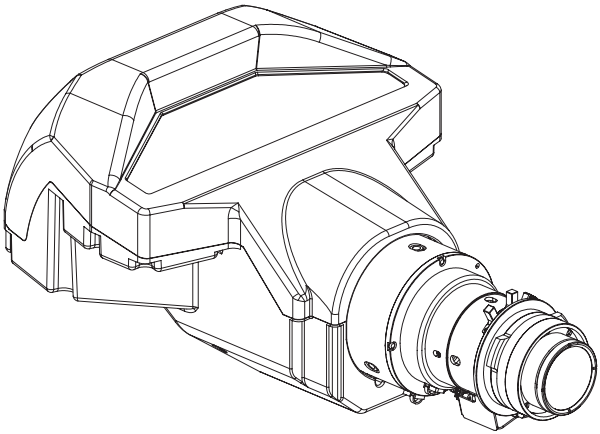
EIKI

Installation Guide



UST Lens

AH-A25010 (A16)

Packing Checklist

Carefully unpack and check that the following items are included:

Accessories in the box

Item	Photo	Part Name	Quantity	Tools
#		AH-A25010	1	
#		BORESIGHT	1	
#		ADJUSTING TOOL EXTENDER	3	
#		L-SHAPE TOOL	1	
A		MOUNT BRACKET	1	
B		SUPPORTER BRACKET	1	

Item	Photo	Part Name	Quantity	Tools
C		SUPPORTER	1	
I		SCREW M3 *L8	2	⊕ 2 screw driver
II		SCREW M3 *L8	1	2.5 Allen key/ Allen wrench
III		SCREW M6 *L22	2	5 Allen key/ Allen wrench
IV		WASHER M3-3.7 x 0.8 x 18	3	
V		WASHER M6-6.7 x 1 x 16	2	

System Requirement

Firmware Version: V[03.77] or higher

To check the firmware version, go to [**OSD** > **Option** > **Information** > **Firmware version**].

Installation

Summary of UST Lens Installation

1. Enter the UST mode
2. Remove the Non-UST lens
3. Remove the non-UST lens boresight
4. Install the UST lens boresight
5. Install the bracket to the lens
6. Install the supporter to the projector
7. Adjust the boresight gear
8. Install the UST lens
9. Before adjusting boresight
10. Adjust the boresight focus
11. Remove the UST lens
12. Back to the normal mode

1. Enter the UST mode

Projector Conditions

- Remove the lens cap from the projector.
- Install the non-UST lens to the projector if you have.
- Connect the AC power cord.

1. Power on the projector.

2. Enter the UST mode.
Go to [**OSD** > **Option** > **Service** > **UST Lens Install** > **Start**].

> ***Note:***
> - *If you don't have non-UST lens,*
> √ *Press [***Exit** > **Source** > **Left** > **Right***] on the remote control or keypad on the projector, and then the projected image will blink twice when the projector enters the UST mode.*
> √ *Send [CF_USTG_1] command to the projector when you can only control the projector via RS232C connection.*

3. The projector automatically goes power off.

> ***Note:***
> - *When the projector enters the UST mode, the brightness will decrease until the UST mode setting process is complete.*

4. Disconnect the AC power cord.

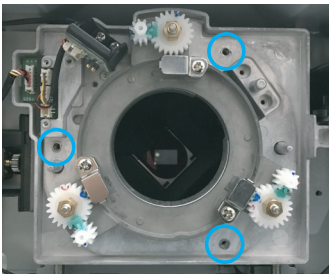
2. Remove the Non-UST lens

If you use non-UST lens, remove the non-UST lens from the projector.

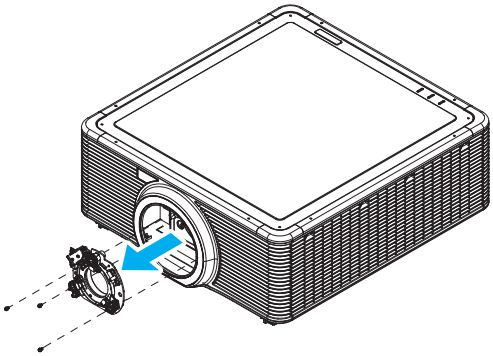
1. Rotate the lens counter-clockwise to disengage it from the lens mount.
2. Remove the lens out of the lens mount.

3. Remove the non-UST lens boresight

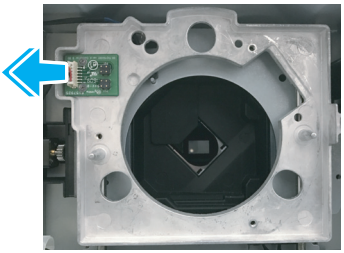
1. Remove three screws securing the existing boresight plate to the lens mount.

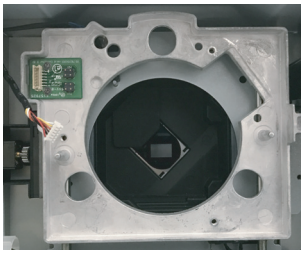


2. Remove the boresight module from the lens mount.



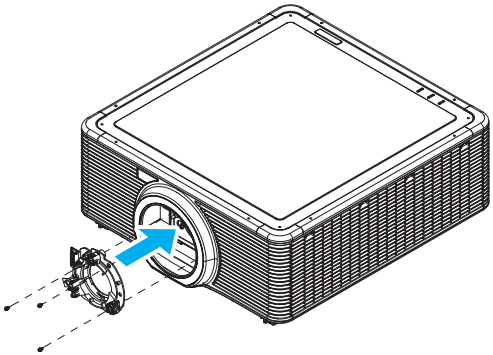
3. Disconnect the lens cable from the UST lens boresight connector.



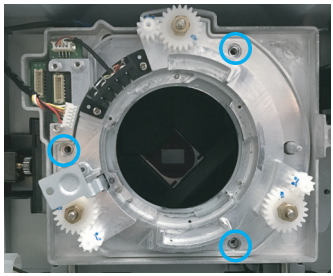


4. Install the UST lens boresight

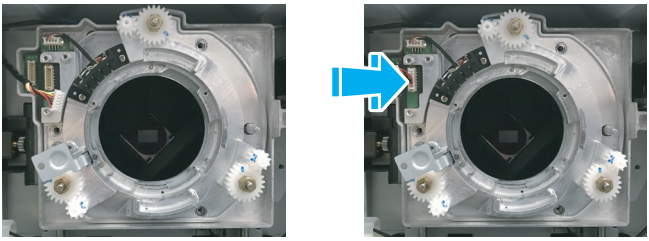
1. Install the UST lens boresight module into the lens mount.



2. Fasten three screws on the plate to secure the UST lens boresight module in place.



3. Connect the lens cable to the UST lens boresight connector.

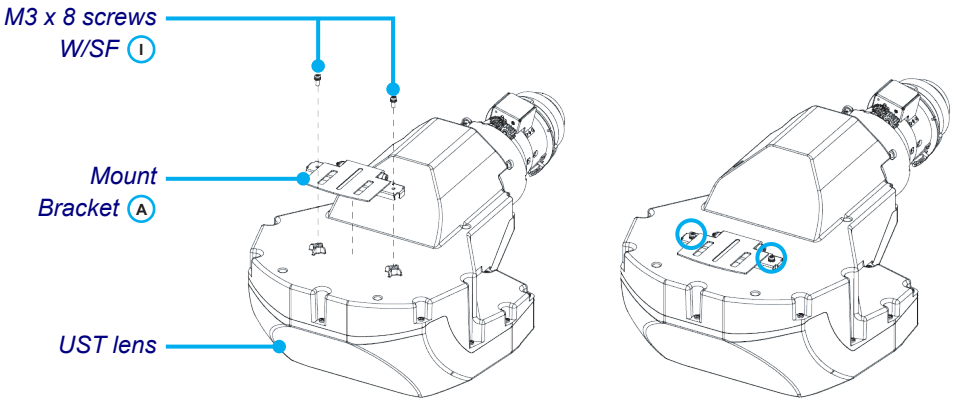


> ***Important:***
> *The boresight module needs to be adjusted before assembling it to the unit. See [7. Adjust the boresight gear].*

> ***Note:***
> - *Ensure the lens cable is not wrapped or pinched when securing the boresight module.*

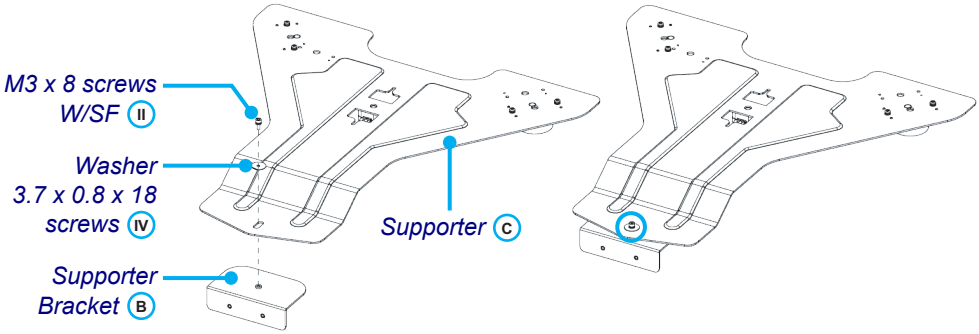
5. Install the bracket to the lens

1. Place the lens upside down on the cushioned surface to avoid any damage or scratch.
2. Using ⊕ screw driver, fasten the M3 x 8 screws (2 pcs) Ⓘ to secure the mount bracket Ⓐ onto the UST lens assembly.



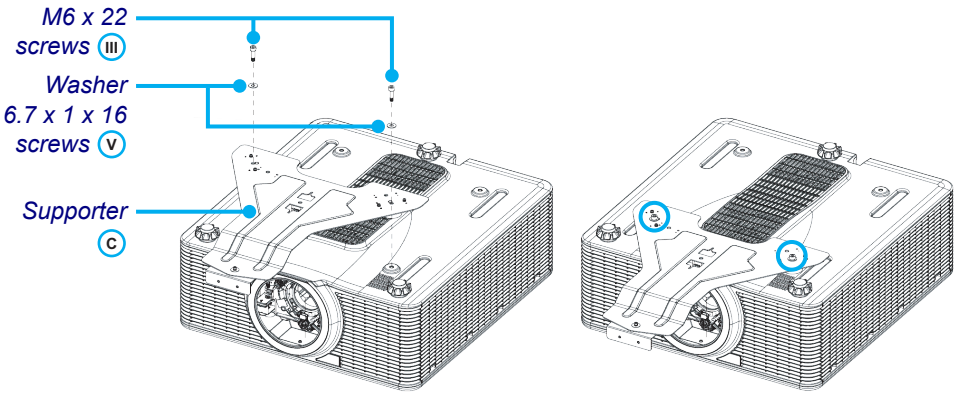
6. Install the supporter to the projector

1. Using 2.5 Allen key/Allen wrench ◉, fasten the hex-head screw M3 x 8 (1 pc) Ⅱ and washer 3.7 x 0.8 x18 (1 pc) Ⅳ to pre-lock the supporter bracket Ⓑ.

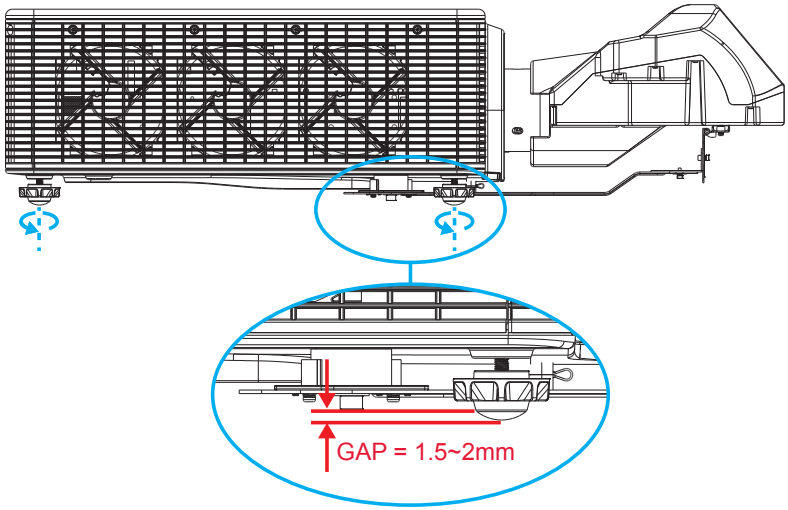


> **Note:**
> • *Do not fully tighten them.*

2. Attach the supporter Ⓒ to the bottom of the projector.
3. Using 5 Allen key/Allen wrench ◉, fasten the hex-head screws M6 x 22 (2 pcs) Ⅲ and washers 6.7 x 1 x 16 (2 pcs) Ⅴ to secure the supporter Ⓒ to the mounting holes.

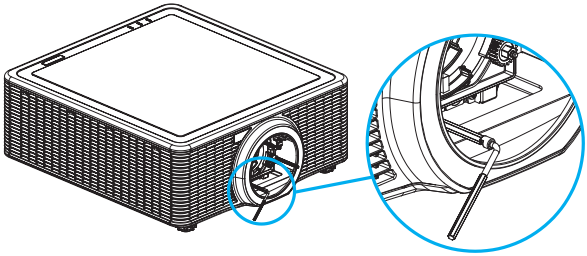


4. Adjust three projector feet (adjusters) counter-clockwise by 5 turns to increase the space for the table top installation.



7. Adjust the boresight gear

To complete image adjustment, use the L-shape tool and make sure the Boresight extender is properly installed.



1. Ensure the boresight screws are at the initial state.
If not, adjust the screw counter-clockwise until the end and check the mark is roughly aligned.

2. Follow the recommended adjustment range to adjust the boresight gears according to the different projector orientation.

Orientation	A	B	C
Table Top	3 + 1/4	9	9
Portrait (L)	6 + 3/4	7	10 + 3/4
Portrait (R)	5 + 1/4	10 + 3/4	6
Ceiling Mount	10 + 2/4	7 + 1/4	7 + 1/4
Upright	10 + 3/4	8 + 1/4	8 + 2/4

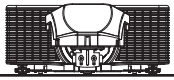
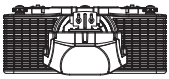
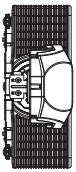


Table Top



Ceiling Mount

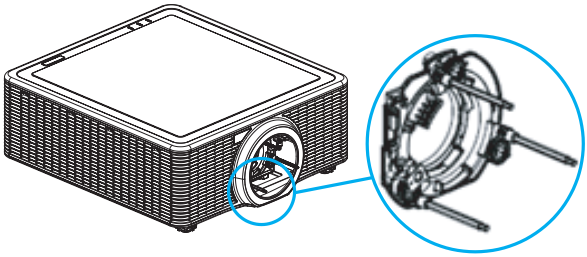


Left Portrait

Right Portrait

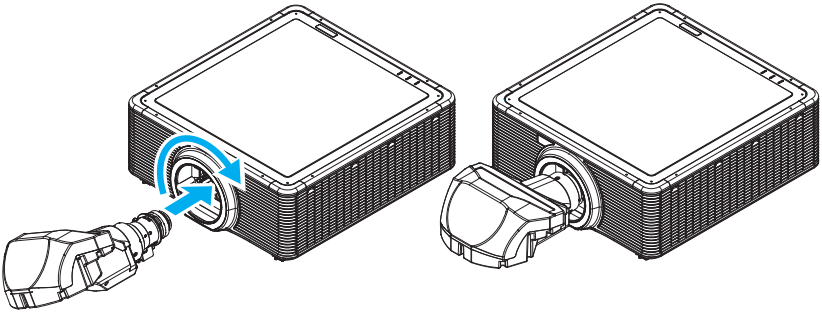
8. Install the UST lens

1. Install the Boresight extender.



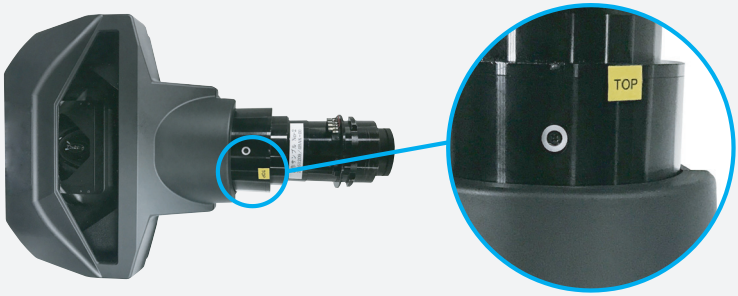
2. Install the A16 lens.

3. Rotate the lens clockwise to lock the lens in place.



Note:

- *When installing the UST lens, make sure the label* **TOP** *is on the lens assembly is facing up.*

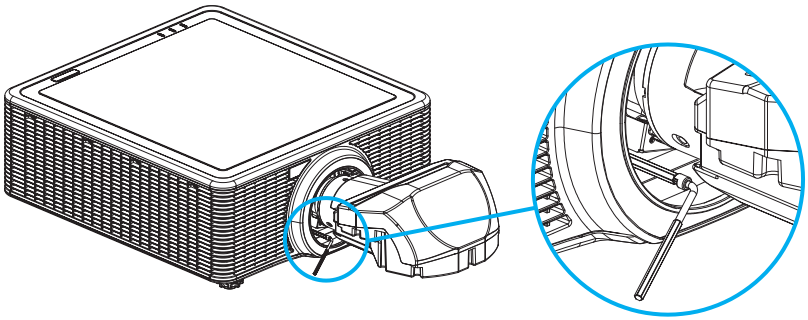


9. Before adjusting boresight

1. Connect the AC power cord and set the power switch to ON.
2. Observe the following guidelines before turning on the projector:
   - Ensure the lens is properly installed into the projector.
   - Ensure no personnel or no object is in the beam path.
3. Turn on the projector by pressing ON on the remote control or ⏻ on the keypad of the projector.
4. After the projector is turned on, these scenarios occur:
   - Limited lens shift is allowed.
   - Source input is not available.
5. Follow the Boresight adjustment instructions to adjust the image.
6. Press "**PATTERN**" to switch the test pattern.
7. Press "**EXIT**" to exit the adjustment process.

10. Adjust the boresight focus

To complete image adjustment, use the L-shape tool and make sure the Boresight extender installed.

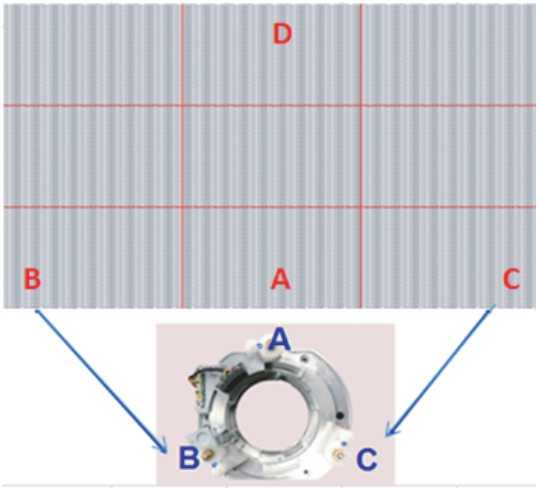


1. Power on the projector and make sure the whole projection screen is uniformly focused. If some parts are not focused, readjust the boresight gear till you get focused screen.

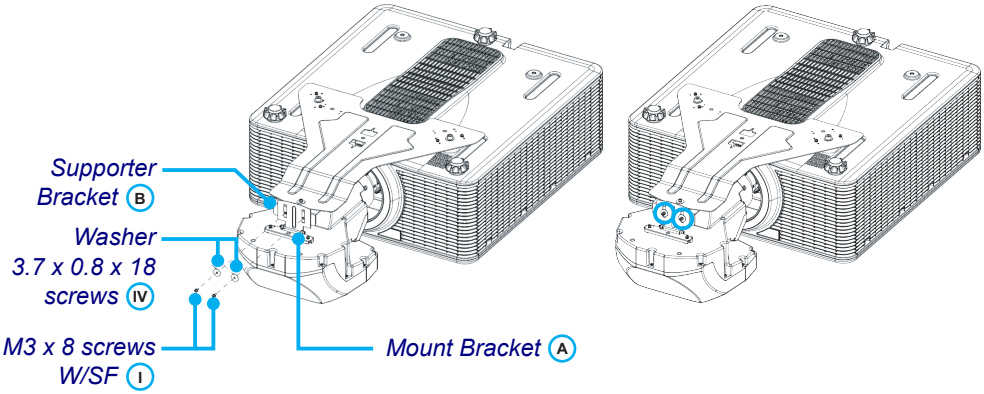
2. Adjust the floating focus and back focus until the center of the screen is clear.

> ***Note:***
> - *"ZOOM" button on the remote control is for "BFL" adjustment.*
> - *"FOCUS" button on the remote control is for "floating focus" adjustment.*
>
> 

3. Adjust the boresight **B** and **C** until position **B** and **C** on the screen is clear.
4. Adjust the focus until position **D** on the screen is clear.
5. Adjust the boresight **A** until position **A** on the screen is clear.

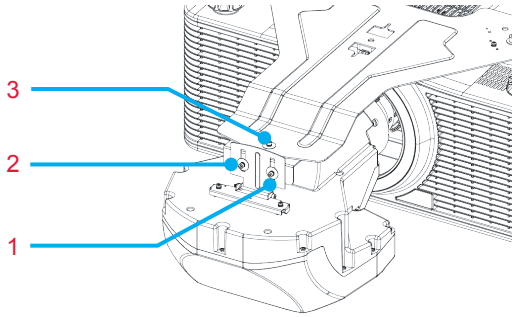


6. After the image adjustment is complete, using 2.5 Allen key/Allen wrench ◉, fasten the hex head screws M3 x 8 (2 pcs) Ⓘ and M3.7 x 0.8 washers (2 pcs) Ⓘⓥ to secure the mount bracket Ⓐ to the supporter bracket Ⓑ.



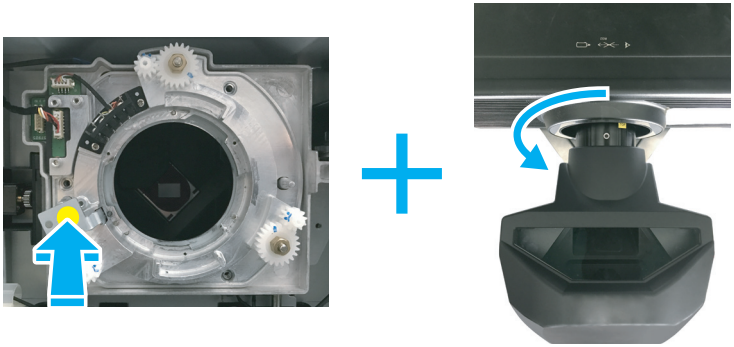
> ***Note:***
> • *Do not fully tighten them.*

7. Fasten three screws in sequential order as shown in illustration below.



11. Remove the UST lens

1. Press the **Release** button.
2. Rotate the lens counter-clockwise to disengage it from the lens mount. Then remove the lens out of the lens mount.



12. Back to the normal mode

1. Exit the UST mode.
   Go to [**OSD** > **Option** > **Service** > **UST Lens Install** > **None**].
2. Turn off the projector and disconnect from the AC power cord.
3. Remove the UST lens and supporter.
   For details, refer to [11. Remove the UST lens] and [6. Install the supporter to the projector].
4. Replace the UST lens boresight plate with the original boresight plate.
   For details, refer to [4. Install the UST lens boresight] and [3. Remove the non-UST lens boresight].
5. Install the STD lens.
6. Power on the projector again and redo the lens calibration.
   Go to [**OSD** > **SETUP** > **Lens Function** > **Lens Calibration** > **Yes**].

130	1.75	2.8	2.10	2.66	2.66	3.42	3.42	4.28	4.28	8.18	8.12	15.40
140	1.88	3.02	2.27	2.87	2.86	3.68	3.68	4.61	4.61	8.80	8.76	16.61
150	2.02	3.23	2.42	3.07	3.07	3.94	3.94	4.94	4.94	9.43	9.37	17.77
160	2.15	3.45	2.59	3.28	3.27	4.20	4.20	5.27	5.27	10.06	10.01	18.98
170	2.29	3.66	2.75	3.48	3.48	4.47	4.47	5.60	5.60	10.69	10.61	20.13
180	2.42	3.88	2.91	3.69	3.68	4.73	4.73	5.93	5.93	11.32	11.25	21.34
190	2.56	4.09	3.07	3.89	3.89	4.99	4.99	6.26	6.26	11.95	11.86	22.50
200	2.69	4.31	3.23	4.09	4.09	5.25	5.25	6.59	6.59	12.58	12.50	23.71
250	3.37	5.38	4.04	5.11	5.11	6.57	6.57	8.24	8.24	15.72	15.60	29.59
300	4.04	6.46	4.85	6.13	6.14	7.88	7.88	9.89	9.89	18.87	18.73	35.53

A16 Lens (AH-A25010): **(Lens position is fixed, could not run lens shift operation)**

Platform	WXGA	WUXGA
DMD	0.65”	0.67”
Projection Lens	A16 (AH-A25010)	A16 (AH-A25010)
Throw Ratio	0.378(120”)	0.361(120”)
Zoom Ratio	No Zoom	No Zoom
Throw Distance	0.96-2.71m	0.93-2.62m

	Throw Ratio (Screen size 120”)	Lens Offset	Projection Distance (PD) Formula	
			Standard (Inch)	Metrics (cm)
WUXGA	0.361	142%	PD = 0.340 x W + 3.30	PD = 0.340 x W + 8.38
WXGA	0.378		PD = 0.359 x W + 3.09	PD = 0.359 x W + 7.85

- **Note:** W is screen width