\Orchestrating a brighter world NEC

PA653UL
Laser Projector

Datasheet





The NEC PA653UL Projector - combining laser, LCD and filter-free!

NEC has launched the world's first filter-free laser projector using LCD technology.

With this unique combination, the brilliant colour brightness of LCD technology is coupled with the laser light source designed for long lasting operation. What's more, with a completely sealed optical engine there is no filter needed at all. As result, service costs are dramatically reduced and with no dust to contaminate the LCD panels, you can enjoy consistently brilliant colour brightness. In addition, the PA series laser projector delivers incredible picture quality, impressive visualisation capabilities and powerful, cost-conscious installation opportunities.

The PA653UL projector is mainly targeting corporate and higher education users to equip their large meeting rooms, conference rooms and lecture halls.

Benefits

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.

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

Hassle-free remote adjustment – motorized lens shift, focus and zoom allows easy and flexible setup without the need for cumbersome physical access to the projector.

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.

Cost conscious & powerful cabling – with just CAT6 network cabling, transfer content over up to 100m using HDBaseT connectivity standard. Supply multiple projectors with one source and benefit from the unique HDBaseT-out daisy-chain interface.

Impress with brilliant colours & contrast – astound your audience as the projector processes a wider colour space with Rec2020 to Rec709 colour conversion and higher dynamic contrast supporting HDR10 standard via HDMI interface.

Peace of mind copyright protected content – let the projector manage copyright protection and present 4k and Ultra HD Blu-ray content via the HDMI interface.

Product Information

Product Name	PA653UL
Product Group	Laser Projector
Order Code	60004324

Image

Projection Technology	3LCD Technology
Native Resolution	1920 x 1200 (WUXGA)
Aspect Ratio	16:10
Contrast Ratio [1]	2500000:1
Brightness [1]	6500 ANSI Lumen (approx. 80% in Eco Mode), with std. optional lense
Lamp	Laser Light Source
Lamp Life [hrs]	20000
Lens	3 motorized lens options
Lense Adjustment	Motorized
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]	(best performance range); Maximum: 12.7 / 500"
Zoom	Motorized
Focus Adjustment	Motorized
Supported Resolutions	4096 x 2160 (4k); 2560 x 1600 (WQXGA); 2048 x 1080 (2k); 1920x1200 (WUXGA) - 640x480 (VGA); 1080i/ 50/60; 1080p/24/25/30/50/60; 720p/60; 720p/50; 576i/50; 576p/50; 480p/60; 480i/50
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 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 Output: 1 x 3.5 mm Stereo Mini Jack (variable)
Control	Input: 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

Input:	1 x 3.5 mm Stereo Mini Jack
Remote Control	3D Setup; Aspect Ratio; Audio Control; Auto Adjust; DisplayPort; Eco Mode Control; Edge-Blending; Freeze-function; Geometric Correction; HDMI; Help-function; 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]	613 (Normal) / 566 (Eco) / 0.7 (Network Stand-by) / 0.16 (Stand-by)

Mechanical

Dimensions (W x H x D) [mm]	580 x 208 x 494 (without lens and feet)
Weight [kg]	18.2
Fan Noise [dB (A)]	33 / 39 (Eco / Normal)

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	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-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 lamp life; Virtual Remote for direct PC control

Green Features

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

Warranty

Projectors	3 years pan-European service

Shipping Content

Shipping Contents	IR Remote Control (RD - 466E); Power Cord; Projector; Quick Setup Guide; Users Manual on CD-ROM

Optional Accessories

Optional Accessories	3 optional bayonet lenses; MultiPresenter Stick; Universal Ceiling Mounts (PJ01UCM); XpanD 3D Glasses (X105-RF-X2); XpanD 3D RF Emitter (AD025-RF-X2)
Lenses - motorized	NP40ZL (0.79-1.11:1); NP41ZL (1.3-3.02:1); NP43ZL (2.99-5.93:1)

[1] Compliance with ISO21118-2012

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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