

**Specifications**

**Main unit**

Power supply		AC 100-240 V, 50 Hz/60 Hz	
Power consumption		820 W (8.6-3.5 A)	
Operation mode	[Normal]	735 W	
	[Eco]	575 W	
	[Long Life 1]	265 W	
	[Long Life 2]	235 W	
	[Long Life 3]	205 W	
	[QUIET1]	490 W	
	[QUIET2]	365 W	
	[Shutter]	75 W	
	Standby mode	[Normal]	7 W
[Eco]		0.5 W	
[QUICK STARTUP]		110 W	
BTU value		Max 2,799 BTU	
DLP™ chip	Panel size	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	
	Display method	DLP™ chip x 1, DLP™ projection system	
	Number of pixels	2,304,000 (1920 x 1200 pixels)	
Light source		Laser diodes	
Light output	Operation mode	[Normal]	9,400 lm <sup>*1</sup> /10,000 lm (Center) <sup>*2</sup>
		[Eco]	7,500 lm
		[Long Life 1]	3,700 lm
		[Long Life 2]	3,100 lm
		[Long Life 3]	2,500 lm
		[QUIET1]	8,000 lm
		[QUIET2]	6,000 lm
Time until light output declines to 50% <sup>*3</sup>	Operation mode	[Normal]	20,000 hours
		[Eco]	24,000 hours
		[QUIET1]	20,000 hours
		[QUIET2]	20,000 hours
Resolution		1920 x 1200 pixels	
Contrast ratio <sup>*1</sup>		10,000:1 (Full On/Full Off, Dynamic Contrast [3])	
Screen size (diagonal)		1.27-15.24 m (50-600 in), 1.27-5.08 m (50-200 in) with ET-DLE055, 2.54-8.89 m (100-350 in) with ET-DLE035, 2.54-10.16 m (100-400 in) with ET-DLE020, 16:10 aspect ratio	
Center to corner zone ratio <sup>*1</sup>		90%	
Lens	PT-RZ990	Powered zoom (throw ratio 1.71-2.41:1), powered focus F 1.7-1.9, f 25.6-35.7 mm	
	PT-RZ990L	Optional powered zoom/focus lenses	
Lens shift <sup>*4</sup> (From the origin point of the lens mounter)	Vertical (from center of screen)	+50 %, -16 % (powered) +40 %, -16 % with ET-DLE060	
	Horizontal (from center of screen)	+30 %, -10 % (powered) +10 %, -20 % with ET-DLE020, +19 %, -10 % with ET-DLE060, +28 %, -10 % with ET-DLE105/ET-DLE085	
Keystone correction range	Vertical	±40 ° ±5 ° with ET-DLE020, ±16 ° with ET-DLE060, ±22 ° with ET-DLE105/ET-DLE085/ET-DLE055, +5 ° with ET-DLE035	
	Horizontal	±15 ° ±10 ° with ET-DLE060 (cannot be operated with ET-DLE035/ET-DLE020)	
Keystone correction range with optional ET-UK20 Upgrade Kit	Vertical	±45 ° ±16 ° with ET-DLE060, ±40 ° with ET-DLE150/ET-DLE250/ET-DLE170, ±22 ° with ET-DLE105/ET-DLE085/ET-DLE055	
	Horizontal	±40 ° (±10 ° with ET-DLE060, ±15 ° with ET-DLE105/ET-DLE085/ET-DLE055) <sup>*When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding a total of 55 °.</sup>	
Installation		Ceiling/floor, front/rear, free 360-degree installation	

Compatible Signal	RGB signal input	<ul style="list-style-type: none"> <li>Resolution: 640 x 400 to 1920 x 1200</li> <li>Dot clock frequency: 162 MHz or less</li> <li>PIAS (Panasonic Intelligent Auto Scanning) system</li> </ul>	
	YCbCr/YPbPr signal input	<ul style="list-style-type: none"> <li>Resolution: 480i/576i to 1920 x 1080</li> <li>Dot clock frequency: 148.5 MHz or less</li> <li>The HD/SYNC and VD terminals do not support 3 value SYNC.</li> </ul>	
	DVI-D signal input	<ul style="list-style-type: none"> <li>Moving image signal resolution: 480i*5/576i*5 to 1920 x 1080</li> <li>Still image signal resolution: 640 x 400 to 1920 x 1200 (non-interlace)</li> <li>Dot clock frequency: 25 MHz to 162 MHz</li> </ul>	
	HDMI signal input	<ul style="list-style-type: none"> <li>Moving image signal resolution: 480i*5/576i*5 to 4096 x 2160</li> <li>Still image signal resolution: 640 x 400 to 1920 x 1200 (non-interlace)</li> <li>Dot clock frequency: 25 MHz to 594 MHz</li> </ul>	
	DIGITAL LINK signal input	<ul style="list-style-type: none"> <li>Moving image signal resolution: 480i*5/576i*5 to 4096 x 2160</li> <li>Still image signal resolution: 640 x 400 to 1920 x 1200 (non-interlace)</li> <li>Dot clock frequency: 25 MHz to 297 MHz</li> </ul>	
	SDI signal input	SD-SDI signal HD-SDI signal 3G-SDI signal	
Terminals	SDI IN	BNC x 1	3G-SDI signal: SMPTE ST 424, 425-2 compliant HD-SDI signal: SMPTE ST 292 compliant SD-SDI signal: SMPTE ST 259 compliant
	HDMI IN	HDMI 19-pin x 1	Compatible with HDCP 2.2, Deep Color, 4K/60p signal input*6
	DVI-D IN	DVI-D 24pin x 1	DVI 1.0 compliant, compatible with HDCP, compatible with single link only
	RGB1 IN	RGB x 1 (BNC x 5)	RGB/YPbPr/YCbCr
	RGB2 IN	D-sub 15-pin (female) x 1	RGB/YPbPr/YCbCr
	SERIAL/MULTI PROJECTOR SYNC IN	D-sub 9-pin (female) x 1	for external control (RS-232C compliant)
	SERIAL/MULTI PROJECTOR SYNC OUT	D-sub 9-pin (male) x 1	for link control
	REMOTE 1 IN	M3 x 1	for wired remote control
	REMOTE 1 OUT	M3 x 1	for link control ( for wired remote control)
	REMOTE 2 IN	D-sub 9-pin (female) x 1	for external control (parallel)
	DIGITAL LINK	RJ-45 x 1	for network and DIGITAL LINK connections (HDBaseT™ compliant), PLink™ (Class 2) compatible, 100Base-TX, Art-Net compatible, HDCP 2.2 compatible, Deep Color compatible, 4K/60p signal input*6
LAN	RJ-45 x 1	for network connection, PLink™ (Class 2) compatible, 10Base-T/100Base-TX, Art-Net compatible	
Cabinet materials		Molded plastic	
Dimension (W x H x D)	PT-RZ990	498 x 200*7 x 581 mm (19-19/32 x 7-7/8*7 x 22-7/8 in) (with supplied lens)	
	PT-RZ990L	498 x 200*7 x 538 mm (19-19/32 x 7-7/8*7 x 21-3/16 in)	
Weight*8	PT-RZ990	Approx. 23.0 kg (50.7 lbs) (with supplied lens)	
	PT-RZ990L	Approx. 22.2 kg (48.9 lbs)	
Operating noise*1		40 dB [NORMAL] / 36 dB [QUIET1] / 35 dB [QUIET2]	
Operating environment	Operating temperature	0-45 °C (32-113 °F)*9	
	Operating humidity	10-80 % (no condensation)	
Laser Classification	Laser Class	USA and Canada: Class 3R (IEC 60825-1:2007) Other countries or regions: Class 1 (IEC/EN 60825-1:2014)	
	Risk Group	Standard zoom lens, ET-DLE170, ET-DLE020, ET-DLE035, ET-DLE055, ET-DLE060, ET-DLE085, ET-DLE105, ET-DLE150	Risk Group 2 (IEC 62471-5:2015)
		ET-DLE250, ET-DLE350, ET-DLE450	Risk Group 3 (IEC 62471-5:2015)

Remote control unit

Power supply	3V DC (AAA/R03/LR03 battery x 2)
Operation range	Approx. 30 m (98 ft 5 in) (when operated directly in front of signal receptor)
Dimensions (W x H x D)	48 x 145 x 27 mm (1-7/8 x 5-23/32 x 1-1/16 in)
Weight	Approx. 102 g (3.60 ozs.) including batteries

**Other Applications**

- Logo Transfer Software (for Windows)
- Multi Monitoring & Control Software (for Windows)
- Geometry Manager Pro (for Windows)
- Smart Projector Control (for iOS/Android™)

**Supplied accessories**

- Wireless/wired remote control unit (x 1)
- Power cord with secure lock (x 1) (x 2 for Europe/ASIA models)
- Batteries for remote control (AAA/R03 or AAA/LR03 battery x 2)
- Lens Mount Cover (x 1)
- Lens cover (x 1) (Only models with lens)

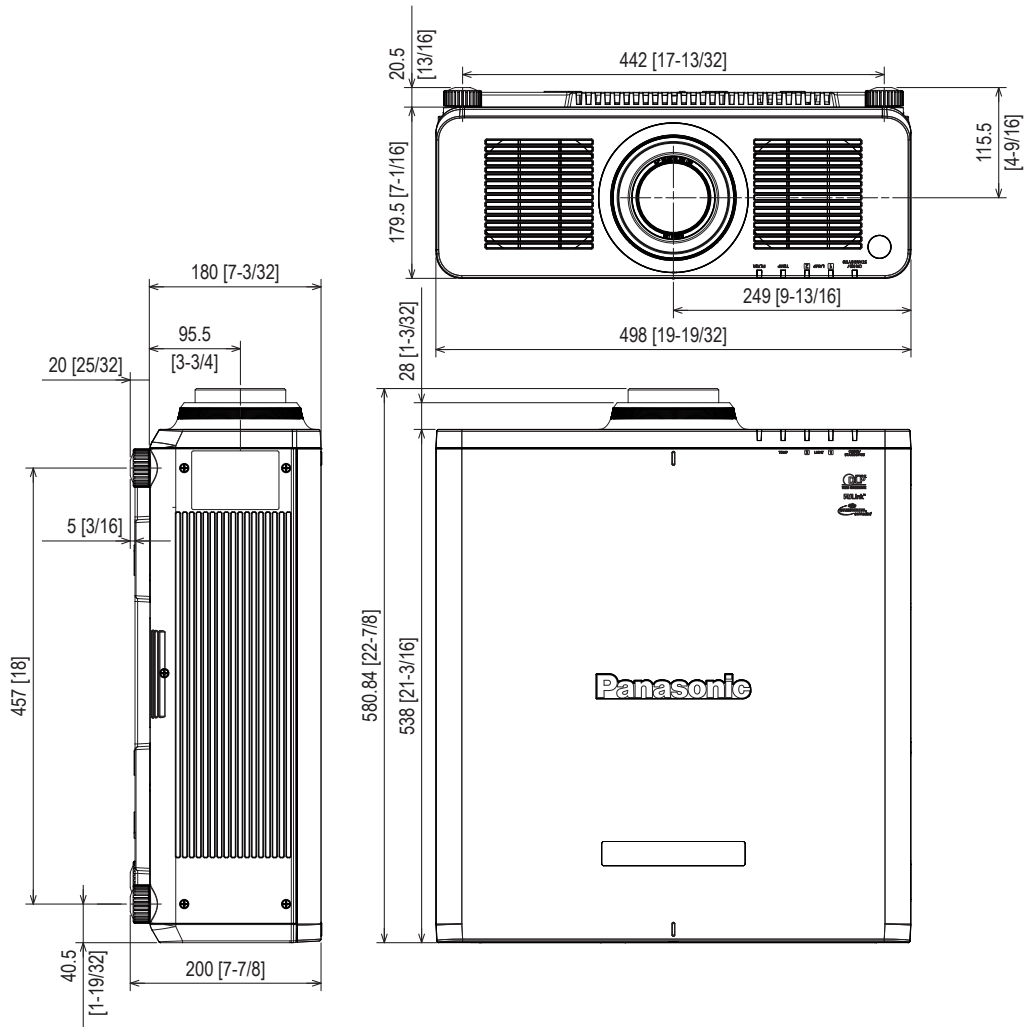
**Optional accessories**

Lens	Fixed-Focus Lens Zoom Lens	ET-DLE035 (0.380:1) / ET-DLE055 (0.785:1) ET-DLE020 (0.280–0.299:1) / ET-DLE060 (0.600–0.801:1) / ET-DLE085 (0.782–0.977:1) ET-DLE105 (0.978–1.32:1) / ET-DLE150 (1.30–1.89:1) / ET-DLE170* (1.71–2.41:1) ET-DLE250 (2.27–3.62:1) / ET-DLE350 (3.58–5.45:1) / ET-DLE450 (5.36–8.58:1)
Ceiling Mount Bracket		* The ET-DLE170 is equivalent of supplied lens. The availability of the ET-DLE170 varies depending on the country. ET-PKD130H (6-axis, for high ceiling) / ET-PKD120H (for high ceiling) / ET-PKD120S (for low ceiling) Note: Use ET-PKD120H, ET-PKD120S, and ET-PKD130H in combination with ET-PKD130B. ET-PKD130H is recommended when used with ET-DLE035.
Projector Mount Bracket		ET-PKD130B
DIGITAL LINK Switcher		ET-YFB200G Note: ET-YFB200G is not compatible with 4K signals.
Digital Interface Box		ET-YFB100G Note: ET-YFB100G is not compatible with 4K signals.
Geometry Manager Pro Software Upgrade Kit		ET-UK20
Auto Screen Adjustment Upgrade Kit		ET-CUK10/ET-CUK10P
Early Warning Software		ET-SWA100 Series Note: Part number suffix may differ depending on the license type. * Multi Monitoring & Control Software Ver. 2.0 or later is required.

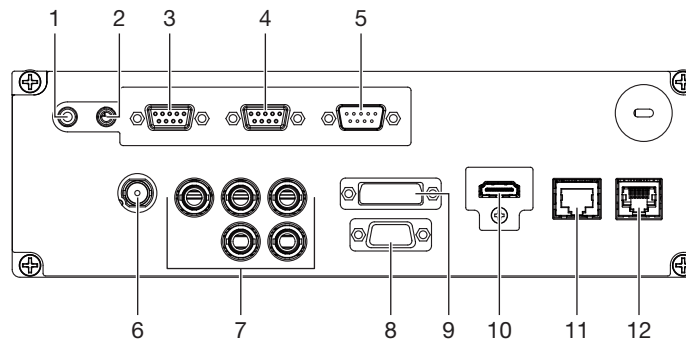
\*1 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped.  
 \*2 Average light-output value of all shipped products measured at center of screen in NORMAL Mode.  
 \*3 Around this time, light output will have decreased by approximately 50%. IEC62087: 2008 Broadcast contents, NORMAL Mode, Dynamic Contrast [3], under conditions with 30°C (86°F), 700m (2,297ft) above sea level, and 0.15 mg/m<sup>3</sup> of particulate matter. Estimated time until light output declines to 50 % varies depending on environment.  
 \*4 Lens shift is not supported on the ET-DLE055, and the optical axis is fixed with the ET-DLE035.  
 \*5 Only dot clock frequency 27MHz (Pixel Repetition signal) is supported.  
 \*6 4K/60p signals are converted to the projector's resolution (1920 x 1200 pixels) upon projection. Supported terminals: DIGITAL LINK/HDMI®.  
 \*7 With legs at shortest position.  
 \*8 Average value. May differ depending on the actual unit.  
 \*9 When using the projector at an altitude lower than 2700m (8 858 in) above sea level, and the operating environment temperature becomes 30°C (86°F) or higher, the light output may be reduced to protect the projector. When using the projector at an altitude between 2700m (8858 in) and 4200m (13780 in), and the operating environment temperature becomes 25°C (77°F) or higher, the light output may be reduced to protect the projector.

Dimensions

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

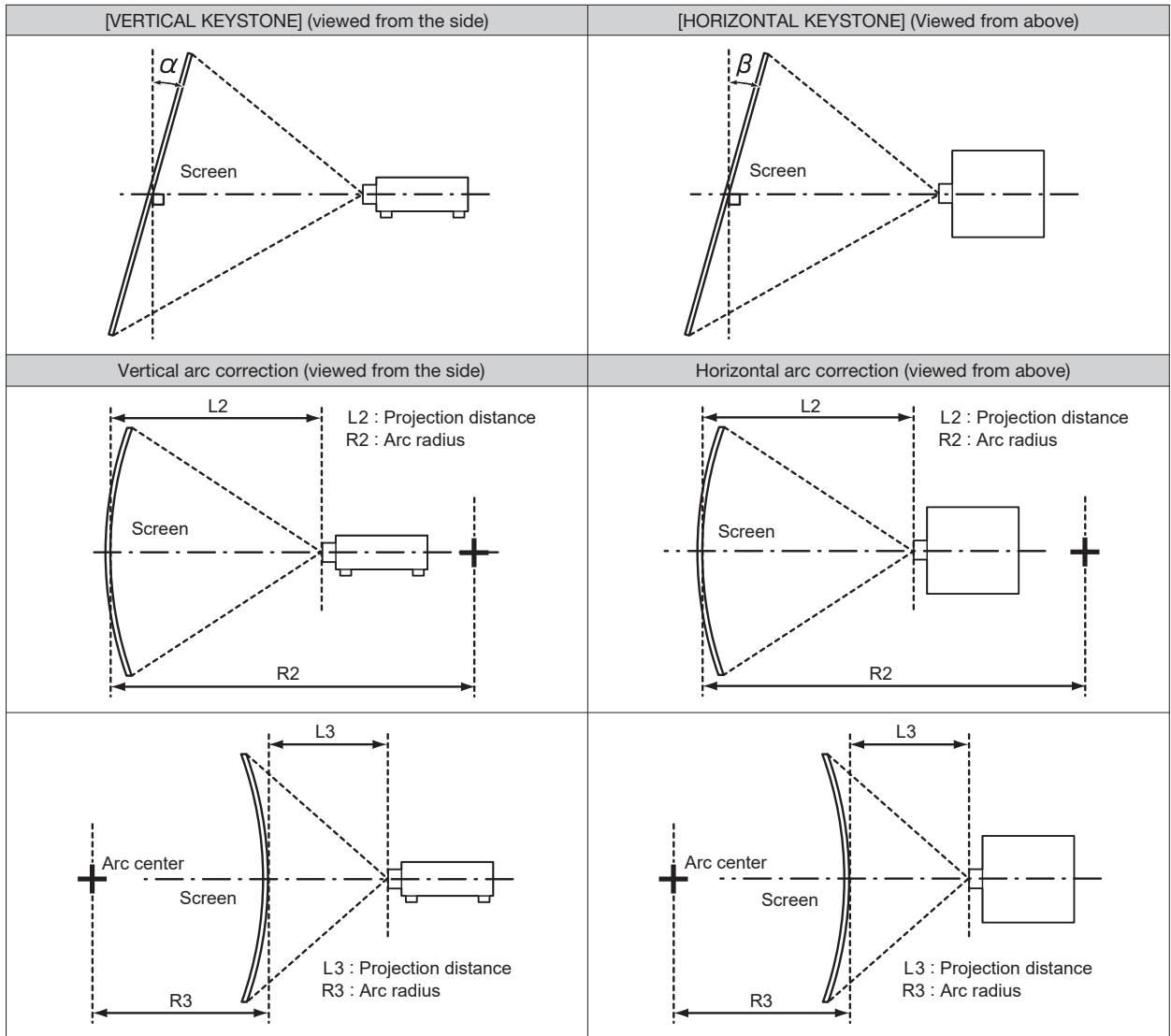


Terminals



1	REMOTE 1 IN	7	RGB 1 IN
2	REMOTE 1 OUT	8	RGB 2 IN
3	REMOTE 2 IN	9	DVI-D IN
4	SERIAL/MULTI PROJECTOR SYNC IN	10	HDMI IN
5	SERIAL/MULTI PROJECTOR SYNC OUT	11	DIGITAL LINK/LAN
6	SDI IN	12	LAN

Keystone correction range



Projection lens Model No.	Only [KEYSTONE] used		[KEYSTONE] and [CURVED] used together				Only [CURVED] used	
	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
ET-DLE020	±5	0	-	-	-	-	-	-
ET-DLE035*1	+5/-0	0	-	-	-	-	-	-
ET-DLE055	±22	±15	±8	±8	1.7	4.3	1	2.6
ET-DLE060	±16	±10	-	-	-	-	-	-
ET-DLE085	±22	±15	±8	±8	1.7	4.3	1	2.6
ET-DLE105	±22	±15	±8	±8	1.7	4.3	1	2.6
ET-DLE150	±40	±15	±20	±15	1.1	2.6	0.6	1.5
ET-DLE170 (Supplied lens)	±40	±15	±20	±15	0.9	1.7	0.5	1
ET-DLE250	±40	±15	±20	±15	0.7	1.3	0.4	0.7
ET-DLE350	±40	±15	±20	±15	0.4	0.8	0.3	0.5
ET-DLE450	±40	±15	±20	±15	0.3	0.6	0.2	0.3

\*1 Only the vertical keystone correction angle can be corrected in the direction in which the projector body moves away from the screen.

When using the optional Upgrade Kit (Model No.: ET-UK20)

Projection lens Model No.	Only [KEYSTONE] used*2		[KEYSTONE] and [CURVED] used together				Only [CURVED] used	
	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
ET-DLE020	±5	0	—	—	—	—	—	—
ET-DLE035*1	+5/-0	0	—	—	—	—	—	—
ET-DLE055	±22	±15	±8	±8	1.3	3.3	0.8	1.9
ET-DLE060	±16	±10	—	—	—	—	—	—
ET-DLE085	±22	±15	±8	±8	1.3	3.3	0.8	1.9
ET-DLE105	±22	±15	±8	±8	1.3	3.3	0.8	1.9
ET-DLE150	±40	±40	±20	±15	0.9	2	0.5	1.1
ET-DLE170 (Supplied lens)	±40	±40	±20	±15	0.7	1.3	0.4	0.7
ET-DLE250	±40	±40	±20	±15	0.5	1	0.3	0.6
ET-DLE350	±45	±40	±20	±15	0.3	0.6	0.2	0.4
ET-DLE450	±45	±40	±20	±15	0.2	0.4	0.2	0.3

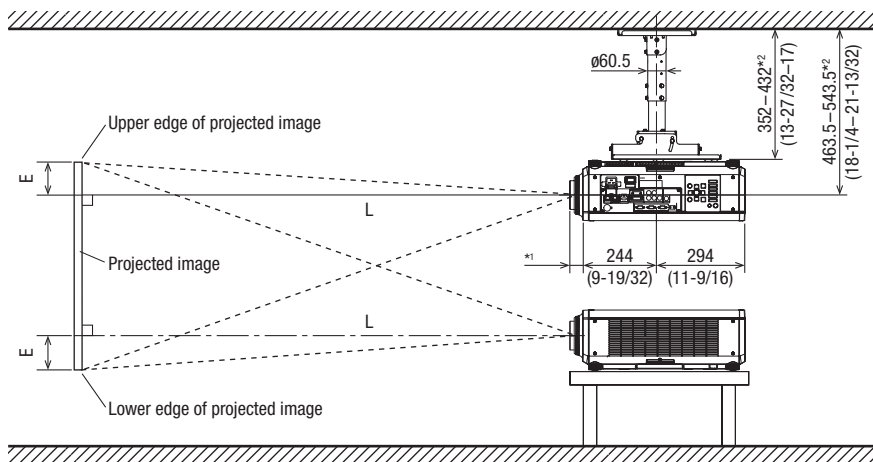
\*1 When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding total of 55°.  
 \*2 Only the vertical keystone correction angle can be corrected in the direction in which the projector body moves away from the screen.

**Note**

- When [GEOMETRY] is used, the focus of the entire screen may be lost as correction increases.
- Make the curved screen a circular arc shape with one part of a perfect circle removed.
- Adjustment range of the [GEOMETRY] items may not match the listed projection range depending on the projection lens. Use this projector within the projection range, otherwise the correction may not work.

**Standard setting-up position (If using other than the ET-DLE035)**

Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120H, optional bracket assembly ET-PKD130B and an optional lens.

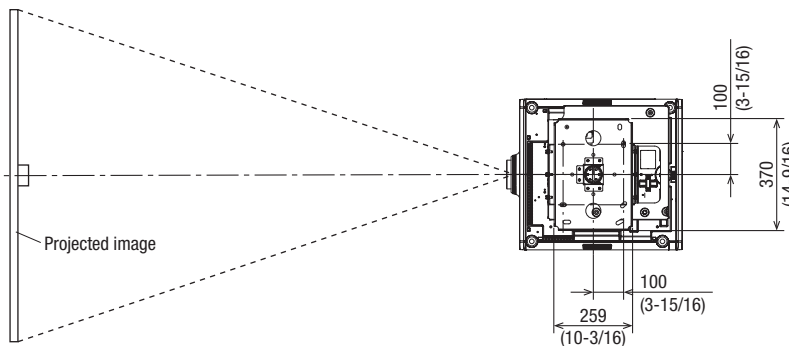


unit : mm (inch)

NOTE: This illustration is not drawn to scale.

- \*1 When the lens protrudes to the maximum.
- 269 mm (10-19/32 in) with the ET-DLE020
  - 104 mm (4-3/32 in) with the ET-DLE060
  - 84 mm (3-5/16 in) with the ET-DLE085
  - 88 mm (3-15/32 in) with the ET-DLE105
  - 44 mm (1-23/32 in) with the ET-DLE150
  - 43 mm (1-11/16 in) with the supplied lens/ET-DLE170
  - 45 mm (1-25/32 in) with the ET-DLE250
  - 51 mm (2 in) with the ET-DLE350
  - 95 mm (3-3/4 in) with the ET-DLE450
  - 27 mm (1-1/16 in) with the ET-DLE055

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



**Caution**

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.



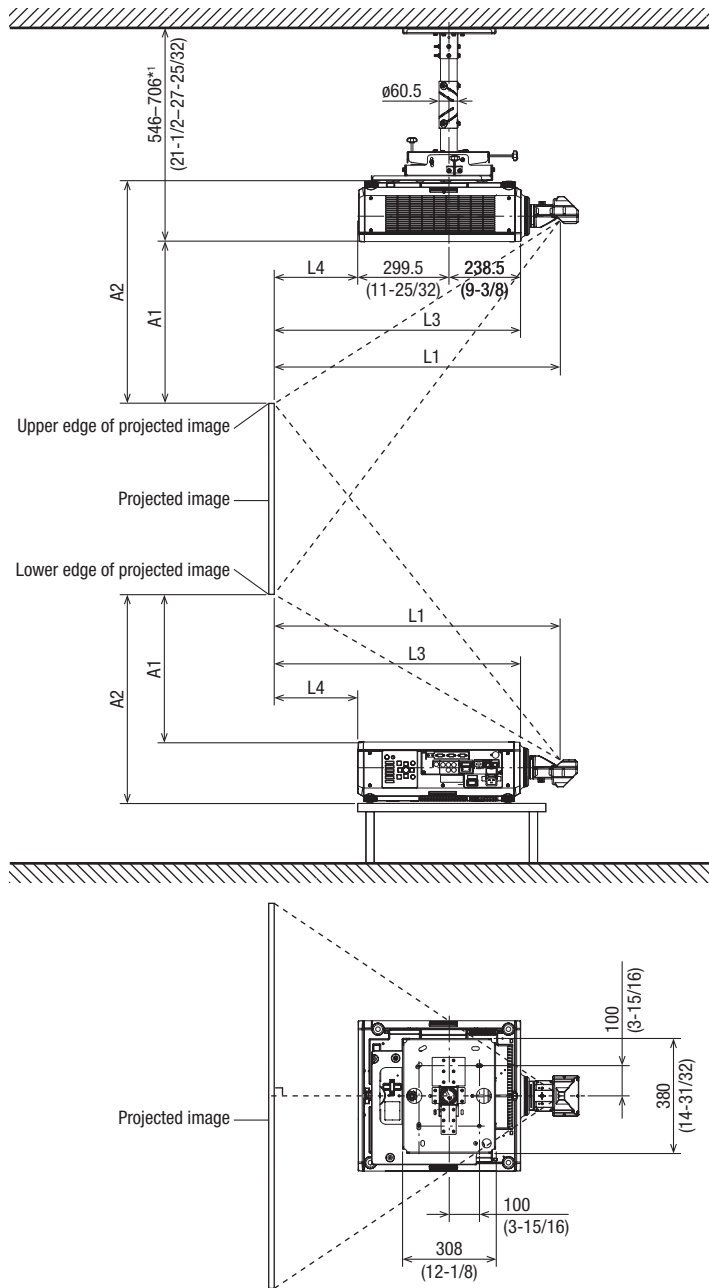






**Standard setting-up position (If using the ET-DLE035)**

Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120H, optional bracket assembly ET-PKD130B and an optional lens.



unit : mm (inch)  
 NOTE: This illustration is not drawn to scale.  
 \*1 Continuous height adjustment possible.

**Caution**

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket.  
 Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

**Projection distance (If using the ET-DLE035)**

Screen aspect ratio 16:10

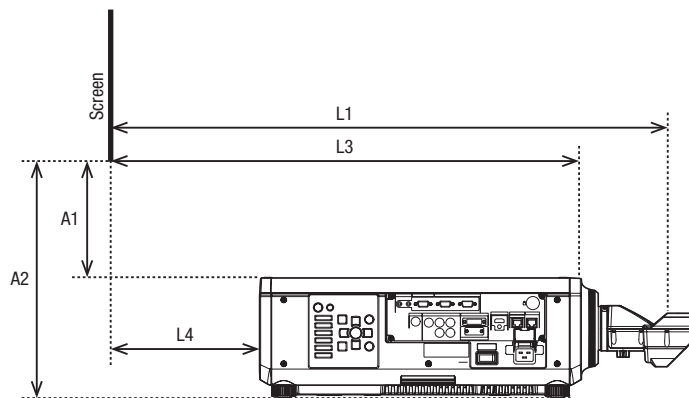
Unit: meters

Throw ratio				Ultra-short focal length lens ET-DLE035 Close-up system dimensions				
Diagonal image size	Diagonal image size	Height	Width	0.380:1	From front of set to screen	From rear of set to screen	From top of set to bottom edge of screen	From bottom of set to bottom edge of screen
				Projection distance (From mirror reflective surface to screen)				
(m)	(Inches)	(SH)	(SW)	(L1)	(L3)	(L4)	(A1)	(A2)
2.54	100	1.35	2.15	0.82	0.65	0.11	0.43	0.63
3.05	120	1.62	2.59	0.98	0.82	0.28	0.53	0.73
3.81	150	2.02	3.23	1.23	1.06	0.52	0.68	0.88
5.08	200	2.69	4.31	1.63	1.47	0.93	0.93	1.13
6.35	250	3.37	5.39	2.04	1.87	1.34	1.18	1.38
7.62	300	4.04	6.46	2.45	2.28	1.74	1.43	1.63
8.89	350	4.71	7.54	2.85	2.69	2.15	1.69	1.89

Unit: feet

Throw ratio				Ultra-short focal length lens ET-DLE035 Close-up system dimensions				
Diagonal image size	Diagonal image size	Height	Width	0.380:1	From front of set to screen	From rear of set to screen	From top of set to bottom edge of screen	From bottom of set to bottom edge of screen
				Projection distance (From mirror reflective surface to screen)				
(m)	(Inches)	(SH)	(SW)	(L1)	(L3)	(L4)	(A1)	(A2)
2.54	100	4.4	7.1	2.7	2.1	0.4	1.4	2.1
3.05	120	5.3	8.5	3.2	2.7	0.9	1.7	2.4
3.81	150	6.6	10.6	4.0	3.5	1.7	2.2	2.9
5.08	200	8.8	14.1	5.4	4.8	3.0	3.1	3.7
6.35	250	11.0	17.7	6.7	6.1	4.4	3.9	4.5
7.62	300	13.3	21.2	8.0	7.5	5.7	4.7	5.4
8.89	350	15.5	24.7	9.4	8.8	7.1	5.5	6.2

- The value for L1 may contain an error of within ±5%.
- When using keystone correction, the images will be corrected so that they will tend to be smaller than the specified screen size.
- This measurement is not the distance between the rear of the projector and the wall, but is instead the distance between the rear of the projector and the screen surface. Leave at least 500 mm of space between the rear of the projector and the wall and any other objects in order to provide adequate ventilation space. If setting up the projector in a closed room, be sure to provide separate air conditioning and ventilation equipment. If there is insufficient ventilation in the room, radiated heat may build up and cause the protection circuit of the projector to operate.



L1: Projection distance (from screen to mirror reflective surface)  
 L3: From screen to front of set  
 L4: From screen to rear of set  
 A1: From bottom edge of screen to top of set  
 A2: From bottom edge of screen to bottom of set

**Projection Distance Calculation Table**

Projection distance calculation formula

$$L1 (m) = 0.3205 \times \text{Diagonal image size} + 0.0047$$

Calculation formula for distance from top of set to bottom edge of screen

$$A1 (m) = 0.1977 \times \text{Diagonal image size} - 0.07210$$

Screen aspect ratio 16:9

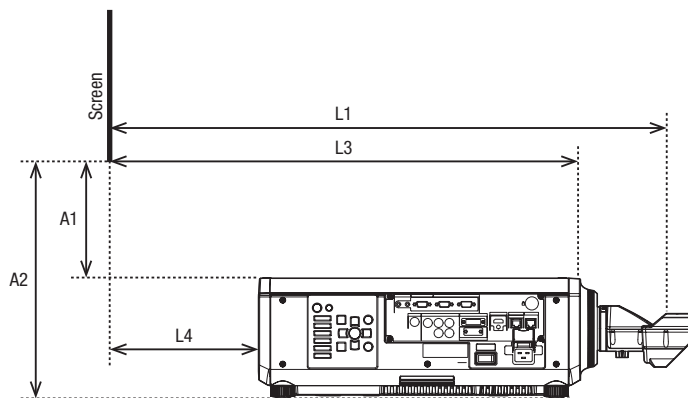
Unit: meters

Throw ratio				Ultra-short focal length lens ET-DLE035 Close-up system dimensions					
Diagonal image size	Diagonal image size	Height	Width	0.380:1	From front of set to screen	From rear of set to screen	From top of set to bottom edge of screen	From bottom of set to bottom edge of screen	
				Projection distance (From mirror reflective surface to screen)					
(m)	(Inches)	(SH)	(SW)	(L1)	(L3)	(L4)	(A1)	(A2)	
2.54	100	1.25	2.21	0.84	0.68	0.14	0.51	0.71	
3.05	120	1.49	2.66	1.01	0.84	0.30	0.63	0.83	
3.81	150	1.87	3.32	1.26	1.09	0.56	0.81	1.01	
5.08	200	2.49	4.43	1.68	1.51	0.97	1.10	1.30	
6.35	250	3.11	5.54	2.10	1.93	1.39	1.39	1.59	
7.62	300	3.74	6.64	2.51	2.35	1.81	1.68	1.88	
8.89	350	4.36	7.75	2.93	2.77	2.23	1.98	2.18	

Unit: feet

Throw ratio				Ultra-short focal length lens ET-DLE035 Close-up system dimensions					
Diagonal image size	Diagonal image size	Height	Width	0.380:1	From front of set to screen	From rear of set to screen	From top of set to bottom edge of screen	From bottom of set to bottom edge of screen	
				Projection distance (From mirror reflective surface to screen)					
(m)	(Inches)	(SH)	(SW)	(L1)	(L3)	(L4)	(A1)	(A2)	
2.54	100	4.1	7.3	2.8	2.2	0.4	1.7	2.3	
3.05	120	4.9	8.7	3.3	2.8	1.0	2.1	2.7	
3.81	150	6.1	10.9	4.1	3.6	1.8	2.6	3.3	
5.08	200	8.2	14.5	5.5	5.0	3.2	3.6	4.3	
6.35	250	10.2	18.2	6.9	6.3	4.6	4.6	5.2	
7.62	300	12.3	21.8	8.2	7.7	5.9	5.5	6.2	
8.89	350	14.3	25.4	9.6	9.1	7.3	6.5	7.1	

- The value for L1 may contain an error of within ±5%.
- When using keystone correction, the images will be corrected so that they will tend to be smaller than the specified screen size.
- This measurement is not the distance between the rear of the projector and the wall, but is instead the distance between the rear of the projector and the screen surface. Leave at least 500 mm of space between the rear of the projector and the wall and any other objects in order to provide adequate ventilation space. If setting up the projector in a closed room, be sure to provide separate air conditioning and ventilation equipment. If there is insufficient ventilation in the room, radiated heat may build up and cause the protection circuit of the projector to operate.



L1: Projection distance (from screen to mirror reflective surface)  
 L3: From screen to front of set  
 L4: From screen to rear of set  
 A1: From bottom edge of screen to top of set  
 A2: From bottom edge of screen to bottom of set

### Projection Distance Calculation Table

Projection distance calculation formula

$$L1 (m) = 0.3294 \times \text{Diagonal image size} + 0.0047$$

Calculation formula for distance from top of set to bottom edge of screen

$$A1 (m) = 0.2304 \times \text{Diagonal image size} - 0.07210$$

Screen aspect ratio 4:3

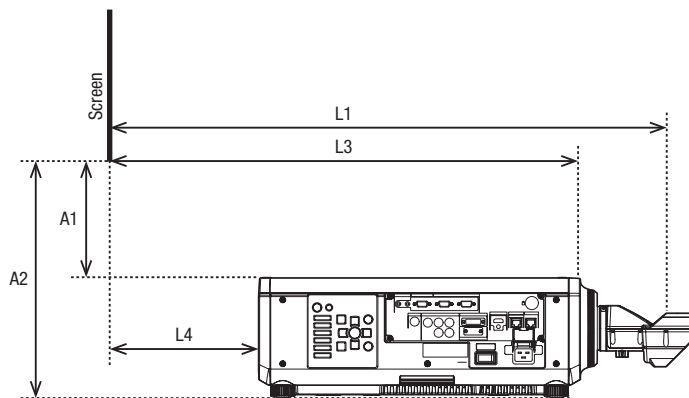
Unit: meters

Throw ratio				Ultra-short focal length lens ET-DLE035 Close-up system dimensions				
Diagonal image size	Diagonal image size	Height	Width	0.456:1	From front of set to screen	From rear of set to screen	From top of set to bottom edge of screen	From bottom of set to bottom edge of screen
				Projection distance (From mirror reflective surface to screen)				
(m)	(Inches)	(SH)	(SW)	(L1)	(L3)	(L4)	(A1)	(A2)
2.54	100	1.52	2.03	0.93	0.76	0.22	0.50	0.70
3.05	120	1.83	2.44	1.11	0.94	0.41	0.61	0.81
3.81	150	2.29	3.05	1.39	1.22	0.68	0.78	0.98
5.08	200	3.05	4.06	1.85	1.68	1.14	1.06	1.27
6.35	250	3.81	5.08	2.31	2.14	1.60	1.35	1.55
7.62	300	4.57	6.10	2.77	2.60	2.07	1.63	1.83
8.89	350	5.33	7.11	3.23	3.06	2.53	1.92	2.12

Unit: feet

Throw ratio				Ultra-short focal length lens ET-DLE035 Close-up system dimensions				
Diagonal image size	Diagonal image size	Height	Width	0.456:1	From front of set to screen	From rear of set to screen	From top of set to bottom edge of screen	From bottom of set to bottom edge of screen
				Projection distance (From mirror reflective surface to screen)				
(m)	(Inches)	(SH)	(SW)	(L1)	(L3)	(L4)	(A1)	(A2)
2.54	100	5.0	6.7	3.0	2.5	0.7	1.6	2.3
3.05	120	6.0	8.0	3.6	3.1	1.3	2.0	2.7
3.81	150	7.5	10.0	4.6	4.0	2.2	2.6	3.2
5.08	200	10.0	13.3	6.1	5.5	3.8	3.5	4.2
6.35	250	12.5	16.7	7.6	7.0	5.3	4.4	5.1
7.62	300	15.0	20.0	9.1	8.5	6.8	5.4	6.0
8.89	350	17.5	23.3	10.6	10.1	8.3	6.3	6.9

- The value for L1 may contain an error of within ±5%.
- When using keystone correction, the images will be corrected so that they will tend to be smaller than the specified screen size.
- This measurement is not the distance between the rear of the projector and the wall, but is instead the distance between the rear of the projector and the screen surface. Leave at least 500 mm of space between the rear of the projector and the wall and any other objects in order to provide adequate ventilation space. If setting up the projector in a closed room, be sure to provide separate air conditioning and ventilation equipment. If there is insufficient ventilation in the room, radiated heat may build up and cause the protection circuit of the projector to operate.



- L1: Projection distance (from screen to mirror reflective surface)
- L3: From screen to front of set
- L4: From screen to rear of set
- A1: From bottom edge of screen to top of set
- A2: From bottom edge of screen to bottom of set

### Projection Distance Calculation Table

Projection distance calculation formula

$$L1 (m) = 0.3628 \times \text{Diagonal image size} + 0.0047$$

Calculation formula for distance from top of set to bottom edge of screen

$$A1 (m) = 0.2238 \times \text{Diagonal image size} - 0.07210$$

**Calculation of the projection distance**

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

Lens type	Projection Lens Model No.	Aspect ratio	Projection distance (L) formula	
			Min.	Max.
Zoom lens	ET-DLE020	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0062 - 0.0266$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0066 - 0.0279$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0064 - 0.0266$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0068 - 0.0279$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0070 - 0.0266$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0075 - 0.0279$
	ET-DLE060	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0136 - 0.0549$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0179 - 0.0518$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0140 - 0.0549$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0184 - 0.0518$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0154 - 0.0549$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0203 - 0.0518$
	ET-DLE085	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0174 - 0.0471$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0216 - 0.0442$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0179 - 0.0471$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0222 - 0.0442$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0197 - 0.0471$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0244 - 0.0442$
	ET-DLE105	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0217 - 0.0511$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0291 - 0.0472$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0223 - 0.0511$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0299 - 0.0472$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0246 - 0.0511$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0329 - 0.0472$
	ET-DLE150	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0286 - 0.0540$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0413 - 0.0498$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0294 - 0.0540$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0424 - 0.0498$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0324 - 0.0540$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0467 - 0.0498$
	Supplied lens/ ET-DLE170	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0379 - 0.0746$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0529 - 0.0725$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0389 - 0.0746$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0543 - 0.0725$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0429 - 0.0746$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0599 - 0.0725$
	ET-DLE250	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0500 - 0.0800$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0789 - 0.0792$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0513 - 0.0800$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0811 - 0.0792$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0565 - 0.0800$	$L (m) = (\text{diagonal screen size in inches}) \times 0.0893 - 0.0792$
	ET-DLE350	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0787 - 0.1351$	$L (m) = (\text{diagonal screen size in inches}) \times 0.1190 - 0.1346$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0809 - 0.1351$	$L (m) = (\text{diagonal screen size in inches}) \times 0.1223 - 0.1346$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0891 - 0.1351$	$L (m) = (\text{diagonal screen size in inches}) \times 0.1347 - 0.1346$
	ET-DLE450	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.1192 - 0.3017$	$L (m) = (\text{diagonal screen size in inches}) \times 0.1885 - 0.2991$
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.1225 - 0.3017$	$L (m) = (\text{diagonal screen size in inches}) \times 0.1937 - 0.2991$
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.1349 - 0.3017$	$L (m) = (\text{diagonal screen size in inches}) \times 0.2133 - 0.2991$
Fixed focus	ET-DLE035	16:10	$L1 (m) = (\text{diagonal screen size in inches}) \times 0.0081 + 0.0047$ $L3 (m) = L1 - 0.166$ $L4 (m) = L1 - 0.704$	
		16:9	$L1 (m) = (\text{diagonal screen size in inches}) \times 0.0084 + 0.0047$ $L3 (m) = L1 - 0.166$ $L4 (m) = L1 - 0.704$	
		4:3	$L1 (m) = (\text{diagonal screen size in inches}) \times 0.0092 + 0.0047$ $L3 (m) = L1 - 0.166$ $L4 (m) = L1 - 0.704$	
	ET-DLE055	16:10	$L (m) = (\text{diagonal screen size in inches}) \times 0.0175 - 0.0476$	
		16:9	$L (m) = (\text{diagonal screen size in inches}) \times 0.0180 - 0.0476$	
		4:3	$L (m) = (\text{diagonal screen size in inches}) \times 0.0198 - 0.0476$	

• Distances calculated with the above equations will include a slight error.

**Formula for calculating possible heights when using the ET-DLE035**

If using a screen size which has not been previously mentioned, use the following calculation formulas to obtain the possible setting-up height.

Screen aspect ratio 16:10      Possible setting-up height A1 (mm) = Projection screen size (inches) x 5.0-72.1  
 Possible setting-up height A2 (mm) = A1 + 200

Screen aspect ratio 16:9      Possible setting-up height A1 (mm) = Projection screen size (inches) x 5.9-72.1  
 Possible setting-up height A2 (mm) = A1 + 200

Screen aspect ratio 4:3      Possible setting-up height A1 (mm) = Projection screen size (inches) x 5.7-72.1  
 Possible setting-up height A2 (mm) = A1 + 200

**Lens shift range**

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

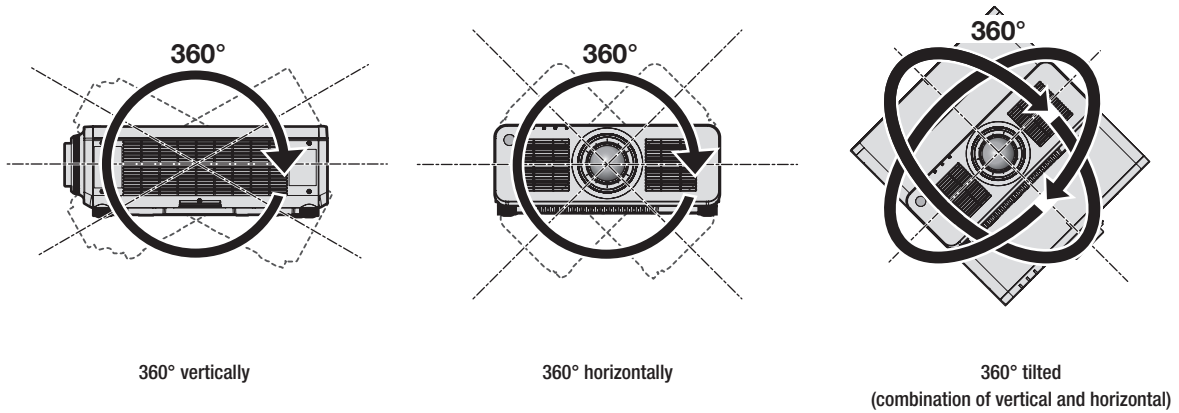
Projection lens Model No.	When ET-DLE170/ET-DLE150/ET-DLE250/ET-DLE350/ET-DLE450 is mounted.	When the ET-DLE085/ET-DLE105 is mounted.
Lens shift range		
Projection lens Model No.	When the ET-DLE060 is mounted.	When the ET-DLE020 is mounted.
Lens shift range		

• The ET-DLE055 has a fixed short-focus lens. Therefore, the lens shift function provided in the main unit cannot be used.

**Installable angle**

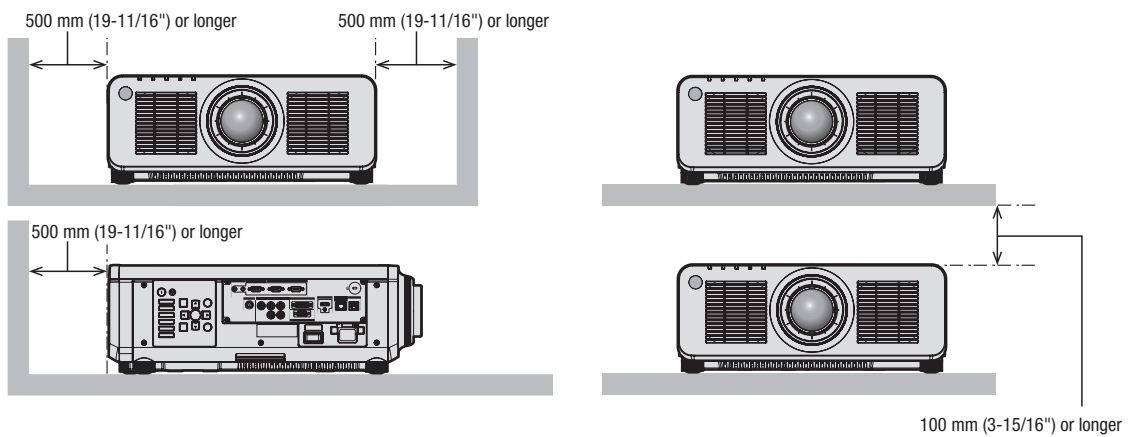
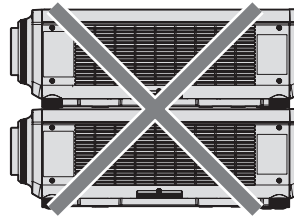
Install the projector at an angle within the range shown below.

**FULL 360-degree projection**



**Notes on projector placement and operation**

- Prevent hot and cool air from the air conditioning system to blow directly to the ventilation ports (intake and exhaust) of the projector.
- Do not stack projectors on top of each other.
- Do not block the ventilation ports (intake and exhaust) of the projector.



- Do not install the projector in a confined space. When installing the projector in a confined space, provide air conditioning or ventilation separately. Exhaust heat may accumulate when the ventilation is not enough, triggering the protection circuit of the projector.



**List of compatible signals**

The following table specifies the video signals compatible with the projector. For details of SDI signal, refer to “List of single link SDI compatible signals”.

This projector supports the signal with ✓ in the compatible signal column.

• The content of the compatible signal column is as follows.

-RGB:RGB input    -DVI-D:DVI-D input    -HDMI:HDMI input    -DIGITAL LINK:DIGITAL LINK input

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal			
		Horizontal (kHz)	Vertical (Hz)		RGB	DVI-D	HDMI	DIGITAL LINK
480/60i	720 x 480i	15.7	59.9	13.5	✓	–	–	–
576/50i	720 x 576i	15.6	50.0	13.5	✓	–	–	–
480/60i	720(1440) x 480i*1	15.7	59.9	27.0	–	✓	✓	✓
576/50i	720(1440) x 576i*1	15.6	50.0	27.0	–	✓	✓	✓
480/60p	720 x 480	31.5	59.9	27.0	✓	✓	✓	✓
576/50p	720 x 576	31.3	50.0	27.0	✓	✓	✓	✓
720/60p	1280 x 720	45.0	60.0*2	74.3	✓	✓	✓	✓
720/50p	1280 x 720	37.5	50.0	74.3	✓	✓	✓	✓
1080/60i	1920 x 1080i	33.8	60.0*2	74.3	✓	✓	✓	✓
1080/50i	1920 x 1080i	28.1	50.0	74.3	✓	✓	✓	✓
1080/24p	1920 x 1080	27.0	24.0*2	74.3	✓	✓	✓	✓
1080/24sF	1920 x 1080i	27.0	48.0*2	74.3	✓	✓	✓	✓
1080/25p	1920 x 1080	28.1	25.0	74.3	✓	✓	✓	✓
1080/30p	1920 x 1080	33.8	30.0*2	74.3	✓	✓	✓	✓
1080/60p	1920 x 1080	67.5	60.0*2	148.5	✓	✓	✓	✓
1080/50p	1920 x 1080	56.3	50.0	148.5	✓	✓	✓	✓
3840 x 2160/24p	3840 x 2160	54.0	24.0*2	297.0	–	–	✓	✓
3840 x 2160/25p	3840 x 2160	56.3	25.0	297.0	–	–	✓	✓
3840 x 2160/30p	3840 x 2160	67.5	30.0*2	297.0	–	–	✓	✓
3840 x 2160/60p	3840 x 2160	135.0	60.0*2	297.0	–	–	✓*3	✓*3
	3840 x 2160	135.0	60.0*2	594.0	–	–	✓	–
3840 x 2160/50p	3840 x 2160	112.5	50.0	297.0	–	–	✓*3	✓*3
	3840 x 2160	112.5	50.0	594.0	–	–	✓	–
4096 x 2160/24p	4096 x 2160	54.0	24.0*2	297.0	–	–	✓	✓
4096 x 2160/25p	4096 x 2160	56.3	25.0	297.0	–	–	✓	✓
4096 x 2160/30p	4096 x 2160	67.5	30.0*2	297.0	–	–	✓	✓
4096 x 2160/60p	4096 x 2160	135.0	60.0*2	297.0	–	–	✓*3	✓*3
	4096 x 2160	135.0	60.0*2	594.0	–	–	✓	–
4096 x 2160/50p	4096 x 2160	112.5	50.0	297.0	–	–	✓*3	✓*3
	4096 x 2160	112.5	50.0	594.0	–	–	✓	–
640 x 400/70	640 x 400	31.5	70.1	25.2	✓	✓	✓	✓
640 x 400/85	640 x 400	37.9	85.1	31.5	✓	✓	✓	✓
640 x 480/60	640 x 480	31.5	59.9	25.2	✓	✓	✓	✓
640 x 480/67	640 x 480	35.0	66.7	30.2	✓	✓	✓	✓
640 x 480/73	640 x 480	37.9	72.8	31.5	✓	✓	✓	✓
640 x 480/75	640 x 480	37.5	75.0	31.5	✓	✓	✓	✓
640 x 480/85	640 x 480	43.3	85.0	36.0	✓	✓	✓	✓
800 x 600/56	800 x 600	35.2	56.3	36.0	✓	✓	✓	✓
800 x 600/60	800 x 600	37.9	60.3	40.0	✓	✓	✓	✓
800 x 600/72	800 x 600	48.1	72.2	50.0	✓	✓	✓	✓
800 x 600/75	800 x 600	46.9	75.0	49.5	✓	✓	✓	✓
800 x 600/85	800 x 600	53.7	85.1	56.3	✓	✓	✓	✓
832 x 624/75	832 x 624	49.7	74.6	57.3	✓	✓	✓	✓
1024 x 768/50	1024 x 768	39.6	50.0	51.9	✓	✓	✓	✓
1024 x 768/60	1024 x 768	48.4	60.0	65.0	✓	✓	✓	✓
1024 x 768/70	1024 x 768	56.5	70.1	75.0	✓	✓	✓	✓
1024 x 768/75	1024 x 768	60.0	75.0	78.8	✓	✓	✓	✓
1024 x 768/82	1024 x 768	65.5	81.6	86.0	✓	✓	✓	✓
1024 x 768/85	1024 x 768	68.7	85.0	94.5	✓	✓	✓	✓
1024 x 768/100	1024 x 768	81.4	100.0	113.3	✓	✓	✓	✓
1024 x 768/120	1024 x 768	98.8	120.0	139.1	✓	✓	✓	✓
1152 x 864/60	1152 x 864	53.7	60.0	81.6	✓	✓	✓	✓
1152 x 864/70	1152 x 864	64.0	70.0	94.2	✓	✓	✓	✓
1152 x 864/75	1152 x 864	67.5	75.0	108.0	✓	✓	✓	✓
1152 x 864/85	1152 x 864	77.1	85.0	119.7	✓	✓	✓	✓
1152 x 870/75	1152 x 870	68.7	75.1	100.0	✓	✓	✓	✓
1280 x 720/50	1280 x 720	37.1	49.8	60.5	✓	✓	✓	✓
1280 x 720/60	1280 x 720	44.8	59.9	74.5	✓	✓	✓	✓

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal			
		Horizontal (kHz)	Vertical (Hz)		RGB	DVI-D	HDMI	DIGITAL LINK
1280 x 720/100	1280 x 720	76.3	100.0	131.8	✓	✓	✓	✓
1280 x 720/120	1280 x 720	92.6	120.0	161.6	✓	✓	✓	✓
1280 x 768/50	1280 x 768	39.6	49.9	65.3	✓	✓	✓	✓
1280 x 768/60	1280 x 768	47.8	59.9	79.5	✓	✓	✓	✓
	1280 x 768*4	47.4	60.0	68.3	✓	✓	✓	✓
1280 x 768/75	1280 x 768	60.3	74.9	102.3	✓	✓	✓	✓
1280 x 768/85	1280 x 768	68.6	84.8	117.5	✓	✓	✓	✓
1280 x 800/50	1280 x 800	41.3	50.0	68.0	✓	✓	✓	✓
1280 x 800/60	1280 x 800	49.7	59.8	83.5	✓	✓	✓	✓
	1280 x 800*4	49.3	59.9	71.0	✓	✓	✓	✓
1280 x 800/75	1280 x 800	62.8	74.9	106.5	✓	✓	✓	✓
1280 x 800/85	1280 x 800	71.6	84.9	122.5	✓	✓	✓	✓
1280 x 960/60	1280 x 960	60.0	60.0	108.0	✓	✓	✓	✓
1280 x 1024/50	1280 x 1024	52.4	50.0	88.0	✓	✓	✓	✓
1280 x 1024/60	1280 x 1024	64.0	60.0	108.0	✓	✓	✓	✓
1280 x 1024/66	1280 x 1024	72.3	66.3	125.0	✓	✓	✓	✓
1280 x 1024/72	1280 x 1024	78.2	72.0	135.1	✓	✓	✓	✓
1280 x 1024/75	1280 x 1024	80.0	75.0	135.0	✓	✓	✓	✓
1280 x 1024/85	1280 x 1024	91.1	85.0	157.5	✓	✓	✓	✓
1366 x 768/50	1366 x 768	39.6	49.9	69.0	✓	✓	✓	✓
1366 x 768/60	1366 x 768	47.7	59.8	85.5	✓	✓	✓	✓
1400 x 1050/50	1400 x 1050	54.1	50.0	99.9	✓	✓	✓	✓
1400 x 1050/60	1400 x 1050	64.0	60.0	108.0	✓	✓	✓	✓
	1400 x 1050	65.3	60.0	121.8	✓	✓	✓	✓
	1400 x 1050	65.2	60.0	122.6	✓	✓	✓	✓
1400 x 1050/72	1400 x 1050	78.8	72.0	149.3	✓	✓	✓	✓
1400 x 1050/75	1400 x 1050	82.2	75.0	155.9	✓	✓	✓	✓
1440 x 900/50	1440 x 900	46.3	49.9	86.8	✓	✓	✓	✓
1440 x 900/60	1440 x 900	55.9	59.9	106.5	✓	✓	✓	✓
1600 x 900/50	1600 x 900	46.4	49.9	96.5	✓	✓	✓	✓
1600 x 900/60	1600 x 900	55.9	60.0	119.0	✓	✓	✓	✓
1600 x 1200/50	1600 x 1200	61.8	49.9	131.5	✓	✓	✓	✓
1600 x 1200/60	1600 x 1200	75.0	60.0	162.0	✓	✓	✓	✓
1680 x 1050/50	1680 x 1050	54.1	50.0	119.5	✓	✓	✓	✓
1680 x 1050/60	1680 x 1050	65.3	60.0	146.3	✓	✓	✓	✓
1920 x 1080/50	1920 x 1080	55.6	49.9	141.5	✓	✓	✓	✓
1920 x 1080/60	1920 x 1080*4	66.6	59.9	138.5	✓	✓	✓	✓
	1920 x 1080*5	67.2	60.0	173.0	✓	-	-	-
1920 x 1200/50	1920 x 1200	61.8	49.9	158.3	✓	✓	✓	✓
1920 x 1200/60	1920 x 1200*5	74.6	59.9	193.3	✓	-	-	-
1920 x 1200/60RB	1920 x 1200*4	74.0	60.0	154.0	✓	✓	✓	✓

\*1 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

\*2 The signal with 1/1.001x vertical scanning frequency is also supported.

\*3 YPbPr 4:2:0 format only

\*4 VESA CVT-RB (Reduced Blanking)-compliant

\*5 Samples the pixels in the image processing circuit and projects the image.

**Note**

- A signal with a different resolution is converted to the number of display dots. The number of display dots is 1920 x 1200.
- The “i” at the end of the resolution indicates an interlaced signal.
- When interlaced signals are connected, flickering may occur on the projected image.

**List of plug and play compatible signals**

The following table specifies the video signals compatible with plug and play.

Signal with ✓ in the plug and play compatible signal column is the signal described in the EDID (extended display identification data) of the projector.

For the signal without ✓ in the plug and play compatible signal column, the resolution may not be selected on the computer even if the projector is supporting it.

• Input corresponding to each item in the plug and play signal column is as follows.

-RGB2:RGB2 input    -DVI-D:DVI-D input    -HDMI:HDMI input    -DIGITAL LINK: DIGITAL LINK input

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal										
		Horizontal (kHz)	Vertical (Hz)		RGB2	DVI-D			HDMI			DIGITAL LINK			
						EDID1	EDID2	EDID3	4K/60p	4K/30p	2K	4K/60p	4K/30p	2K	
480/60i	720 x 480i	15.7	59.9	13.5	-	-	-	-	-	-	-	-	-	-	-
576/50i	720 x 576i	15.6	50.0	13.5	-	-	-	-	-	-	-	-	-	-	-
480/60i	720(1440) x 480i*1	15.7	59.9	27.0	-	-	-	-	-	-	-	-	-	-	-
576/50i	720(1440) x 576i*1	15.6	50.0	27.0	-	-	-	-	-	-	-	-	-	-	-
480/60p	720 x 480	31.5	59.9	27.0	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
576/50p	720 x 576	31.3	50.0	27.0	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
720/60p	1280 x 720	45.0	60.0*2	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
720/50p	1280 x 720	37.5	50.0	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/60i	1920 x 1080i	33.8	60.0*2	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/50i	1920 x 1080i	28.1	50.0	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/24p	1920 x 1080	27.0	24.0*2	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/24sF	1920 x 1080i	27.0	48.0*2	74.3	-	-	-	-	-	-	-	-	-	-	-
1080/25p	1920 x 1080	28.1	25.0	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/30p	1920 x 1080	33.8	30.0*2	74.3	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/60p	1920 x 1080	67.5	60.0*2	148.5	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
1080/50p	1920 x 1080	56.3	50.0	148.5	-	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
3840 x 2160/24p	3840 x 2160	54.0	24.0*2	297.0	-	-	-	-	✓	✓	-	✓	✓	-	-
3840 x 2160/25p	3840 x 2160	56.3	25.0	297.0	-	-	-	-	✓	✓	-	✓	✓	-	-
3840 x 2160/30p	3840 x 2160	67.5	30.0*2	297.0	-	-	-	-	✓	✓	-	✓	✓	-	-
3840 x 2160/60p	3840 x 2160	135.0	60.0*2	297.0	-	-	-	-	✓*3	-	-	✓*3	-	-	-
	3840 x 2160	135.0	60.0*2	594.0	-	-	-	-	✓	-	-	✓	-	-	-
3840 x 2160/50p	3840 x 2160	112.5	50.0	297.0	-	-	-	-	✓*3	-	-	✓*3	-	-	-
	3840 x 2160	112.5	50.0	594.0	-	-	-	-	✓	-	-	✓	-	-	-
4096 x 2160/24p	4096 x 2160	54.0	24.0*2	297.0	-	-	-	-	✓	✓	-	✓	✓	-	-
4096 x 2160/25p	4096 x 2160	56.3	25.0	297.0	-	-	-	-	✓	✓	-	✓	✓	-	-
4096 x 2160/30p	4096 x 2160	67.5	30.0*2	297.0	-	-	-	-	✓	✓	-	✓	✓	-	-
4096 x 2160/60p	4096 x 2160	135.0	60.0*2	297.0	-	-	-	-	✓*3	-	-	✓*3	-	-	-
	4096 x 2160	135.0	60.0*2	594.0	-	-	-	-	✓	-	-	✓	-	-	-
4096 x 2160/50p	4096 x 2160	112.5	50.0	297.0	-	-	-	-	✓*3	-	-	✓*3	-	-	-
	4096 x 2160	112.5	50.0	594.0	-	-	-	-	✓	-	-	✓	-	-	-
640 x 400/70	640 x 400	31.5	70.1	25.2	-	-	-	-	-	-	-	-	-	-	-
640 x 400/85	640 x 400	37.9	85.1	31.5	-	-	-	-	-	-	-	-	-	-	-
640 x 480/60	640 x 480	31.5	59.9	25.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
640 x 480/67	640 x 480	35.0	66.7	30.2	-	-	-	-	-	-	-	-	-	-	-
640 x 480/73	640 x 480	37.9	72.8	31.5	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
640 x 480/75	640 x 480	37.5	75.0	31.5	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
640 x 480/85	640 x 480	43.3	85.0	36.0	-	-	-	-	-	-	-	-	-	-	-
800 x 600/56	800 x 600	35.2	56.3	36.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
800 x 600/60	800 x 600	37.9	60.3	40.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
800 x 600/72	800 x 600	48.1	72.2	50.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
800 x 600/75	800 x 600	46.9	75.0	49.5	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
800 x 600/85	800 x 600	53.7	85.1	56.3	-	-	-	-	-	-	-	-	-	-	-
832 x 624/75	832 x 624	49.7	74.6	57.3	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1024 x 768/50	1024 x 768	39.6	50.0	51.9	-	-	-	-	-	-	-	-	-	-	-
1024 x 768/60	1024 x 768	48.4	60.0	65.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1024 x 768/70	1024 x 768	56.5	70.1	75.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1024 x 768/75	1024 x 768	60.0	75.0	78.8	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1024 x 768/82	1024 x 768	65.5	81.6	86.0	-	-	-	-	-	-	-	-	-	-	-
1024 x 768/85	1024 x 768	68.7	85.0	94.5	-	-	-	-	-	-	-	-	-	-	-
1024 x 768/100	1024 x 768	81.4	100.0	113.3	-	-	-	-	-	-	-	-	-	-	-
1024 x 768/120	1024 x 768	98.8	120.0	139.1	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1152 x 864/60	1152 x 864	53.7	60.0	81.6	-	-	-	-	-	-	-	-	-	-	-
1152 x 864/70	1152 x 864	64.0	70.0	94.2	-	-	-	-	-	-	-	-	-	-	-
1152 x 864/75	1152 x 864	67.5	75.0	108.0	-	-	-	-	-	-	-	-	-	-	-
1152 x 864/85	1152 x 864	77.1	85.0	119.7	-	-	-	-	-	-	-	-	-	-	-
1152 x 870/75	1152 x 870	68.7	75.1	100.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal										
		Horizontal (kHz)	Vertical (Hz)		RGB2	DVI-D			HDMI			DIGITAL LINK			
						EDID1	EDID2	EDID3	4K/60p	4K/30p	2K	4K/60p	4K/30p	2K	
1280 x 720/50	1280 x 720	37.1	49.8	60.5	-	-	-	-	-	-	-	-	-	-	-
1280 x 720/60	1280 x 720	44.8	59.9	74.5	-	-	-	-	-	-	-	-	-	-	-
1280 x 720/100	1280 x 720	76.3	100.0	131.8	-	-	-	-	-	-	-	-	-	-	-
1280 x 720/120	1280 x 720	92.6	120.0	161.6	-	-	-	-	-	-	-	-	-	-	-
1280 x 768/50	1280 x 768	39.6	49.9	65.3	-	-	-	-	-	-	-	-	-	-	-
1280 x 768/60	1280 x 768	47.8	59.9	79.5	-	-	-	-	-	-	-	-	-	-	-
	1280 x 768*4	47.4	60.0	68.3	-	-	-	-	-	-	-	-	-	-	-
1280 x 768/75	1280 x 768	60.3	74.9	102.3	-	-	-	-	-	-	-	-	-	-	-
1280 x 768/85	1280 x 768	68.6	84.8	117.5	-	-	-	-	-	-	-	-	-	-	-
1280 x 800/50	1280 x 800	41.3	50.0	68.0	-	-	-	-	-	-	-	-	-	-	-
1280 x 800/60	1280 x 800	49.7	59.8	83.5	-	-	-	-	-	-	-	-	-	-	-
	1280 x 800*4	49.3	59.9	71.0	-	-	-	-	-	-	-	-	-	-	-
1280 x 800/75	1280 x 800	62.8	74.9	106.5	-	-	-	-	-	-	-	-	-	-	-
1280 x 800/85	1280 x 800	71.6	84.9	122.5	-	-	-	-	-	-	-	-	-	-	-
1280 x 960/60	1280 x 960	60.0	60.0	108.0	-	-	-	-	-	-	-	-	-	-	-
1280 x 1024/50	1280 x 1024	52.4	50.0	88.0	-	-	-	-	-	-	-	-	-	-	-
1280 x 1024/60	1280 x 1024	64.0	60.0	108.0	-	-	-	-	-	-	-	-	-	-	-
1280 x 1024/66	1280 x 1024	72.3	66.3	125.0	-	-	-	-	-	-	-	-	-	-	-
1280 x 1024/72	1280 x 1024	78.2	72.0	135.1	-	-	-	-	-	-	-	-	-	-	-
1280 x 1024/75	1280 x 1024	80.0	75.0	135.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1280 x 1024/85	1280 x 1024	91.1	85.0	157.5	-	-	-	-	-	-	-	-	-	-	-
1366 x 768/50	1366 x 768	39.6	49.9	69.0	-	-	-	-	-	-	-	-	-	-	-
1366 x 768/60	1366 x 768	47.7	59.8	85.5	-	-	-	-	-	-	-	-	-	-	-
1400 x 1050/50	1400 x 1050	54.1	50.0	99.9	-	-	-	-	-	-	-	-	-	-	-
	1400 x 1050	64.0	60.0	108.0	-	-	-	-	-	-	-	-	-	-	-
	1400 x 1050	65.3	60.0	121.8	-	-	-	-	-	-	-	-	-	-	-
1400 x 1050/60	1400 x 1050	65.2	60.0	122.6	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1400 x 1050/72	1400 x 1050	78.8	72.0	149.3	-	-	-	-	-	-	-	-	-	-
1400 x 1050/75	1400 x 1050	82.2	75.0	155.9	-	-	-	-	-	-	-	-	-	-	-
1440 x 900/50	1440 x 900	46.3	49.9	86.8	-	-	-	-	-	-	-	-	-	-	-
1440 x 900/60	1440 x 900	55.9	59.9	106.5	-	-	-	-	-	-	-	-	-	-	-
1600 x 900/50	1600 x 900	46.4	49.9	96.5	-	-	-	-	-	-	-	-	-	-	-
1600 x 900/60	1600 x 900	55.9	60.0	119.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1600 x 1200/50	1600 x 1200	61.8	49.9	131.5	-	-	-	-	-	-	-	-	-	-	-
1600 x 1200/60	1600 x 1200	75.0	60.0	162.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
1680 x 1050/50	1680 x 1050	54.1	50.0	119.5	-	-	-	-	-	-	-	-	-	-	-
1680 x 1050/60	1680 x 1050	65.3	60.0	146.3	-	-	-	-	-	-	-	-	-	-	-
1920 x 1080/50	1920 x 1080	55.6	49.9	141.5	-	-	-	-	-	-	-	-	-	-	-
1920 x 1080/60	1920 x 1080*4	66.6	59.9	138.5	-	-	-	-	-	-	-	-	-	-	-
	1920 x 1080*5	67.2	60.0	173.0	-	-	-	-	-	-	-	-	-	-	-
1920 x 1200/50	1920 x 1200	61.8	49.9	158.3	-	-	-	-	-	-	-	-	-	-	-
1920 x 1200/60	1920 x 1200*5	74.6	59.9	193.3	-	-	-	-	-	-	-	-	-	-	-
1920 x 1200/60RB	1920 x 1200*4	74.0	60.0	154.0	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓

\*1 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

\*2 The signal with 1/1.001x vertical scanning frequency is also supported.

\*3 YPbPr 4:2:0 format only

\*4 VESA CVT-RB (Reduced Blanking)-compliant

\*5 Samples the pixels in the image processing circuit and projects the image.

**Note**

- A signal with a different resolution is converted to the number of display dots. The number of display dots is 1920 x 1200.
- The “i” at the end of the resolution indicates an interlaced signal.
- When interlaced signals are connected, flickering may occur on the projected image.
- When the DIGITAL LINK connection is made with the long-reach communication method, the signal that the projector can receive is up to 1080/60p (1920 x 1080 dots, dot clock frequency 148.5 MHz).
- Even if it is the signal listed in the list of compatible signals, it may not be displayed by the projector if the video signal is recorded in a special format.

**List of Single link SDI compatible signals**

The following table specifies the Single link SDI signals that the projector can project.

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)				
480/60i	720 x 480i	15.7	59.9	27.0	SD-SDI	YPbPr	4:2:2 10bit
576/50i	720 x 576i	15.6	50.0	27.0	SD-SDI	YPbPr	4:2:2 10bit
720/60p	1280 x 720	45.0	60.0*1	74.3	HD-SDI	YPbPr	4:2:2 10bit
720/50p	1280 x 720	37.5	50.0	74.3	HD-SDI	YPbPr	4:2:2 10bit
1080/60i	1920 x 1080i	33.8	60.0*1	74.3	HD-SDI	YPbPr	4:2:2 10bit
	1920 x 1080i	33.8	60.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	1920 x 1080i	33.8	60.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	1920 x 1080i	33.8	60.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	1920 x 1080i	33.8	60.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
1080/50i	1920 x 1080i	28.1	50.0	74.3	HD-SDI	YPbPr	4:2:2 10bit
	1920 x 1080i	28.1	50.0	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	1920 x 1080i	28.1	50.0	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	1920 x 1080i	28.1	50.0	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	1920 x 1080i	28.1	50.0	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
1080/24p	1920 x 1080	27.0	24.0*1	74.3	HD-SDI	YPbPr	4:2:2 10bit
	1920 x 1080	27.0	24.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	1920 x 1080	27.0	24.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	1920 x 1080	27.0	24.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	1920 x 1080	27.0	24.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
1080/24sF	1920 x 1080i	27.0	48.0*1	74.3	HD-SDI	YPbPr	4:2:2 10bit
	1920 x 1080i	27.0	48.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	1920 x 1080i	27.0	48.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	1920 x 1080i	27.0	48.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	1920 x 1080i	27.0	48.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
1080/25p	1920 x 1080	28.1	25.0	74.3	HD-SDI	YPbPr	4:2:2 10bit
	1920 x 1080	28.1	25.0	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	1920 x 1080	28.1	25.0	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	1920 x 1080	28.1	25.0	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	1920 x 1080	28.1	25.0	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
1080/30p	1920 x 1080	33.8	30.0*1	74.3	HD-SDI	YPbPr	4:2:2 10bit
	1920 x 1080	33.8	30.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	1920 x 1080	33.8	30.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	1920 x 1080	33.8	30.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	1920 x 1080	33.8	30.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
1080/60p	1920 x 1080	67.5	60.0*1	148.5	3G-SDI Level-A	YPbPr	4:2:2 10bit
	1920 x 1080	67.5	60.0*1	148.5	3G-SDI Level-B	YPbPr	4:2:2 10bit
1080/50p	1920 x 1080	56.3	50.0	148.5	3G-SDI Level-A	YPbPr	4:2:2 10bit
	1920 x 1080	56.3	50.0	148.5	3G-SDI Level-B	YPbPr	4:2:2 10bit
2K/24p	2048x1080	27.0	24.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	2048x1080	27.0	24.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	2048x1080	27.0	24.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	2048x1080	27.0	24.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
2K/25p	2048x1080	28.1	25.0	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	2048x1080	28.1	25.0	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	2048x1080	28.1	25.0	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
2K/30p	2048x1080	33.8	30.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 10bit
	2048x1080	33.8	30.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 10bit
	2048x1080	33.8	30.0*1	74.3	3G-SDI Level-A	RGB	4:4:4 12bit
	2048x1080	33.8	30.0*1	74.3	3G-SDI Level-B	RGB	4:4:4 12bit
2K/48p	2048x1080	54.0	48.0*1	148.5	3G-SDI Level-A	YPbPr	4:2:2 10bit
	2048x1080	54.0	48.0*1	148.5	3G-SDI Level-B	YPbPr	4:2:2 10bit
2K/50p	2048x1080	56.3	50.0	148.5	3G-SDI Level-A	YPbPr	4:2:2 10bit
	2048x1080	56.3	50.0	148.5	3G-SDI Level-B	YPbPr	4:2:2 10bit
2K/60p	2048x1080	67.5	60.0*1	148.5	3G-SDI Level-A	YPbPr	4:2:2 10bit
	2048x1080	67.5	60.0*1	148.5	3G-SDI Level-B	YPbPr	4:2:2 10bit

\*1 The signal with 1/1.001x vertical scanning frequency is also supported.