

JVC

D-ILA PROJECTORS

DLA-RS66

DLA-RS56

DLA-RS48

DLA-RS46

REFERENCE SERIES



4K
e-shift2



REFERENCE SERIES



DLA-RS66

4K-resolution D-ILA Projector



JVC D-ILA projector premium model that adopts high-grade parts realises 4K*1 resolution and industry leading* native contrast ratio of 130,000:1.

*As of November 2012



DLA-RS56

4K-resolution D-ILA Projector



Powerful combination of 4K-resolution*1 images, natural looking 3D, and native contrast ratio of 90,000:1. High-end model that lets you enjoy the visual dynamism of movies.

Redefining Excellence

4K
e-shift2



DLA-RS48

4K-resolution D-ILA Projector



A standard model providing super-high 4K-resolution*1 enjoyment offers native contrast ratio of 50,000:1 for bright images, plus a variety of image quality optimisation functions.



DLA-RS46

D-ILA Projector with 3D Viewing



3D entry class projector enables high quality viewing even in bright living rooms by virtue of 1300 lumens brightness and 50,000:1 native contrast ratio.

*1 3840 x 2160



Beyond JVC, there's JVC.

4K
e-shift2

Experience absolute presence as images seem to float in mid-air,
and you forget the existence of the screen.

Be totally immersed in the world that is portrayed, as images envelop you.

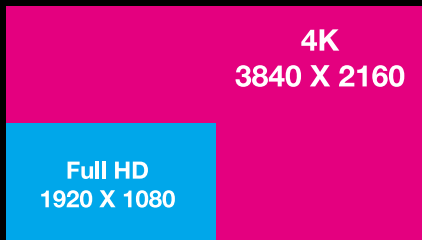
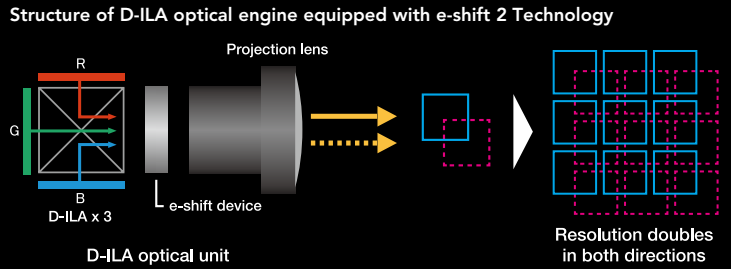
Beyond 2K is a new world of moving experiences that only 4K can deliver.

JVC's image processing technologies are able to reproduce the finest
nuances and unique tone of every visual work, enabling you to enjoy

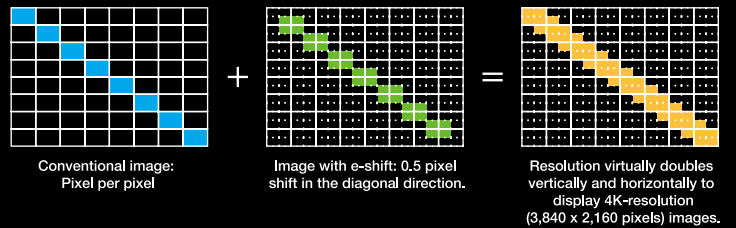
a 4K-resolution* image with extreme realism and presence
in your home theatre environment.

JVC Extreme 4K Resolution Realised by e-shift 2 Technology (DLA-RS66/RS56/RS48)

Using JVC's original e-shift technology, it is possible to shift each pixel diagonally by 0.5 pixels to multiply the resolution and achieve 4K imaging. Our totally revamped optical engine featuring the new e-shift 2 Technology with improved planarity property and transmittance performance results in vastly increased detail and sharp focusing of the image periphery. JVC's extreme 4K resolution delivers enjoyment of dynamic images with immersive presence to every corner of the screen.



Illustrated representation of pixel shift.



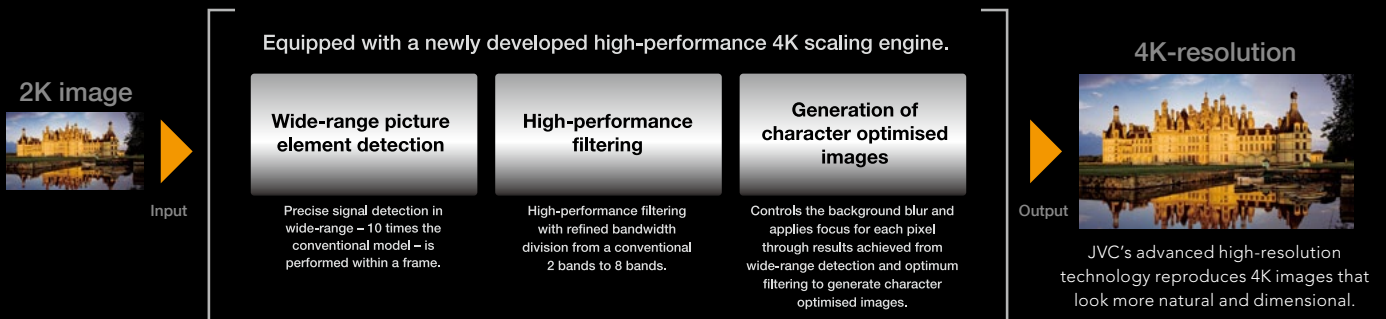
Scaler for the e-shift 2 Technology — Multiple Pixel Control (DLA-RS66/RS56/RS48)

Superior image processing technology is essential in order to reproduce full HD resolution images on a 4K projector. By advancing our image processing technology to new levels based on JVC's original algorithm, we were able to develop a new high-performance 4K scaling engine as a part of the e-shift 2 Technology to reproduce full HD images with maximum definition and also convert them to even higher quality 4K-resolution images. With Multiple Pixel Control, the detection range has been vastly expanded to over ten times that of conventional models*, making it possible to detect a wide range of signal bands within the frame.

What's more, based on high-precision detection results — which uses a improved detector with refined bandwidth division from a conventional 2 bands to 8 bands — JVC's original image quality processing that performs optimum filtering, dynamically controls the background blur and focus is applied, resulting in natural, expressive 4K images. Moreover, five types of 4K Profiles are available to apply optimal processing to each specific type of visual material. It is therefore possible to play back high-quality images while enjoying the best any source has to offer.

*Compared to DLA-RS65/RS55

e-shift 2 Technology's Image Processor: Multiple Pixel Control



Effects Achieved with the Multiple Pixel Control



By detecting focused and out-of-focus areas in real time, it is possible to reproduce images with clear foreground while adding depth to the background.

Facial tones with unnatural, rough gradations will be reproduced as smooth and natural facial tones.

Reproduces a scene with more solid contrast. Lights are brighter and crisper while blacks are deeper and detailed.

D-ILA 3D Projection Leaps Further in Quality



High Quality 3D Images with D-ILA

In addition to JVC's original Frame Addressing method to reproduce 3D images with vivid colours, we also improved the conversion accuracy of the optical engine and 3D glasses to achieve a 20% increase in brightness.* Moreover, several functions such as 2D-3D conversion and 3D picture adjustments are featured, which help to provide more dynamic and realistic 3D viewing that only D-ILA projectors can offer.

*Compared to DLA-RS65/RS55/RS45

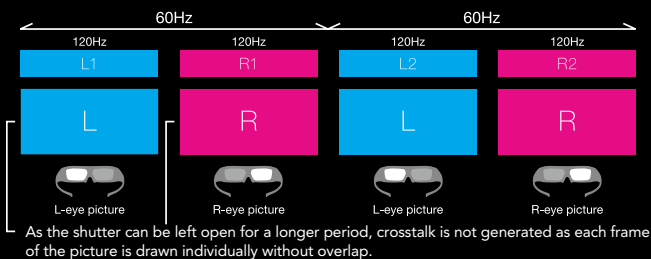
3D Picture Adjustment Functions

- Crosstalk Cancelling for pictures easier on the eyes
- Disparity Adjustment for more natural stereoscopic reproduction
- Depth Adjustment* for matching depth characteristics to source
- Subtitle Adjustment* fixes distorted subtitles

*Feature available only during 2D-3D conversion.

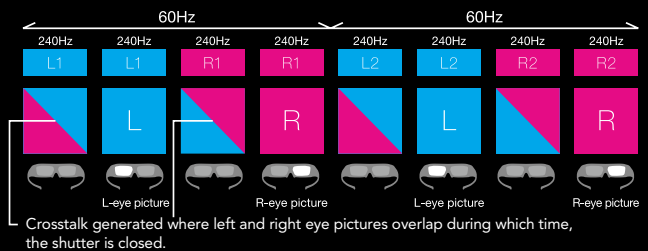
Frame Addressing

Image overlapping (crosstalk) is reduced because the shutter on 3D glasses can be left open longer as the method draws each frame of the picture individually.



Line Addressing

Crosstalk can be generated when shutters are switched between the left and right eyes, and opened only for a short amount time. This can cause the picture to darken and lose brightness.



Full Selection of Optional Accessories to Maximise Your 3D Enjoyment

Two types of 3D glasses are available — IR (infrared) and RF (radio frequency) wireless, which provides more flexible use.

RF (Radio Frequency) Method



PK-AG3
RF 3D Glasses

- Rechargeable
- Lightweight – only 38g
- Continuous operation approx. 100H

PK-EM2
RF 3D Synchro Emitter

- Wireless (direct connection with the projector)
- Weight 20g
- Dimensions (WxDxH): 48.9 x 14.5 x 65mm

IR (Infrared) Method



PK-AG2
IR 3D Glasses

- Rechargeable
- Lightweight – only 40g
- Continuous operation approx. 40H

PK-EM1
IR 3D Synchro Emitter

- Supplied with 3m connection cable
- Weight 160g
- Dimensions (WxDxH): 80 x 50 x 90mm (including the stand)

Notes about viewing 3D video content

- The optional 3D Synchro Emitter and 3D glasses are required to view 3D images from the D-ILA projectors. 3D video software (3D media or output of 3D broadcasts) and a 3D-compatible video player are also required.
- Perception of 3D images will vary with individual viewers.
- Stop viewing 3D images immediately if any discomfort such as headaches, dizziness, eye fatigue, etc. occurs.
- Viewing of 3D images by children under the age of five is not recommended.
- Read the Safety Precautions in the User Manual carefully before viewing any 3D source.

Cinema-like Quality Realised by D-ILA

Native Contrast Ratio

Further performance improvements for our optical engine utilising JVC's original D-ILA device and a wire grid have resulted in a high native contrast ratio. Over a broad dynamic range from peak whites to deep blacks, the image conveys powerful presence as a result of high native contrast. Moreover, the DLA-RS66 is capable of achieving industry's highest native contrast ratio of 130,000:1* with the adoption of high-grade parts and optimised optical engine.



Conventional projector



DLA-RS66

*As of November 2012.

JVC's Unique Real Colour Imaging Technology (DLA-RS66/RS56/RS48)

JVC's original Real Colour Imaging Technology precisely interprets the fine colour reproduction information in the image to dramatically improve colour rendition in a way that is true to the original image source.

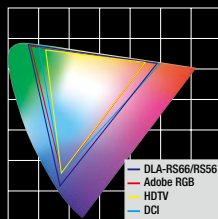
- **Dedicated Colour Profile**

JVC was able to create a dedicated colour profile by focusing on the colour space information that characterises an image, and accurately understanding the fine colour expression information that an image has. This time, we have added a new colour profile for Film, as well as three* profiles exclusively for 3D. Combined use of picture quality modes and dedicated colour profiles results in 19* different ways to enjoy high quality images.

*RS48 offers two 3D colour profiles, resulting in 12 different ways.

- **Colour Space Wider than Adobe RGB (DLA-RS66/RS56)**

Real Colour Imaging Technology features a colour space wider than that of Adobe RGB to vividly reproduce a fuller spectrum of colours such as the green of trees, the blue of oceans, etc., which was difficult to recreate accurately up until now.



- **Xenon-lamp Colour Temperature Setting (DLA-RS66/RS56)**

Real Colour Imaging Technology also incorporates a Xenon-mode colour temperature setting equivalent to that of a Xenon lamp, a popular light source used in cinemas. This setting allows for the authentic reproduction of colours similar to those of film in cinemas, while using highly efficient and economical ultra-high pressure mercury lamps.



Conventional colour temperature setting



Xenon-mode colour temperature setting

Colour Management System with 7-axis Matrix (DLA-RS66/RS56/RS48)

A 7-axis matrix of red, green, blue, cyan, magenta, yellow, and orange ensures the precise adjustment of hue, saturation, and intensity. The last axis of orange helps in enhancing the selection of the colour spectrum for skin tones. And for improved operability, only the colour being adjusted will be shown on the screen while the others are displayed in black and white.



The colour being adjusted is shown in colour.

Screen Adjustment Modes*

Reflective characteristics that differ from screen to screen are precisely analysed and the projector selects the best mode to match the screen being used. With the appropriate mode* selected, the picture displayed will always be precisely adjusted to ensure excellent image reproduction with natural colour balance.

*Three modes for the DLA-RS48/RS46. The DLA-RS66/RS56 offers 105 modes but with a firmware update, it provides a maximum of 255 modes. Please refer to our corporate website for a comparison table of primary screens and adjustment modes.



Screen adjustment mode Off



Screen adjustment mode On

Original Picture Tone Function (DLA-RS66/RS56/RS48)

The Picture Tone function works to balance gamma, contrast, and brightness settings without affecting the grey scaling of the original source to enable brightness adjustment that better matches the surrounding environment.



Clear Motion Drive*

Utilising enhanced detection-interpolation technology through high-precision interpolation algorithms, Clear Motion Drive helps to smooth movement in the picture by reducing blur that can be generated in high-speed scenes such as sports events, etc. Additionally, as the amount of picture delay is very limited, D-ILA projectors are also well suited for playing video games.



Clear Motion Drive: OFF

Clear Motion Drive: ON

*Feature not available in 3D mode.

Environmental Setting

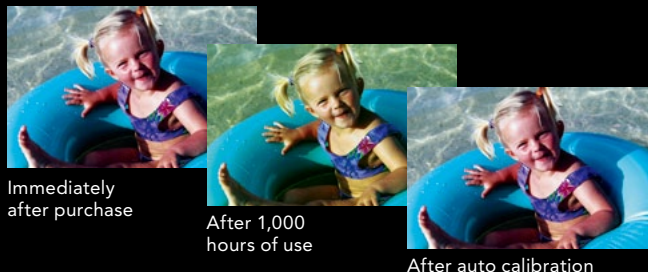
An environmental setting function has been incorporated to minimise the effect of the projection environment on image quality, such as wall colour. Simply input screen size, viewing distance and wall colour, and the projector will automatically apply image compensation so that high quality images can be enjoyed in just about any viewing environment.



Auto Calibration Function (DLA-RS66/RS56)

Precise calibration can be performed in just a few easy steps, so you can count on optimal images regardless of the installation situation of the projector such as its location, lens shift/zoom position, etc. What's more, it can also be used to compensate for colour balance shift that can occur when using the projector over long periods of time, assuring that the projector can always be used in optimised condition.

Note: Performing calibration requires commercially available optical sensor and dedicated software as well as PC and LAN cables.



Immediately after purchase

After 1,000 hours of use

After auto calibration

Picture Data In/Out (DLA-RS66/RS56)

Customised picture data can be transferred from the projector and stored onto a PC. Picture data can also be uploaded from a PC to the projector via the LAN terminal.

Note: Input/output of picture data requires dedicated software as well as PC and LAN cables.

Exclusive Software / Commercially Available Optical Sensor (DLA-RS66/RS56)

Exclusive JVC software installed on a PC connected to the DLA-RS66/RS56 via a LAN connection and optical sensor are required for auto calibration.

Commercially Available Optical Sensor



- Software compatible OS: Microsoft® Windows® XP 32-bit (SP2 or later), Windows Vista® 32-bit, Windows® 7 32-bit/64-bit.
- Software: Download for free from our corporate website.
- Optical sensor: Spyder4Pro or Spyder4Elite by Datacolor. For details on the Spyder4Pro and Spyder4Elite, please refer to the product brochures or website.

* Spyder4Pro, Spyder4Elite are trademarks of Datacolor in the U.S. and other countries.

Note: Supported optical sensors may change. Please visit the JVC website for the latest information on optical sensors.

Industry Certified Projectors (DLA-RS66/RS56)

THX 3D Display Certification*1



The DLA-RS66 and RS56 are accredited with THX 3D Certification, which was established to ensure the precise reproduction of picture quality in home environments for both 2D and 3D content just as the original filmmaker envisioned. Encompassing more than 400 laboratory tests to evaluate a projector's colour accuracy, cross-talk, viewing angles and video processing, this certification helps to guarantee high-definition quality.

*1 Ideal 3D screen-size performance is 90 inches diagonal (16:9).

Certified by ISF (Imaging Science Foundation)



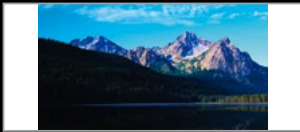
The DLA-RS66 and RS56 are licensed with the ISF C3 (Certified Calibration Controls) mode, enabling trained dealers to professionally calibrate them to desired screen surfaces, lighting environments and video sources, and then securely store these precise settings into the projector. This not only helps to ensure the reproduction of film or video content accurate to the source but also excellent picture quality optimised for specific environments.

A Variety of Convenient Functions

Lens Memory Function

This function stores ten or five* separate lens adjustments for zoom, shift and focus that can be easily recalled when needed. Focus, zoom (size) and shift (display position) characteristics can be recorded for video content in different aspect ratios such as when using a CinemaScope screen size (2.35:1) or standard 16:9 screen and easily switched between each setup via the remote controller.

Lens memory examples (when using CinemaScope screen)



Memory 1: Standard 16:9



Memory 2: CinemaScope size



Memory 3: CinemaScope size with subtitles outside of the screen

*Ten memories for the DLA-RS66/RS56. Five memories for the DLA-RS48/RS46.

Automatic Lens Cover (DLA-RS66/RS56)

A unique automatic lens cover opens and closes upon power On/Off to protect against dust or damage to ensure users of easy, trouble-free operation via the remote controller, even if the projector is installed on the ceiling.



Lens cover closed (power off)

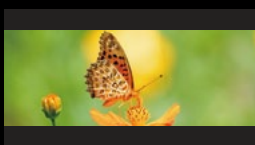


Lens cover open (power on)

Anamorphic Mode for Wide Cinematic Films

A 2.35:1 aspect ratio for wide cinematic films can be enjoyed by combining the projector with a third-party anamorphic lens to create dynamic picture reproduction as can be seen in a movie theatre.

Mode off: 16:9 screen



Mode on: 2.35:1 screen



When using an anamorphic lens.

16-step Aperture

A 16-step aperture function enables brightness adjustment to not only suit user preferences but also operating ambiances, helping to ensure deeper and truer black levels.

Pixel Adjust Function

The Pixel Adjust function allows users to precisely correct colour deviation in 1/16-pixel increments*, and it is also capable of segmenting the entire screen into 121 points and adjust them individually to realise clearer video without colour deviation.

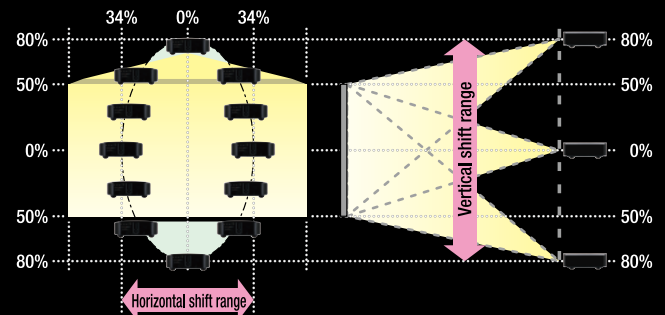
ABCD ▶ ABCD

*DLA-RS46 enables adjustment in 1-pixel increments.

Flexible Installation Guaranteed with Powered Lens-shift Function

The flexible installation is made possible thanks to the $\pm 80\%$ vertical and $\pm 34\%$ horizontal powered lens-shift function. The projector also features a high-performance 2X zoom lens with motorised focus that can project images upon a large 100-inch screen at throw distances of between 3.0 and 6.1 metres. With the high-performance motor, the once tedious tasks of setting zoom ratios and focus adjustments are now made simple and effortless. In addition, the lens-centre function makes it easy to return the lens to the default centre position.

$\pm 80\%$ vertical and $\pm 34\%$ horizontal electric lens shift function



The vertical and horizontal lens shift function cannot be set to the maximum values simultaneously.

Digital Keystone Function*

Keystone distortion that occurs when the projector is placed on a tilt position can be adjusted using this function. Digital Keystone can also adjust to curved screens with its Pincushion Function.

*Digital keystone cannot be used in 3D mode.

A Wide Range of Inputs and Outputs

In addition to 3D compatible HDMI inputs, the projector features an array of other connections, such as an RJ45 socket for projector control, firmware and configuration updates, and a trigger socket for an anamorphic lens or motorised screen.

DLA-RS66

4K-resolution D-ILA Projector

JVC D-ILA projector premium model that adopts high-grade parts realises 4K resolution and industry leading* native contrast of 130,000:1.

*As of November 2012



- High-definition 4K projection (3840 x 2160) achieved with e-shift 2 Technology including Multiple Pixel Control original picture processor
- Improved optical engine employing high-grade parts realises industry's highest native contrast ratio of 130,000:1
- Bright 3D viewing with reduced crosstalk only possible with D-ILA
- Equipped with JVC's original Real Colour Imaging Technology for colour reproduction
- Auto Calibration Function*¹
- Automatic Lens Cover



DLA-RS48

4K-resolution D-ILA Projector



- High-definition 4K projection (3840 x 2160) achieved with e-shift 2 Technology including Multiple Pixel Control original picture processor
- 50,000:1 high native contrast ratio
- Bright 3D viewing with reduced crosstalk only possible with D-ILA
- Environmental Setting
- 5-mode Lens Memory
- 3 Screen Adjustment Modes
- Pixel Adjust by 1/16-pixel increment



A standard model providing super-high 4K-resolution enjoyment offers native contrast of 50,000:1 for bright images, plus a variety of image quality optimisation functions.

Model	Native Contrast	4K with e-shift 2 Technology	3D Viewing	2D-3D Conversion	16-step Aperture	Clear Motion Drive* ²	Real Colour Imaging Technology	7-Axis Colour Management	Xenon Lamp Mode	Picture Tone
DLA-RS66	130,000:1	✓	✓	✓	✓	✓	✓	✓	✓	✓
DLA-RS56	90,000:1	✓	✓	✓	✓	✓	✓	✓	✓	✓
DLA-RS48	50,000:1	✓	✓	✓	✓	✓	✓	✓		✓
DLA-RS46	50,000:1		✓	✓	✓	✓				



DLA-RS56

4K-resolution D-ILA Projector



- High-definition 4K projection (3840 x 2160) achieved with e-shift 2 Technology including Multiple Pixel Control original picture processor
- 90,000:1 exceptionally high native contrast ratio
- Bright 3D viewing with reduced crosstalk only possible with D-ILA
- Equipped with JVC's original Real Colour Imaging Technology for colour reproduction
- Various picture correction and adjustment functions
- Auto Calibration Function*1
- Automatic Lens Cover

Powerful combination of 4K-resolution images, natural looking 3D, and native contrast of 90,000:1. High-end model that lets you enjoy the visual dynamism of movies.

DLA-RS46

D-ILA Projector with 3D Viewing

3D entry class projector enables high quality viewing even in bright living rooms by virtue of 1300 lumens brightness and 50,000:1 native contrast.



- Bright picture realised with brightness of 1300 lumens and native contrast ratio of 50,000:1
- Bright 3D viewing with reduced crosstalk only possible with D-ILA
- 6 Picture Modes and 3 Colour Spaces
- Environmental Setting
- 5-mode Lens Memory
- 3 Screen Adjustment Modes
- Pixel Adjust by 1 pixel increment



Darkness/Lightness Correction	Pixel Adjust	Screen Adjustment Mode	Environmental Setting	Auto Calibration*1	Anamorphic Mode	Pic. Data IN/OUT*3	Lens Memory	Digital Keystone*2	Lens Cover	THX Certified	ISF
✓	1/16-pixel	Max. 255	✓	✓	✓	✓	10	✓	Automatic	✓	✓
✓	1/16-pixel	Max. 255	✓	✓	✓	✓	10	✓	Automatic	✓	✓
✓	1/16-pixel	3 modes	✓		✓		5	✓			
	1 pixel	3 modes	✓		✓		5	✓			

*1 Requires a commercially available optical sensor, PC and LAN cable. *2 Feature not available in 3D mode. *3 Requires a PC and LAN cable.

Projection Distance Chart

Screen diagonal (inch)	Display size (16:9)		Projection distance	
	W (mm)	H (mm)	Wide (m)	Tele (m)
60	1,328	747	1.78	3.66
70	1,549	872	2.09	4.28
80	1,771	996	2.40	4.89
90	1,992	1,121	2.70	5.51
100	2,214	1,245	3.01	6.13
110	2,435	1,370	3.31	6.75
120	2,656	1,494	3.62	7.36
130	2,878	1,619	3.92	7.98
140	3,099	1,743	4.23	8.60
150	3,320	1,868	4.53	9.22
160	3,542	1,992	4.84	9.84
170	3,763	2,117	5.14	10.45
180	3,984	2,241	5.45	11.07
190	4,206	2,366	5.75	11.68
200	4,427	2,490	6.06	12.30

*Projection distances are design specifications, so there is ±5% variation.

Main Features

	DLA-RS66	DLA-RS56	DLA-RS48	DLA-RS46
4K Capability		●		-
3D Capability			●	
2D-3D Converter			●	
Aperture		● (16 steps)		
Clear Motion Drive*1		●	●	
Colour Management		● (7-axis)		-
Colour Temperature (Xenon-lamp Mode)	●			-
Picture Tone		●		-
Darkness and Lightness Correction		●		-
Pixel Adjust		● (by 1/16-pixel increment)		● (by 1 pixel increment)
Screen Adjustment Mode	● (Max 255 modes)		● (3 modes)	
Environmental Setting			●	
Auto Calibration*2	●			-
THX Certification		●		-
ISF		●		-
Anamorphic Mode		●	●	
Picture Data In/Out*3		●		-
Lens Memory	● (10 memories)		● (5 memories)	
Digital Keystone*1		●		-
Automatic Lens Cover	●			-

*1 Feature not available in 3D mode. *2 Requires a commercially available optical sensor, PC and LAN cable.
*3 Requires a PC and LAN cable.

Specifications

	DLA-RS66	DLA-RS56	DLA-RS48	DLA-RS46
Device	0.7 inch Full HD D-ILA (1920 x 1080) x3			
4K e-shift 2 Technology	Yes			-
Resolution	3840 x 2160 ¹			1920 x 1080
Lens	x2 Zoom & Focus: Motorised f=21.4-42.8mm / F3.2-4			
Lens Shift	±80% Vertical and ±34% Horizontal (motorised)			
Light Source Lamp	NSH 230W (lamp life: approx. 4000 hours when the lamp is in Low mode)			
Brightness*2	1,200lm			1,300lm
Contrast Ratio (Native)	130,000:1	90,000:1	50,000:1	
Connectors	Component	1 (RCA; Y, Pb/Ca, Pr/Ca)		
	HDMI	2 (3D/Deep Colour/CEC compatible)		
	Analogue RGB (PC)	1 (D-sub15pin)		-
	RS-232C	1 (D-sub 9pin)		
	LAN (RJ-45)	1		
	Trigger	1 (Mini jack, DC12V/100mA)		
Video Input Signal Format	Digital	480i/p, 576i/p, 720p 60/50, 1080i 60/50, 1080p 60/50/24		
	Analogue	480i/p, 576i/p, 720p 60/50, 1080i 60/50		
	HDMI	VGA/SVGA/XGA/WXGA/WXGA+/SXGA/WXGA+/WUXGA		
PC Input Signal Format	Analogue RGB (D-sub 15 pin)	VGA/SVGA/XGA/WXGA/WXGA+/SXGA/SXGA+/WXGA+/1920x1080/Mac 13", 16", 19"		-
	3D Format	Frame Packing: 720p 60/50, 1080p 24, 1080i 60/50 Side-by-Side (half): 720p 60/50, 1080p 60/50/24, 1080i 60/50 Top & Bottom: 720p 60/50, 1080p/24		
Power Requirement	AC 110-240V, 50/60Hz			
Power Consumption	360W (Standby: 0.4W)			330W (Standby: 0.4W)
Fan Noise	23dB (When the lamp is in Low mode)			
Dimensions (WxHxD)	455x179x472 mm			
Weight	15.4kg		15.1kg	14.8kg

¹ Resolution is 1920x1080 at 3D mode.
² Measurement, measuring conditions, and method of notation all comply with ISO 21118.

Optional Equipment

RF (Radio Frequency) Method



RF 3D Glasses
PK-AG3

RF 3D Synchro
Emitter
PK-EM2

IR (Infrared) Method



IR 3D Glasses
PK-AG2
Rechargeable Type

IR 3D Synchro
Emitter
PK-EM1



User-replaceable
Lamp
PK-L2312U

Connectors

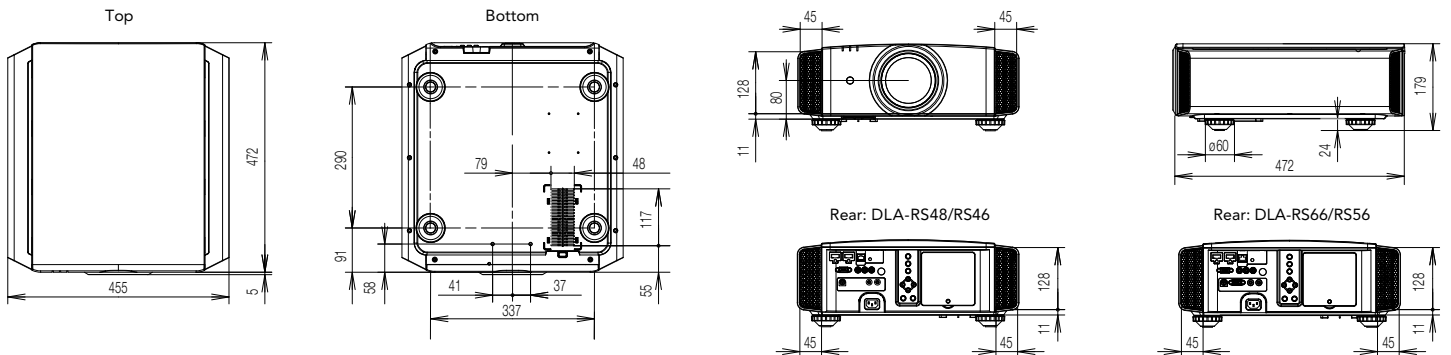


DLA-RS66/RS56



DLA-RS48/RS46

External Dimensions (unit: mm)



- The projector is equipped with an ultra-high pressure mercury lamp, which may break, emitting a loud noise, when it is subjected to shock or after it has been used for some length of time.
- Please note that, depending on how the projector is used, there can be considerable difference between individual lamps regarding how many hours they will operate before requiring replacement.
- An additional payment is required for installation of a new lamp, if necessary. • The projector lamp requires periodic replacement and is not covered by warranty. • Please be aware that, because the D-ILA device is manufactured using highly advanced technologies, 0.01% or fewer of the pixels may be non-performing (always on or off).

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