

# SHARP / NEC

PA1004UL  
Laser Projector

## Datasheet



### A new class of silent projection

Now even larger spaces can benefit from NEC's innovation in super-silent technology with the 10,000 lumens PA1004UL laser projector, ensuring all attention is focused on the stunning image delivery.

Featuring unprecedented White Point performance, factory pre-calibrated for the perfect white, 12-bit colour signal processing and wide colour space, the audience will experience extraordinarily vivid colour saturation and contrast levels.

With the newly designed sealed optical engine there is no possibility of dust contaminating the LCD panels for long-term picture stability and brilliant colour brightness. What's more, with our unique filterless LCD projector design and no lamp replacement, service costs are dramatically reduced for a low cost of ownership and up to 20,000 hours life-time.

Fully compatible with previous generation lamp-based PA Series mechanical lenses, NEC customers can easily make the transition to benefit from the latest laser technology. The PA1004UL is a professional installation projector featuring advanced installation capabilities as demanded by higher education, leisure and museum applications.

## Benefits

**No lamp replacement** – up to 20,000 h maintenance free operation possible due to Laser Light Source.

**No filter service required** – a completely sealed optical laser LCD engine allows a filter-free design. Brilliant colour brightness is maintained and servicing costs need no longer feature in your budget.

**Super Silent operation** – patented sealed light engine incorporating innovative fan design not only protects against dust ingress but dramatically reduces noise.

**Impress with vivid colour & contrast** – brilliant white and wide colour space with high dynamic contrast supporting HDR10 standard via HDMI interface.

**Incredible visualisation capabilities** – impressive free tilt and portrait installation capability, unique geometric adjustment, picture in picture, tiling, 3D support and camera based blending/stacking up to 4K.

## Product Information

|               |                              |
|---------------|------------------------------|
| Product Name  | PA1004UL                     |
| Product Group | Laser Projector              |
| Order Code    | 60004512 (WH), 60005160 (BK) |

## Image

|                                      |  |
|--------------------------------------|--|
| Projection Technology                | 3LCD Technology  |
| Native Resolution                    | 1920 x 1200 (WUXGA)  |
| Aspect Ratio                         | 16:10  |
| Contrast Ratio <sup>1</sup>          | 3000000:1  |
| Brightness <sup>1</sup>              | 9000 ANSI Lumen (approx. 80% in Eco Mode), with std. optional lense  |
| Brightness (Boost Mode)              | 10000 ANSI Lumen   |
| Lamp                                 | Laser Light Source   |
| Light Source Life [hrs]              | 20000 <sup>2</sup>   |
| Lens                                 | 4 motorized lens options; 5 manual lens options  |
| Lense Adjustment                     | Motorized and manual (depending on lens)   |
| Lens shift                           | H:±20, V:+10,-50   |
| Keystone correction                  | +/- 40° manual horizontal / +/- 40° manual vertical  |
| Projection Factor                    | depending on lens selection (std. option NP41ZL at 1.3-3.02:1)   |
| Projection Distance [m]              | 0.7 – 50.9   |
| Screen Size (diagonal) [cm] / [inch] | Maximum: 1,270 / 500"; Minimum: 101.6 / 40"  |
| Zoom                                 | Motorized and manual (depending on lens)   |
| Focus Adjustment                     | Motorized and manual (depending on lens)   |
| Supported Resolutions                | 4096 x 2160 (4k); 1920x1200 (WUXGA) 720p/60; 480p/60;<br>2560 x 1600 - 640x480 (VGA); 720p/50; 480i/50<br>(WQXGA); 1080i/50/60; 576i/50;<br>2048 x 1080 (2k); 1080p/24/25/30/50/ 576p/50;<br>60; |
| Frequency                            | Horizontal: analog: 15/24-100 kHz, digital: 15/24-153 kHz; Vertical: analog: 48-120 Hz, digital: 48-120 Hz   |

## Connectivity

|              |  |
|--------------|--|
| RGB (analog) | Input: 1 x Mini D-sub 15-pin, compatible to component (YPbPr)  |
| Digital      | Input: 1 x DisplayPort; 1 x HDBaseT; 2 x HDMI™ supporting HDCP 2.2<br>Output: 1 x HDBaseT supporting HDCP 2.2  |
| Audio        | Input: 1 x DisplayPort Audio support; 1 x HDBaseT audio support; 2 x 3.5 mm Stereo Mini Jack for Computer analog; 2 x HDMI audio support<br>Output: 1 x 3.5 mm Stereo Mini Jack (variable) |
| Control      | Input: 1 x 3.5 mm Stereo Mini Jack (Wired Remote); 1 x D-Sub 9 pin (RS-232), Ethernet  |
| LAN          | 1 x RJ45   |
| USB          | 1 x Type A (USB 2.0 high speed)  |
| 3D Sync      | Output: 1 x Mini DIN 3pin  |

## Remote Control

|                |  |
|----------------|--|
| Remote Control | 3D Setup; Aspect Ratio; Audio Control; Auto Adjust; DisplayPort; Eco Mode Control; Edge-Blending; Freeze-function; Geometric Correction; HDMI; Help-function; Keystone Correction; Magnify-function; Multiscreen; Page (up, down); PBP/POP Function; Picture Adjust; Picture Mute; PIP Function; Power (On-Off); Select (up, down, left, right); Source Select; Test Picture |
|----------------|--|

## Electrical

|                       |   |
|-----------------------|---|
| Power Supply          | 100-240 V AC; 50 - 60 Hz  |
| Power Consumption [W] | 725 (Normal) / 395 (Eco) / 0.8 (Network Stand-by) / 0.28 (Stand-by) |

## Mechanical

|                             |   |
|-----------------------------|---|
| Dimensions (W x H x D) [mm] | 599 x 208 x 490 (without lens and feet) |
| Weight [kg]                 | 24.4                                    |
| Fan Noise [dB (A)]          | 32 / 35 (Eco / Normal)                  |
| Colour Versions             | Black; White                            |

## Environmental Conditions

|                            |                         |
|----------------------------|-------------------------|
| Operating Temperature [°C] | 5 to 40                 |
| Operating Humidity [%]     | 20 to 80 non-condensing |
| Storage Temperature [°C]   | -10 to 50               |
| Storage Humidity [%]       | 20 to 80 non-condensing |

## Ergonomics

|                       |  |
|-----------------------|--|
| Safety and Ergonomics | CE; EAC; ErP; RoHS; TUEV Type Approved |
|-----------------------|--|

## Additional Features

|                         |   |
|-------------------------|---|
| Special Characteristics | 3D ready; 4K/60Hz interfaces; Active 3D; AMX Beacon; Built-in Display/Multiscreen Splitter; Cinema Quality Picture (CQP) Processing for best image quality; Crestron RoomView; DICOM Simulation; Digital 3D Reform™; Direct Power-Off Function; Edge Blending Function; Free Tilt; Geometric Correction; HDBaseT; HDBaseT-out signal connection; HDR10 Support; High Altitude Mode; Hollywood Quality Video Processing for best image quality; HTTP Browser Control; Keystone Correction (H=±40°, V=±40°); LAN control; Lens Memory; Lens Shift (vertical +0.5 max/-0.1 max, horizontal ± 0.3 max.); Light Source Adjustment; Manual Wall Color Correction; Multi-Screen compensation mode; NaViSet Administrator 2; Optional User Logo; OSD with 27 languages; Password Security System; PIP/Side by Side, HDMI - Input; PJ LINK; Portrait Setting; Rec2020 to Rec709 colour conversion; RS-232 Control; Seamless Switching; Stacking Function; Test Pattern; Timer-Function; UHD player support; Up to 20,000 hrs Light Source Life; Virtual Remote for direct PC control |
|-------------------------|---|

## Green Features

|                      |   |
|----------------------|---|
| Energy Efficiency    | ECO scheduler; Intelligent Power Management; Less than 0.3W Stand-By power; Longer Light Source Life; Software scheduling; Timer-Function |
| Ecological Materials | 100% recyclable packaging; Downloadable manuals   |
| Ecological Standards | ErP compliant   |

## Warranty

|              |  |
|--------------|--|
| Projectors   | 3 years pan-European service             |
| Light Source | 3 years or 10000h (whatever comes first) |

## Shipping Content

|                   |   |
|-------------------|---|
| Shipping Contents | IR Remote Control (RD-480E); Power Cord; Projector; Quick Setup Guide; Users Manual on CD-ROM |
|-------------------|---|

## Optional Accessories

|                      |  |
|----------------------|--|
| Optional Accessories | 10 optional bayonet lenses; Universal Ceiling Mounts (PJ01UCM, PJ02UCMPF)                              |
| Lenses - motorized   | NP40ZL (0.79-1.11:1); NP41ZL (1.3-3.02:1); NP43ZL (2.99-5.93:1); NP44ML-PA4 (0.32:1)                   |
| Lenses - manual      | NP11FL (0.79:1); NP12ZL (1.16-1.52:1); NP13ZL (1.46-2.95:1); NP14ZL (2.9-4.68:1); NP15ZL (4.59-7.02:1) |

<sup>1</sup> Compliance with ISO21118-2012

<sup>2</sup> 50% of initial brightness at the end of specified laser life time at 25 degree ambient temperature.

|                              |           |            |                 |
|------------------------------|-----------|------------|-----------------|
| Beamer-<br>TUEV-<br>Approved |           |            | Beamer-<br>RoHS |
| TUEV Type                    | Beamer-CE | Beamer-ErP |                 |
| Approved                     | CE        | ErP        | RoHS            |

This product has been equipped with a laser module and is classified as Class1 of IEC60825-1 Ed3 2014 and is classified as RG3 of IEC62471-5 Ed1 2015.  
DO NOT LOOK DIRECTLY INTO THE BEAM.

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