EPSON

Epson EB-PU2220B

Installation Multimedia Projectors

Premium large-venue laser projector with 4K enhancement

Distance Calculator

Printer Friendly Specs

Where to Buy

ENLARGE IMAGE

Overview
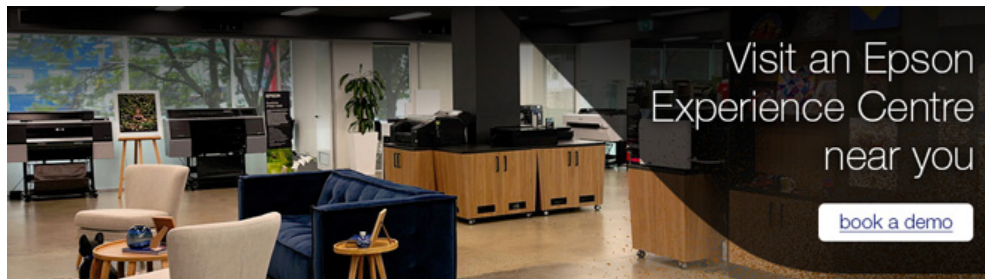
KEY FEATURES & BENEFITS

- Up to 20,000 lumens – produces incredibly bright images from a light and compact body

- Up to 3x brighter colours and reliable performance[1] – 3LCD, 3-chip technology

- WUXGA with 4K Enhancement – accepts 4K content and delivers up to 4.6 million pixels on-screen for an incredibly crisp and vibrant image

- Long-lasting laser light source – 20,000-hour virtually maintenance-free laser light source

- Simplified installation – 9 optional powered lenses (sold separately), including an ultra short-throw .35 throw lens with unique zero offset design, provide enhanced flexibility and convenience during installation

- 2,500,000:1 contrast ratio – for life-like images and remarkable detail in dark scenes

- High dynamic range – faithfully reproduce HDR content for an exceptional visual performance

- Gamma correction – automatically adjusts the image frame-by-frame based on the scene for optimum contrast

- Engineered for reliability – hermetically sealed optical engine offers high dust resistance while a filterless cabinet and liquid cooling system support easy, low maintenance operation

- Ideal for live event applications – 3G-SDI input and output easily accommodate daisy-chaining and long cable runs, and a mechanical shutter helps protect the projector during laser light shows

- NFC feature & Epson Configuration Tool App[2] – collect essential projector information by simply tapping a mobile phone on the top of the projector

- Art-net support – synchronise image brightness with stage and theatre lighting effects

- Epson Projector Professional Tool – efficiently setup multiple projectors straight out of the box with new large venue application software

- Colour uniformity –keep images consistent and maintenance to a minimum with automatic colour correction (automatic calibration is supported only with ELPEC01)

- Edge blending – combine multiple individual images to create one seamless giant image

- Wireless LAN enterprise security – connect projectors in a secure wireless network environment

- HDBaseT – transmit Full HD video and audio, ethernet and serial communication through a single CAT 5/6 cable that can be extended up to 100m

- 360° installation – install on any plane, from horizontal to vertical and everything in-between

- Content playback – create engaging digital experiences with Epson content management software and playback content saved on USB drives

- Optional external camera – the ELPEC01 camera provides access to powerful features, including projector stacking assist function[3], tiling assist[3] for edgeblends, colour calibration[4] and screen matching[4]

- 5 years projector warranty – a class leading 20,000 hours or 5 year warranty[5]

[1]Colour brightness (colour light output) in brightest mode, measured by a third-party lab in accordance with IDMS 15.4. colour brightness will vary depending on usage conditions. Top-selling Epson 3LCD projectors versus top-selling 1-chip DLP projectors based on NPD sales data for October 2019 through September 2020.

[2]Epson Projector Config Tool app is available on iOS11 and Android 8.0

[3]Requires Epson external camera or built-in camera for each projector and the Epson Projector Professional Tool app

[4]Using separate camera for each projector

[5]Whichever occurs first, see **www.epson.com.au** for full warranty terms and conditions

3LCD technology

All Epson projectors are based on 3-chip LCD technology for amazing colour, incredible detail and solid reliability. 3LCD's 3-chip architecture dedicates an entire chip to process each primary colour – red, green and blue, continuously. Unlike single-chip technology that delivers colour sequentially, you get full-time colour. The result is vibrant, realistic images and video all delivered with 3LCD's true-to-life colour.

Up to 3x brighter colours with Epson projectors*

Epson projectors use 3LCD Engines that have no colour wheel with a white segment and therefore don't force a tradeoff between white and colour brightness.

In fact, Epson projectors have up to 3x brighter colours than their leading competitive 1-chip DLP projectors*. All Epson projectors list both white brightness and colour brightness specifications, and all have high colour brightness.

*Colour brightness (colour light output) in brightest mode, measured by a third-party lab in accordance with IDMS 15.4. colour brightness will vary depending on usage conditions. Top-selling Epson 3LCD projectors versus top-selling 1-chip DLP projectors based on NPD sales data for October 2019 through September 2020.
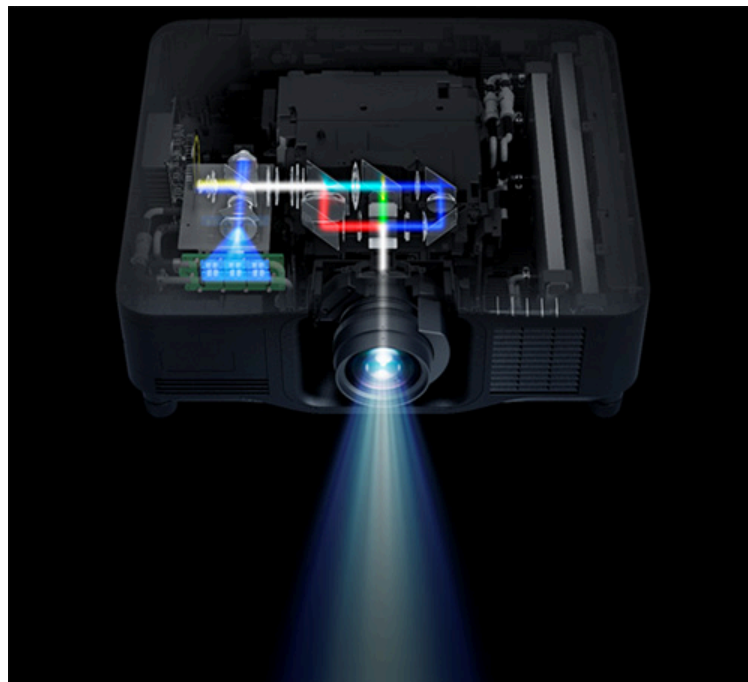
Bright and compact

The EB-PU2220B is a compact, ultra-lightweight 3LCD projector that can produce up to 20,000 lumens of white and colour brightness. Not only is it incredibly bright, but it is also 60 percent smaller and 50 percent lighter than its predecessor model. Epson achieved this compact size by developing and designing key components in-house.

Benefits of being smaller

The EB-PU22 series' compact size and reduced weight allow for greater ease of transport and warehousing. These features, plus flexible installation options, help deliver potential cost savings.

Save labour cost | Save delivery cost | Save warehouse cost | Install in limited spaces

Laser light source

Experience astonishing quality and reliability with Epson's new laser light source. The newly designed laser light source and advanced electrostatic filter deliver 20,000 hours of maintenance-free use and consistent performance for total peace of mind during important presentations.

The PU-22 series features a new efficient 4-in-1 laser light source that helps reduce the unit's size. This new laser is one-third the size of a conventional laser bank while still delivering the same brightness as the previous generations.

Incredible brightness

Powered by 3LCD technology and Epson's laser optical engine, the EB-PU2220B can produce White Light and Colour Light Output up to 20,000 lumens in WUXGA resolution, delivering captivating images in virtually any venue.

The laser light source also lets you take control of brightness with precise adjustment in increments of 1% and a constant brightness mode that maintains brightness at a specified level.

4K Enhancement

The EB-PU2220B delivers high-precision images with 4K Enhancement (4KE) technology. Upscale 1080p content with 4KE, which shifts pixels diagonally by 0.5 pixels to double the resolution, for crisp and high-definition images.
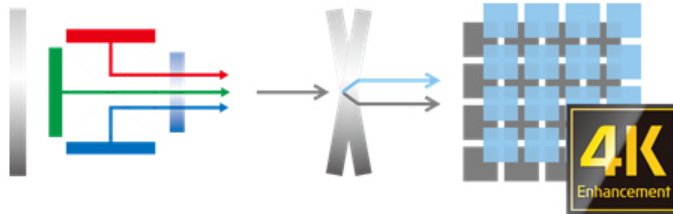

Deep black contrast

With Epson's innovative laser light source, the EB-PU2220B can achieve high contrast ratios of up to 2,500,000:1. A unique optical device adjusts polarisation to deliver a high-contrast image, delivering true black levels even when used in dark environments such as theatres.

Without optical device | With optical device

Special optical parts
LCD panel
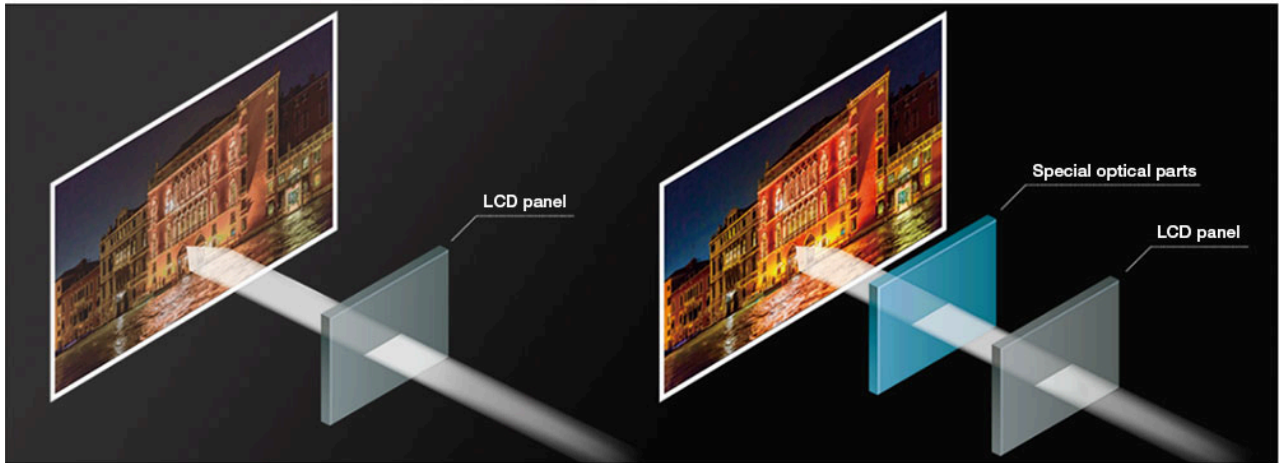
High dynamic range

The EB-PU2220B supports HDR10 and Hybrid Log-Gamma, which expands dynamic range for image output across a broad tonal range and minimises washed-out highlights or excessive shadow in dark areas.

SDR (standard dynamic range) | HDR (high dynamic range)

Scene Adaptive Gamma Correction

Scene Adaptive Gamma Correction analyses the image frame-by-frame and automatically adjusts the gamma level for optimal contrast.
By controlling crushed blacks in dark scenes and clipped whites in bright scenes, images can be displayed in the most natural and life-like manner.


OFF | ON

ADVANCED INSTALLATION FEATURES

Powered lens shift, zoom and focus

The motorised lens shift covers a wide range, giving you a great deal of flexibility when installing the projector. A newly adopted stepping motor lets you make highly precise adjustments when employing edge blending, stacking and other techniques. Adjustments can be made via remote control or over a network, enhancing usability even for ceiling-mounted projectors.

*±60% vertically, ±18% horizontally for EB-PU22 series with ELPLM15

18% (max.)   18% (max.)

60% (max.)

16:10

60% (max.)

Lens shift range*
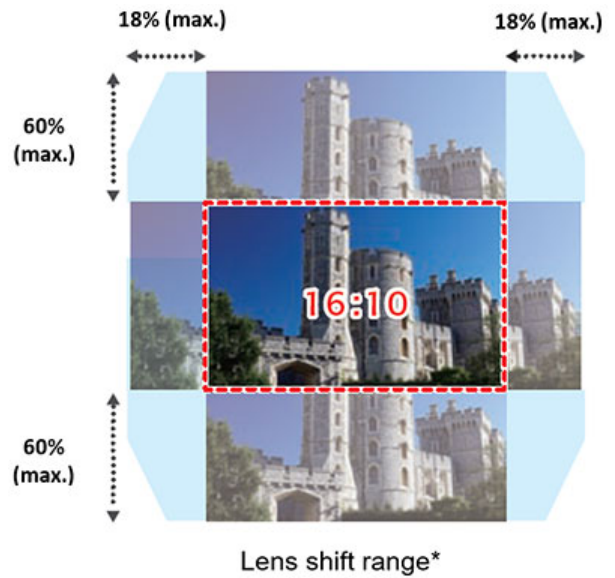
SDI in/out signal

The EB-PU22 series is equipped with SDI (in/out) signal, stacking of two projectors can be done without requirement of PC or Wi-Fi router. Conveniently project up to double the brightness with two EB-PU22 series in large venues using the built-in daisy chain function‡. Simply connect two projectors with a LAN cable and trigger the function with remote command to setup within 7 minutes*.

‡Daisy chain function is limited to connecting 2 projectors only.

*ELPEC01 external camera is required to achieve installation within 7 minutes. Combining with EPPT software, automatic stacking process reduces setup time to 5 minutes
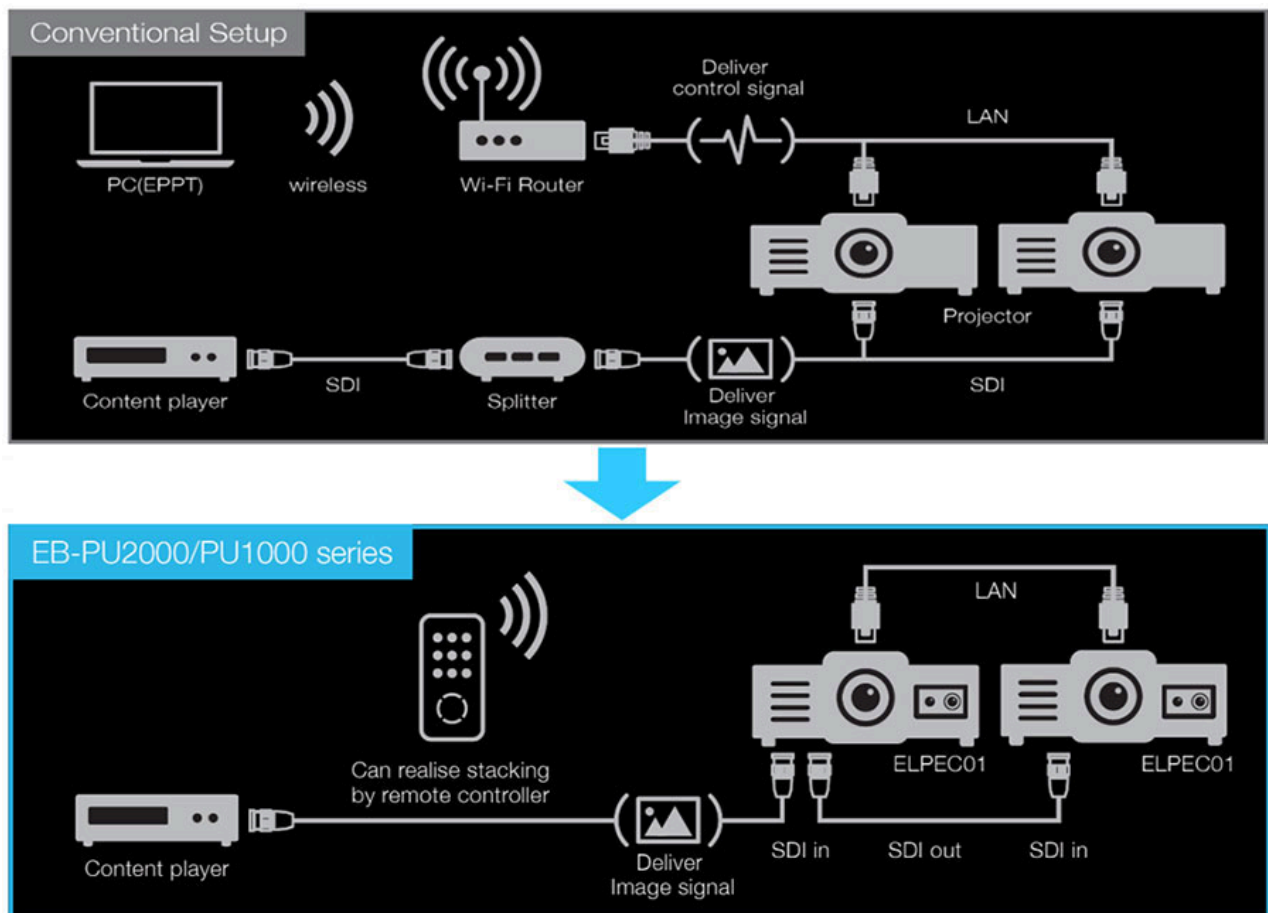
Sophisticated liquid-cooling system

Epson has developed a simpler yet more sophisticated liquid-cooling structure, drawing on more than a decade of research and development and professional industry knowledge.

Using a unique liquid-cooling system to cool the optical engine and laser light source unit makes more compact products a reality.
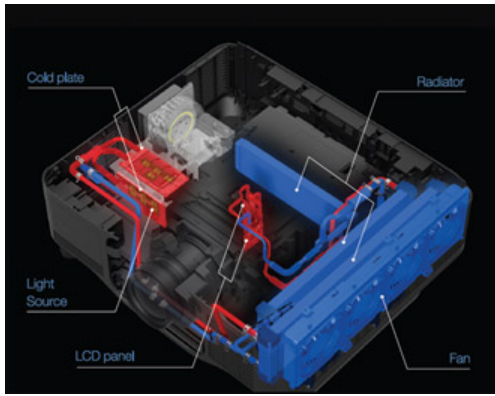
High durability with IP5X-certified optical engine and laser light source

The EB-PU22 series is equipped with IP5X-certified optical engines and laser light source modules*, offering outstanding dust protection. These two key components are hermetically sealed to maintain their performance, even in dusty environments.

*JIC C 0920 compliant in Japan

Hassle-free maintenance

In addition to sealed main components, circuit boards found to be at risk of dust-related short-circuits during testing are coated and protected. Thanks to this dust-resistance construction, the EB-PU22 series is filter-free, eliminating the need for filter changes*.

*Operation is not guaranteed in all environments. Use of an enclosure is recommended in environments where smoke containing oil, moisture, or salt is in use
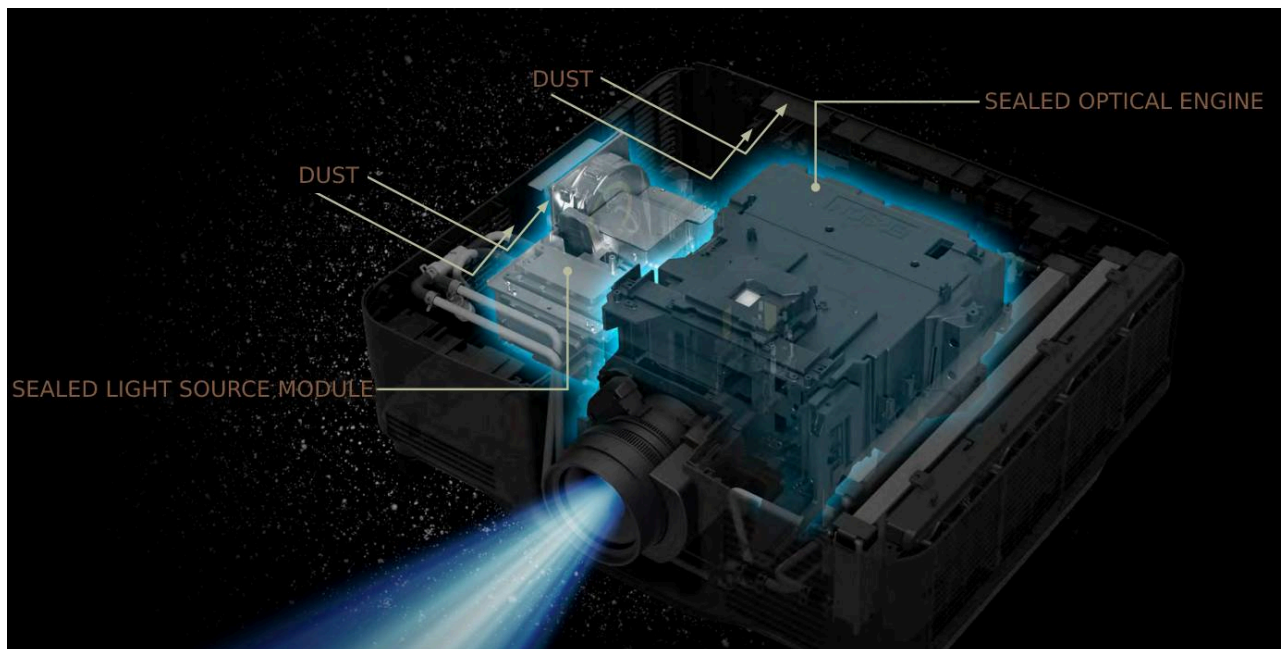
Multi-directional projection

The EB-PU22 series can be rotated 360° in any direction – horizontally, vertically and diagonally – ideal for a wide range of applications, such as ceiling or floor projection.
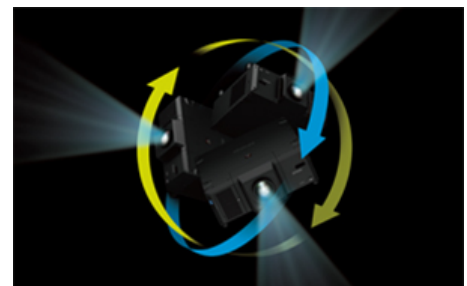

Lens position memory

Up to nine settings can be stored in the projector memory, including shift positions, focus and projection sizes.

Scaling

Make the most of the image content's native aspect ratio using a scaling feature built-in to the EB-PU22 series. Without requiring a supercomputer, source content from a splitter output can be recombined automatically using the scaling feature of two projectors.
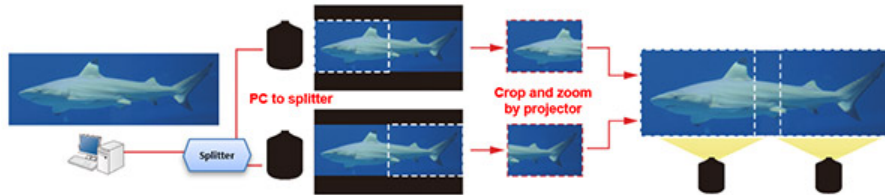
Art-Net lighting control system

The EB-PU22 series supports Art-Net lighting control systems, making the projector ideal for use in live performances in stage or theatre. Control the projector with an Art-Net compatible lighting desk or control system to synchronise with in-house lighting effects. Image brightness can be controlled as low as 8% to the maximum 100%, giving ultimate fade-in and fade-out effects for stage and theatre shows and performances.
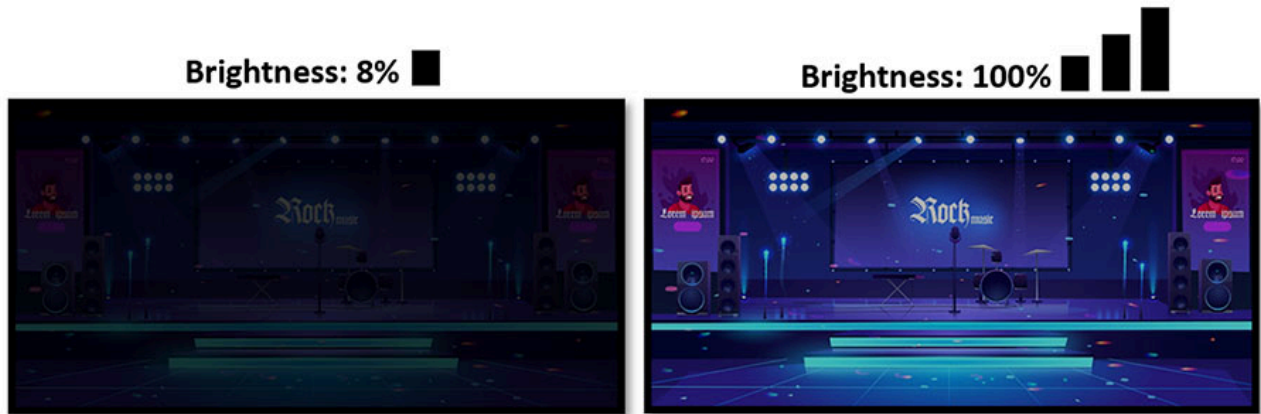
HDBaseT and diverse connectivity

Connect with virtually any system including HDBaseT, SDI, DVI-D, HDMI, VGA, BNC and LAN connectivity. Cutting-edge HDBaseT technology means just one single CAT-5/6 cable carries Full HD video, audio, network and control commands up to 100 meters to accommodate large venues. No need for additional cables, signal repeaters or added labour.

ADVANCED BUILT-IN FUNCTIONS

NFC technology for simple installation

Shorten kitting time with Epson Projector Config Tool app* & NFC function. Customisation of settings of the EB-PU2220B projector can be done up to 100 units as a batch. Specifically designed for rental and stage, SI and IT managers, the projector's inventory data can be easily checked and collected instantaneously by simply tapping with a mobile phone without having to turn on the projector.

This means initial configuration can be carried out at the warehouse before transportation, reducing the work hours needed for kitting and helping to reduce adjustment time when multiple projectors are being installed.

*Epson Projector Config Tool app is available on iOS11 and Android 8.0
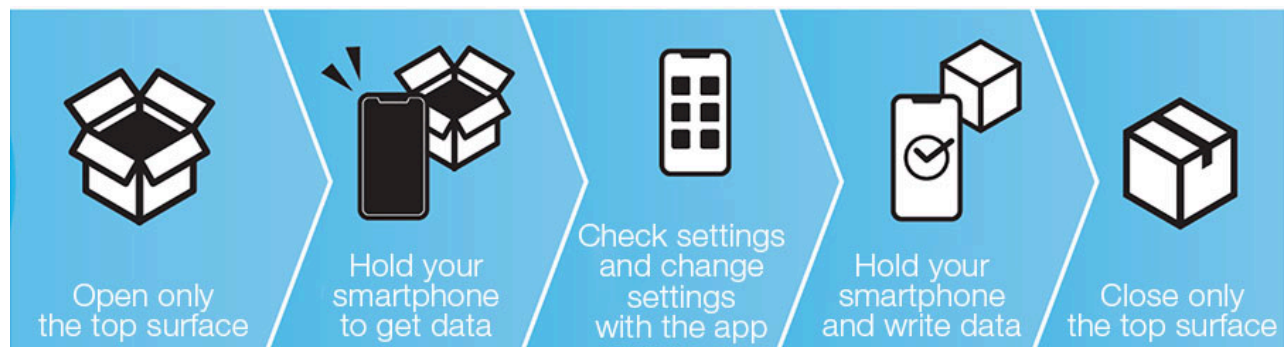
Edge blending

Enhance the experience with seamless panoramic, multi-screen images that blend edges by matching colour and brightness perfectly, even in areas that overlap.
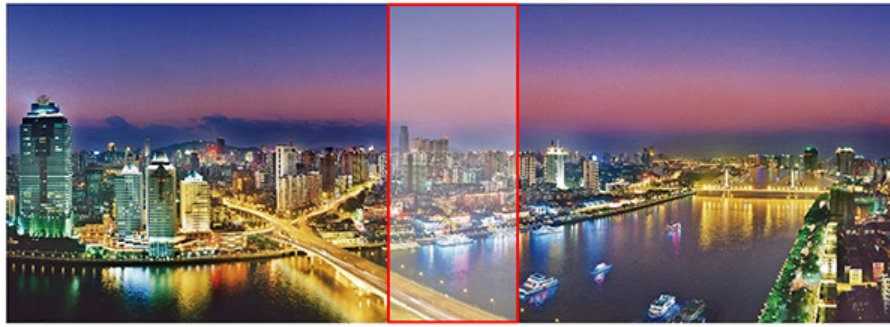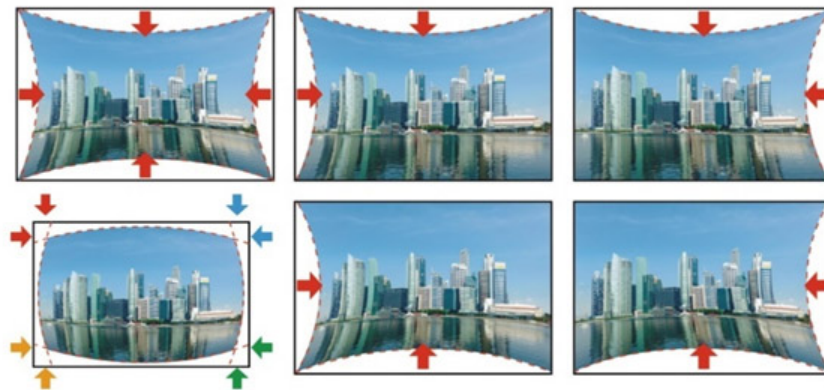
Point correction

Make smooth adjustments of distorted projection images by shifting each of the points laid out on the grid pattern.

Arc correction

Using arc correction, you can adjust each side of a projected image in an arch or barrel-shaped way, making it easier than ever to get a perfectly rectangular image.

Corner wall and curved surface projection

Quickly and precisely correct any vertical or horizontal image distortion with Epson's curved surface and corner wall projection. These features allow for greater flexibility when choosing a projection surface. Enhance your viewers' experience by projecting your content in a unique environment with ease.

Content playback

The EB-PU22 series has an in-built content playback feature, allowing you to save videos and photos to USB flash memory and project them instantly without the need for a PC. Epson's dedicated software for digital signage applications complements the embedded feature for a cost-effective solution.

For instant content creation, the Epson Creative Projection app is available on iOS devices.

For scheduling, the Epson Content Management software is available for planning and execution.

ADVANCED INSTALLATION SOFTWARE

Epson Projector Professional Tool

Setup multiple projectors straight out of the box with Epson large venue application software. The Epson Professional Tool allows you to adjust and control images projected on a network with high-end projector setup features such as colour uniformity calibration, geometry correction, image layout adjustment, lens control and edge blending. Exclusively bundled to Epson laser projectors, large scale presenting has become much easier and flexible with automation.

Epson Projector Professional Tool with ELPEC01 support

Pair an ELPEC01 external camera with an EB-PU22 projector to enable automation for geometry correction and screen matching. Powered by Epson Projector Professional Tool software, the set up for tiling and stacking of multiple projectors is quicker and easier than ever before.

Automatic Geometry Correction Assist for Tiling

Automatic Geometry Correction Assist for Stacking

Automatic Screen Matching
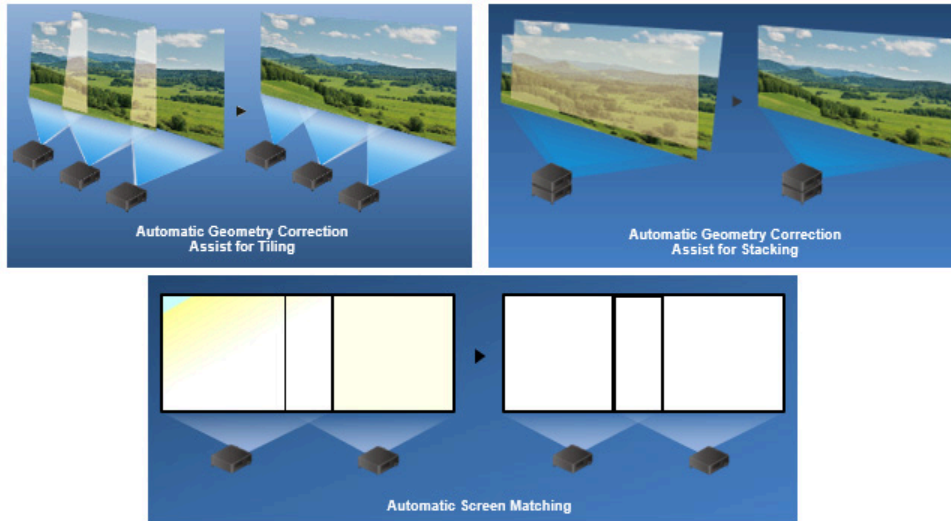
Epson Projector Config Tool app

The Epson Projector Config Tool app* can save time on communication. Powered by NFC technology, projector information can be imported, exported for kitting preparation and confirmation. Installers, SI specialist, end customer, service team, repair team and rental & stage operators can now save time and effort, requiring as little as 7 minutes to collect the data out in the field on an iOS or Android device.

*Epson Projector Config Tool app is available on iOS11 and Android 8.0

Epson Creative Projection app

With Epson Creative Projection app, you can create original, dazzling content to enliven rooms, product displays, and spaces around you, anytime and anywhere. Available on iOS devices, such as iPhone and iPad, content can be previewed while projecting and editing content at the same time.

With extensive pre-loaded templates, freely arrange and combine materials in the app any way you like. From simply uploading photos and movies from a mobile device to making animated visual effects, instantly make your display content come to life without requiring a PC.
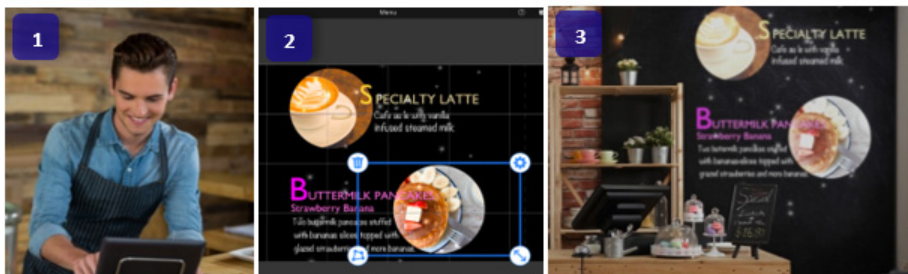
Epson Content Management software

With Epson Content Management software, you can easily create playlists for signage content from a PC or a laptop. The ability to set schedules and register the shape filter settings gives you advanced control such as synchronised playback.

Key features of the software include:

- Creating playlists
- Adding visual effects
- Setting up remote shortcuts
- Applying custom filters
- Scheduling playlists

DICOM Simulation Mode

DICOM (Digital Imaging and Communication in Medicine) is a standard for handling, storing, printing and transmitting medical imaging information. The projector's DICOM Simulation Mode enables users to reproduce images with an advanced grayscale level that simulates DICOM Part 14. This mode is ideal for viewing grayscale medical images, such as X-rays, for training and educational purposes.

Collaborative presenting - iProjection software

Multiple users can connect simultaneously to one projector using Epson iProjection software which allows you to display four individual PC screens simultaneously over the network (wired or wireless), with up to 50 users connected to the same projector. This feature is a great tool for meetings or classroom projects where multiple users want to present and compare their screens.

Simple control – Epson Projector Management software

Using arc correction, you can adjust each side of a projected image in an arch or barrel-shaped way, making it easier than ever to get a perfectly rectangular image.

Use features such as Epson Projector Management software to monitor and control projectors, with fleet control across a network or on a web browser to keep track of up to 2,000 projectors. The latest models feature a newly designed OSD Control Pad function that shows a representation of lens conditions on a smart device.

ADVANCED INSTALLATION ACCESSORIES

Ultra-short throw lens

Create larger-than-life images from just feet away. The ELPLX02S short throw ratio of 0.35 with a unique zero offset lens makes it especially useful where only limited lens-to-screen distance is available. These features combine with lens shift (-5% to +20% vertically, ±15% horizontally) to improve flexibility where space is at a premium.
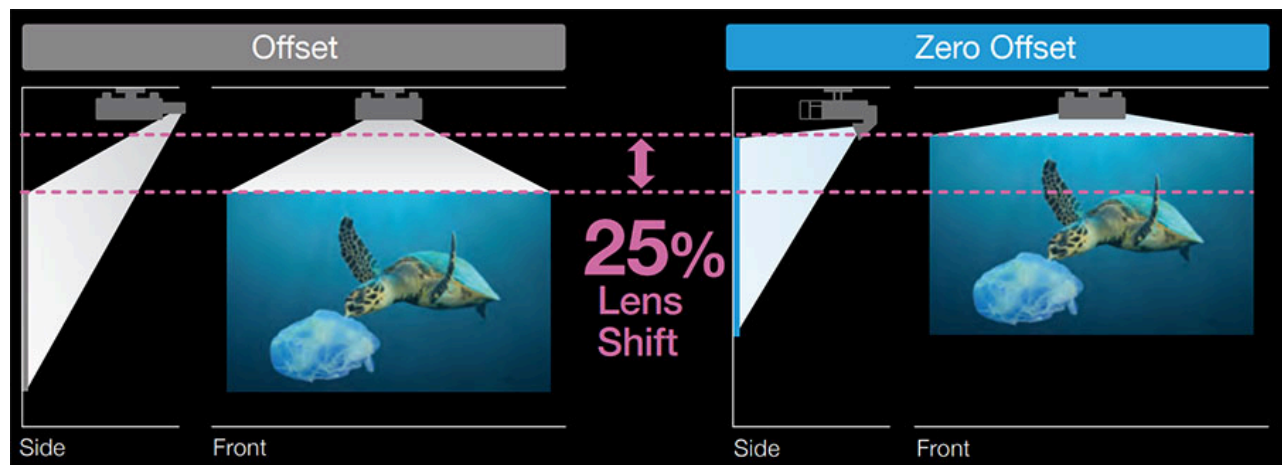
4K ready optional lens

For added flexibility, the EB-PU2220B offers a total of nine lenses, including middle, wide, long, short and ultra-short throw that allow users to choose the lens most suited for their environment.
A quick-release lever allows for a fast, easy lens exchange. The optional lenses are all 4K compatible, and combined with the projector, deliver focused and sharp 4K Enhanced images.

Ceiling mount ELPMB67 and extension pole ELPFP15

ELPMB67 ceiling mount and ELPFP15 extension pole are lighter than the previous mount, giving you even more installation flexibility across the Epson laser projectors. The ELPMB67 can accommodate wider vertical adjustment angles within + 5° / -15° range. Both mount and extension pole come in grey to easily integrate into any colour scheme.

ELPMB67 + ELPFP15

External camera ELPEC01

Attach an ELPEC01 external camera to the EB-PU22 series or ELPLX02S UST lens to enable efficient and powerful installation capabilities. Compatible with Epson Professional Tool software and Epson Projector Management software, automate manual installation processes and enable remote camera access when required.

ELPEC01

ELPEC01 with projector

ELPEC01 with UST lens

Connectivity panel

Specification

PRODUCT NAME	EB-PU2220B
PRODUCT CODE	V11HA66853BU
What's in the box	
	EB-PU2220B projector, 3m power cable, remote control, 2x AA batteries, cable cover, user guide
TECHNOLOGY	
Projection System	3LCD
LCD Panel	1.0-inch
IMAGE	
Light Source	Laser diode
Resolution	WUXGA
Colour Light Output	20,000 lumens
White Light Output	20,000 lumens
Native Aspect Ratio	16:10
Contrast Ratio	2,500,000:1
LD Input Power	934 W
Referenced Standard Lens	ELPLM15
Keystone Correction (Standard Lens)	Vertical: ±45° Horizontal ±30°
Lens Shift (Standard Lens)	Vertical: ±60° Horizontal ±18°
OPTICAL	
Zoom	1 - 1.6 (Optical)
Screen Size (Standard Lens)	60" to 1000"
Projection Distance (Standard Lens)	100" screen 3.37 m
Throw Ratio	1.57 (Zoom:Wide) 2.56 (Zoom:Tele)
Projection Lens F Number	1.8 – 2.3
Projection Lens Focal Length	36 mm – 57.4 mm
Focus Method	Powered
CONNECTIVITY	
Input: Computer	1 x D-sub 15-Pin (RGB)
Input: Digital	1 x HDMI, 1 x DVI-D, 1 x HDBaseT, 1 x BNC (SDI)
SDI: I/O	1 x BNC
Control: I/O	1 x RS-232C, 1 x Stereo mini
Network: I/O	1 x RJ45, 2 x USB Type A (for optional Wireless LAN)
HDBaseT	Yes
Wireless Connectivity	Optional
Output: Digital	1 x BNC (SDI)
Output: Audio	1 x Stereo mini
ADVANCED FEATURES	
Remote Access Camera	Yes (with optional ELPEC01)
Wireless LAN Enterprise Security	Yes (with optional Wireless LAN Unit)
4K Enhancement	Yes
Sealed Optical Engine	Yes

Sealed Laser Light Source Module	Yes
Art-Net	Yes
Lens Position Memory	Yes
Split Screen	Yes
Edge Blending	Yes
Scaling	Yes
Curved Screen Projection	Yes
Simple Stacking	Yes
NFC	Yes
External Camera ELPEC01 support	Yes
Scene Adaptive Gamma	Yes
Frame Interpolation	Yes
Super-resolution	Yes
Detail Enhancement	Yes
360 Degress Projection	Yes
Content Playback	Yes
Instant Off	Yes
Direct Power On	Yes
IP Rating	IP5X[1]
Security	Kensington®-style lock provision Wireless LAN unit lock Security cable hole Lens lock Password protect function
Colour Modes	Dynamic Presentation Cinema BT.709 Natural DICOM SIM Multi-Projection

GENERAL

Dimensions D x W x H (Including Feet)	492 x 586 x 218 mm
Weight	24.4 kg
Projector Warranty	5 years
Power Consumption: LD On	1301 W
Power Consumption: Standby	2 W
Noise Level (Normal/Eco)	45 / 37 dB

SOFTWARE SUPPORT

Epson Projector Management (Network & Control)	Yes
Epson iProjection (Multi-PC Projection)	Yes
Epson Professional Tool	Yes
Epson Content Manager	Yes
Epson Creative Projection support	Yes
Epson Projector Config Tool	Yes

COMPATIBLE LENS

ELPLX02S	Yes
ELPLU03S	Yes
ELPLU04	Yes
ELPLW08	Yes
ELPLW06	Yes
ELPLM15	Yes
ELPLM10	Yes
ELPLM11	Yes
ELPLL08	Yes

[1] IP5X-certified optical engine and laser light source module in accordance with IEC standard 60529

Usage Conditions

Epson products are designed and manufactured to be highly reliable and last a long time when used according to their specifications. With any system, product or device used in situations where human life may be involved or at risk, Epson advises that you should take all necessary steps to ensure the suitability of your Epson product for inclusion in your system, and recommends that you include fail-safe procedures and redundancy support or backup equipment in your system, to maintain the maximum safety margin and optimum system reliability. Examples include but are not limited to - do not interfere with any electrical components within the device, do not use items supplied with the product for purposes other than as intended by Epson (e.g. power cords, inks, CDs, plastic wrapping) and do not make modifications to the product.

Consumables

ACCESSORIES & OPTIONS	PRODUCT CODE
ELPAP11 Wireless LAN Adaptor	V12H005A01
ELPLM15 Middle Throw Lens	V12H004M0F
ELPLL08 Long Throw Lens	V12H004L08
ELPLM10 Middle Throw Lens 3	V12H004M0A
ELPLM11 Middle Throw Lens 4	V12H004M0B
ELPLU04 Short Throw Lens 2	V12H004U04
ELPLU03S Short Throw Lens 1	V12H004UA3
ELPLW06 Wide Throw Lens 2	V12H004W06
ELPLW08 Wide Throw Lens 3	V12H004W08
ELPMB67 Ceiling Mount	V12HA54010
ELPFP15 Extension Pole 460 – 680 mm	V12HA55010
ELPLX02S Ultra Short Throw Lens	V12H004X0B