

# LCOS Projector WUX450ST

## 1. Main Features

### 1-1. Ultra wide-angle lens and the maximum lens shift range of 75%

WX450ST allows for displaying 100 inch images from a very short distance of 1.20 meters. Furthermore, the projector can accommodate to a wide range of installment environment because of its large maximum lens shift range of 75%.

### 1-2. Single-lamp compact install model with WUXGA resolution and brightness of 4500 lm

Inheriting the basic features of the WUX400ST, the WUX450ST features a new LCOS panel and further optimized the optical technology to achieve the brightness of 4,500 lm to meet the market demand of brighter picture.

### 1-3. HDBaseT input

The WUX450ST features HDBaseT reception, which is capable of a long-distance transmission of video, audio, and control signals over single LAN cable. Cabling of up to 100 meters<sup>(\*1)</sup> is enabled to enhance flexibility and convenience in system configuration.

\*1: Always use STP cable that is above CAT5e specified by the TIA (Telecommunications Industry Association) of the United States. The length of 100 meters contains the length of patch cable and connectors. However, proper projection performance may not be achieved even within the specified distance, depending on the type of cable used and installation conditions. Also refer to the HDBaseT specifications.

### 1-4. Wi-Fi function

In addition to wired LAN connection, the WUX450ST features Wi-Fi function to support wireless LAN connection. This new feature enables wireless input of video and audio signals from a computer. (Wireless/wired data transfer is enabled by downloading dedicated application software from the projector and installing it into the source computer).

### 1-5. Originally developed image engine helps to achieve not only better picture quality but also excellent installation performance

In addition to advanced image processing, the image engine also capable of performing the following functions:

- 4-point Keystone Correction
- Edge Blending
- Picture by Picture
- Motion Blur Reduction

## 2. Specifications

### 2-1. Basic specifications

Model	WUX450ST	
Type	Product type	Projector
	Imaging device, number	Reflective LCD panel (LCOS) x 3
LCOS panel	Number of pixels	1920 x 1200 (WUXGA)
	Display size, aspect ratio	0.71-inch, 16:10
	Driving system	Active matrix
Projection lens	Lens configuration	15 groups, 19 elements
	F number, focal length	F2.7, 8.8 mm/0.35 in
	Zoom magnification	1.35 times (electronic system)
	Projection distance	0.35 – 3.64 m
	Projection distance at 100 in	1.20 m/3.94 ft
	Throw ratio <sup>(1)</sup>	0.56:1
	Amount of lens shift	V: 0% - 75%, H: ±10%
	Operation	Zoom, Fixed, Focus: manual, Lens shift: manual
Light source	Type	250-NSHA
	Power <sup>(2)</sup>	260/200 W
Images	Optical system	Dichroic mirror and PBS color separation-combination system
	Brightness <sup>(2)</sup>	4500/3460 lm
	Marginal luminance ratio	80%
	Contrast ratio	2000:1
	Image size (16:10)	30 – 300 in <sup>(3)</sup>
	Electronic zoom (for length)	12x maximum
	Keystone correction	V ±12°, H ±12°
Image signals	Analog PC input	WUXGA/UXGA/WSXGA+/SXGA+/WXGA+/FWXGA/WXGA/SXGA/XGA/SVGA/VGA
	Digital PC input	WUXGA/UXGA/WSXGA+/SXGA+/WXGA+/FWXGA/WXGA/SXGA/XGA/SVGA/VGA
	Digital video input	1080p/1080i/720p/576p/480p
	Component video input	1080p/1080i/720p/576p/576i/480p/480i
	HDBaseT input	Equivalent to the input signals for HDMI terminal
	Network	NMPJ screen transfer (CANON original protocol)
	USB data transfer	JPEG still image
Terminals	RJ-45 (HDBaseT)	HDBaseT input (video, audio, control, and network)
	DVI-I	Digital PC/Analog PC input
	HDMI	Digital PC/Digital video input (supporting Deep Color)
	Mini Dsub15	Analog PC/Component video input
	Mini jack x3	Audio input x2, Audio output x1
	Mini jack x1	Wired remote control connection
	Dsub9	RS-232C connection
	USB Type A	USB connection
	RJ-45	Network connection (1000BASE-T/100BASE-TX/10BASE-T)
Mechanisms	Adjustable feet	Bottom front: 2 places (Maximum elevation 6°)
	Built-in speaker	5 W, Monaural
	Dimensions [mm]	W: 337, H: 136, D: 415 (not including protrusions); W: 337, H: 132, D: 362 (including protrusions)
	Dimensions [inch]	W: 13.3, H: 5.4, D: 16.3 (not including protrusions); W: 13.3, H: 5.3, D: 14.3 (including protrusions)
	Mass	6.3 kg/13.9 lb
	Noise level <sup>(2)</sup>	37/30 dB
Others	Power supply	AC100 - 240 V; 50/60 Hz
	Power consumption <sup>(2)</sup>	365 W/295 W
	Stand-by power consumption <sup>(4)</sup>	1.8/0.2 W
	Operation environment	0°C – 40°C, 20% RH – 85% RH
	Storage environment	-20°C – 60°C

\*1: Calculated value for 100-in projection image

\*2: Lamp mode is Full power/Power saver. Brightness in Power saver mode is only a calculated value, and is not guaranteed as specification.

\*3: Indicates projectable range, although the optical performance is guaranteed only for 50 to 200 inches.

\*4: Varies depending on how HDBaseT and network are configured.

## 2-2. Image size and projection distance

The WX450ST is suited for projecting pictures in size between 30 and 300 inches. Projection distance to the corresponding picture size is as follows. Note that focus operations on this product is performed manually. The product's lens shift ratio is variable.

Diagram on the right exemplifies how the entire image is shifted upwards from the optical axis by lens shift function.

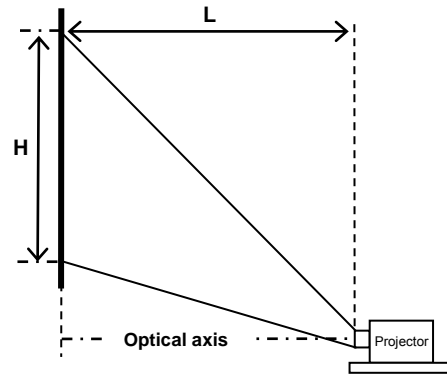


Image size (16:10)			Distance
Diagonal [inch]	Width [m/inch]	Height [m/inch]	Length [m/feet]
30	0.65/25.59	0.40/15.75	0.35/1.15
40	0.86/33.86	0.54/21.26	0.47/1.54
50	1.08/42.52	0.67/26.38	0.60/1.97
60	1.29/50.79	0.81/31.89	0.72/2.36
70	1.51/59.45	0.94/37.01	0.84/2.76
80	1.72/67.72	1.08/42.52	0.96/3.15
90	1.94/76.38	1.21/47.64	1.08/3.54
100	2.15/84.65	1.35/53.15	1.20/3.94
110	2.37/93.31	1.48/58.27	1.32/4.33
120	2.58/101.57	1.62/63.78	1.45/4.75
130	2.80/110.24	1.75/68.9	1.57/5.15
140	3.02/118.9	1.88/74.02	1.69/5.54
150	3.23/127.17	2.02/79.53	1.81/5.94
160	3.45/135.83	2.15/84.65	1.93/6.33

Image size (16:10)			Distance
Diagonal [inch]	Width [m/inch]	Height [m/inch]	Length [m/feet]
170	3.66/144.09	2.29/90.16	2.05/6.73
180	3.88/152.76	2.42/95.28	2.18/7.15
190	4.09/161.02	2.56/100.79	2.30/7.55
200	4.31/169.69	2.69/105.91	2.42/7.94
210	4.52/177.95	2.83/111.42	2.54/8.33
220	4.74/186.61	2.96/116.54	2.66/8.73
230	4.95/194.88	3.10/122.05	2.78/9.12
240	5.17/203.54	3.23/127.17	2.91/9.55
250	5.38/211.81	3.37/132.68	3.03/9.94
260	5.60/220.47	3.50/137.8	3.15/10.33
270	5.82/229.13	3.63/142.91	3.27/10.73
280	6.03/237.4	3.77/148.43	3.39/11.12
290	6.25/246.06	3.90/153.54	3.51/11.52
300	6.46/254.33	4.04/159.06	3.64/11.94

Notes: The distances listed on the table have been rounded off and are therefore approximate values.  
The table indicates projectable range, although the optical performance is guaranteed only for 50 to 200 inches.

### 2-3. Lens shift function and image position

This product has a lens shift function (manual) that can move the image position vertically and horizontally.

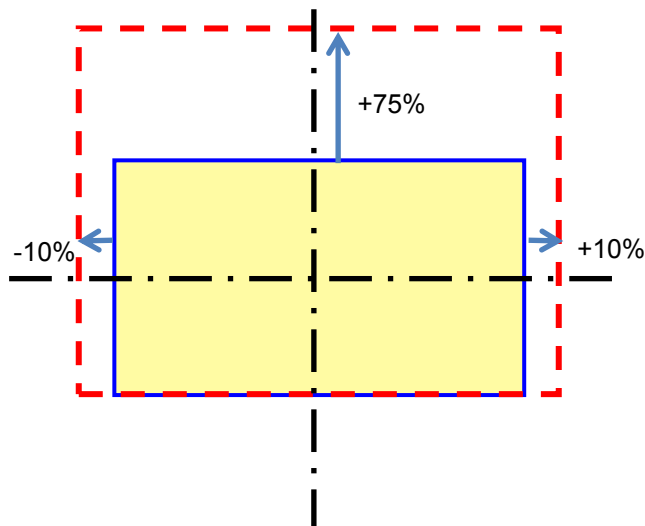
#### ■Lens shift specifications

Model	WUX450ST (WUXGA, 0.71 diagonal)
Amount of lens shift	(Vertical) 0%~75% (Horizontal) -10%~10%
Lens shift ratio	(Vertical) 5:5~12.5:-2.5 (Horizontal) 4:6~6:4

#### ■Image position

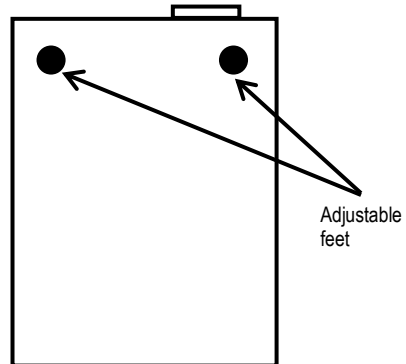
The following is the movable range of projection from this product.

The cross center is the lenses' optical axes.

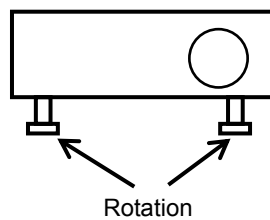


## 2-4. Adjustable feet

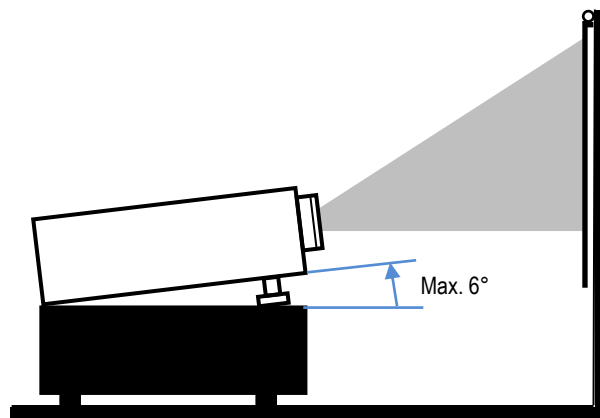
The WUX450ST has two adjustable feet on the projection lens side of the bottom. Adjust the lengths to lift up the lens side of the projector so that the projection angle can be adjusted.



The length is adjusted by rotation the feet.



This product allows an elevation up to 6 degrees between the projection optical axis and the installation table.



\* The figure in the above diagram is for explanation only and different from the actual product shape.

### 3. Video Signals

#### 3-1. List of supported signals

The video signals that can be input in this product are described in the tables below.

##### ●DVI input (Digital PC)

Signal format	Frequency		Dot clock [MHz]
	Horizontal [kHz]	Vertical [Hz]	
640×480	31.469	59.940	25.175
720×480	31.469	59.940	27.000
720×576	31.250	50.000	27.000
800×600	37.879	60.317	40.000
1024×768	48.363	60.004	65.000
1280×720	37.500	50.000	74.250
	45.000	60.000	74.250
1280×800	49.702	59.810	83.500
	49.306	59.910	71.000
1280×1024	63.981	60.020	108.000
1366×768	47.712	59.790	85.500
1400×1050	64.744	59.948	101.000
	65.317	59.978	121.750
1440×900	55.935	59.887	106.500
	55.469	59.901	88.750
1600×900	60.000	60.000	108.000
1600×1200	75.000	60.000	162.000
1680×1050	64.674	59.883	119.000
	65.290	59.954	146.250
1920×1080	27.000	24.000	74.250
	56.250	50.000	148.500
	67.500	60.000	148.500
1920×1200	74.038	59.950	154.000
1920×1080 PsF	27.000	24.000	74.25
	28.125	25.000	74.25
	33.750	30.000	74.25

##### ●HDMI input (Digital PC, digital video)

Signal format	Frequency		Dot clock [MHz]
	Horizontal [kHz]	Vertical [Hz]	
640×480	31.469	59.940	25.175
800×600	37.879	60.317	40.000
1024×768	48.363	60.004	65.000
1280×800	49.702	59.810	83.500
	49.306	59.910	71.000
1280×1024	63.981	60.020	108.000
1366×768	47.712	59.790	85.500
1400×1050	64.744	59.948	101.000
	65.317	59.978	121.750
1440×900	55.935	59.887	106.500
	55.469	59.901	88.750
1600×900	60.000	60.000	108.000
1600×1200	75.000	60.000	162.000
1680×1050	64.674	59.883	119.000
	65.290	59.954	146.250
1920×1200	74.038	59.950	154.000
480p	31.469	59.940	27.000
576p	31.250	50.000	27.000
720p	37.500	50.000	74.250
	45.000	60.000	74.250
1080i	28.125	50.000	74.250
	33.750	60.000	74.250
1080p	27.000	24.000	74.250
	56.250	50.000	148.500
	67.500	60.000	148.500

##### ●HDBaseT input

Signals that are transmitted can be displayed in the same resolution and frequencies as the HDMI input as shown in the above chart.

HDBaseT signals are signals specified by the HDBaseT standards.  
 The signal is transmitted as HDBaseT signal through the cable and converted to HDMI signal when inputted to the projector.  
 Proper display is not guaranteed when receiving HDBaseT signal that cannot be converted back to any of the HDMI signal listed above.

Notes: Always use STP cable that is above CAT5e specified by the TIA (Telecommunications Industry Association) of the United States. The length of 100 meters contains the length of patch cable and connectors. However, proper projection performance may not be achieved even within the specified distance, depending on the type of cable used and installation conditions.

●Analog PC input (1, 2)

Signal format	Frequency		Dot clock [MHz]
	Horizontal [kHz]	Vertical [Hz]	
640×480	31.469	59.940	25.175
720×480	31.469	59.940	27.000
720×576	31.250	50.000	27.000
800×600	37.879	60.317	40.000
848×480	31.020	60.000	33.750
1024×768	48.363	60.004	65.000
1280×768	47.776	59.870	79.500
	47.396	59.995	68.250
1280×800	49.702	59.810	83.500
	49.306	59.910	71.000
1280×960	60.000	60.000	108.000
1280×1024	63.981	60.020	108.000
1366×768	47.712	59.790	85.500
1400×1050	64.744	59.948	101.000
	65.317	59.978	121.750
1440×900	55.935	59.887	106.500
	55.469	59.901	88.750
1600×900	60.000	60.000	108.000
1600×1200	75.000	60.000	162.000
1680×1050	64.674	59.883	119.000
	65.290	59.954	146.250
1920×1080	56.250	50.000	148.500
	67.500	60.000	148.500
1920×1200	74.038	59.950	154.000

●Component video input

Signal format	Frequency		Dot clock [MHz]
	Horizontal [kHz]	Vertical [Hz]	
480i	15.734	59.940	13.500
480p	31.469	59.940	27.000
576i	15.625	50.000	13.500
576p	31.250	50.000	27.000
720p	37.500	50.000	74.250
	45.000	60.000	74.250
1080i	28.125	50.000	74.250
	33.750	60.000	74.250
1080p	56.250	50.000	148.500
	67.500	60.000	148.500
1080PsF	27.000	24.000	74.25
	28.125	25.000	74.25
	33.750	30.000	74.25

Analog/digital PC signals in this specification refer to RGB video signal. This is because signals that are outputted from PC in most cases are in that format.

Component video/digital video signals in this specification refer to color-difference signal because signals that are outputted from video equipment in most cases are in that format.

Please note that Composite video and S video signals are not included.

Specifications in above charts are subject to change without notice.

Notes: If the analog PC signal of the dot clock is greater than 162MHz, the images are not projected correctly.

Use VGA cable with all pins connected. Images may not project properly if the correct VGA cable is not used.

● USB video signal (only for still images)

Images that are stored in a USB memory can be projected as still images by inserting the USB memory into the projector.

File type	JPEG
Format	Standard DCT method (Baseline)
Max. pixels	10912 x 8640

Only JPEG files can be read by the projector with maximum pixels of 10912 x 8640.

It also supports Standard DCT method (baseline) format. Optimized, progressive and reversible methods are not supported.

Note that when JPEG still image is inputted, digital zoom operation from display menu will not be supported.

Slideshow setting for video input via USB is done from the video setting menu; use USB file browser to display the video input via USB

●Network video input (only for still images)

The projector will receive still images from a computer (when NMPJ in operation) via network. Still images are output to the projector by converting the image to the number of pixels of the LCOS device used for the projector via NMPJ operation.

Note: Video signals are categorized in the following manner in this specifications:

PC signals	Digital PC, analog PC, HDMI (PC), HDBaseT (PC)
Video signals	Component, HDMI (AUTO), HDBaseT (AUTO)
Still image signals	USB, network

●Notes on inputting analog PC signals

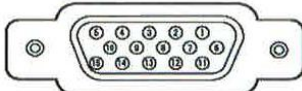
The following should be noted when inputting analog PC signals.

- 1) This product does not support video signals with a dot clock larger than 162 MHz owing to hardware limitation.
- 2) Normally video output equipment such as PC automatically reads projector's EDID data and sends appropriate signals that the projector can display.

EDID (Extended Display Identification Data)  
 Video display equipment such as displays stores display apparatus data in the memory. This information is called EDID, which contains displayable video signal information.

- 3) However, note that a conduction line to transmit EDID data may not be supported in certain cables.

Following are pin array for D-sub15 connector

	①	R	⑨	+5 V power
	②	G	⑩	Ground (Vertical sync.)
	③	B	⑪	Monitor ID0
	④	Monitor ID2	⑫	DDC data
	⑤	Ground (Horizontal sync.)	⑬	Horizontal sync.
	⑥	Ground (R)	⑭	Vertical sync.
	⑦	Ground (G)	⑮	DDC clock
	⑧	Ground (B)		

For pin 9, 12, and 15, use a cable that supports conduction line.

Lack of conduction line for these pins may result in no display of certain video signals as the projector's EDID cannot be obtained by the video output equipment.

- 4) EDID data cannot be transmitted when 5BNC cable is used; in such case, it is necessary to setup the output equipment properly so that the equipment outputs correct video signal displayable on the projector.

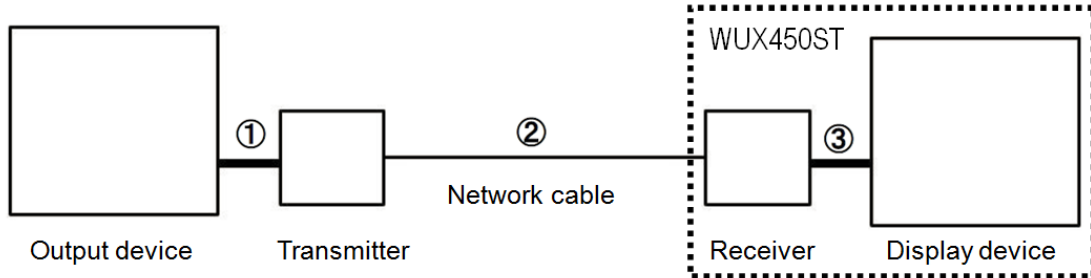
e.g.: Dot clock of video signal outputted from a computer can be altered by changing the resolution of video card or frame rate.



### 3-2 .HDBaseT specifications

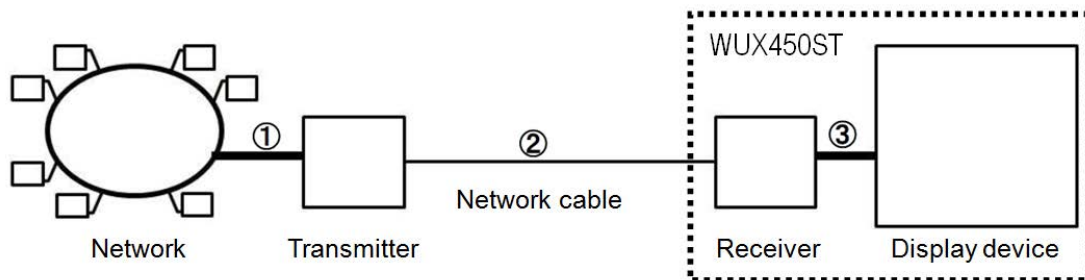
HDBaseT is used to transfer video signal and network data. Below image shows the connections for HDBaseT; note that the WUX450ST is equipped with a receiver so no extra receiver is needed.

- For video signals (HDMI cable is used for connection ①)



- ①Video signal is sent to the transmitter from an output device such as Blu-ray player.
- ②Transmitter then converts the video signal into HDBaseT signal and sends out.
- ③Receiver receives the HDBaseT signal and converts to an HDMI signal and sends out.
- ④Display device will display the HDMI signal.

- For network communications (Network cable is used for connection ①)



- ①Network data is sent to the transmitter from a secured network.
- ②Transmitter then converts the network data into HDBaseT signal and sends out.
- ③Receiver receives the HDBaseT signal and converts to a network data and sends out.
- ④Network data from a display device can transmit in the same manner in reverse direction.

- HDBaseT cable and transmission distance

Depending on the type of network and transmitter used, the said length of HDBaseT may not be met. This is likely when signals with extensive data capacity are transferred. We recommend using shielded type cables (TIA-specified CAT6 or CAT7 cable).

- HDBaseT video signal quality

Owing to the structure of a network cable, HDBaseT signals are transferred over parallel channels that are physically divided into four. Each channel has an index value (dB) to indicate signal stability; with the WUX450ST, a total value is calculated by detecting the four channel values. Based on this value, the projector determines the signal quality as indicated in the chart on the right.

Index	Indication (color)	Determination
100-60	Green	Usage recommended
59-40	Yellow	Usage not recommended
39-0	Red	Cannot be used

### 3-3. Others regarding network transmission

Transmission speed of 100BASE-T/10BASE-T is supported on the HDBaseT network. On the contrary, RJ-45 terminal exclusive for network use supports 1000BASE-T; thus the transmission speed is slower when compared to RJ-45 terminal.

The advantage of HDBaseT is the capability to transfer video signal and network communication data simultaneously, which contributes to reducing the number of cables.

Use of NMPJ is possible in this section.

The projector enables video signal transmission over HDBaseT network.

#### ●Setup and standby power

Standby power for the projector setup and network setup will change accordingly:

Interface setup		Network function(network standby setup)	
HDBaseT	Selection of a wired network	On (Eco)	Off
ON	LAN port	1.8W	1.6W
ON	HDBaseT	1.8W	1.6W
OFF	LAN port	0.6W	0.2W

#### ●Wireless specifications

Transmission standards	◆ IEEE 802.11b	◆ IEEE 802.11g	◆ IEEE 801.11n
Transmission distance	Approx. 25 m Measured under a condition of no surrounding radio wave interference with clear view to an access point.		
Wi-Fi authentication WPS (*1)	Obtained Supported: Push-button configuration (PBC) and PIN code method (PIN)		
Encryption	◆ Open ◆ WEP	◆ WPA-PSK TKIP ◆ WPA-PSK AES	◆ WPA2-PSK TKIP ◆ WPA2-PSK AES
Connection mode	◆ Infrastructure mode ◆ PjAP(*2) mode		

\*1: WPS (Wi-Fi Protected Setup): This standard enables fuss-free configuration of wireless LAN connection and security setup. WPS automatically scans for a nearby connectable device thus there is no need to obtain and enter the IP address of the connecting device.

\*2: PjAP (Projector Access Point): This is an original method to make the projector as an access point. It is similar to a conventional ad hoc wireless system, which connects the projector and other device directly; however PjAP specifications further enable connection of up to 5 devices simultaneously.

#### Connection modes and functions

Mode	Connection		Usable (✓) and unusable (—) functions						
	WPS (PBC, PIN)	Manual	NMPJ	User command	Control using a browser	Mail	SNMP	PJLink/AMX/Crestron RoomView	Firmware update
Infrastructure	✓	✓	✓ (*3)	✓ (*3)	✓	✓	—	—	—
PjAP	×	✓	✓	✓ (*4)	✓	—	—	—	—

\*3: Dedicated application software downloadable from the WUX450ST.

\*4: Power ON command cannot be performed in wireless connection.

#### Automatic scanning

The WUX450ST automatically scans for an access point and makes connection when the projector is set in the following conditions:

- ◆ Wireless network setting is turned ON
- ◆ The projector starts up with the wireless network function turned ON

Mode	Access point
Infrastructure	The last or previous access point(*5)
PjAP	The last access point

\*5: Scanning range and procedure details will not be mentioned in this document.

## 4. Accessories

Main supplied accessories	Remote Control RS-RC06	Power supply: DC 3.0V (with two AAA batteries) Communication range: approx. 8 m <sup>(*)1</sup> within ±25 degrees of the receiver
	Computer cable	mini Dsub15-mini Dsub15 This is used for connection with computer. The cable transmits analog PC signals.
	Power cord	Connects the projector to a power source.
Optional accessories	Ceiling Attachment RS-CL16	This is used for ceiling mount. <sup>(*)2</sup>
	Ceiling Pipe 400 – 600 mm RS-CL08	The ceiling pipe is used as a projector ceiling extension when installing the projector away from the ceiling. It is compatible with Canon ceiling attachments.
	Ceiling Pipe 600 – 1000 mm RS-CL09	The ceiling pipe is used as a projector ceiling extension when installing the projector away from the ceiling. It is compatible with Canon ceiling attachments.
	Option Foot RS-FT01	Attached to 4 points on the top side when the projector is installed upside down. Attached to 2 points on the rear end of the projector bottom to adjust the inclination when it is installed right side up.
	Remote Control RS-RC05	Power supply: DC 3.0V (with two AA batteries) Communication range: approx. 8 m within ±25 degrees of the receiver Capable of wired connection <sup>(*)3</sup>
Replacement parts	Lamp Assembly RS-LP08	250-NSHA Recommended lamp replacement time <sup>(*)4</sup> 3000H (5000H in silent/low mode)
	Replacement Air Filter RS-FL02	This filter is installed at the air intake to prevent dust from entering.

\*1: Maximum distance for using the remote controller from the front is limited to 4 meters/13 feet as a part of the remote receptor on the front side will be covered by the projector lens.

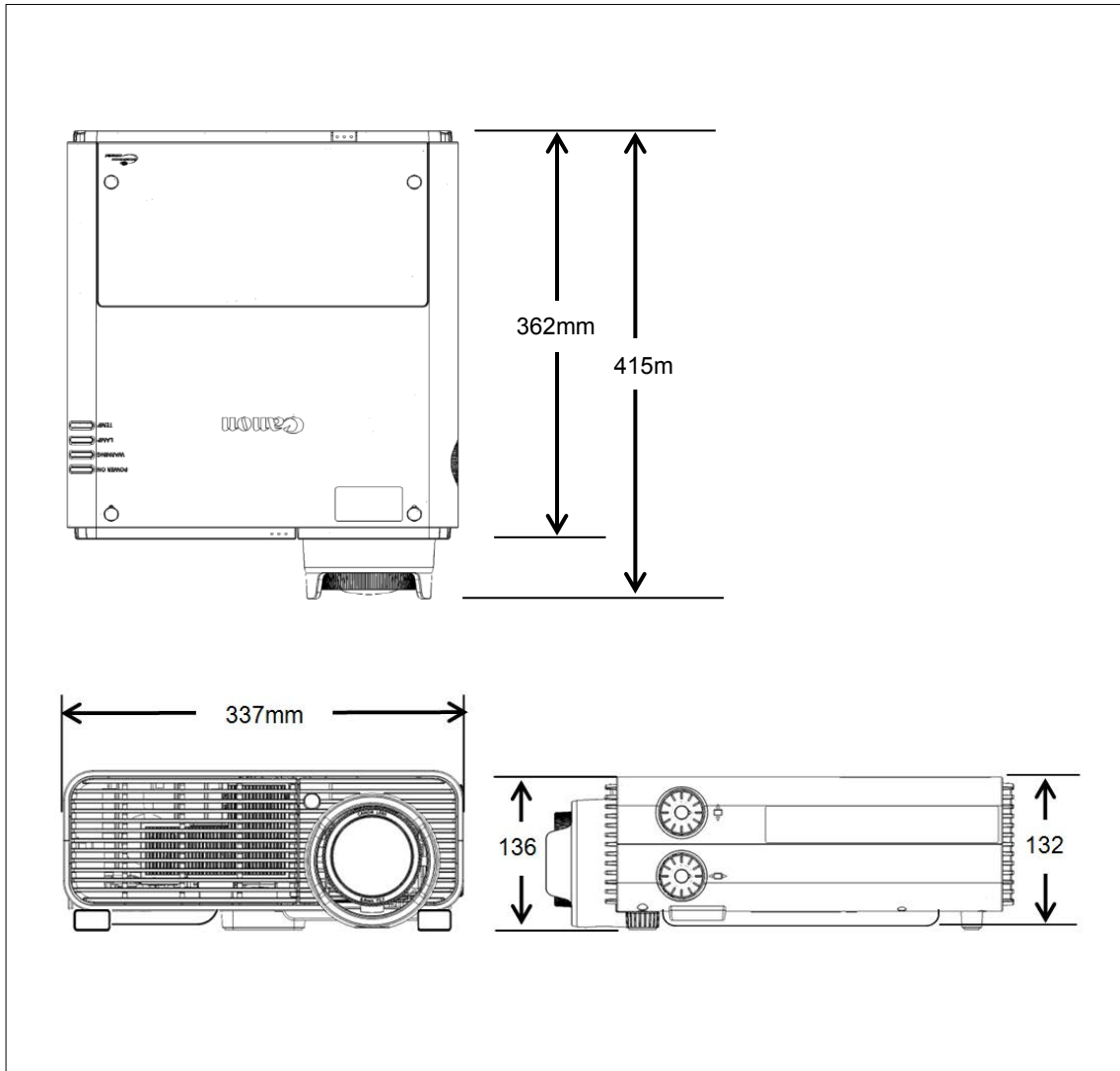
\*2: Only use the attachment dedicated for the WUX450ST as the size and the weight will vary among products. Consult a professional installer before attempting to mount the projector to a ceiling.

\*3: Uses a commercially available audio cable (3.5Φ stereo mini-plug) for cable connection.

\*4: When the lamp has a 50% survival rate and can maintain a 50% light retention ratio. This value does not guarantee the lamp life.

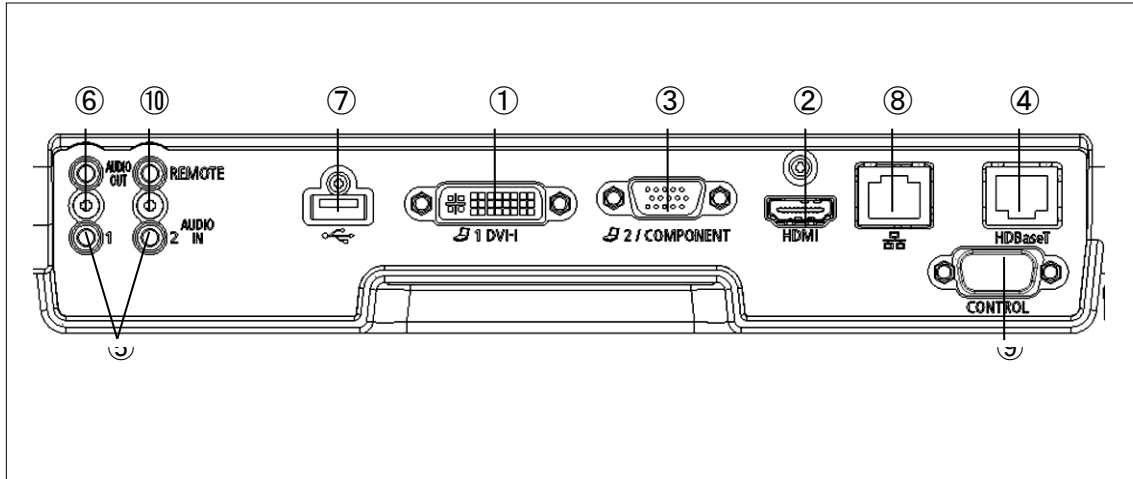
## 5. Product Appearance

- External dimensions



External dimensions	Including protrusions	W: 337 mm, H1: 136 mm, D1: 415 mm W: 13.3 in, H1: 5.3 in, D1: 16.3 in
	Not including protrusions	W: 337 mm, H1: 132 mm, D1: 362 mm W: 13.3 in, H1: 5.2 in, D1: 14.3 in
Lens center	From the left side: 77.0 mm (front is the surface with lens). From the installed surface: 61.75 mm	
Mass	6.3 kg (13.9 lb)	

●Terminals



	Terminal		Signal
Video input	①	DVI-I	Digital PC/Analog PC1
	②	HDMI	HDMI (with audio)
	③	Mini Dsub15	Analog PC2/Component video
	④	RJ-45 (HDBaseT)	HDBaseT input
Audio input	⑤	Mini jack x2	Stereo audio x2
Audio output	⑥	Mini jack	Stereo audio
Control	⑦	USB type A	USB connection
	⑧	RJ-45	1000BASE-T/100BASE-TX / 10BASE-T
	⑨	Dsub9	RS-232C connection
	⑩	Mini jack	Wired remote control connection

●Wired remote control connection

The WUX450ST can be operated from optional remote control RS-RC05 via wired connection.

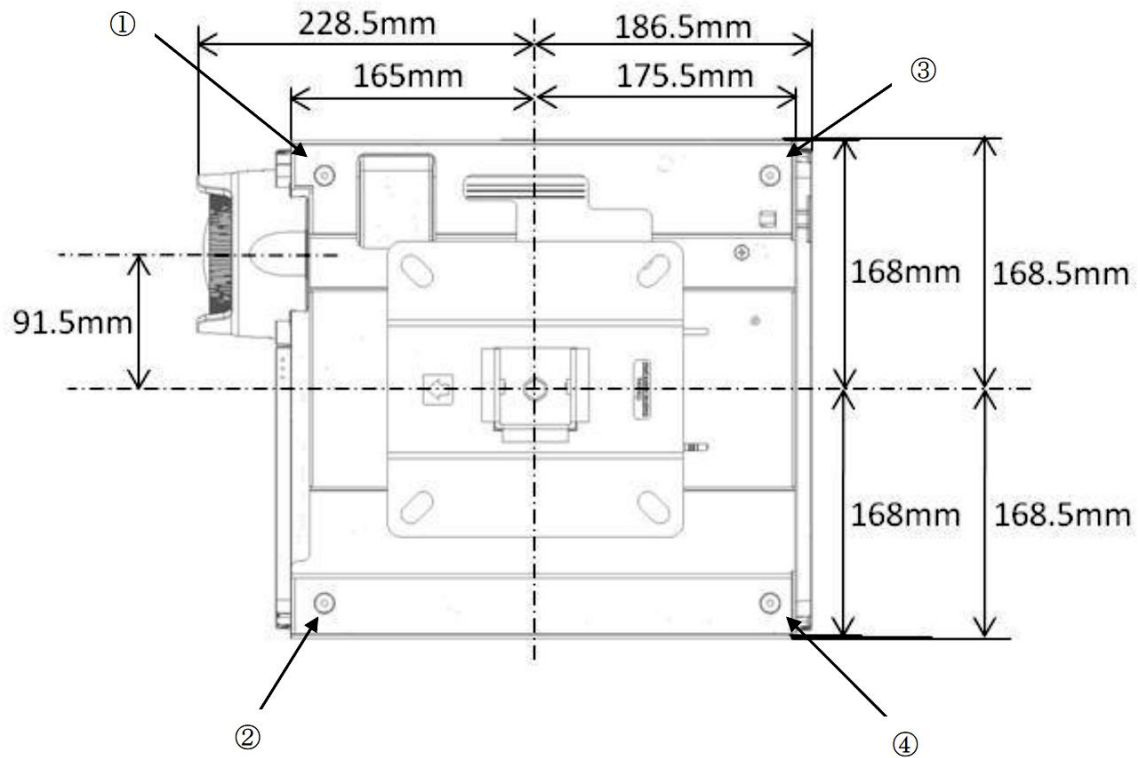
When a cable is connected to a mini jack terminal for wire remote control, the projector will automatically disable its infrared wireless remote control mode. In this mode, the projector can only be operated from the wired remote control.

The remote control will also disable its infrared wireless remote control mode.

There is no need to configure the remote control channel settings for wired remote control connection.

Note that when the wired remote control is physically connected but disconnected owing to cable malfunction or breakage, remote operation will be disabled from all remote controllers.

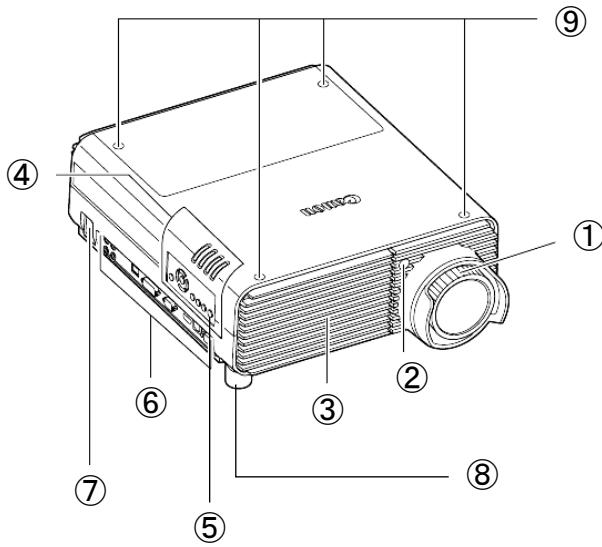
- Screw holes for ceiling mount: 4 locations (M6)



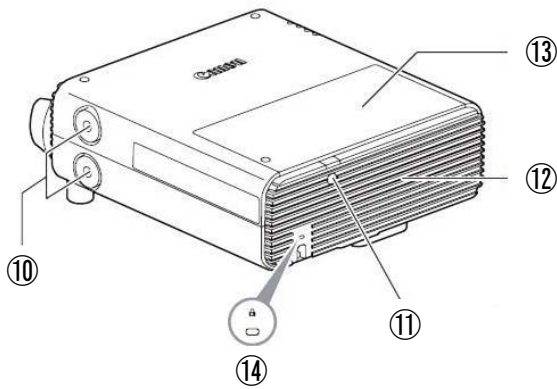
Remove the adjustment feet to use ① and ②.

③ and ④ can be used for attaching optional feet.

●Part names



- ① Projection lens
- ② Infrared remote receptor
- ③ Air intake vent/air filter
- ④ LED indicator
- ⑤ Operation buttons
- ⑥ Terminals and connectors
- ⑦ Power cord connector
- ⑧ Adjustable foot
- ⑨ Hole caps



- ⑩ Lens shift side control
- ⑪ Infrared remote receptor
- ⑫ Exhaust vent
- ⑬ Lamp cover
- ⑭ Anti-theft lock hole

## 6. Cautions for Installation and Operation

### 6-1 Cautions for installation

The WUX450ST adopts a large, wide-angle lens and manual lens shift mechanism.

For this reason, the following phenomenon will generate in time to time however it is not a malfunction.

- Image wobbling while adjusting focus

While turning the focus ring, vibration is generated that shakes the lens, which results in image wobbling.

- Image coloration

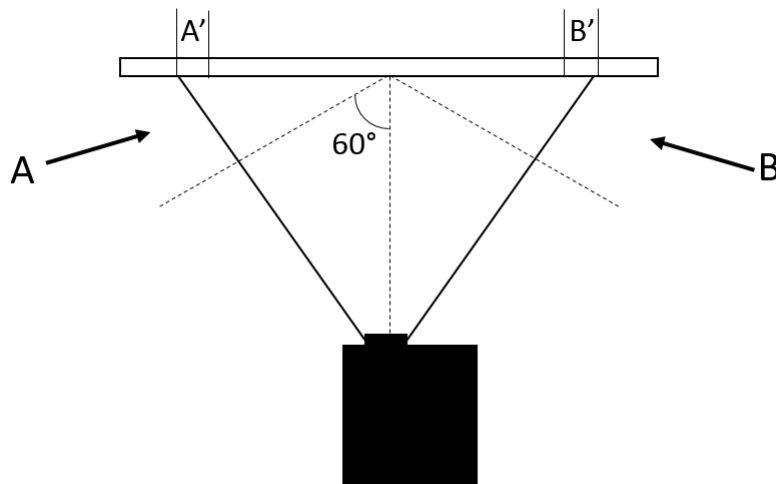
A part of the image will have coloration when viewing the projected image from either side of the screen in an angle of 60-deg or larger. The left of the screen when viewed from the left side, and the right of the screen when viewed from the right will appear in magenta.

Identically, the top of the screen when viewed from the top, and the bottom of the screen when viewed from the bottom will appear in green.

This phenomenon is especially noticeable with images that are white or light in color.

This phenomenon is generated owing to polarization property, which may not be as apparent as others depending on the type of screen used.

Following diagram shows the example of viewing from the sides.



The image in A' area will appear in magenta when viewed from A side.

The image in B' area will appear in magenta when viewed from B side.



## 6-2 Cautions for operation

- This projector generates intense light from the projection lens. Do not stare directly into the lens, otherwise damage to eyes could result.
- Do not place any object in front of the lens while the projector is in use as focused light projected to an object for a prolonged time may result in a fire.
- Do not block the intake and exhaust vents of the projector; also, install the projector so that the intake and exhaust vents are not subjected directly to warm air and cold air of air conditioning.
- Replace with new lamp when the light turns off or reaches its replacement period: The projector uses high-pressure mercury lamp for its light source, which may deteriorate or reduce luminance owing to the characteristics and extensive use of the mercury lamp. Prolonged usage may also lead to breakage of the lamp. Contact a local dealer for service and replacement of the lamp; such maintenance should be conducted at a service center by a qualified personnel.

Note: The chance of lamp breaking before its replacement period is less than half and it is likely that the lamp will not break until the end. However the actual time until breakage will vary extensively by each lamp.

The reason for such individual variability is minute manufacturing defect is suspected however accurate time to breakage cannot be estimated to date.

- Set the Fan Control mode (High altitude mode) to ON when using the projector in high altitudes (2,300 meters or more above sea level) where the atmospheric pressure is low
- Use of a cable capable of transmitting EDID data is recommended when inputting analog PC signal: Video signal incompatible with the projector may be outputted from the source device if the source device cannot read the EDID data from the projector. In such case, replace the cable with an EDID-data transmittable cable or change the dot clock of projector-compatible signal to below 162 MHz in the output source device.
- Video and audio using NMPJ: The following phenomenon may generate depending on the characteristics of a computer or network in use. This is not a projector malfunction:
  - ◆ Image is not reproduced smooth and natural
  - ◆ Irregular gap will generated in the video and audio