

## WELCOME TO OUR Channel Bulletin

July 2024



## EB-PQ22/20 series

4K flagship models powered  
by Epson 4K Crystal Motion technology



### Key Features

- **Brilliant 4K image quality powered by 4K Crystal Motion technology** – Inspired by Epson's advanced display technology, the PQ22/20 series achieves market-leading 4K projection performance to deliver remarkably detailed 4K content with extraordinary contrast, giving you an amazing visual experience.
- **Stunning image quality with –**
  - Over 5,000,000:1 dynamic contrast ratio
  - Scene adaptive gamma
  - High dynamic range (HDR) support
- **Broad lens compatibility** – for easy fleet management and lower storage/warehousing costs, the optional lenses for the PU series are compatible with the PQ22/20 series, reducing the need for additional lens investment.
- **HDMI2.1<sup>1</sup>/12G-SDI in/out support** – supports HDMI2.1/12G-SDI in/out terminal and 120\_Hz 4K signal input/output, giving you more flexibility for different professional applications, including big events.
- **Efficient software solutions<sup>2</sup>** – providing cover from design to maintenance, Epson's compatible software provides full support including NFC, easy automatic geometry correction such as blending and stacking with an external camera, and remote monitoring with Epson Project Management Connected.
- **Back up functionality** – enhanced reliability during events with signal back up function. If anything happens in the main signal, the sub-signal will also back up, preventing any interruption from occurring (supports HDMI/SDI/HD-BaseT).
- **Engineered for reliability** –
  - IP5X<sup>3</sup> certified sealed optical engine and laser source units
  - Filter maintenance no longer required with a filter-less structure
  - Smoke resistant
  - Independent laser chip structure



<sup>1</sup> Available from July, 2024

<sup>2</sup> Requires Epson external camera or built-in camera for each projector and the Epson Projector Professional Tool app.

<sup>3</sup> Based on IEC standard 60529 .Fo PQ2220B & PQ2216B

<sup>4</sup> For PQ2220B & PQ2216B only.

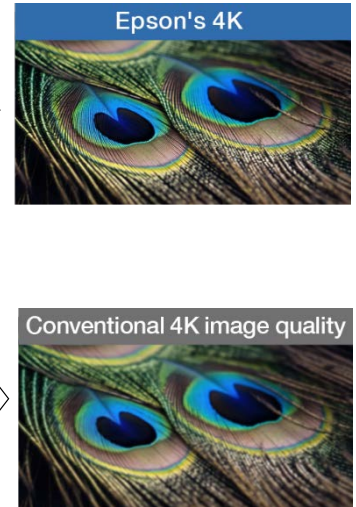
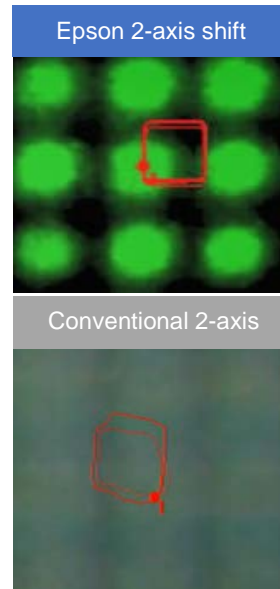
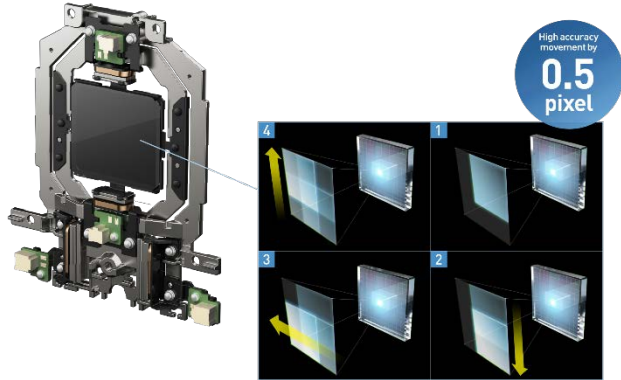
# features & benefits



## Epson 4K Crystal Motion technology

### High-precision, dual-axis shift device

Developed in-house, Epson's dual-axis shift device enables crystal-clear 4K image quality. The action of the shift device is extremely fast and precise, which results in exceptionally clear 4K video.

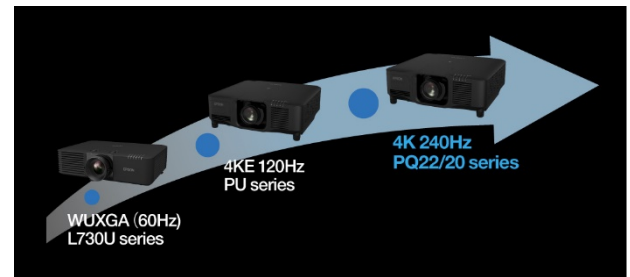


## Advance panel technology

### High-speed panel drive technology

Epson developed its own Hybrid IC drive technology and was able to increase the panel's video response speed to 240Hz\*. 4K resolution is achieved in the PQ22/20 series by optimising the newly-equipped drive circuit and signal transmission path (approximately four times the speed of the 60 Hz image refresh rate in previous business models).

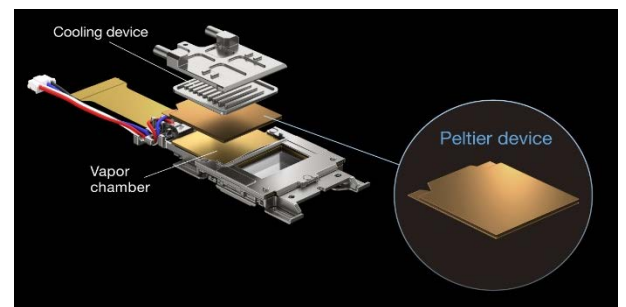
\*Native 4K refresh rate on the projection screen is 60 Hz.



### Thermo-controlled panel technology

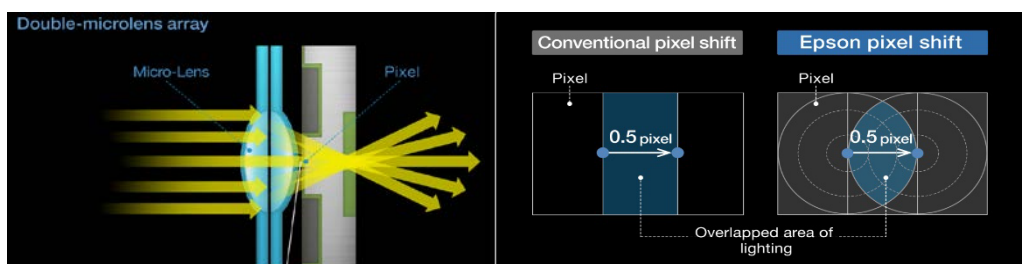
Epson has developed a new thermo-control panel incorporating advanced technology to enhance performance. This panel integrates a high thermal conductivity vapour chamber and peltier element directly into the liquid crystal panel.

One key feature of this technology is its ability to quickly switch between cooling and heating the liquid crystal by reversing the polarity of the applied voltage to the peltier element. This capability helps to increase the resolution and brightness of the projector.






### Micro-lens array technology

Epson's double micro-lens array technology equips each pixel with two lenses, enhancing light efficiency and resolution quality. This innovation optimises light utilisation and reduces optical path dispersion, resulting in sharper, clearer images and improved overall display performance.



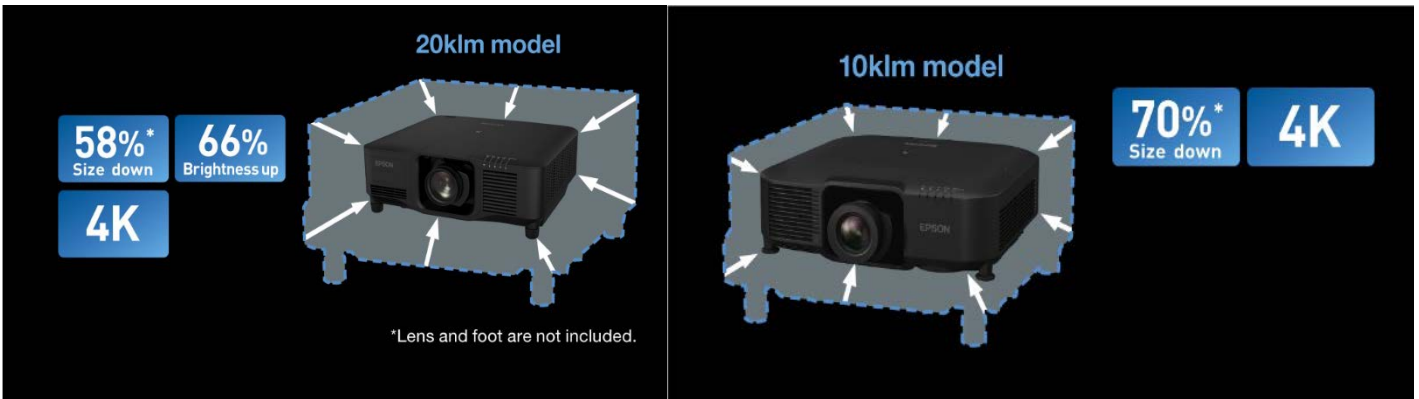
## High-performance image processing

Incorporating a chip-set used in Epson's award winning home theatre projectors, the operating frequency, memory bandwidth, and data transmission speed have been significantly upgraded for a phenomenal 4K video experience.

| PQ22/20 series   | Specification improvements        | Benefits  |
|--|-----------------------------------|---|
| Operating Frequency  | Approx. 2 times VS PU series chip | Contribute to panel High-speed drive 4K@120Hz image Input/Output* support |
| Memory Bandwidth     | Approx. 3 times VS PU series chip | 4K Geometry Correction okay   |
| Image Transmission   | Approx. 3 times VS PU series chip | Contribute to high 4K image quality                                       |

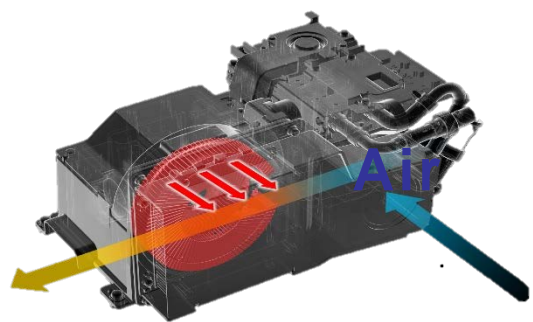
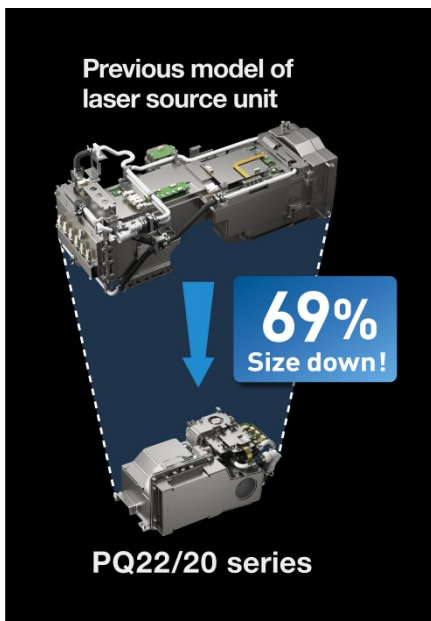
## Compact

World's smallest and lightest 4K 10,000lm and 20,000lm model\*



\* As of June 2024

Epson's new stator vane heat exchange system improves phosphor cooling efficiency by efficiently transferring and expelling heat from the rotor vane. Through thermal fluid simulation, the optimised design achieves a 69% size reduction compared to the previous unit, enhancing compactness and versatility.



High efficiency laser light source



## Liquid-cooling system

Epson's unique liquid-cooling system is designed to cool the optical engines and laser light source units. This system not only improves cooling efficiency but also allows for a more compact footprint. By efficiently managing heat dissipation through liquid cooling, the series achieves better thermal management without compromising on performance or chassis size.

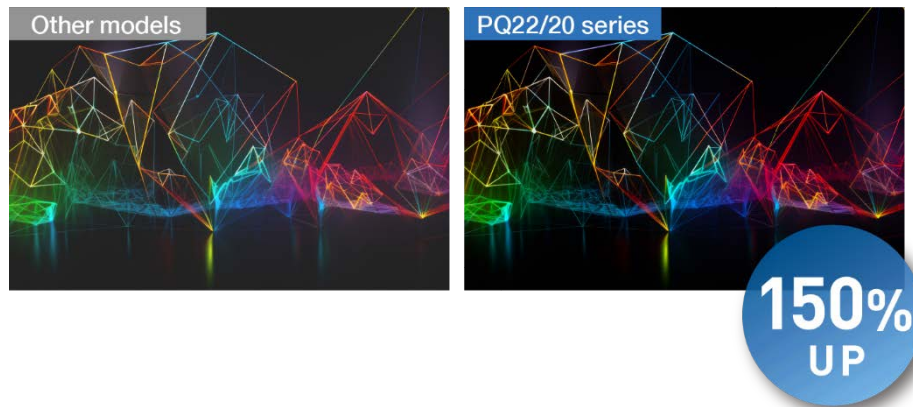


## High resolution

### High native contrast

Epson's unique optical technology is able to adjust polarisation to deliver exceptional contrast with true blacks and realistic colours.

With the adoption of a newly-developed panel, the native contrast ratio has increased 1.5 times compared to preceding models.



## Scene Adaptive Gamma Correction

Scene Adaptive Gamma Correction analyses the image frame by frame and automatically adjusts the gamma level for optimal contrast, preventing crushed blacks in dark scenes and clipped whites in bright scenes, resulting in a natural-looking image.



## High dynamic range (HDR)

The PQ22/20 series supports HDR10 and Hybrid Log-Gamma for dynamic output over a broad tonal range with a minimum of white or black spotting.

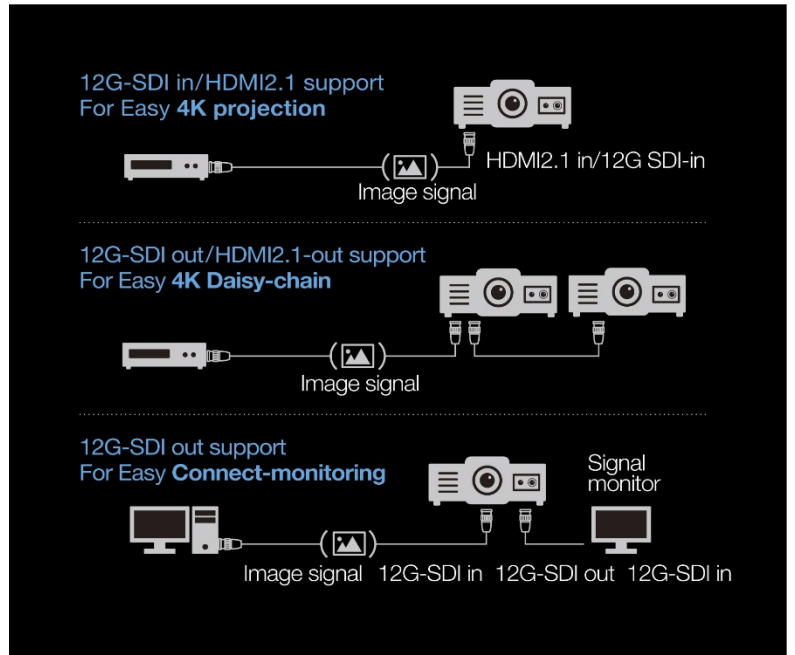
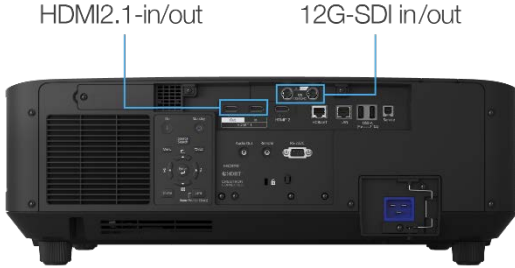


Simulated images

## Advanced connectivity

### HDMI2.1-in/out and 12G SDI-in/out signal support

The PQ series supports not only HDMI 2.1 but also 12G-SDI signals for greater flexibility.



### 120 Hz / 4K video signal support

The high-performance image processing chip and upgraded circuit design reduce screen flickering and provide smooth graphics by supporting 120 Hz/4K high-definition video.



### 21:9 support

The PQ22/20 series can be used as a 21:9 display, which is useful for a hybrid meeting solution with high brightness and outstanding image quality.



## Efficient and flexible operation

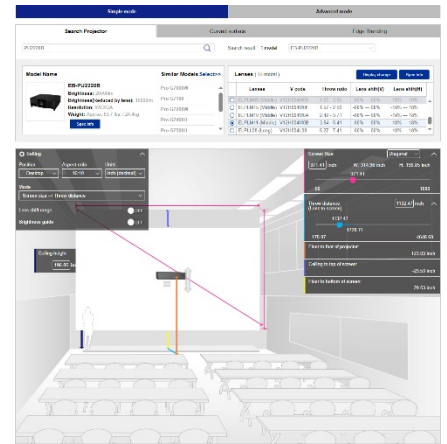
### Software support function enhancement

Simulation

#### Projection distance simulator support

For each projector model, the projection distance can be calculated from the screen size and conversely the screen size can be calculated from the distance between the screen and the projector.

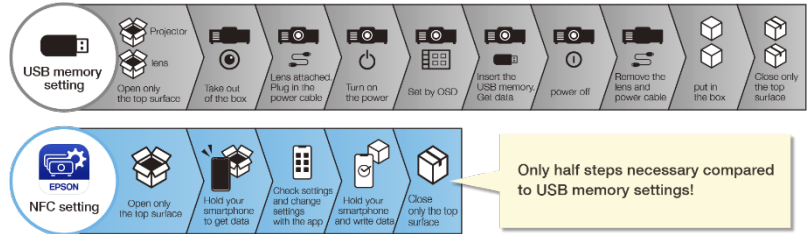
At the same time, it is possible to simulate the projector model, number of units, and lens based on the installation environment. The new projection distance simulator supports simulations of not only flat but also curved walls, as well as simulations of edge blending.



Installation

#### NFC functionality

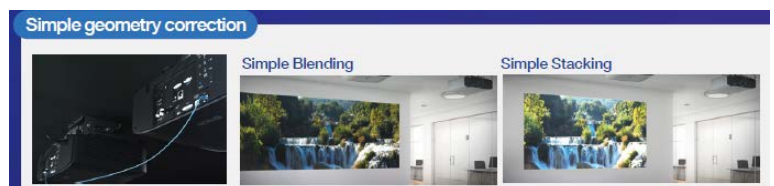
NFC functionality enables communication with smart devices even when the projector is switched off and can be configured and checked easily from the Epson Projector Config Tool on a smart device. This means initial configuration can be carried out at the warehouse before transportation, reducing the work hours needed for installation and helping to reduce adjustment time when multiple projectors are being installed.



Setting

#### Auto Geometry Correction<sup>1</sup>

In addition to supporting "Simple Stacking", the PQ22/20 series also supports "Simple Blending" to make blending functions a breeze. These functions eliminate complicated installation work and expedite large screen 4K setup. Furthermore, stacking and blending auto correction can be applied both flat and curved walls using the Epson Projector Professional Tool software.



Monitoring

#### Epson Projector Management Connected support

The PQ22/20 series supports the software Epson Projector Management Connected, which provides a range of monitoring, notification and control functions for the projector.



<sup>1</sup> Requires Epson external camera or built-in camera for each projector and the Epson Projector Professional Tool app.

<sup>2</sup> The function may not be available depending on the installation environment.

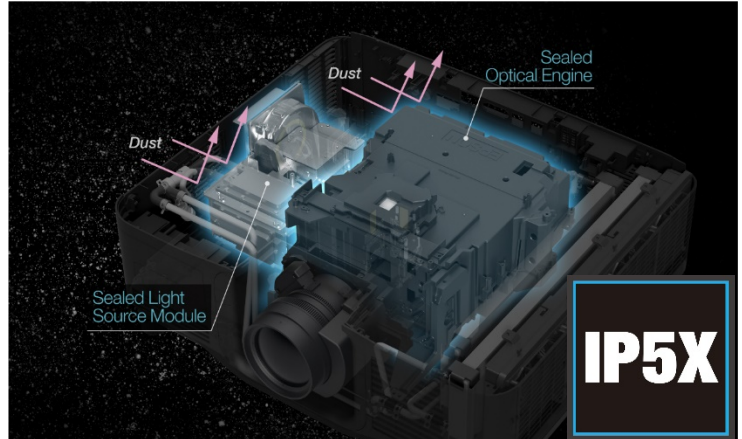
## Engineered for reliability

### High durability with IP5X certified optical engine and laser light source module

The PQ22/20 series is equipped with IP5X certified optical engines and laser light source modules conforming to IEC standard 60529, which is the same level as PU22/21 series.

In addition to sealed main components, circuit boards found to be at risk of dust-related short-circuit during testing are coated and protected. Thanks to this dustproof construction, the EB-PQ22/20 series is filter-free\*, eliminating the need for filter changes.

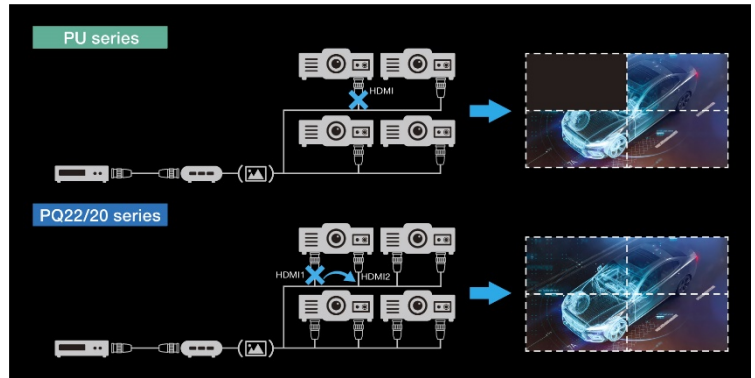
\*For PQ2220B & PQ2216B



## Backup Source function

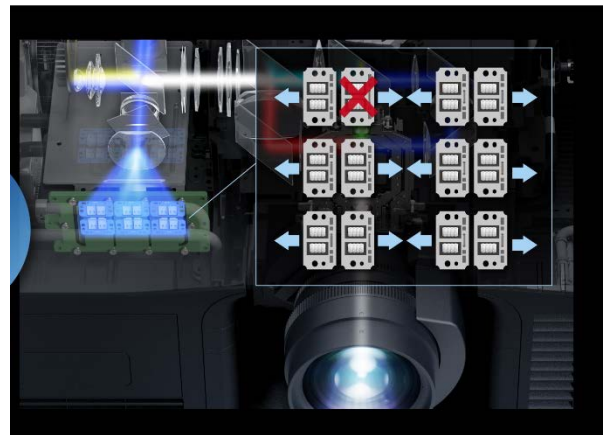
If, for some reason, the signal is lost when displaying the main signal in an environment with redundant transmission paths in place, the source can be quickly switched to a backup source with the PQ22/20 series'

Backup Source function. SDI, HDMI2, and HDBaseT can be specified as the back up source<sup>3</sup>.



## Independent laser element structure

The light source units equipped in the PQ22/20 series use an independent structure for the laser element and the drive circuit. Even if one light source unit fails, it will not affect the surrounding laser sources.



<sup>1</sup> Operation is not guaranteed in all environments. Use of an enclosure is recommended in environments where smoke containing oil, moisture, or salt is present.

<sup>2</sup> Limited to PQ2216/PQ2220.

<sup>3</sup> When using HDMI1 as the main port..

## High lens compatibility

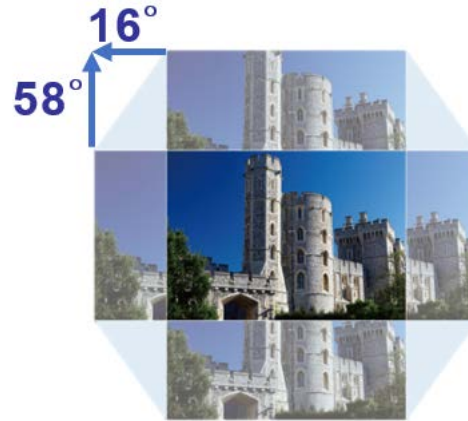
Epson has simplified lens lineup to ensure compatibility for both the PU and PQ series for easy fleet management.

In addition, the lens shift width and focal length are virtually the same across models. This eliminates the need to purchase additional lenses, and reduces transportation and storage costs.



## Wider lens shift

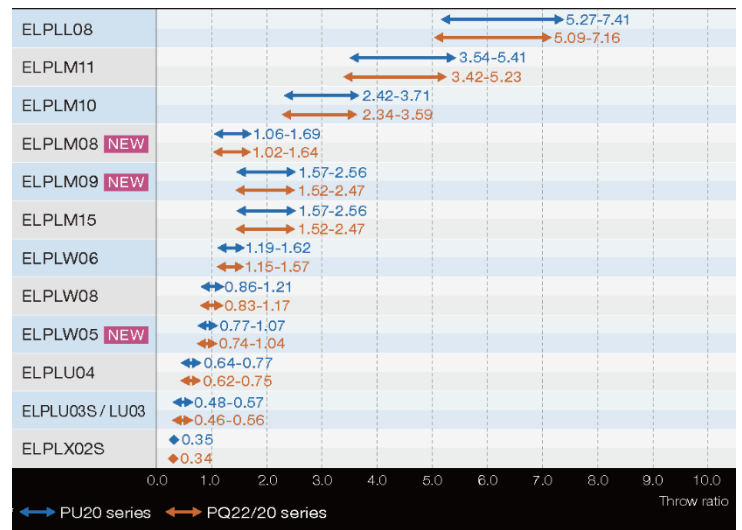
Stepper motors for the shift mechanism have been improved, allowing precise adjustments, for example  $\pm 58\%$  vertically,  $\pm 16\%$  horizontally for the EB-PQ22/20 series with an ELPLM15 lens.



## Broad lineup of lenses

With a lineup of high-quality lenses custom-developed by Epson, the new 4K PQ22/20 series can also be used without modification with the same lineup of lenses as preceding models. In addition, the PQ series supports the LW05/LU03/LM08/LM09 lenses\*. This broader range of focal lengths simplifies projector selection and installation.

\* A decrease in brightness and other functional restrictions may result.

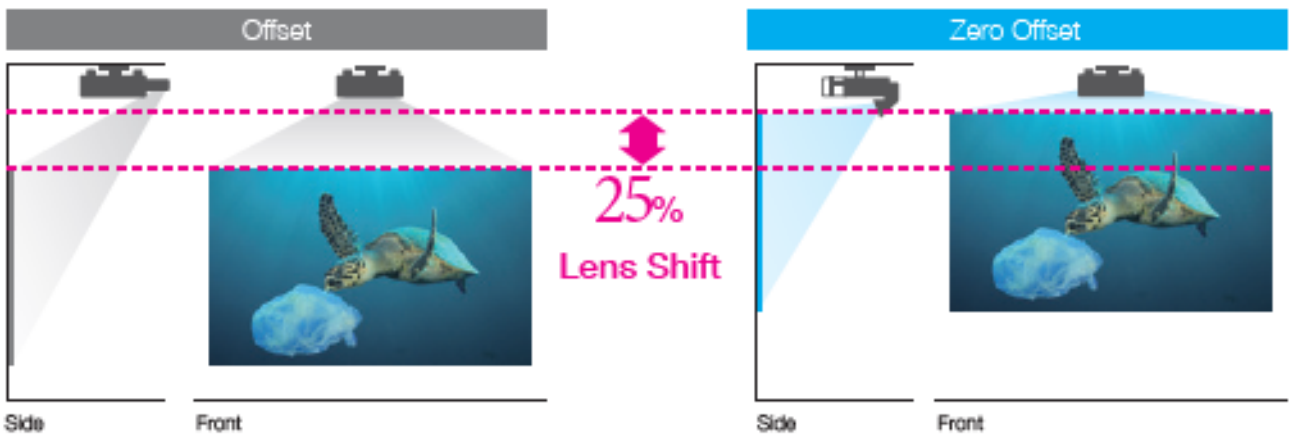
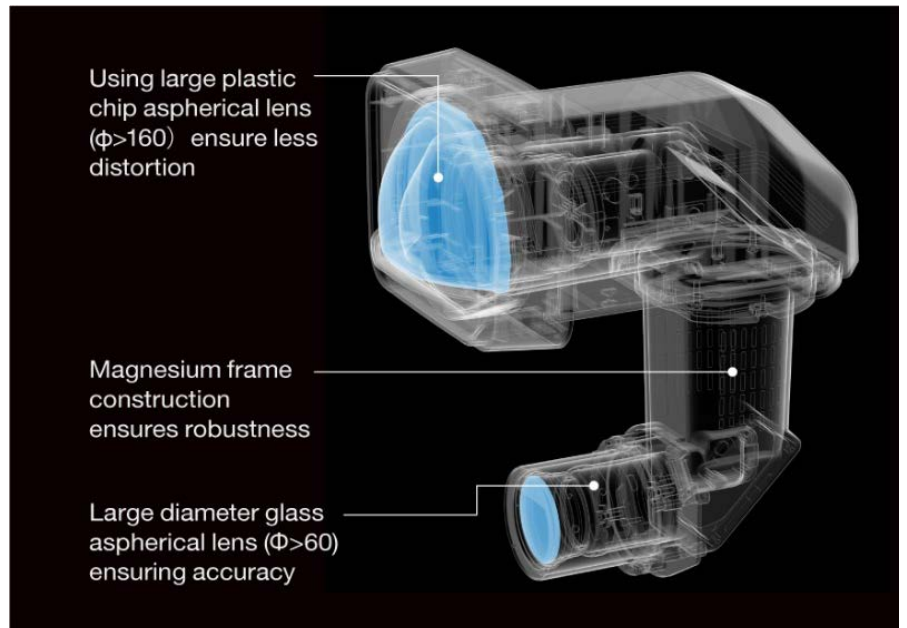




### Ultra-short-throw lens support

The PQ22/20 series supports zero offset lenses that use advanced lens optical design and manufacturing technologies as shown in the diagram.

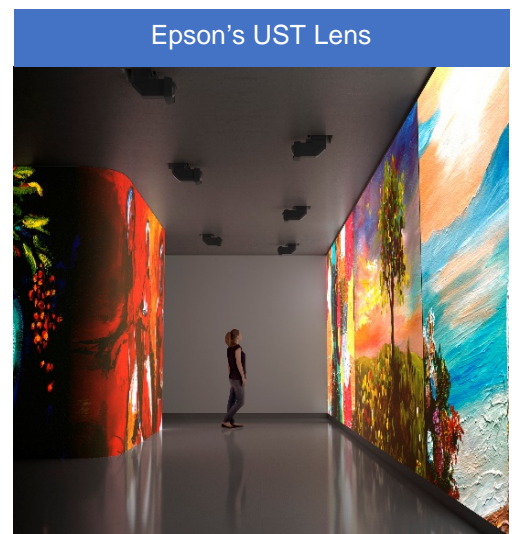
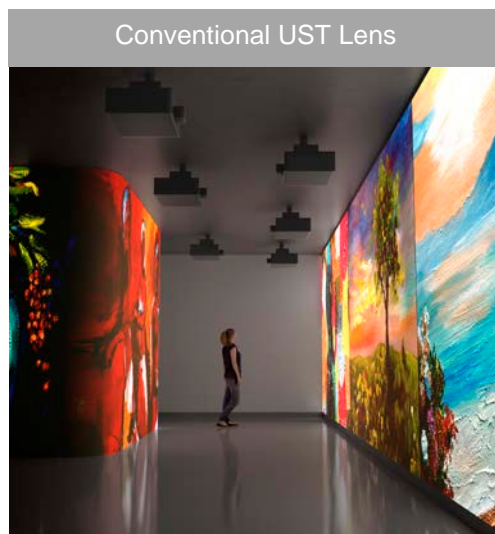
Featuring a 0.35 throw ratio, this versatile lens is the ideal solution for installation in narrow spaces and rear-projection applications.



### Curved lens structure

The curved shape of the lens makes it possible to achieve installations that blend into the environment.

Epson's LX lenses eliminate the distraction of a projector body so that visitors can enjoy a more immersive visual experience.



# product specifications

| Model                                | EB-PQ2220B  | EB-PQ2216B  | EB-PQ2010B  |
|--------------------------------------|---|---|---|
| Technology                           | 3LCD  | 3LCD  | 3LCD  |
| Light source                         | Laser diode   | Laser diode   | Laser diode   |
| Brightness                           | 20,000 lm   | 16,000 lm   | 10,000 lm   |
| Panel size                           | 1.04"   |   |   |
| Lens family                          | Same as PU20 series   |   |   |
| Resolution                           | 4K (3840 x 2160)  |   |   |
| Aspect ratio                         | 16:9  |   |   |
| Body colour                          | Black   |   |   |
| Weight                               | Approx. 29.2 kg   |   | Approx. 18.8 kg   |
| Dimension (W x H x L mm)             | 586 x 185 x 492 mm  |   | 545 x 164 x 436 mm  |
| LD Input Power                       | 1,080 W   | 810 W   | 449 W   |
| Light Source Life (Normal)           | 20,000 hours  | 20,000 hours  | 20,000 hours  |
| Noise level (Normal/Eco)             | 48 dB / 39 dB   | 44 dB / 36 dB   | 39 dB / 29 dB   |
| Dynamic Contrast ratio               | 5,000,000:1   | 5,000,000:1   | 5,000,000:1   |
| HDR                                  | Yes (Auto, SDR, HDR10, HLG)   |   |   |
| Scene Adaptive Gamma correction      | Yes   | Yes   | Yes   |
| Lens shift (with ELPLM15)            | Vertical: ±58%<br>Horizontal: ±16%  | Vertical: ±58%<br>Horizontal: ±16%  | Vertical: ±58%<br>Horizontal: ±16%  |
| Zoom ratio                           | 1 - 1.61 (optical)  | 1 - 1.61 (optical)  | 1 - 1.61 (optical)  |
| Throw ratio                          | Minimum: 0.34 (ELPLX02S)<br>Maximum: 7.16 (ELPLL08)   | Minimum: 0.34 (ELPLX02S)<br>Maximum: 7.16 (ELPLL08)   | Minimum: 0.34 (ELPLX02S)<br>Maximum: 7.16 (ELPLL08)   |
| Screen size                          | 60" to 1000"  | 60" to 1000"  | 60" to 1000"  |
| Video I/O                            | Input<br>2 x HDMI2.1 TypeA<br>1 x HDBaseT<br>1 x 12G-SDI<br><br>Output<br>1 x HDMI TypeA<br>1 x 12G-SDI | Input<br>2 x HDMI2.1 TypeA<br>1 x HDBaseT<br>1 x 12G-SDI<br><br>Output<br>1 x HDMI TypeA<br>1 x 12G-SDI | Input<br>2 x HDMI2.1 TypeA<br>1 x HDBaseT<br>1 x 12G-SDI<br><br>Output<br>1 x HDMI TypeA<br>1 x 12G-SDI |
| Audio I/O                            | 1 x Stereo mini   | 1 x Stereo mini   | 1 x Stereo mini   |
| Control I/O                          | 1 x RS-232C (D-sub 9pin)<br>1 x Remote Stereo mini  | 1 x RS-232C (D-sub 9pin)<br>1 x Remote Stereo mini  | 1 x RS-232C (D-sub 9pin)<br>1 x Remote Stereo mini  |
| USB-I/O                              | 4 x Type A<br>1 x Type B  | 4 x Type A<br>1 x Type B  | 3 x Type A<br>1 x Type B  |
| Network I/O                          | 1 x RJ45<br>Wireless LAN Unit: Optional   | 1x RJ45<br>Wireless LAN Unit: Optional  | RJ45<br>Wireless LAN Unit: Optional   |
| External Camera Support              | Yes   | Yes   | Yes   |
| Epson Projector Professional Tool    | Yes   | Yes   | Yes   |
| Epson iProjection                    | Yes   | Yes   | Yes   |
| Epson Projector Config Tool          | Yes   | Yes   | Yes   |
| Epson Projector Management connected | Yes   | Yes   | Yes   |

| Model                 | EB-PQ2220B | EB-PQ2216B | EB-PQ2010B |
|-----------------------|------------|------------|------------|
| 21:9 Display solution | Yes        | Yes        | Yes        |
| Simple Stacking       | Yes        | Yes        | Yes        |
| Simple Blending       | Yes        | Yes        | Yes        |
| Warranty              | 5 years    | 5 years    | 5 years    |

## CONNECTIVITY PANEL



PQ2010B



PQ2216B/PQ2220B

# pricing

| Main Unit   |   |             |               |
|-------------|---|-------------|---------------|
| SKU         | Description                               | RRP inc GST | EAN           |
| V11HB05853  | EB-PQ2220B                                | \$73,999.00 | 9314020638619 |
| V11HB04853  | EB-PQ2216B                                | \$55,999.00 | 9314020638602 |
| V11HB02853  | EB-PQ2010B                                | \$30,999.00 | 9314020638589 |
| Lens        |   |             |               |
| Description | SKU                                       | RRP inc GST |               |
| V12H004X0B  | ELPLX02S-Ultra Short Throw Lens           | \$14,172.00 |               |
| V12H004UA3  | ELPLU03S-Short Throw Zoom Lens            | \$4,192.00  |               |
| V12H004U04  | ELPLU04-Short Throw Zoom Lens             | \$3,977.00  |               |
| V12H004W05  | ELPLW05-Wide Zoom Lens                    | \$2,257.00  |               |
| V12H004W08  | ELPLW08-Wide Zoom Lens                    | \$13,635.00 |               |
| V12H004W06  | ELPLW06-Wide Zoom Lens                    | \$4,729.00  |               |
| V12H004M08  | ELPLM08-Middle Throw Zoom Lens            | \$644.00    |               |
| V12H004M0F  | ELPLM15-Middle Throw Zoom Lens            | \$2,257.00  |               |
| V12H004M0A  | ELPLM10-Middle Throw Zoom Lens            | \$2,257.00  |               |
| V12H004M0B  | ELPLM11- Middle Throw Zoom Lens           | \$2,257.00  |               |
| V12H004L08  | ELPLL08-Long Throw Zoom Lens              | \$4,729.00  |               |
| Description | SKU                                       | RRP inc GST |               |
| V13H134A46  | ELPAF46 Air Filter (for PQ2010B)          | \$103.00    |               |
| V12HA54010  | ELPMB67-Ceiling Mount                     | \$429.00    |               |
| V12HA55010  | ELPFP15-Suspension Adapter                | \$268.00    |               |
| V12H005A01  | ELPAP11-Wireless Lan Unit                 | \$161.00    |               |
| V12H005A09  | ELPAP12-Streaming Media Player            | \$161.00    |               |
| V12HA46010  | ELPEC01-External Camera                   | \$558.00    |               |
| V13H134AD0  | ELPAF63-External Air Filter (for PQ2010B) | \$569.00    |               |

Epson Australia Pty Ltd  
 Level 1, 3 Talavera Road  
 Macquarie Park NSW 2113  
 Tel: 02 8899 3666  
[www.epson.com.au](http://www.epson.com.au)  
 ABN: 91 002 625 783

Epson New Zealand  
 Level 2, 9 Fanshawe Street  
 Auckland 1010  
 Tel: 09 366 6855  
[www.epson.co.nz](http://www.epson.co.nz)