

## S P E C F I L E



The PT-DS20K is not equipped with a lens.

Product Number : **PT-DS20K**

Product Name : 3-Chip DLP™ Projector

## Specifications

## Main unit

|                                           |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply                              |                | 200–240 V AC, 12 A, 50/60 Hz (3-wire single-phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Power consumption                         |                | 2,300 W (2,350 VA) (0.3 W with STANDBY MODE set to ECO.* <sup>1</sup> 9 W with STANDBY MODE set to NORMAL.),<br>max. 7,848 BTU (without light output: 7,585 BTU )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DLP™ chip                                 | Panel size     | 24.1 mm (0.95 inches) diagonal (4:3 aspect ratio)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                           | Display method | DLP™ chip × 3 (R, G, B), DLP™ projection system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                           | Pixels         | 1,470,000 (1,400 × 1,050) × 3, total of 4,410,000 pixels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Lens                                      |                | Optional powered zoom/focus lenses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Lamp                                      |                | 465 W UHM lamps (× 4) (four lamp system)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Screen size                               |                | 1.78–25.4 m (70–1,000 inches) (1.78–15.24 m (70–600 inches) with the ET-D75LE8), 4:3 aspect ratio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Brightness* <sup>2</sup>                  |                | 20,000 lumens (four lamp)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Center-to-corner uniformity* <sup>2</sup> |                | 90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Contrast* <sup>2</sup>                    |                | 10,000:1 (full on/full off, in dynamic iris 3 mode)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Resolution                                |                | 1,400 × 1,050 pixels (Input signals that exceed this resolution will be converted to 1,400 × 1,050 pixels.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Scanning frequency                        | SDI            | Dual-link HD-SDI signal (RGB 4:4:4 12-bit/10-bit):<br>SMPTE ST 372 compliant: 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p,<br>Dual-link HD-SDI signal (X'Y'Z' 4:4:4 12-bit):<br>SMPTE ST 372 compliant: 2048 × 1080/24p, 2048 × 1080/24sF,<br>3G-SDI signal (RGB 4:4:4 12-bit/10-bit):<br>SMPTE ST 424 compliant: 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p,<br>3G-SDI signal (YPbPr 4:2:2 10-bit):<br>SMPTE ST 424 compliant: 1080/50p, 1080/60p,<br>HD-SDI signal (YPbPr 4:2:2 10-bit):<br>SMPTE ST 292 compliant: 720/50p, 720/60p, 1035/60i, 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p,<br>SD-SDI signal (YCbCr 4:2:2 10-bit):<br>SMPTE ST 259 compliant: 480i, 576i<br>480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p, 1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p,<br>VGA (640 × 480)–WUXGA (1,920 × 1,200), compatible with non-interlaced signals only, dot clock: 25–162 MHz                         |
|                                           | HDMI/DVI-D     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                           | RGB            | Horizontal: 15–100 kHz, vertical: 24–120 Hz,<br>dot clock: 162 MHz or less                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                           | YPbPr (YCbCr)  | 480i (525i): f <sub>H</sub> 15.75 kHz; f <sub>V</sub> 60 Hz,<br>576i (625i): f <sub>H</sub> 15.63 kHz; f <sub>V</sub> 50 Hz,<br>480p (525p): f <sub>H</sub> 31.50 kHz; f <sub>V</sub> 60 Hz,<br>576p (625p): f <sub>H</sub> 31.25 kHz; f <sub>V</sub> 50 Hz,<br>720 (750)/60p: f <sub>H</sub> 45.00 kHz; f <sub>V</sub> 60 Hz,<br>720 (750)/50p: f <sub>H</sub> 37.50 kHz; f <sub>V</sub> 50 Hz,<br>1035/60i: f <sub>H</sub> 33.75 kHz; f <sub>V</sub> 60 Hz,<br>1080 (1125)/60i: f <sub>H</sub> 33.75 kHz; f <sub>V</sub> 60 Hz,<br>1080 (1125)/50i: f <sub>H</sub> 28.13 kHz; f <sub>V</sub> 50 Hz,<br>1080/25p: f <sub>H</sub> 28.13 kHz; f <sub>V</sub> 25 Hz,<br>1080/24p: f <sub>H</sub> 27.00 kHz; f <sub>V</sub> 24 Hz,<br>1080/24sF: f <sub>H</sub> 27.00 kHz; f <sub>V</sub> 48 Hz,<br>1080/30p: f <sub>H</sub> 33.75 kHz; f <sub>V</sub> 30 Hz,<br>1080/60p: f <sub>H</sub> 67.50 kHz; f <sub>V</sub> 60 Hz,<br>1080/50p: f <sub>H</sub> 56.25 kHz; f <sub>V</sub> 50 Hz |
|                                           | Video/S-Video  | f <sub>H</sub> : 15.75 kHz, f <sub>V</sub> : 60 Hz [NTSC/NTSC4.43/PAL-M/PAL60]<br>f <sub>H</sub> : 15.63 kHz, f <sub>V</sub> : 50 Hz [PAL/PAL-N/SECAM]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                                                                         |                                         |                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Optical axis shift                                                      | Vertical<br>Horizontal                  | ±50% (±40% with the ET-D75LE6) from center of screen, powered<br>±30% (±20% with the ET-D75LE6) from center of screen, powered<br><b>NOTE: Optical axis shift function cannot be operated when used with the ET-D75LE50.</b>                                                                                                         |
| Keystone correction range                                               |                                         | Vertical ±40°, horizontal ±15°<br>(vertical ±22° and horizontal ±15° with the ET-D75LE50,<br>vertical ±28° and horizontal ±15° with the ET-D75LE6)                                                                                                                                                                                   |
| Keystone correction range when using the optional upgrade kit ET-UK20*3 |                                         | Vertical ±45°, horizontal ±40°<br>(vertical ±22° and horizontal ±15° with the ET-D75LE50,<br>vertical ±28° and horizontal ±15° with the ET-D75LE6,<br>vertical ±40° and horizontal ±40° with the ET-D75LE10/D75LE20)                                                                                                                 |
| Installation                                                            |                                         | Ceiling/floor, front/rear                                                                                                                                                                                                                                                                                                            |
| Terminals                                                               | SDI IN 1                                | BNC × 1,<br>Dual-link HD-SDI signal: SMPTE ST 372 compliant (Link-A)<br>3G-SDI signal: SMPTE ST 424 compliant<br>HD-SDI signal: SMPTE ST 292 compliant<br>SD-SDI signal: SMPTE ST 259 compliant                                                                                                                                      |
|                                                                         | SDI IN 2                                | BNC × 1,<br>Dual-link HD-SDI signal: SMPTE ST 372 compliant (Link-B)<br>HD-SDI signal: SMPTE ST 292 compliant<br>SD-SDI signal: SMPTE ST 259 compliant                                                                                                                                                                               |
|                                                                         | HDMI IN                                 | HDMI 19-pin × 1, Deep Color, compatible with HDCP,<br>480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p,<br>1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p<br>VGA (640 × 480)–WUXGA*4 (1,920 × 1,200),<br>dot clock: 25–162 MHz<br><b>NOTE: Compatible with non-interlaced signals only.</b>                             |
|                                                                         | DVI-D IN                                | DVI-D 24-pin × 1, DVI 1.0 compliant, HDCP compatible,<br>for single link only<br>480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p,<br>1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p,<br>VGA (640 × 480)–WUXGA*4 (1,920 × 1,200),<br>dot clock: 25–162 MHz<br><b>NOTE: Compatible with non-interlaced signals only.</b> |
|                                                                         | RGB 1 IN<br>R, G, B                     | BNC × 5<br>R: 0.7 Vp-p, 75 ohms,<br>G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms,<br>B: 0.7 Vp-p, 75 ohms<br>HD, VD/SYNC: TTL, high impedance, positive/negative automatic<br><b>NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.</b>                                                                        |
|                                                                         | Y, PB, PR (Y, CB, CR)<br>S-Video signal | Y: 1.0 Vp-p (including sync signal), PB/PR (CB/CR): 0.7 Vp-p, 75 ohms<br>Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms                                                                                                                                                                                                                         |
|                                                                         | RGB 2 IN<br>R, G, B                     | D-sub HD 15-pin (female) × 1<br>R: 0.7 Vp-p, 75 ohms,<br>G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms,<br>B: 0.7 Vp-p, 75 ohms<br>HD, VD/SYNC: TTL, high impedance, positive/negative automatic<br><b>NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.</b>                                                   |
|                                                                         | Y, PB, PR (Y, CB, CR)<br>VIDEO IN       | Y: 1.0 Vp-p (including sync signal), PB/PR (CB/CR): 0.7 Vp-p, 75 ohms<br>BNC × 1, 1.0 Vp-p, 75 ohms                                                                                                                                                                                                                                  |
|                                                                         | 3D SYNC 1 IN/OUT                        | BNC × 1, 1.0 Vp-p, 75 ohms<br>Input: TTL, high impedance. Output: TTL, max. 10 mA                                                                                                                                                                                                                                                    |
|                                                                         | 3D SYNC 2 OUT                           | BNC × 1, 1.0 Vp-p, 75 ohms, TTL, max. 10 mA                                                                                                                                                                                                                                                                                          |
|                                                                         | SERIAL IN                               | D-sub 9-pin (female) × 1 for external control (RS-232C compliant)                                                                                                                                                                                                                                                                    |
|                                                                         | SERIAL OUT                              | D-sub 9-pin (male) × 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 (female) × 1 for external control (parallel)                                                                          |
| LAN                           | RJ-45 × 1 for network connection, 100Base-TX/10Base-T, compliant with PLink™ (class 1)                                            |
| Power cord length             | 3.0 m (9 ft 10 in)                                                                                                                |
| Cabinet materials             | Molded plastic                                                                                                                    |
| Dimensions (W × H × D):       | 620 × 291* <sup>5</sup> × 800* <sup>6</sup> mm<br>(24-7/16 × 11-15/32* <sup>5</sup> × 31-1/2* <sup>6</sup> inches) (without lens) |
| Weight* <sup>7</sup>          | Approx. 43 kg (94.8 lbs) (without lens)                                                                                           |
| Operation noise* <sup>2</sup> | 49 dB (quad lamp operation)                                                                                                       |
| Operating temperature         | 0°–45°C (32°–113°F)* <sup>8</sup>                                                                                                 |
| Operating humidity            | 10%–80% (no condensation)                                                                                                         |

**Remote control unit**

|                               |                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------|
| Power supply                  | 3 V DC (AA/R6 type battery × 2)                                                       |
| Operation range* <sup>9</sup> | Approx. 30 m (98 ft 5 in) when operated from directly in front of the signal receptor |
| Dimensions (W × H × D)        | 51 × 176 × 28 mm (2 × 6-15/16 × 1-3/32 inches)                                        |
| 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/R6 type × 2)  
 Software CD-ROM (Logo Transfer Software, Multi Projector Monitoring & Control Software) (× 1)

**Optional accessories**

|                                         |                                                                 |
|-----------------------------------------|-----------------------------------------------------------------|
| Zoom lens (1.0–1.2:1)                   | ET-D75LE6                                                       |
| Zoom lens (1.4–1.8:1)                   | ET-D75LE10                                                      |
| Zoom lens (1.8–2.6:1)                   | ET-D75LE20                                                      |
| Zoom lens (2.6–5.1:1)                   | ET-D75LE30                                                      |
| Zoom lens (5.0–8.0:1)                   | ET-D75LE40                                                      |
| Zoom lens (7.9–15.0:1)                  | ET-D75LE8                                                       |
| Fixed-focus lens (0.8:1)                | ET-D75LE50                                                      |
| Lens motor cover                        | ET-D75MC1                                                       |
| Ceiling mount bracket                   | ET-PKD510H (for high ceilings)<br>ET-PKD510S (for low ceilings) |
| Frame                                   | ET-PFD510                                                       |
| Smoke cut filter                        | ET-SFR510                                                       |
| Upgrade kit                             | ET-UK20                                                         |
| Replacement lamp unit                   | ET-LAD510 (one bulb)<br>ET-LAD510F (a set of four bulbs)        |
| Replacement lamp unit for portrait mode | ET-LAD510P (one bulb)<br>ET-LAD510PF (a set of four bulbs)      |
| Replacement filter unit                 | ET-EMF510                                                       |

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

\*1 When the standby mode is set to eco, network functions such as power on over the LAN network will not operate, and the serial output terminal cannot be used. Also, only certain commands can be received for external control using the serial terminal.

\*2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.

\*3 Up to a total of ±55° during simultaneous horizontal and vertical correction.

\*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.

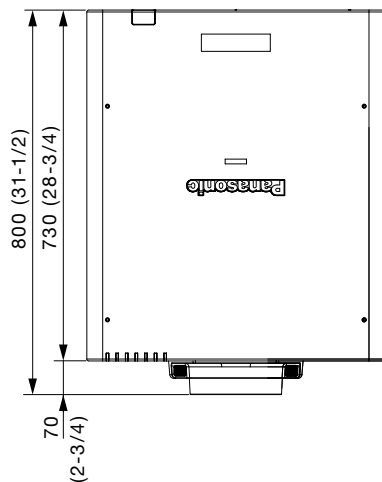
\*6 Excluding the optional lens.

\*7 Average value (excluding the optional lens). May differ depending on models.

\*8 The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F) when the FAN CONTROL is set to HIGH ALTITUDE MODE (for altitudes from 1,400 m to 2,700 m (4,593 ft to 8,858 ft) above sea level). When the projector is used with the ET-SFR510 Smoke Cut Filter, the operating temperature range is 0 °C to 35 °C (32 °F to 95 °F), and the projector cannot be used in places at high altitude. The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F) when the ET-LAD510P/LAD510PF lamp is mounted and the projector is used in portrait configuration. The operating temperature range is 0 °C to 35 °C (32 °F to 95 °F) when the FAN CONTROL is set to HIGH ALTITUDE MODE (for altitudes from 1,400 m to 2,700 m (4,593 ft to 8,858 ft) above sea level). When the projector is used with the ET-SFR510 Smoke Cut Filter, the operating temperature range is 0 °C to 30 °C (32 °F to 86 °F).

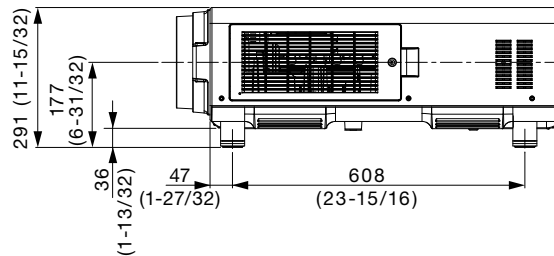
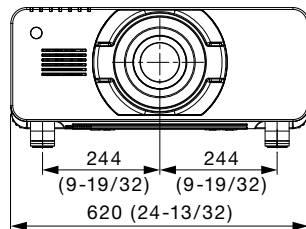
\*9 Operation range differs depending on environments.

**Dimensions**

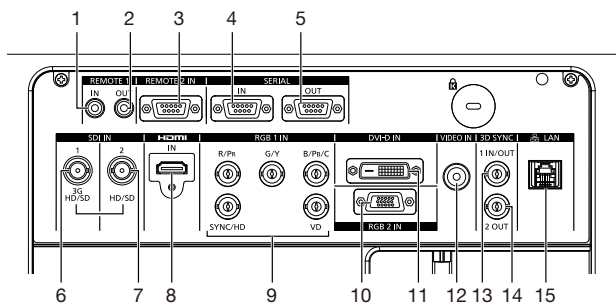


unit : mm (inch)

NOTE: This illustration is not drawn to scale.

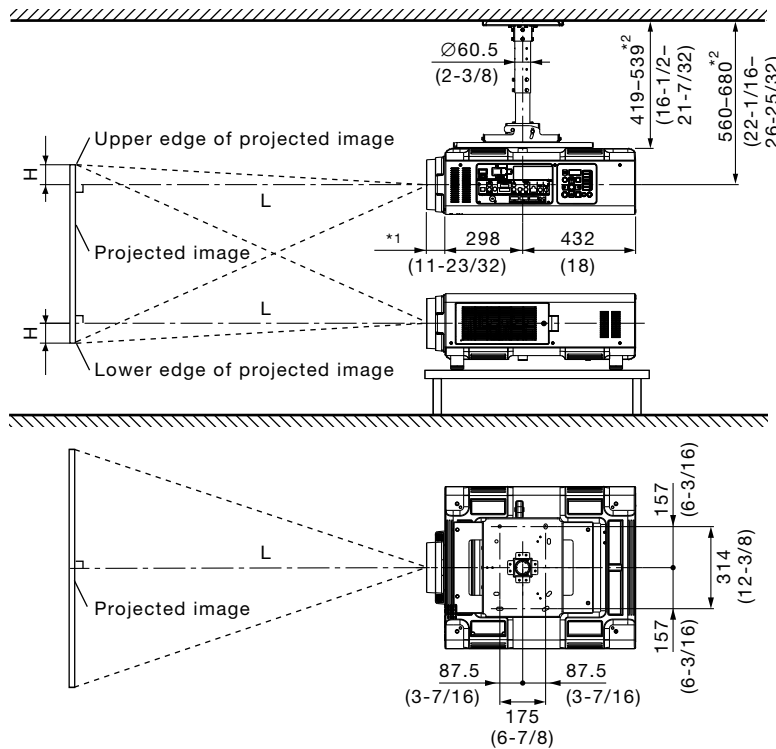


**Terminals**



- 1 Remote 1 input
- 2 Remote 1 output
- 3 Remote 2 input
- 4 Serial input
- 5 Serial output
- 6 SDI 1 input
- 7 SDI 2 input
- 8 HDMI input
- 9 RGB 1 input
- 10 RGB 2 Input
- 11 DVI-D input
- 12 Video input
- 13 3D sync 1 input/output
- 14 3D sync 2 output
- 15 LAN connector

**Standard setting-up position**



**\*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  
 121 mm (4-3/4) with the ET-D75LE20  
 121 mm (4-3/4) with the ET-D75LE30  
 124 mm (4-7/8) with the ET-D75LE40  
 254 mm (10) with the ET-D75LE8  
 203 mm (8) with the ET-D75LE50

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

unit : mm (inch)

**NOTE:**

Illustrations show the projector installed using optional ceiling mount bracket ET-PKD510H and an optional lens.  
 This illustration is not drawn to scale.

**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 4:3 aspect ratio screen**

(ET-D75LE6/D75LE10/D75LE20/D75LE30/D75LE40/D75LE8/D75LE50)

**Unit: meters**

| Screen size<br>(diagonal) | Distance to screen (L) |       |                         |       |                         |       |                         |        |                         |        |                        |        |                                   |              | Height from the edge of screen<br>to center of lens (H) |      |  |                         |
|---------------------------|------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|--------|-------------------------|--------|------------------------|--------|-----------------------------------|--------------|---------------------------------------------------------|------|--|-------------------------|
|                           | Zoom                   |       |                         |       |                         |       |                         |        |                         |        |                        |        | Fixed-focus                       |              | Zoom lenses<br>Except<br>ET-D75LE6                      |      |  | Fixed-<br>focus<br>lens |
|                           | ET-D75LE6<br>Zoom lens |       | ET-D75LE10<br>Zoom lens |       | ET-D75LE20<br>Zoom lens |       | ET-D75LE30<br>Zoom lens |        | ET-D75LE40<br>Zoom lens |        | ET-D75LE8<br>Zoom lens |        | ET-D75LE50<br>Fixed-focus<br>lens |              |                                                         |      |  |                         |
| [m] / [in]                | min.                   | max.  | min.                    | max.  | min.                    | max.  | min.                    | max.   | min.                    | max.   | min.                   | max.   | min.                              | max.         |                                                         |      |  |                         |
| 1.78 / 70                 | 1.39                   | 1.66  | 1.95                    | 2.52  | 2.52                    | 3.66  | 3.64                    | 7.10   | 7.02                    | 11.29  | 11.09                  | 21.14  | 1.03                              | 0.00 – 1.07  | 0.11 – 0.96                                             | 0.53 |  |                         |
| 2.03 / 80                 | 1.60                   | 1.91  | 2.24                    | 2.89  | 2.89                    | 4.20  | 4.17                    | 8.13   | 8.05                    | 12.92  | 12.73                  | 24.22  | 1.19                              | 0.00 – 1.22  | 0.12 – 1.10                                             | 0.61 |  |                         |
| 2.29 / 90                 | 1.81                   | 2.16  | 2.53                    | 3.27  | 3.26                    | 4.74  | 4.71                    | 9.17   | 9.07                    | 14.56  | 14.37                  | 27.29  | 1.35                              | 0.00 – 1.37  | 0.14 – 1.23                                             | 0.69 |  |                         |
| 2.54 / 100                | 2.01                   | 2.41  | 2.82                    | 3.64  | 3.63                    | 5.28  | 5.24                    | 10.21  | 10.10                   | 16.19  | 16.01                  | 30.36  | 1.50                              | 0.00 – 1.52  | 0.15 – 1.37                                             | 0.76 |  |                         |
| 3.05 / 120                | 2.43                   | 2.90  | 3.40                    | 4.39  | 4.37                    | 6.36  | 6.32                    | 12.29  | 12.15                   | 19.46  | 19.29                  | 36.50  | 1.82                              | 0.00 – 1.83  | 0.18 – 1.65                                             | 0.91 |  |                         |
| 3.81 / 150                | 3.05                   | 3.65  | 4.27                    | 5.52  | 5.49                    | 7.98  | 7.92                    | 15.41  | 15.23                   | 24.37  | 24.21                  | 45.72  | 2.29                              | 0.00 – 2.29  | 0.23 – 2.06                                             | 1.14 |  |                         |
| 5.08 / 200                | 4.08                   | 4.89  | 5.72                    | 7.39  | 7.34                    | 10.67 | 10.60                   | 20.60  | 20.36                   | 32.54  | 32.40                  | 61.08  | 3.08                              | 0.00 – 3.05  | 0.31 – 2.74                                             | 1.52 |  |                         |
| 6.35 / 250                | 5.12                   | 6.13  | 7.17                    | 9.27  | 9.20                    | 13.37 | 13.28                   | 25.80  | 25.48                   | 40.72  | 40.60                  | 76.44  | 3.87                              | 0.00 – 3.81  | 0.38 – 3.43                                             | 1.91 |  |                         |
| 7.62 / 300                | 6.15                   | 7.37  | 8.62                    | 11.14 | 11.06                   | 16.07 | 15.96                   | 30.99  | 30.61                   | 48.89  | 48.80                  | 91.79  | 4.65                              | 0.00 – 4.57  | 0.46 – 4.12                                             | 2.29 |  |                         |
| 10.16 / 400               | 8.22                   | 9.85  | 11.52                   | 14.90 | 14.77                   | 21.46 | 21.31                   | 41.38  | 40.87                   | 65.25  | 65.19                  | 122.51 | 6.23                              | 0.00 – 6.10  | 0.61 – 5.49                                             | 3.05 |  |                         |
| 12.70 / 500               | 10.29                  | 12.33 | 14.42                   | 18.65 | 18.48                   | 26.86 | 26.67                   | 51.77  | 51.12                   | 81.60  | 81.59                  | 153.23 | 7.80                              | 0.00 – 7.62  | 0.76 – 6.86                                             | 3.81 |  |                         |
| 15.24 / 600               | 12.36                  | 14.81 | 17.33                   | 22.40 | 22.20                   | 32.25 | 32.03                   | 62.15  | 61.38                   | 97.95  | 97.98                  | 183.95 | 9.38                              | 0.00 – 9.14  | 0.91 – 8.23                                             | 4.57 |  |                         |
| 17.78 / 700               | 14.43                  | 17.29 | 20.23                   | 26.15 | 25.91                   | 37.65 | 37.38                   | 72.54  | 71.64                   | 114.30 | 114.38                 | –      | 10.96                             | 0.00 – 10.67 | 1.07 – 9.60                                             | 5.33 |  |                         |
| 20.32 / 800               | 16.50                  | 19.77 | 23.13                   | 29.90 | 29.62                   | 43.04 | 42.74                   | 82.93  | 81.89                   | 130.65 | 130.77                 | –      | 12.53                             | 0.00 – 12.19 | 1.22 – 10.97                                            | 6.10 |  |                         |
| 22.86 / 900               | 18.57                  | 22.25 | 26.03                   | 33.65 | 33.33                   | 48.44 | 48.10                   | 93.32  | 92.15                   | 147.00 | 147.17                 | –      | 14.11                             | 0.00 – 13.72 | 1.37 – 12.34                                            | 6.86 |  |                         |
| 25.40 / 1000              | 20.64                  | 24.73 | 28.93                   | 37.40 | 37.05                   | 53.83 | 53.45                   | 103.71 | 102.41                  | 163.36 | 163.56                 | –      | 15.68                             | 0.00 – 15.24 | 1.52 – 13.72                                            | 7.62 |  |                         |

**Unit: feet**

| Screen size<br>(diagonal) | Distance to screen (L) |      |                         |       |                         |       |                         |       |                         |       |                        |       |                                   |            | Height from the edge of screen<br>to center of lens (H) |      |  |                         |
|---------------------------|------------------------|------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|------------------------|-------|-----------------------------------|------------|---------------------------------------------------------|------|--|-------------------------|
|                           | Zoom                   |      |                         |       |                         |       |                         |       |                         |       |                        |       | Fixed-focus                       |            | Zoom lenses<br>Except<br>ET-D75LE6                      |      |  | Fixed-<br>focus<br>lens |
|                           | ET-D75LE6<br>Zoom lens |      | ET-D75LE10<br>Zoom lens |       | ET-D75LE20<br>Zoom lens |       | ET-D75LE30<br>Zoom lens |       | ET-D75LE40<br>Zoom lens |       | ET-D75LE8<br>Zoom lens |       | ET-D75LE50<br>Fixed-focus<br>lens |            |                                                         |      |  |                         |
| [m] / [in]                | min.                   | max. | min.                    | max.  | min.                    | max.  | min.                    | max.  | min.                    | max.  | min.                   | max.  | min.                              | max.       |                                                         |      |  |                         |
| 1.78 / 70                 | 4.6                    | 5.5  | 6.4                     | 8.3   | 8.3                     | 12.0  | 11.9                    | 23.3  | 23.0                    | 37.0  | 36.4                   | 69.4  | 3.4                               | 0.0 – 3.5  | 0.4 – 3.1                                               | 1.7  |  |                         |
| 2.03 / 80                 | 5.2                    | 6.3  | 7.3                     | 9.5   | 9.5                     | 13.8  | 13.7                    | 26.7  | 26.4                    | 42.4  | 41.8                   | 79.4  | 3.9                               | 0.0 – 4.0  | 0.4 – 3.6                                               | 2.0  |  |                         |
| 2.29 / 90                 | 5.9                    | 7.1  | 8.3                     | 10.7  | 10.7                    | 15.5  | 15.4                    | 30.1  | 29.8                    | 47.8  | 47.1                   | 89.5  | 4.4                               | 0.0 – 4.5  | 0.4 – 4.0                                               | 2.3  |  |                         |
| 2.54 / 100                | 6.6                    | 7.9  | 9.2                     | 11.9  | 11.9                    | 17.3  | 17.2                    | 33.5  | 33.1                    | 53.1  | 52.5                   | 99.6  | 4.9                               | 0.0 – 5.0  | 0.5 – 4.5                                               | 2.5  |  |                         |
| 3.05 / 120                | 8.0                    | 9.5  | 11.1                    | 14.4  | 14.3                    | 20.9  | 20.7                    | 40.3  | 39.9                    | 63.8  | 63.3                   | 119.8 | 6.0                               | 0.0 – 6.0  | 0.6 – 5.4                                               | 3.0  |  |                         |
| 3.81 / 150                | 10.0                   | 12.0 | 14.0                    | 18.1  | 18.0                    | 26.2  | 26.0                    | 50.5  | 50.0                    | 79.9  | 79.4                   | 150.0 | 7.5                               | 0.0 – 7.5  | 0.8 – 6.7                                               | 3.8  |  |                         |
| 5.08 / 200                | 13.4                   | 16.0 | 18.8                    | 24.3  | 24.1                    | 35.0  | 34.8                    | 67.6  | 66.8                    | 106.8 | 106.3                  | 200.4 | 10.1                              | 0.0 – 10.0 | 1.0 – 9.0                                               | 5.0  |  |                         |
| 6.35 / 250                | 16.8                   | 20.1 | 23.5                    | 30.4  | 30.2                    | 43.9  | 43.6                    | 84.6  | 83.6                    | 133.6 | 133.2                  | 250.8 | 12.7                              | 0.0 – 12.5 | 1.3 – 11.3                                              | 6.3  |  |                         |
| 7.62 / 300                | 20.2                   | 24.2 | 28.3                    | 36.6  | 36.3                    | 52.7  | 52.4                    | 101.7 | 100.4                   | 160.4 | 160.1                  | 301.2 | 15.3                              | 0.0 – 15.0 | 1.5 – 13.5                                              | 7.5  |  |                         |
| 10.16 / 400               | 27.0                   | 32.3 | 37.8                    | 48.9  | 48.5                    | 70.4  | 69.9                    | 135.8 | 134.1                   | 214.1 | 213.9                  | 401.9 | 20.4                              | 0.0 – 20.0 | 2.0 – 18.0                                              | 10.0 |  |                         |
| 12.70 / 500               | 33.8                   | 40.4 | 47.3                    | 61.2  | 60.6                    | 88.1  | 87.5                    | 169.8 | 167.7                   | 267.7 | 267.7                  | 502.7 | 25.6                              | 0.0 – 25.0 | 2.5 – 22.5                                              | 12.5 |  |                         |
| 15.24 / 600               | 40.6                   | 48.6 | 56.8                    | 73.5  | 72.8                    | 105.8 | 105.1                   | 203.9 | 201.4                   | 321.4 | 321.5                  | 603.5 | 30.8                              | 0.0 – 30.0 | 3.0 – 27.0                                              | 15.0 |  |                         |
| 17.78 / 700               | 47.4                   | 56.7 | 66.4                    | 85.8  | 85.0                    | 123.5 | 122.6                   | 238.0 | 235.0                   | 375.0 | 375.3                  | –     | 35.9                              | 0.0 – 35.0 | 3.5 – 31.5                                              | 17.5 |  |                         |
| 20.32 / 800               | 54.1                   | 64.8 | 75.9                    | 98.1  | 97.2                    | 141.2 | 140.2                   | 272.1 | 268.7                   | 428.7 | 429.0                  | –     | 41.1                              | 0.0 – 40.0 | 4.0 – 36.0                                              | 20.0 |  |                         |
| 22.86 / 900               | 60.9                   | 73.0 | 85.4                    | 110.4 | 109.4                   | 158.9 | 157.8                   | 306.2 | 302.3                   | 482.3 | 482.8                  | –     | 46.3                              | 0.0 – 45.0 | 4.5 – 40.5                                              | 22.5 |  |                         |
| 25.40 / 1000              | 67.7                   | 81.1 | 94.9                    | 122.7 | 121.5                   | 176.6 | 175.4                   | 340.2 | 336.0                   | 535.9 | 536.6                  | –     | 51.4                              | 0.0 – 50.0 | 5.0 – 45.0                                              | 25.0 |  |                         |

- The value for L (distance to screen) varies slightly within  $\pm 5\%$  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 ET-D75LE50 is mounted, the optical lens shift function cannot be used.

**Calculation of the projection distance**

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

**Aspect ratio 4:3****Zoom lenses**

|            |         |                                                                          |
|------------|---------|--------------------------------------------------------------------------|
| ET-D75LE6  | minimum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0207 - 0.0566$ |
|            | maximum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0248 - 0.0736$ |
| ET-D75LE10 | minimum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0290 - 0.0857$ |
|            | maximum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0375 - 0.1085$ |
| ET-D75LE20 | minimum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0371 - 0.0832$ |
|            | maximum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0540 - 0.1162$ |
| ET-D75LE30 | minimum | $L (m) = (\text{diagonal screen size in inches}) \times 0.0536 - 0.1131$ |
|            | maximum | $L (m) = (\text{diagonal screen size in inches}) \times 0.1039 - 0.1765$ |
| ET-D75LE40 | minimum | $L (m) = (\text{diagonal screen size in inches}) \times 0.1026 - 0.1577$ |
|            | maximum | $L (m) = (\text{diagonal screen size in inches}) \times 0.1635 - 0.1615$ |
| ET-D75LE8  | minimum | $L (m) = (\text{diagonal screen size in inches}) \times 0.1640 - 0.3862$ |
|            | maximum | $L (m) = (\text{diagonal screen size in inches}) \times 0.3072 - 0.3598$ |

**Fixed-focus lens**

|            |                                                                          |
|------------|--------------------------------------------------------------------------|
| ET-D75LE50 | $L (m) = (\text{diagonal screen size in inches}) \times 0.0158 - 0.0713$ |
|------------|--------------------------------------------------------------------------|

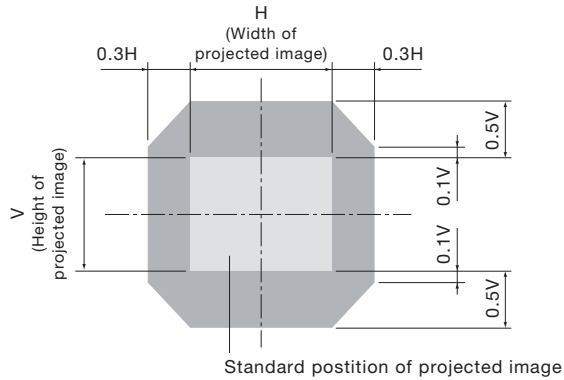
• Distances calculated with the above equations will include slight deviations.



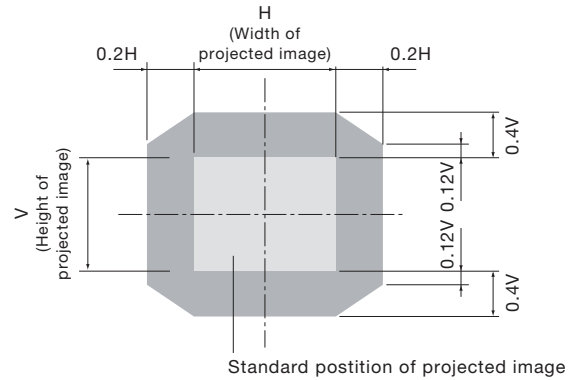
## Shift range

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



- When the ET-D75LE6 is mounted



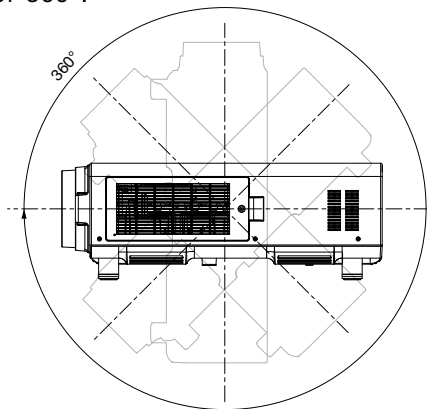
- Because the ET-D75LE50 is a fixed short-throw lens, the lens shift function cannot be used with it.

## Installable angle

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

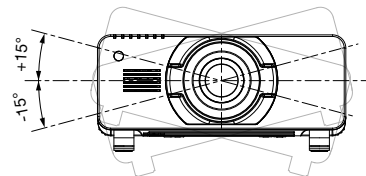
- **Vertical direction**

The projector may be installed at a vertical angle of 360°.



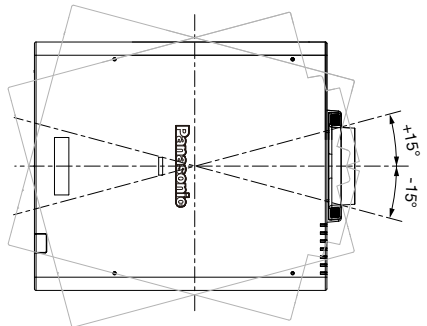
- **Horizontal direction**

The projector may be installed at a horizontal angle of ±15°.



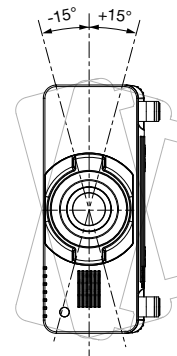
- **Vertical direction in portrait mode with the ET-LAD510P/LAD510PF mounted**

The projector may be installed at a vertical angle of ±15°.



- **Horizontal direction in portrait mode with the ET-LAD510P/LAD510PF mounted**

The projector may be installed at a horizontal angle of ±15°.



**NOTE:** The projector cannot be vertically installed all by itself. Also, the terminal side must face downward when vertically installed.

## List of compatible signals

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

**NOTE:** The native resolution of this projector is 1,400 × 1,050 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 |         | Dot clock frequency (MHz) | Format                        |
|---------------------------|-----------------------------|--------------------|---------|---------------------------|-------------------------------|
|                           |                             | H (kHz)            | V (kHz) |                           |                               |
| NTSC/NTSC4.43/PAL-M/PAL60 | 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/YCbCr                 |
| 576i (625i)               | 720 × 576i                  | 15.6               | 50.0    | 13.5                      |                               |
| 480p (525p)               | 720 × 483                   | 31.5               | 59.9    | 27.0                      | HDMI/DVI-D/<br>RGB/YCbCr      |
| 576p (625p)               | 720 × 576                   | 31.3               | 50.0    |                           |                               |
| 720/60p                   | 1280 × 720                  | 45.0               | 60.0    | 74.3                      | SDI/HDMI/DVI-D/<br>RGB/YpPr   |
| 720/50p                   |                             | 37.5               | 50.0    |                           |                               |
| 1080/60i                  | 1920 × 1080i                | 33.8               | 60.0    |                           |                               |
| 1080/50i                  |                             | 28.1               | 50.0    |                           |                               |
| 1080/24p                  | 1920 × 1080                 | 27.0               | 24.0    |                           |                               |
| 1080/24sF                 | 1920 × 1080i                | 27.0               | 48.0    |                           |                               |
| 1080/25p                  | 1920 × 1080                 | 28.1               | 25.0    |                           |                               |
| 1080/30p                  |                             | 33.8               | 30.0    |                           |                               |
| 1080/60p                  |                             | 67.5               | 60.0    | 148.5                     | SDI*2/HDMI/DVI-D/<br>RGB/YpPr |
| 1080/50p                  |                             | 56.3               | 50.0    |                           |                               |
| 2K/24p                    | 2048 × 1080                 | 27.0               | 24.0    | 74.3                      | SDI*3                         |
| 2K/24sF                   |                             |                    |         |                           |                               |
| 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                      |                               |
|                           |                             | 81.4               | 100.0   | 113.3                     |                               |
|                           |                             | 98.8               | 120.0   | 139.1                     |                               |
| 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                     |                               |

\*1 The "i" appearing after the resolution indicates an interlaced signal.

\*2 SDI 1 only.

\*3 For dual-link connection only.

| Display mode | Display resolution (dots) | Scanning frequency |         | Dot clock frequency (MHz) | Format         |
|--------------|---------------------------|--------------------|---------|---------------------------|----------------|
|              |                           | H (kHz)            | V (kHz) |                           |                |
| 1280 × 720   | 1280 × 720                | 37.1               | 49.8    | 60.5                      | HDMI/DVI-D/RGB |
|              |                           | 44.8               | 59.9    | 74.5                      |                |
|              |                           | 76.3               | 100.0   | 131.8                     |                |
|              |                           | 92.6               | 120.0   | 161.6                     |                |
| 1280 × 768   | 1280 × 768                | 39.6               | 49.9    | 65.3                      |                |
|              |                           | 47.8               | 59.9    | 79.5                      |                |
|              | 1280 × 768*               | 47.4               | 60.0    | 68.3                      |                |
|              |                           | 1280 × 768         | 60.3    | 74.9                      |                |
|              |                           |                    | 68.6    | 84.8                      |                |
|              | 1280 × 800                | 1280 × 800         | 41.3    | 50.0                      |                |
| 49.7         |                           |                    | 59.8    | 83.5                      |                |
| 1280 × 800*  |                           | 49.3               | 59.9    | 71.0                      |                |
|              |                           | 1280 × 800         | 62.8    | 74.9                      | 106.5          |
|              |                           |                    | 71.6    | 84.9                      | 122.5          |
| MSXGA        |                           | 1280 × 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     | 1366 × 768                | 47.7               | 59.8    | 85.5                      |                |
|              |                           | 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*              | 66.6               | 59.9    | 138.5                     |                |
|              | 1920 × 1080               | 67.2               | 60.0    | 173.0                     |                |
| WUXGA        | 1920 × 1200               | 61.8               | 49.9    | 158.3                     | HDMI/DVI-D/RGB |
|              | 1920 × 1200*              | 74.0               | 60.0    | 154.0                     |                |
|              |                           | 1920 × 1200        | 74.6    | 59.9                      | 193.3          |

\* Compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).

## List of compatible 3D signals

The 3D signals that can be input to this projector are shown in the table below.

| Display mode | Display resolution (dots) <sup>*1</sup> | Scanning frequency |         | Dot clock frequency (MHz) | HDMI          |                            |                | DVI                        |                |              |                  |   |   |   |
|--------------|-----------------------------------------|--------------------|---------|---------------------------|---------------|----------------------------|----------------|----------------------------|----------------|--------------|------------------|---|---|---|
|              |                                         | H (kHz)            | V (kHz) |                           | Frame packing | Side by side <sup>*2</sup> | Top and bottom | Side by side <sup>*2</sup> | Top and bottom | Line by line | Frame sequential |   |   |   |
| 720/60p      | 1280 × 720                              | 45.0               | 60.0    | 74.3                      | Yes           | Yes                        | Yes            | Yes                        | Yes            | Yes          | –                |   |   |   |
| 720/50p      |                                         | 37.5               | 50.0    | 74.3                      |               |                            |                |                            |                |              |                  |   |   |   |
| 1080/60i     |                                         | 1920 × 1080i       | 33.8    | 60.0                      |               |                            | 74.3           |                            |                | –            |                  |   |   |   |
| 1080/50i     |                                         |                    | 28.1    | 50.0                      |               |                            | 74.3           |                            |                |              |                  |   |   |   |
| 1080/24p     | 1920 × 1080                             | 27.0               | 24.0    | 74.3                      | –             | –                          | Yes            | –                          | –              | –            |                  |   |   |   |
| 1080/24sF    | 1920 × 1080i                            | 27.0               | 48.0    | 74.3                      |               |                            | –              |                            |                |              |                  |   |   |   |
| 1080/25p     | 1920 × 1080                             | 28.1               | 25.0    | 74.3                      |               |                            | Yes            |                            |                |              |                  |   |   |   |
| 1080/30p     |                                         | 33.8               | 30.0    | 74.3                      |               |                            |                |                            |                |              |                  |   |   |   |
| 1080/60p     |                                         | 67.5               | 60.0    | 148.5                     |               |                            |                |                            |                |              |                  |   |   |   |
| 1080/50p     |                                         | 56.3               | 50.0    | 148.5                     |               |                            |                |                            |                |              |                  |   |   |   |
| VGA480       | 640 × 480                               | 31.5               | 59.9    | 25.2                      |               |                            | –              |                            |                |              | –                | – | – | – |
| SVGA         | 800 × 600                               | 37.9               | 60.3    | 40.0                      |               |                            |                |                            |                |              |                  |   |   |   |
| MAC16        | 832 × 624                               | 49.7               | 74.6    | 57.3                      |               |                            |                |                            |                |              |                  |   |   |   |
| XGA          | 1024 × 768                              | 39.6               | 50.0    | 51.9                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 48.4               | 60.0    | 65.0                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 81.4               | 100.0   | 113.3                     |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 98.8               | 120.0   | 139.1                     |               |                            |                |                            |                |              |                  |   |   |   |
| MXGA         | 1152 × 864                              | 53.7               | 60.0    | 81.6                      | Yes           | –                          |                | –                          |                |              |                  |   |   |   |
| 1280 × 720   | 1280 × 720                              | 37.1               | 49.8    | 60.5                      | –             | –                          |                | –                          | –              | –            |                  |   |   |   |
|              |                                         | 44.8               | 59.9    | 74.5                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 76.3               | 100.0   | 131.8                     |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 92.6               | 120.0   | 161.6                     |               |                            |                |                            |                |              |                  |   |   |   |
| 1280 × 768   | 1280 × 768                              | 39.6               | 49.9    | 65.3                      | Yes           | –                          | –              | –                          | –              |              |                  |   |   |   |
|              |                                         | 47.8               | 59.9    | 79.5                      |               |                            |                |                            |                |              |                  |   |   |   |
|              | 1280 × 768 <sup>*3</sup>                | 47.4               | 60.0    | 68.3                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 41.3               | 50.0    | 68.0                      |               |                            |                |                            |                |              |                  |   |   |   |
| 1280 × 800   | 1280 × 800                              | 49.7               | 59.8    | 83.5                      | –             | –                          | –              | –                          | –              |              |                  |   |   |   |
|              |                                         | 49.3               | 59.9    | 71.0                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 49.3               | 59.9    | 71.0                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 49.3               | 59.9    | 71.0                      |               |                            |                |                            |                |              |                  |   |   |   |
| MSXGA        | 1280 × 960                              | 60.0               | 60.0    | 108.0                     | –             | –                          | –              | –                          | –              |              |                  |   |   |   |
| SXGA         | 1280 × 1024                             | 52.4               | 50.0    | 88.0                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 64.0               | 60.0    | 108.0                     |               |                            |                |                            |                |              |                  |   |   |   |
| 1366 × 768   | 1366 × 768                              | 47.7               | 59.8    | 85.5                      |               |                            |                |                            |                |              |                  |   |   |   |
|              |                                         | 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                     |               |                            |                |                            |                |              |                  |   |   |   |
| 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 <sup>*3</sup>               | 66.6               | 59.9    | 138.5                     |               |                            |                |                            |                |              |                  |   |   |   |
| WUXGA        | 1920 × 1200                             | 61.8               | 49.9    | 158.3                     |               |                            |                |                            |                |              |                  |   |   |   |
|              | 1920 × 1200 <sup>*3</sup>               | 74.0               | 60.0    | 154.0                     | Yes           |                            |                |                            |                |              |                  |   |   |   |

\*1 The "i" appearing after the resolution indicates an interlaced signal.

\*2 Compatible with half-resolution signals.

\*3 Compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).

| Display mode              | Display resolution (dots)* <sup>1</sup> | Scanning frequency<br>H<br>V<br>(kHz) |            | Dot clock frequency (MHz) | RGB1/RGB2                  |                |                   |                  | SDI1/SDI2                  |                |              | HDMI & DVI    | RGB1 & RGB2   | SDI1 & SDI2   | 3G-SDI Level B    |
|---------------------------|-----------------------------------------|---------------------------------------|------------|---------------------------|----------------------------|----------------|-------------------|------------------|----------------------------|----------------|--------------|---------------|---------------|---------------|-------------------|
|                           |                                         |                                       |            |                           | Side by side* <sup>2</sup> | Top and bottom | Line by line      | Frame sequential | Side by side* <sup>2</sup> | Top and bottom | Line by line | Simul-taneous | Simul-taneous | Simul-taneous | Simul-taneous     |
| 720/60p                   | 1280 × 720                              | 45.0                                  | 60.0       | 74.3                      | Yes                        | Yes            | Yes               | –                | Yes                        | Yes            | Yes          | Yes           | Yes           | Yes           | Yes* <sup>3</sup> |
| 720/50p                   |                                         | 37.5                                  | 50.0       | 74.3                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1080/60i                  | 1920 × 1080i                            | 33.8                                  | 60.0       | 74.3                      |                            |                | –                 |                  | –                          |                |              |               |               |               |                   |
| 1080/50i                  |                                         | 28.1                                  | 50.0       | 74.3                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1080/24p                  | 1920 × 1080                             | 27.0                                  | 24.0       | 74.3                      |                            |                | Yes* <sup>3</sup> |                  | Yes* <sup>3</sup>          |                |              |               |               |               |                   |
| 1080/24sF                 | 1920 × 1080i                            | 27.0                                  | 48.0       | 74.3                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1080/25p                  | 1920 × 1080                             | 28.1                                  | 25.0       | 74.3                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1080/30p                  |                                         | 33.8                                  | 30.0       | 74.3                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1080/60p                  | 1920 × 1080                             | 67.5                                  | 60.0       | 148.5                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1080/50p                  |                                         | 56.3                                  | 50.0       | 148.5                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| VGA480                    | 640 × 480                               | 31.5                                  | 59.9       | 25.2                      | –                          | –              |                   |                  |                            |                |              |               |               |               |                   |
| SVGA                      | 800 × 600                               | 37.9                                  | 60.3       | 40.0                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| MAC16                     | 832 × 624                               | 49.7                                  | 74.6       | 57.3                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| XGA                       | 1024 × 768                              | 39.6                                  | 50.0       | 51.9                      |                            |                |                   | –                |                            | –              |              |               |               |               |                   |
|                           |                                         | 48.4                                  | 60.0       | 65.0                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 81.4                                  | 100.0      | 113.3                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 98.8                                  | 120.0      | 139.1                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| MXGA                      | 1152 × 864                              | 53.7                                  | 60.0       | 81.6                      |                            |                | Yes               | –                |                            |                |              |               |               |               |                   |
| 1280 × 720                | 1280 × 720                              | 37.1                                  | 49.8       | 60.5                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 44.8                                  | 59.9       | 74.5                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 76.3                                  | 100.0      | 131.8                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1280 × 768                | 1280 × 768                              | 39.6                                  | 49.9       | 65.3                      | –                          | –              |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 47.8                                  | 59.9       | 79.5                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 1280 × 768 * <sup>4</sup>             | 47.4       | 60.0                      |                            |                | 68.3              |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 1280 × 800                            | 1280 × 800 | 41.3                      |                            |                | 50.0              | 68.0             |                            |                |              |               |               |               |                   |
| 49.7                      | 59.8                                    |                                       |            | 83.5                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1280 × 800 * <sup>4</sup> | 1280 × 800 * <sup>4</sup>               | 49.3                                  | 59.9       | 71.0                      | Yes                        | –              |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | MSXGA                                 | 1280 × 960 | 60.0                      |                            |                | 60.0              | 108.0            |                            |                |              |               |               |               |                   |
| SXGA                      | 1280 × 1024                             | 52.4                                  | 50.0       | 88.0                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 64.0                                  | 60.0       | 108.0                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 1366 × 768                | 1366 × 768                              | 47.7                                  | 59.8       | 85.5                      |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           |                                         | 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                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| 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 * <sup>4</sup>              | 66.6                                  | 59.9       | 138.5                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
| WUXGA                     | 1920 × 1200                             | 61.8                                  | 49.9       | 158.3                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |
|                           | 1920 × 1200 * <sup>4</sup>              | 74.0                                  | 60.0       | 154.0                     |                            |                |                   |                  |                            |                |              |               |               |               |                   |

\*1 The "i" appearing after the resolution indicates an interlaced signal.

\*2 Compatible with half-resolution signals.

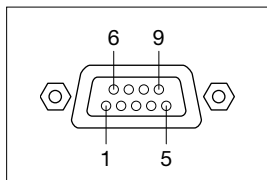
\*3 SDI 1 only.

\*4 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.

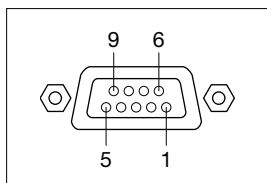
### Pin assignments and signal names



D-sub 9-pin (female) Serial input

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

### Pin assignments and signal names



D-sub 9-pin (male) Serial output

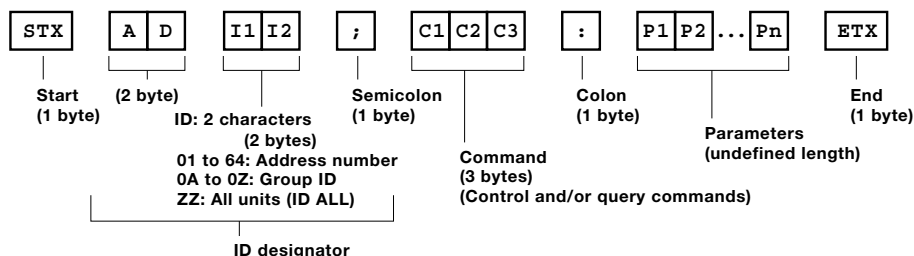
| No. | Signal name | Description          | No. | Signal name | Description          |
|-----|-------------|----------------------|-----|-------------|----------------------|
| 1   | –           | NC                   | 6   | –           | NC                   |
| 2   | RXD         | Receive data  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

## 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                       |
| S 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.



### 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.
- When using two or more units:
  - Set different IDs for each unit.
  - Designate only one unit as RESPONSE (ID ALL) ON and the rest as RESPONSE (ID ALL) OFF.
  - Each group should have only one RESPONSE (ID GROUP) ON and the rest should be RESPONSE (ID GROUP) OFF.

## 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         | NC | NC | 8        |  |
| 9         |    |    | 9        |  |

## Control commands

| Command : Parameter   | Function             |                               | Callback              |
|-----------------------|----------------------|-------------------------------|-----------------------|
| PON                   | POWER (STANDBY)      | Standby power on              | PON                   |
| POF                   |                      | Standby power off             | POF                   |
| IIS:SD1               | INPUT SELECT         | SDI 1                         | IIS:SD1               |
| IIS:SD2               |                      | SDI 2                         | IIS:SD2               |
| 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               |
| LPM:0                 | LAMP SELECT          | Quad (four lamps)             | LPM:0                 |
| LPM:1                 |                      | Lamp 1 + 4                    | LPM:1                 |
| LPM:2                 |                      | Lamp 2 + 3                    | LPM:2                 |
| LPM:3                 |                      | Dual (two lamps)              | LPM:3                 |
| LPM:4                 |                      | Lamp 1 + 2 + 3                | LPM:4                 |
| LPM:5                 |                      | Lamp 1 + 2 + 4                | LPM:5                 |
| LPM:6                 |                      | Lamp 1 + 3 + 4                | LPM:6                 |
| LPM:7                 |                      | Lamp 2 + 3 + 4                | LPM:7                 |
| LPM:8                 |                      | Triple (three lamps)          | LPM:8                 |
| LPM:9                 |                      | Lamp 1                        | LPM:9                 |
| LPM:10                |                      | Lamp 2                        | LPM:10                |
| LPM:11                |                      | Lamp 3                        | LPM:11                |
| LPM:12                |                      | Lamp 4                        | LPM:12                |
| LPM:13                |                      | Single lamp                   | LPM:13                |
| 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 | 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, the projector will send an ER401 command in reply.

## Status request commands

| Command:Parameter | Function                    | Callback                        | Description                          |
|-------------------|-----------------------------|---------------------------------|--------------------------------------|
| QPW               | Main power status           | 000                             | Off                                  |
|                   |                             | 001                             | On                                   |
| QSH               | Shutter function status     | 0                               | Off                                  |
|                   |                             | 1                               | On                                   |
| QFZ               | Freeze function status      | 0                               | Off                                  |
|                   |                             | 1                               | On                                   |
| QIN               | Input signal status         | SD1                             | SDI 1                                |
|                   |                             | SD2                             | SDI 2                                |
|                   |                             | HD1                             | HDMI                                 |
|                   |                             | DVI                             | DVI                                  |
|                   |                             | RG1                             | RGB 1                                |
|                   |                             | RG2                             | RGB 2                                |
| QOS               | On-screen display status    | VID                             | Video                                |
|                   |                             | 0                               | Off                                  |
| QST               |                             | 1                               | On                                   |
| Q\$ L : 1         | Projector run time          | p1p2p3p4p5                      | 00000h–99999h                        |
| Q\$ L : 2         | Lamp 1 run time             | p1p2p3p4                        | 0000h–9999h                          |
| Q\$ L : 3         | Lamp 2 run time             | p1p2p3p4                        | 0000h–9999h                          |
| Q\$ L : 4         | Lamp 3 run time             | p1p2p3p4                        | 0000h–9999h                          |
| Q\$ L : 4         | Lamp 4 run time             | p1p2p3p4                        | 0000h–9999h                          |
| QSL               | Lamp operation mode status  | 0                               | Quad (four lamps)                    |
|                   |                             | 1                               | Lamp 1 + 4                           |
|                   |                             | 2                               | Lamp 2 + 3                           |
|                   |                             | 3                               | Dual (two lamps)                     |
|                   |                             | 4                               | Lamp 1 + 2 + 3                       |
|                   |                             | 5                               | Lamp 1 + 2 + 4                       |
|                   |                             | 6                               | Lamp 1 + 3 + 4                       |
|                   |                             | 7                               | Lamp 2 + 3 + 4                       |
|                   |                             | 8                               | Triple (three lamps)                 |
|                   |                             | 9                               | Lamp 1                               |
|                   |                             | 10                              | Lamp 2                               |
|                   |                             | 11                              | Lamp 3                               |
|                   |                             | 12                              | Lamp 4                               |
| QPM               | Picture mode status         | 13                              | Single lamp                          |
|                   |                             | NAT                             | Natural                              |
|                   |                             | STD                             | Standard                             |
|                   |                             | DYN                             | Dynamic                              |
|                   |                             | CIN                             | Cinema                               |
|                   |                             | GRA                             | Graphic                              |
| QVX:DLVIO         | System daylight view status | DIC                             | DICOM                                |
|                   |                             | DLVIO=+00000                    | Off                                  |
|                   |                             | DLVIO=+00001                    | 1                                    |
| QPP               | P in P status               | DLVIO=+00002                    | 2                                    |
|                   |                             | DLVIO=+00003                    | 3                                    |
|                   |                             | 0                               | Off                                  |
| QTM: 0            | Temperature status          | 1                               | User 1                               |
|                   |                             | 2                               | User 2                               |
|                   |                             | 3                               | User 3                               |
| QTM: 1            |                             | p1p2p3p4/p5p6p7p8* <sup>1</sup> | p0 = Intake air                      |
| QTM: 2            |                             |                                 | p1 = Around lamp                     |
| QGD               |                             |                                 | p2 = Optics module                   |
| QGT               | Date setting status         | y1y2y3y4m1m2d1d2w               | yyyymmdd (day of week)* <sup>2</sup> |
|                   | Time setting status         | h1h2m1m2s1s2                    | hhmmss* <sup>3</sup>                 |

\*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).

\* When a wrong command is sent, the projector will send an ER401 or ER402 command in reply.



**Command example**

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

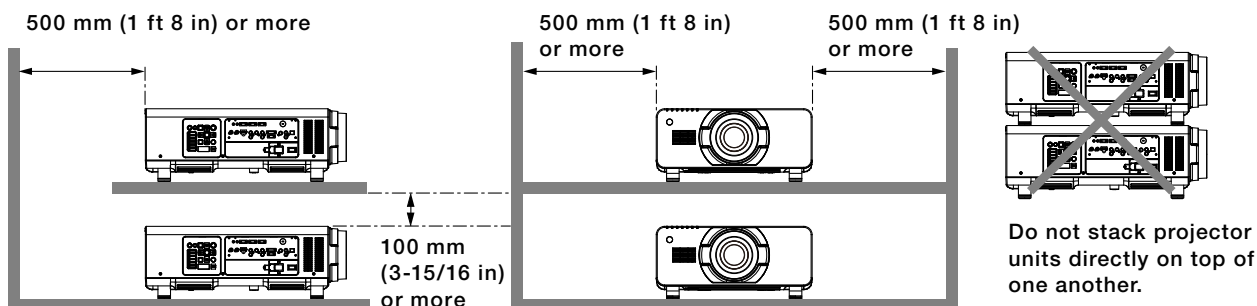
|            |             |          |            |          |           |            |
|------------|-------------|----------|------------|----------|-----------|------------|
| <b>STX</b> | <b>ADZZ</b> | <b>;</b> | <b>OOS</b> | <b>:</b> | <b>0</b>  | <b>ETX</b> |
|            |             |          |            |          |           |            |
| Start      | ID Address  |          | Command    |          | Parameter | End        |

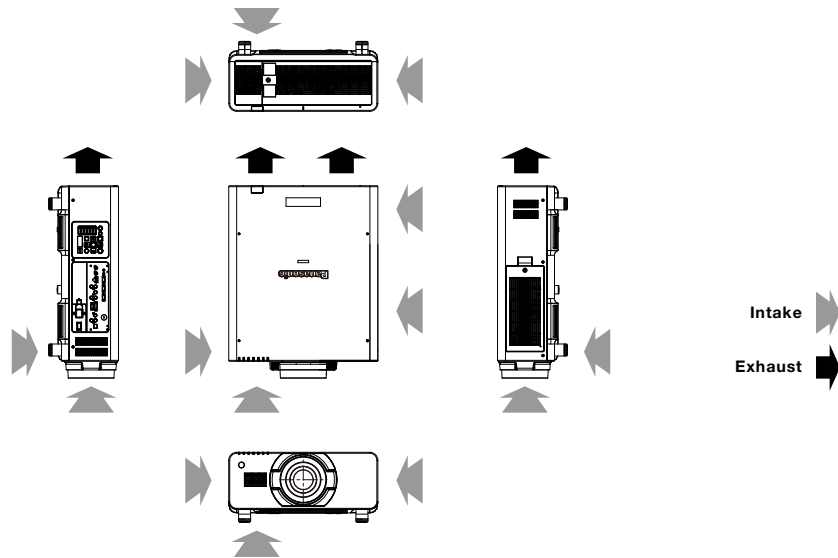
**NOTE:** When sending commands without parameters, a colon (:) is not necessary.

**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 (1 feet 8 inches) 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.
6. If the projector is installed in an enclosed space, ensure that the temperature of the air surrounding the projector is between 0°C and 40°C (32°F and 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. 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: 30 mm (1-3/16 inches)). Provide a space of 5 mm (3/16 inches) or more between the projector and the mounting surface by inserting metal spacers.



**Direction of air intake and exhaust****Operating the projector continuously**

1. If the projector is to be operated continuously one week, use the quad-lamp optical system's alternating lamp operation (lamp relay) function. The projector cannot be operated continuously one week in quad-lamp mode. Allow a minimum of two hours per day of non-operation time for each lamp if the projector is to be operated continuously for more than one week.
2. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.

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