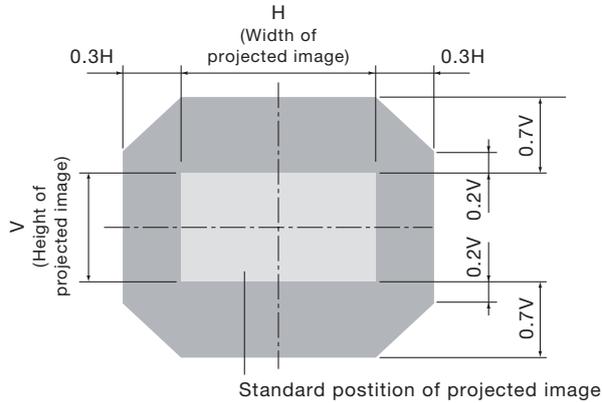
• **Because the ET-D75LE5 is a fixed short-throw lens, the lens shift function cannot be used with it.**

Installable angle

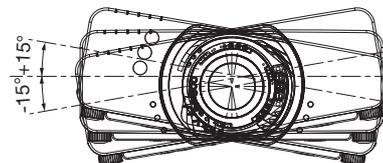Install the projector at an angle within the range shown below.

• **Vertical direction**
The projector may be installed at a vertical angle of 360°.

360°

• **Horizontal direction**
The projector may be installed at a horizontal angle of ±15°.

−15°,+15°

List of compatible signals

The signals that can be input to this projector are shown in the table below. Horizontal scanning frequencies of 15 to 100 kHz, vertical scanning frequencies of 24 to 120 Hz, and a dot clock of 162 MHz maximum can be input.

NOTE: The native resolution of this projector is 1,366 × 768 pixels. If the display resolution of the input signal is different from the native resolution, image compression or expansion will be used to convert the input signal to a level within the native resolution.

Display mode	Display resolution (dots)[1]	Scanning frequency H (kHz)	V (kHz)	Dot clock frequency (MHz)	Format
NTSC/NTSC4.43/PAL-M/PAL6	720 × 480i	15.7	59.9	–	VIDEO/S-VIDEO
PAL/PAL-N/SECAM	720 × 576i	15.6	50.0	–	
480i (525i)	720 × 480i	15.7	59.9	13.5	SDI/RGB/YP$_B$P$_R$
576i (625i)	720 × 576i	15.6	50.0	13.5	
480p (525p)	720 × 483	31.5	59.9	27.0	HDMI/DVI-D/
576p (625p)	720 × 576	31.3	50.0	27.0	RGB/YP$_B$P$_R$
720/60p	1280 × 720	45.0	60.0	74.3	
720/50p	1280 × 720	37.5	50.0	74.3	
1080/60i	1920 × 1080i	33.8	60.0	74.3	
1080/50i	1920 × 1080i	28.1	50.0	74.3	
1080/24p	1920 × 1080	27.0	24.0	74.3	
1080/24sF	1920 × 1080i	27.0	24.0	74.3	
1080/25p	1920 × 1080	28.1	50.0	74.3	
1080/30p		33.8	60.0	74.3	
1080/60p		67.5	60.0	148.5	
1080/50p		56.3	50.0	148.5	
VGA400	640 × 400	31.5	70.1	25.2	HDMI/DVI-D/RGB
		37.9	85.1	31.5	
VGA480	640 × 480	31.5	59.9	25.2	
		35.0	66.7	30.2	
		37.9	72.8	31.5	
		37.5	75.0	31.5	
		43.3	85.0	36.0	
SVGA	800 × 600	35.2	56.3	36.0	
		37.9	60.3	40.0	
		48.1	72.2	50.0	
		46.9	75.0	49.5	
		53.7	85.1	56.3	
MAC16	832 × 624	49.7	74.6	57.3	
XGA	1024 × 768	39.6	50.0	51.9	
		48.4	60.0	65.0	
		56.5	70.1	75.0	
		60.0	75.0	78.8	
		65.5	81.6	86.0	
		68.7	85.0	94.5	
		80.0	100.0	105.0	
		96.7	120.0	130.0	
MXGA	1152 × 864	53.7	60.0	81.6	
		64.0	71.2	94.2	
		67.5	74.9	108.0	
		76.7	85.0	121.5	
MAC21	1152 × 870	68.7	75.1	100.0	
1280 × 700	1280 × 700	37.1	49.8	60.5	
		44.8	59.9	74.5	
1280 × 768	1280 × 768	39.6	49.9	65.3	
		47.8	59.9	79.5	
	1280 × 768[2]	47.4	60.0	68.3	
	1280 × 768	60.3	74.9	102.3	
		68.6	84.8	117.5	

1. The "i" appearing after the resolution indicates an interlaced signal.
2. WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).

| Display mode	Display resolution (dots)[1]	Scanning frequency H (kHz)	V (kHz)	Dot clock frequency (MHz)	Format
1280 × 800	1280 x 800	41.3	50.0	68.0	HDMI/DVI-D/RGB
		49.7	59.8	83.5	
	1280 x 800[2]	49.3	59.9	71.0	
	1280 x 800	62.8	74.9	106.5	
		71.6	84.9	122.5	
MSXGA	1280 x 960	60.0	60.0	108.0	
SXGA	1280 × 1024	52.4	50.0	88.0	
		64.0	60.0	108.0	
		72.3	66.3	125.0	
		78.2	72.0	135.1	
		80.0	75.0	135.0	
		91.1	85.0	157.5	
1366×768	1280 × 768	47.7	59.8	84.8	
		39.6	49.9	69.0	
SXGA+	1400 × 1050	54.1	50.0	99.9	
		64.0	60.0	108.0	
		65.2	60.0	122.6	
		65.3	60.0	121.8	
		78.8	72.0	149.3	
		82.2	75.0	155.9	
WXGA+	1440 × 900	55.9	59.9	106.5	
		46.3	49.9	86.8	
UXGA60	1600 × 1200	75.0	60.0	162.0	
WSXGA+	1680 × 1050	65.3	60.0	146.3	
		54.1	50.0	119.5	
1920×1080	1920 × 1080	55.6	49.9	141.5	
	1920 × 1080[2]	66.6	59.9	138.5	
	1920 × 1080	67.2	60.0	173.0	RGB
WUXGA	1920 × 1200	61.8	49.9	158.3	HDMI/DVI-D/RGB
	1920 × 1200[2]	74.0	60.0	154.0	
	1920 × 1200	74.6	59.9	193.3	RGB

1. The "i" appearing after the resolution indicates an interlaced signal.
2. WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).

Serial connector

The serial connector complies with RS-232C. To control the projector from a personal computer, commands must be input through communication software, based on the format and satisfying the communication conditions shown below.
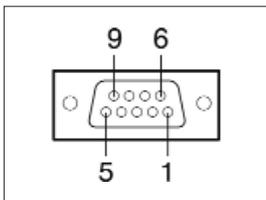
Pin assignments and signal names
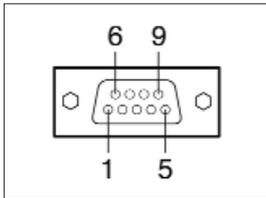
D-sub 9-pin (female)
Serial input

No.	Signal name	Description	No.	Signal name	Description
1	–	NC			
2	TXD	Send data	6	–	NC
3	RXD	Receive data	7	CTS	Connected internally
4	–	Connected internally	8	RTS	Connected internally
5	GND	Ground	9	–	NC

Pin assignments and signal names

D-sub 9-pin (male)
Serial output

No.	Signal name	Description	No.	Signal name	Description
1	–	NC			
2	RXD	Receive data	6	–	NC
3	TXD	Send data	7	RTS	Connected internally
4	–	Connected internally	8	CTS	Connected internally
5	GND	Ground	9	–	NC

Communication conditions (factory setting)

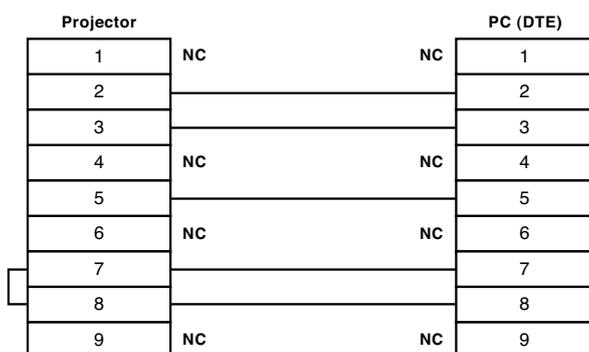|	
Signal level	RS-232C-compliant
Synchronization method	Start-stop synchronization
Baud rate	9,600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
X parameter	None
Y parameter	None

Basic format

Transmission from the computer begins with STX, then the ID, command, parameter, and ETX are sent in this order. Add parameters according to the details of control.

STX	A D	I1 I2	;	C1 C2 C3	:	P1 P2 ... Pn	ETX

Start
(1 byte)

ID 2 characters
(2 bytes)

Semicolon
(1 byte)

Command
(3 bytes)
(Control and/or query commands)

Colon
(1 byte)

Parameters
(undefined length)

End
(1 byte)

ID designator:
01 to 64: Address number
0A to 0Z: Group ID
ZZ: All units (ID ALL)
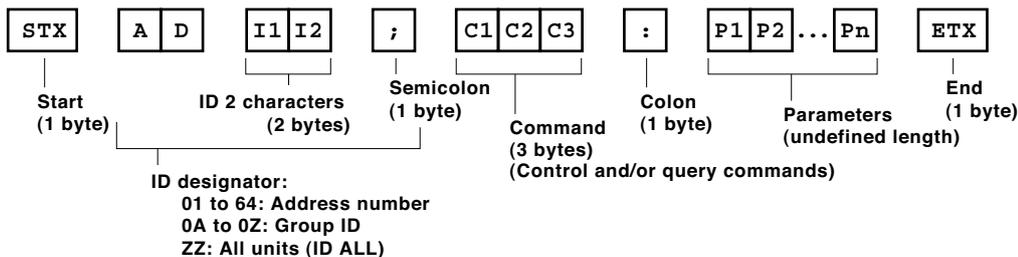
CAUTION
- It may not be possible to send or receive commands for about 10 to 60 seconds when the lamp is first turned on. If this occurs, wait for 60 seconds, then try sending or receiving again.
- When sending multiple commands, be sure to wait for at least 0.5 second after receiving a response from the projector before sending the next command.
- Additional time is sometimes required for response due to processing inside the projector. Set the time-out period for command response to 10 seconds or more.

PT-**DW8300**U

Cable specifications

	Projector				PC (DTE)	
1	NC			NC	1	
2					2	
3					3	
4	NC			NC	4	
5					5	
6	NC			NC	6	
7					7	
8					8	
9	NC			NC	9	

Control commands

Command : Parameter	Function		Callback
PON	POWER (STANDBY)	Standby power on	PON
POF		Standby power off	POF
IIS:SDI	INPUT SELECT	SDI	IIS:SDI
IIS:HD1		HDMI	IIS:HD1
IIS:DVI		DVI	IIS:DVI
IIS:RG1		RGB 1	IIS:RG1
IIS:RG2		RGB 2	IIS:RG2
IIS:VID		Video	IIS:VID
IIS:SVD		S-Video	IIS:SVD
LPM:0	LAMP SELECT	Dual (two lamps)	LPM:0
LPM:1		Single (one lamp)	LPM:1
OSH:0	SHUTTER	Shutter off	OSH:0
OSH:1		Shutter on	OSH:1
OPP:0	P IN P SELECT	Off	OPP:0
OPP:1		User 1	OPP:1
OPP:2		User 2	OPP:2
OPP:3		User 3	OPP:3
OAS	AUTO SETUP		OAS
VPM:NAT	PICTURE MODE	Natural	VPM:NAT
VPM:STD		Standard	VPM:STD
VPM:DYN		Dynamic	VPM:DYN
VPM:CIN		Cinema	VPM:CIN
VPM:GRA		Graphic	VPM:GRA
VPM:DIC		DICOM	VPM:DIC
VXX:DLVI0=+00000	SYSTEM DAYLIGHT VIEW 2	Off	VXX:DLVI0=+00000
VXX:DLVI0=+00001		1	VXX:DLVI0=+00001
VXX:DLVI0=+00002		2	VXX:DLVI0=+00002
VXX:DLVI0=+00003		3	VXX:DLVI0=+00003
OTE:4	COLOR TEMPERATURE	User 1	OTE:4
OTE:9		User 2	OTE:9
OTE:10		Default	OTE:10
OTE:p1p2p3p4		3200 K – 9300 K (100 K steps)	OTE:p1p2p3p4
TSD:y1y2y3y4m1m2d1d2w	DATE	Date setting	TSD:y1y2y3y4m1m2d1d2w
TST:h1h2m1m2s1s2	TIME	Time setting	TST:h1h2m1m2s1s2
OOS:0	ON SCREEN	On-screen display off	OOS:0
OOS:1		On-screen display on	OOS:1

* Do not send PON, POF, OSH, or OLP commands continuously in a short period of time. Doing so may burst the lamp or shorten the lamp replacement cycle.

* When a command that cannot be executed during standby mode is sent, the projector will send an ER401 command in reply.

Panasonic

Status asking commands

Command:Parameter	Function	Callback	Description
`QPW`	Main power status	`000`	Standby (Off)
		`001`	On
`QSH`	Shutter function status	`0`	Off
		`1`	On
`QFZ`	Freeze function status	`0`	Off
		`1`	On
`QIN`	Input signal status	`SDI`	SDI
		`HD1`	HDMI
		`DVI`	DVI
		`RG1`	RGB 1
		`RG2`	RGB 2
		`VID`	Video
		`SVD`	S-Video
`QOS`	On-screen display status	`0`	Off
		`1`	On
`QST`	Projector run time	`p1p2p3p4p5`	00000h–99999h
`Q$L:1`	Lamp 1 run time	`p1p2p3p4`	0000h–9999h
`Q$L:2`	Lamp 2 run time	`p1p2p3p4`	0000h–9999h
`QSL`	Lamp operation mode status	`0`	Dual (two lamps)
		`1`	Single (one lamp)
`QLP`	Lamp power mode status	`0`	High
		`1`	Low
`QPM`	Picture mode status	`NAT`	Natural
		`STD`	Standard
		`DYN`	Dynamic
		`CIN`	Cinema
		`GRA`	Graphic
		`DIC`	DICOM
`QVX:DLVI0`	System daylight view status	`DLVI0=+00000`	Off
		`DLVI0=+00001`	1
		`DLVI0=+00002`	2
		`DLVI0=+00003`	3
`QPP`	P in P status	`0`	Off
		`1`	User 1
		`2`	User 2
		`3`	User 3
`QTM:0`	Temperature status	`p1p2p3p4/p5p6p7p8` [*1]	p0 = Intake air
`QTM:1`			p1 = Around lamp
`QTM:2`			p2 = Optics module
`QGD`	Date setting status	`y1y2y3y4m1m2d1d2w`	yyyymmdd (day of week) [*2]
`QGT`	Time setting status	`h1h2m1m2s1s2`	hhmmss [*3]

∗1 p1p2p3p4: Celsius (°C), p5p6p7p8: Fahrenheit (°F)
∗2 Day of week: Monday = 1, Tuesday = 2, ... Sunday = 7
∗3 Set the date and time to UTC (universal time coordinated).

Command example

To set the on-screen display off, send the command as shown below.

STX   ADZZ ; OOS : 0   ETX

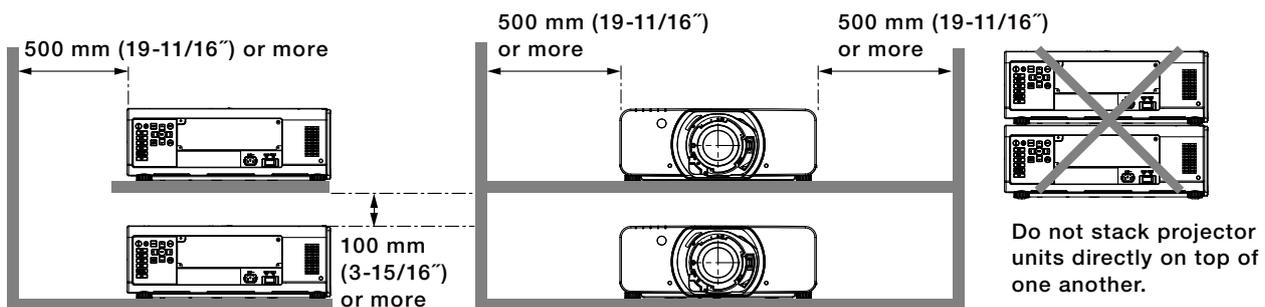Start   ID Address   Command   Parameter   End

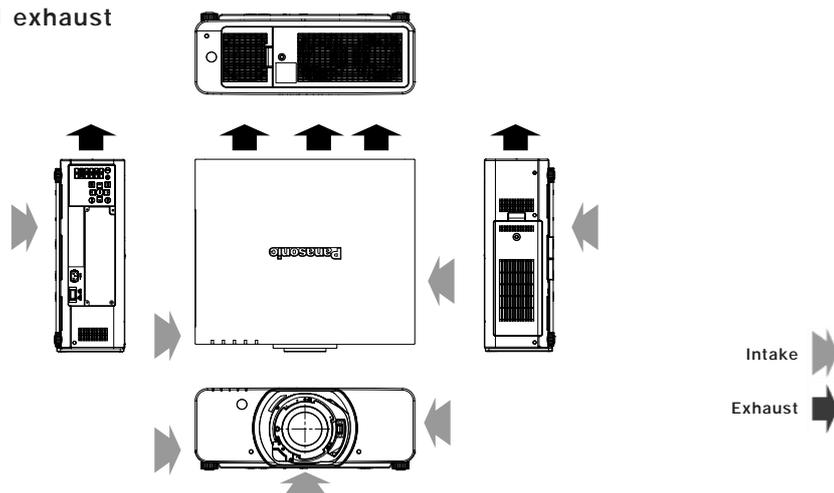NOTE: When sending commands without parameters, a colon (:) is not necessary.

Notes on projector placement and operation

The projector uses a high-wattage lamp that becomes very hot during operation. Please observe the following precautions.

1. Never place objects on top of the projector while it is operating.
2. Make sure there is an unobstructed space of 500 mm (19-11/16˝) or more around the projector's exhaust openings.
3. Do not stack projector units directly on top of one another. If two units must be stacked for back-up use in ordinary projection, use a method as shown below and provide ample space between the units to ensure that exhaust heat does not accumulate near the intake opening or around the units. Dual stacked projection is not recommended.
4. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.
5. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation, or may shorten the replacement cycle for the Auto Cleaning Filter (ACF) Unit.
6. If the projector is installed in an enclosed space, ensure that the temperature of the air surrounding the projector is between 0°C (32°F) and 40°C (104°F). Also make sure that the projector's intake and exhaust openings are not blocked. Even though the air surrounding the projector is 40°C (104°F) or less, if hot exhaust air accumulates inside the space, it may cause the projector's protective circuit to interrupt projector operation, or may shorten the replacement cycle for the ACF Unit. Pay particular attention to the surrounding temperature conditions when planning the installation.
7. If the projector is not to be set on the floor using adjuster legs, install it by using the five ceiling-mount screw holes (screw diameter: M6, length of each screw hole in the projector: 8 mm (5/16˝)). Provide a space of 5 to 10 mm (3/16˝ to 13/32˝) between the projector and the mounting surface by inserting metal spacers.

500 mm (19-11/16˝) or more

500 mm (19-11/16˝) or more

500 mm (19-11/16˝) or more

100 mm (3-15/16˝) or more

Do not stack projector units directly on top of one another.

Direction of air intake and exhaust

Intake

Exhaust

Operating the projector continuously

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

2. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.

Replacing the filter unit

The projector is equipped with the Auto Cleaning Filter (ACF) function, which automatically winds the air filter to set a new filter element in place according to operating conditions. The filter unit replacement cycle is approximately 10,000 hours*. Please purchase the ET-ACF310 filter unit for replacement use.

* The replacement cycle given here is a guideline. It may differ depending on the usage environment.

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