4K UHD installation projector with a laser phosphor light source

PX1005QL
The NEC PX1005QL laser phosphor projector provides high durability projection for various vertical markets, delivering pixel-free visualization with 4K UHD resolution and a brightness of 10,000 lumens.

Outstanding Picture Quality with High Resolution and Advanced Laser Technology

High Resolution and High Brightness

This projector realizes projection of images in a resolution 3,840 x 2,160 pixels (4K UHD), an aspect ratio of 16:9, and a brightness of 10,000 lumens and achieves outstanding picture quality with resolution enhancement by pixel shift technology - a whole new visualization experience with high brightness, up to a 4K input signal and unique picture and colour processing technology based on the latest NEC scaler chip and DMD.

Dustproof Design Supported by Closed-loop Cooling

This projector has a dustproof design to prevent the staining of optical components from the ingress of dust and the deterioration of brightness and image quality.

Enable Image Flexibility with Multi-Source Input and Multi-Screen Function

Multi-Display Multi-Source Input

Multi-display capabilities are integrated. This projector can display dual and quad images of picture by picture with 3G-SDI and other input terminals. This feature enables to set [QUAD], [DUAL] and [Single] settings to display flexible images of 2K signal with various interfaces.

Multi-screen Projection and Edge Blending Function

This function seamlessly blends multiple projected images to display a single high-resolution image.

High Quality Image with Fantastic Cinema Quality Picture

High Quality Pictures Using Cinema Quality Picture Technology

The device displays high-resolution pictures with its rich gradation expression capability with 10-bit signal processing and improves the contrast in the picture boundary area using developmental technology for digital cinema projectors and NEC’s unique video processor for image processing.
Advanced Installation Capabilities

Geometric Correction

Projection is not confined to a standard flat screen or wall. Geometric correction allows this model to project an image on spheres, cylinders, corner angles and many more non-standard surfaces.

Highly Flexible Installation Options with 360° Positioning in Any Direction

This projector can be installed universally at any angle. Tilt-free, roll-free and portrait installations are supported. The projector can be rotated freely (360°) to point up or down depending on the installation requirements and can be rotated and installed on its side to create a portrait image.

Stacking Correction

This feature allows the projectors to boost an image’s brightness up to 20,000 lumens, which is ideal for larger-sized screens and environments with heavy ambient light. This feature also prevents the complete loss of an image, which can happen when using only one projector.

Easy Installation

Eight types of optional lenses, including an ultra short throw lens are available with motorised zoom/focus and a memory function. A selection of wide zoom lenses with wide vertical and horizontal lens shift (+50%/-30% of vertically and +20%/-10% of horizontally) is available. In addition, the lenses can be mounted and removed in one touch, which allows for quick and easy lens exchange.

<table>
<thead>
<tr>
<th>Lens/Program/technology</th>
<th>PX1005QL-W</th>
<th>PX1005QL-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brightness using PX1005QL with NP18ZL-4K.</td>
<td><strong>10,000 lumens</strong></td>
<td><strong>10,000 lumens</strong></td>
</tr>
<tr>
<td>Weight does not include lens.</td>
<td><strong>31.2 kg</strong></td>
<td><strong>31.2 kg</strong></td>
</tr>
</tbody>
</table>

Other Useful Functions and Features

- HDR compatibility with 4K signal input
- Eco mode and light source power adjustment
- Centre lens design for easy setup
- Program timer with real time clock/off timer
- Remote control ID
- Direct power on/off, auto power on/off
- Carbon meter
- Cornerstone
- PIN security/control panel lock/security bar/security slot

Network Control

NaViSet Administrator 2 / PC control / Alert mail / CRESTRON ROOMVIEW™ / AMX BEACON / PJLink / HTTP server (projector adjustment)
**Specifications**

Model: NP-PX1005QL-W / NP-PX1005QL-B

<table>
<thead>
<tr>
<th>Power type</th>
<th>NP-PX1005QL-W / NP-PX1005QL-B</th>
</tr>
</thead>
</table>

**Specifications of main parts**

- **Main panel**
  - Size: 0.66 inch DMD (aspect ratio 16:9)
  - Resolution: 4K UHD (3,840 dots × 2,160 lines) (DMD Native: 2,716 dots × 1,528 lines)
  - Pixel Numbers: 8,994,400 pixels (DMD Native: 4,350,048 pixels)

- **Projection**
  - Zoom/Focus: Power-adjustable

- **Light source**
  - Power: 20,000 hours (50% brightness) *3

- **Optical unit**
  - Color separation by colour wheel, time-multiplexing colour wheel method

- **Light output** *2
  - Normal mode: 10,000 lumens (NP-18ZL-4K)
  - ECO1/ECO2: Approx. 80%, Approx. 50%

- **Contrast ratio** *1
  - Dynamic contrast: 10,000:1 with dynamic contrast

- **Screen size**
  - Please refer to the specifications of option lens

- **Color reproduction**
  - 10 bit signal processing (approx. 1,07 billion colours)

- **Keystone Correction**
  - Manual, Approx. ± 40 Max degrees

**Input/output connectors**

- **HDMI input terminals**
  - Video input: Type A 19-pin HDMI connector with HDCP (V1.4/2.2) *2
  - Ethernet/HDBaseT™ port

- **DisplayPort**
  - Video input: R45 with HDCP (V1.4/2.2) *1, IEEE 802.3, IEEE 802.3u (10GBASE-T), sharing with Ethernnet

- **3G SDI input**
  - Video input: SMPTE292M, SMPTE294M, Colourimetry: RGB, YCC444, YCC422, YCC420, REC709

- **PC control connector**
  - Main Link: 1/2/4 lane Link rate, Deep Colour (8 bit, 10 bit, 12 bit), Colourimetry Support: RGB, YCC444, YCC422, YCC420, REC709, REC601, HDCP*6, 4K (30/60 Hz)

- **USB port**
  - USB Type A *1, For future expansion* *4

- **LAN port**
  - RJ-45 × 1, (IEEE 802.3 / 802.3u 10BASE-T / 100BASE-TX), shared with Ethernet

- **Remote connector**
  - Mini jack: 1 jack

**Option**

- OPS SBC unit × 1

**Usage environment**

- Operating temperature: 0 to 45°C, *1 operating humidity: 0 to 80% (with no condensation)

- Storage temperature: -10 to 60°C, storage humidity: 0 to 90% (with no condensation)

- Operating altitude: 0 to 3,000 m

- Power consumption
  - Normal: 1,181 W (110 – 130 V AC), 1,222 W (200 – 240 V AC)
  - ECO: 1,002 W (110 – 130 V AC), 977 W (200 – 240 V AC)
  - Standard (NETWORK) *8: 0.88 W (110 – 130 V AC), 0.82 W (200 – 240 V AC)

**Input current**

- White: 1.5 A, Black: 5.4 A

**Dimensions**

- (W × H × T): 590 × 216 × 583 mm (including lens)

**Weight**

- 31.4 kg (not including lens)

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1. Effective pixels are more than 99.99%.
2. Refer to Lens Specifications
3. Time at which the laser light source is at half brightness; not a guarantee time.
4. This is the light output value (lumens) mounting the lens unit, NP18ZL-4K, when the [PRESET] mode is set to [HIGH-BRIGHT]. The light output values will be dropped according to the setting of [LIGHT MODE].
5. If any other mode is selected as the [PRESET] mode, the light output value may drop slightly.
6. Compliance with ISO11184-2012
7. If you are unable to view material via the HDMI, DisplayPort and HDBaseT input, this does not necessarily mean the projector is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community. (Digital Content Protection, LLC)
8. Depending on the model and the system input, the signal may be converted to the native mode (XGA: 1024 × 768, WXGA: 1280 × 800) and may be displayed with a reduced brightness. If [LIGHT MODE] is set to other than [NORMAL], signal input may be converted to [NORMAL] mode (XGA: 1024 × 768, WXGA: 1280 × 800), and may be displayed with a reduced brightness.

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**Throw distance and screen size**

<table>
<thead>
<tr>
<th>Screen size (W × H)</th>
<th>Lens model name</th>
</tr>
</thead>
<tbody>
<tr>
<td>50&quot; (127 × 86)</td>
<td>-</td>
</tr>
<tr>
<td>60&quot; (152 × 107)</td>
<td>-</td>
</tr>
<tr>
<td>70&quot; (178 × 122)</td>
<td>-</td>
</tr>
<tr>
<td>80&quot; (206 × 143)</td>
<td>-</td>
</tr>
<tr>
<td>100&quot; (254 × 182)</td>
<td>-</td>
</tr>
<tr>
<td>120&quot; (305 × 224)</td>
<td>-</td>
</tr>
<tr>
<td>150&quot; (377 × 280)</td>
<td>-</td>
</tr>
<tr>
<td>180&quot; (458 × 336)</td>
<td>-</td>
</tr>
<tr>
<td>200&quot; (508 × 378)</td>
<td>-</td>
</tr>
<tr>
<td>250&quot; (624 × 468)</td>
<td>-</td>
</tr>
<tr>
<td>300&quot; (762 × 570)</td>
<td>-</td>
</tr>
</tbody>
</table>

*1: Stated projection distances are standard values from lens or mirror surface to screen centre.
*2: For a stack installation, the recommended projection distances will be different.
*3: The values in the table are design values and may vary.

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**Cabinet dimensions**

Unit: mm

<table>
<thead>
<tr>
<th>Model</th>
<th>PX1005QL-B</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>428 mm</td>
<td>428 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>124 mm</td>
<td>124 mm</td>
</tr>
<tr>
<td>Height</td>
<td>213 mm</td>
<td>213 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>31.4 kg</td>
<td>31.4 kg</td>
</tr>
</tbody>
</table>

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*Do not stare into the lens while in use.

*The laser module is equipped in this product.

*The projector can be unplugged during its cool down period after it is turned off. Parts of the projecot may become heated during operation.

Use caution when picking up the projector immediately after it has been operating.

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