# Specifications

| Model name | MP-WU9101B | |
|---|---|---|
| Display system | 1-chip DLP® | |
| Display device | Size of effective display area | 0.67" DLP® chip × 1, aspect ratio 16 : 10 |
| | Number of pixels | 2,304,000 pixels (1,920 horizontal × 1,200 vertical) |
| Lens (option) | Zoom | Motorized (except for ultra short throw fixed lens FL-920) |
| | Focus | Motorized |
| | Lens shift | Motorized (V, H) (except for ultra short throw fixed lens FL-920) |
| Light source | | Laser diode |
| Screen size | | 50 - 600 inch (100 - 350 inch for ultra short throw fixed lens FL-920) |
| Light output (Brightness) | | 10,000 lm [*1] |
| Contrast ratio (full white / full black) | | 30,000 : 1 (Dynamic Black setting is On.) |
| Displayable scanning frequency | Horizontal | 15 ~ 91 kHz |
| | Vertical | 24 ~ 85 Hz |
| Display resolution | Computer | WUXGA [*2] (max.) *Native resolution is WUXGA. |
| | Video | 1080P (max.) *Native resolution is WUXGA. |
| Terminals | COMPUTER IN | Mini D-sub 15-pin connector × 1, 5BNC connector × 1 |
| | HDMI IN | HDMI connector × 2 (HDCP compliant) |
| | DVI-D | DVI-D connector × 1 |
| | SDI IN / OUT | BNC connector × 1 / BNC connector × 1 |
| | HDBaseT | RJ-45 jack × 1 |
| | CONTROL IN (RS-232C) | D-sub 9-pin connector × 1 |
| | REMOTE CONTROL IN | 3.5mm (stereo) mini connector × 1 |
| Operating temperature | | 0 - 45°C *The brightness of light source may be reduced automatically over 36°C at altitude from 0 to 1,219 m [*3]. |
| Operating humidity | | 10 - 80%RH (non-condensing) |
| Power requirements | | AC100 - 130V (50Hz / 60Hz), 13.4A [*4] AC200 - 240V (50Hz / 60Hz), 6.2A |
| Power consumption | | AC100 - 130V (50Hz / 60Hz) : 1340W AC200 - 240V (50Hz / 60Hz) : 1240W |
| Standby mode power consumption | | Less than 0.5W at saving mode [*5] |
| Standard outside dimension (WxHxD) | | 500mm × 216mm × 576mm (19.7" × 8.5" × 22.7") (Excluding lens) |
| Weight | | Approx. 28kg (61.7lbs.) (Excluding lens) |
| Accessories | | Remote control with two AA batteries, Power cord, Computer cable, RS-232C adapter cable (cross), Wired remote cable, User's Manual |
| Optional parts | Option lens | USL-901A (Ultra short throw lens)   ML-904 (Middle throw lens) SL-902 (Short throw lens)   LL-905 (Long throw lens) SD-903 (Standard lens)   UL-906 (Ultra long throw lens) FL-920 (Ultra short throw fixed lens FL-900 with support metal) |
| | Mounting accessories | HAS-L9750 (Bracket for fixing mount)   HAS-304H (Long adapter for fixing mount) HAS-104S (Slim adapter for fixing mount)   HAS-404U (Ceiling mount with 6-axis adjustment) HAS-204L (Standard adapter for fixing mount) |

*1 Picture Mode setting is Dynamic, Eco Mode setting is Normal, attached lens is SD-903, and lens shift position is center (V/H : 0%). *2 WUXGA (60Hz) Reduced Blanking only. *3 over 30° C at altitude from 1,219 to 1,676 m, over 25° C at altitude from 1,676 to 4,200 m. *4 Recommended circuit size : 20A (for 110-130V) *5 Can't operate the projector via the LAN and the RS-232C when projector is in standby mode.

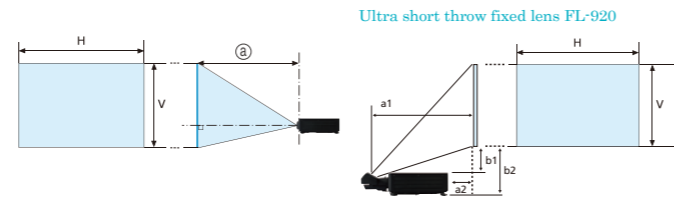## Dimensions

* Image with Standard Lens SD-903 mounted.

500mm (19.7")   576mm (22.7")   216mm (8.5")

## Environment

▶ **Compliance with EU Directive RoHS[*1]**
▶ **No use of mercury lamp**

**[*1]**
RoHS is the acronym of "Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment".

# Projection Distance



Ultra short throw fixed lens FL-920

**H x V : Screen size**
ⓐ : Projection distance (from the projector's front panel to screen) (±10%)

*The figures are not drawn to scale.

**H x V : Screen size**
a1: Reflecting mirror surface to screen
a2: Projector end to screen
b1: Projector top to screen edge (closer edge to projector)
b2: Projector bottom to screen edge (closer edge to projector)
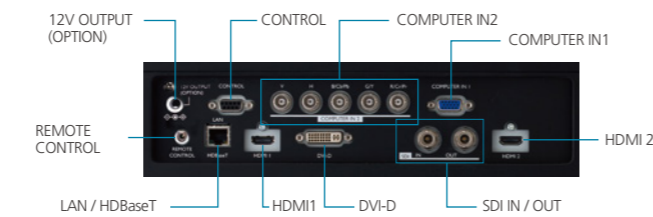
1,920 x 1,200 (Aspect ratio 16 : 10)

| meter | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Screen size | | USL-901A | | SL-902 | | SD-903 | | ML-904 | | LL-905 | | UL-906 | | |
| Type | H(m) | V(m) | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. |
| 80 | 1.7 | 1.1 | 1.4 | 1.7 | 2.0 | 3.0 | 2.8 | 4.3 | 4.2 | 6.4 | 6.0 | 9.8 | 9.6 | 15.3 |
| 100 | 2.2 | 1.3 | 1.7 | 2.1 | 2.5 | 3.8 | 3.5 | 5.3 | 5.2 | 7.9 | 7.6 | 12.2 | 12.0 | 19.0 |
| 120 | 2.6 | 1.6 | 2.0 | 2.5 | 3.0 | 4.5 | 4.3 | 6.4 | 6.3 | 9.5 | 9.1 | 14.7 | 14.3 | 22.8 |
| 150 | 3.2 | 2.0 | 2.5 | 3.2 | 3.8 | 5.7 | 5.3 | 8.0 | 7.8 | 11.9 | 11.4 | 18.4 | 17.9 | 28.4 |
| 300 | 6.5 | 4.0 | 5.1 | 6.3 | 7.6 | 11.3 | 10.7 | 16.0 | 15.7 | 23.9 | 22.9 | 36.9 | 35.5 | 56.5 |
| 500 | 10.8 | 6.7 | 8.4 | 10.5 | 12.7 | 18.9 | 17.8 | 26.6 | 26.1 | 39.8 | 38.2 | 61.5 | 59.0 | 94.0 |

| inch | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Screen size | | USL-901A | | SL-902 | | SD-903 | | ML-904 | | LL-905 | | UL-906 | | |
| Type | H(in.) | V(in.) | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. | ⓐmin. | ⓐmax. |
| 80 | 68 | 42 | 54 | 67 | 80 | 119 | 111 | 167 | 164 | 250 | 238 | 385 | 380 | 601 |
| 100 | 85 | 53 | 67 | 84 | 100 | 149 | 140 | 209 | 205 | 313 | 298 | 482 | 472 | 749 |
| 120 | 102 | 64 | 80 | 100 | 120 | 179 | 168 | 251 | 246 | 376 | 359 | 579 | 565 | 896 |
| 150 | 127 | 79 | 100 | 125 | 150 | 223 | 210 | 314 | 308 | 469 | 449 | 724 | 703 | 1118 |
| 300 | 254 | 159 | 200 | 248 | 300 | 446 | 420 | 629 | 617 | 939 | 902 | 1452 | 1397 | 2225 |
| 500 | 424 | 265 | 332 | 413 | 501 | 744 | 700 | 1048 | 1029 | 1566 | 1505 | 2422 | 2322 | 3701 |

| meter | | | | | | |
|---|---|---|---|---|---|---|
| Screen size | | | FL-920 | | | |
| Type | H(m) | V(m) | a1 | a2 | b1 | b2 |
| 100 | 2.2 | 1.3 | 0.817 | -0.022 | 0.376 | 0.592 |
| 120 | 2.6 | 1.6 | 0.969 | 0.130 | 0.464 | 0.680 |
| 150 | 3.2 | 2.0 | 1.196 | 0.357 | 0.595 | 0.811 |
| 300 | 6.5 | 4.0 | 2.331 | 1.492 | 1.250 | 1.466 |
| 350 | 7.5 | 4.7 | 2.709 | 1.870 | 1.469 | 1.685 |

| inch | | | | | | |
|---|---|---|---|---|---|---|
| Screen size | | | FL-920 | | | |
| Type | H(in.) | V(in.) | a1 | a2 | b1 | b2 |
| 100 | 85 | 53 | 32 | -1 | 15 | 23 |
| 120 | 102 | 64 | 38 | 5 | 18 | 27 |
| 150 | 127 | 79 | 47 | 14 | 23 | 32 |
| 300 | 254 | 159 | 92 | 59 | 49 | 58 |
| 350 | 297 | 185 | 107 | 74 | 58 | 66 |

# Terminals



12V OUTPUT (OPTION)   CONTROL   COMPUTER IN2   COMPUTER IN1

REMOTE CONTROL   HDMI 2

LAN / HDBaseT   HDMI1   DVI-D   SDI IN / OUT

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—**Design and specifications are subject to change without notice.**
• The projected images and comparison photos in this catalog are simulations.
• Do not use in places where there is a lot of water, dampness, steam, dust, soot or tobacco smoke. This may result in fire or malfunction.
• Optical components (light source, DLP® chip, etc.) and cooling fans have limited service lives. They must be repaired or replaced if they are used for a long period of time.
• During use and immediately after use, do not touch anywhere near the vents as these parts are extremely hot.
• Each product may have differences of color, brightness and focus due to manufacture variation.
• Blu-ray Disc ™ and Blu-ray ™ are trademarks of Blu-ray Disc Association.
• DLP® and the DLP logo are registered trademarks of Texas Instruments.
• Crestron Connected and the Crestron Connected logo are registered trademarks of Crestron Electronics.
• DICOM is the registered trademark of the National Electrical Manufacturers Association for its standards publications relating to digital communications of medical information.
• HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
• HDBaseT ™and the HDBaseT Alliance logo are trademarks of the HDBaseT Alliance.
• Extron® is registered trademark of RGB Systems, Incorporated.
• All other trademarks are the properties of their respective owners.
• This projector is a CLASS 1 LASER PRODUCT (IEC/EN 60825-1:2014). (CLASS 3R LASER PRODUCT (IEC/EN 60825-1:2007) for the U.S.A. and Canada)

**LASER RADIATION**
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
Wavelength : 450-460 nm
Max. Pulse energy: 0.253 mJ, Pulse duration: 0.5 ms
IEC/EN 60825-1:2007

**RAYONNEMENT LASER**
ÉVITER D'EXPOSER DIRECTEMENT LENS YEUX
PRODUIT LASER DE CLASSE 3R
Longueur D'onde : 450-460nm
Énergie D'impulsion Max. : 0.253 mJ, Durée de L'impulsion : 0.5 ms
IEC/EN 60825-1:2007

**LASERSTRAHLUNG**
DIREKTE EXPOSITION DER AUGEN VERMEIDEN
LASERPRODUKT DER KLASSE 3R
Wellenlänge : 450-460 nm
Max. Pulsenergie: 0.253 mJ, Pulsdauer: 0.5 ms
IEC/EN 60825-1:2007

**maxell**

**Maxell, Ltd.**   5030 Totsuka-cho, Totsuka-ku Yokohama, 244-0003, Japan   **http://proj.maxell.co.jp/en/**

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## LASER Projector

### maxell
### Within the Future

# The long-life laser light source allows long continuous projection.

**MP-WU9101B**

WUXGA 10,000 lm

DLP TEXAS INSTRUMENTS   Extron XTP CERTIFIED   AMX DISCOVERY   CRESTRON connected

*Projected images are simulations.
* Projector image with Standard Lens SD-903 mounted.
* The lens of the projector is sold separately.

# MP-WU9101B

**WUXGA** · **10,000 lm**

*LASER Light Source*

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE · HDBT™

* Image with Standard Lens SD-903 mounted.
* The lens of the projector is sold separately.

## Option lens

| FL-920 | USL-901A | SL-902 | SD-903 | ML-904 | LL-905 | UL-906 |
|---|---|---|---|---|---|---|
| Ultra short throw fixed lens Zoom: ×1.0 | Ultra short throw lens Zoom: ×1.3 | Short throw lens Zoom: ×1.5 | Standard lens Zoom: ×1.5 | Middle throw lens Zoom: ×1.5 | Long throw lens Zoom: ×1.6 | Ultra long throw lens Zoom: ×1.6 |

* Local availability may be limited.

# High Reliability and Stability

## Long life 20,000 hours*1 Laser light source

Light source combined Blue laser diodes and Phosphor can achieve high brightness of 10,000 lumens.  The projection image has a bright, clear and vivid in color.
Since lamp exchange is unnecessary, maintenance cost is reduced. Furthermore, you do not need to worry about lamp life, and it is fit for digital signage purposes that require long hours of continuous projection. Because the product does not use mercury lamps, it is eco-friendly.

*1 For laser light source. Not a guaranteed value.

Blue Laser (Light source) · Phosphor wheel · Screen · Projection lens · Lens · Mirror · Color wheel · DLP® Chip
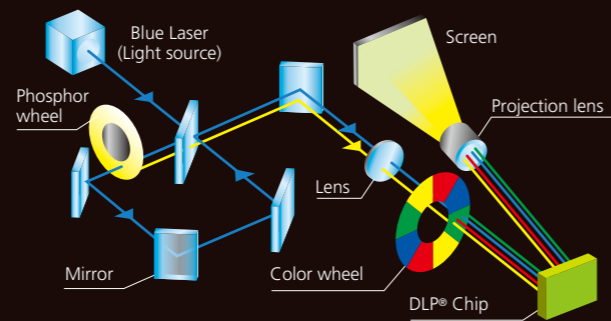
## Dust Resistant structure by sealed engine

Reduces the invasion of dust and other particles in the air that decreases the brightness when they get attached to the optical parts. Reduces the decrease in brightness due to dust, resulting in a long lasting bright, clear, and vivid colored picture. Eliminates the intake filter and filter maintenance.

## Cooling System that Provides High Reliability

A liquid-cooling system is applied for laser light source cooling. This projector achieves long life of up to 20,000 hours*2 though high brightness.

*2 For laser light source. Not a guaranteed value.

# High Image Quality

## ACCENTUALIZER and HDCR

ACCENTUALIZER makes pictures look more real by enhancing shade, sharpness, and gloss, to make pictures clearer. The HDCR function corrects blurred images caused by room lighting or outside light sources and creates an effect similar to increasing contrast resulting in clear images even in bright rooms.

* Comparison photos are simulations.

Bright room
HDCR OFF | HDCR ON
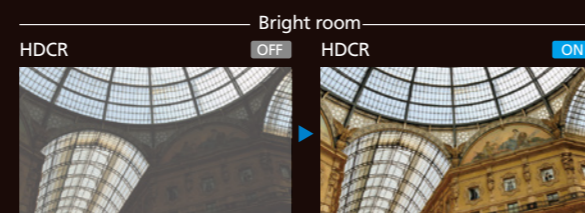
## COLOR MANAGEMENT

This feature allows you to change the HUE, SATURATION, and LUMINANCE for each of 6 colors (red, green, blue, cyan, magenta, and yellow) without influencing  each other.
With this technology, for example, you can change only bluish colors, such as the sky, while maintaining the other colors by adjusting the HUE of the blue.
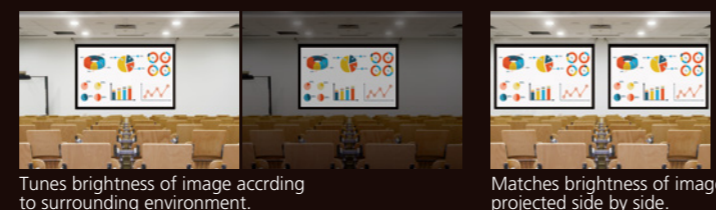
* Comparison photos are simulations.

Original image | Previous technology | This technology
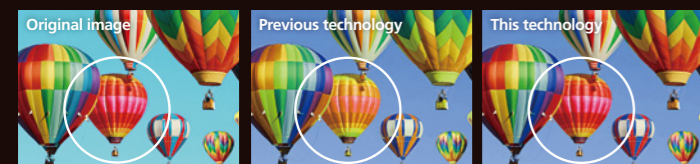
## Laser Power Level Control

Power of laser light source is controllable by every 1% step*3.
You can adjust brightness of projection image to fits the luminance of the environment and can save power consumption.
This feature helps you to adjust the similar brightness of projectors, for example, the side-by-side projection and the edge blending applications.

*3 The adjustment range is 20~100% at Custom mode.

Tunes brightness of image accrding to surrounding environment.

Matches brightness of images projected side by side.

# Advanced  Installability and System Features for Various Uses

## Geometry Correction

Geometry correction is possible from your computer by using the specialized application. Projection is possible on spherical surfaces and surfaces with corners, as well as conventional flat screens.

Spherical object | Corner wall | Curved screen | Curved screen
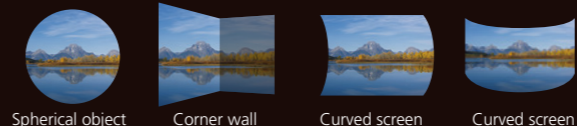
* The specialized application for geometry correction is required.

## Edge Blending

The multiple projectors allow to project one image on a huge curved screen by using the geometry correction and the edge blending functions*4 simultaneously.
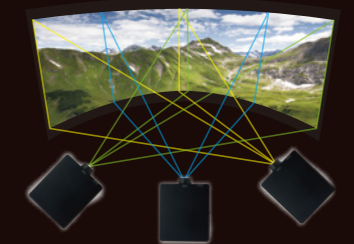
*4 Additional equipment may be required for the feature.

## 360° Projection

This projector provides great installation flexibility as it can be installed at various angle*5.

**360°**

*5 The  life of optical parts may shorten if the projector is installed with the lens facing downward or the IO connector side upward.

## Digital Connectivity

Equipped with an SDI input, the standard in the broadcast industry. 3G SDI can transfer 1080P signals via a coaxial cable. Projectors provide 5 digital inputs: SDI, HDBaseT™, HDMI®1/2, and DVI-D.
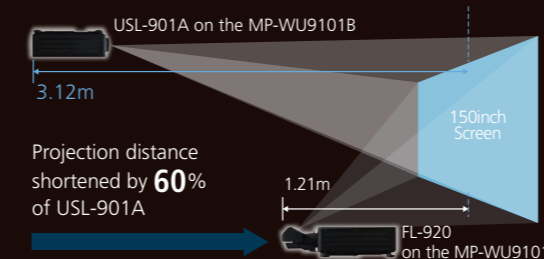
Blu-ray™ player · HDBaseT™ transmitter
HDBaseT™ · Up to approx.100m · Broadcast camera
SDI Up to approx. 100m

## Ultra Short Throw fixed lens FL-920 features

### All Glass lens

FL-920 uses all glass lenses that reduce the blurring that occurs under changes between high and low temperature.

### Ceiling mount HAS-404U

Ceiling mount bracket with 6-axis adjustment mechanism. Adopting the jack system, perform , it is easy to adjust elevation.

USL-901A on the MP-WU9101B
3.12m
Projection distance shortened by **60**% of USL-901A
1.21m
150inch Screen
FL-920 on the MP-WU9101B

Secure a clearance of 50cm or greater between the exhaust vents and a screen or walls.

* This figure is not drawn to scale.

## Motorized Lens Shift

The motorized lens shift lets you choose more convenient installation location, even for large spaces.

Up 0.22 screen
Left 0.1 screen | Right 0.1 screen
1.82 screen
Down 0.6 screen
1.2 screen
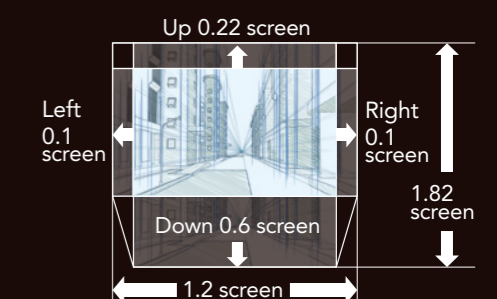
* This figure shows the lens shift range for the projector with the optional lens SD-903 at the ceiling mounting position.

* This figure is not drawn to scale.

## Other Features

· Perfect Fit · DICOM® *6 simulation mode · PbyP / PinP · Wired Remote & Remote ID

*6 This projector is not a medical device and is not compliant with the DICOM® standard, and neither the projector nor the DICOM® Simulation Mode should be used for medical diagnosis.

*Projected images are simulations.