

JVC

D-ILA PROJECTORS

DLA-RS620

DLA-RS520

DLA-RS420

Dynamic Definition. New Experience.



4K
e-shift4

D-ILA

HDR
High Dynamic Range



The overwhelming power and details of 4K quality.
Discover a totally unprecedented viewing experience.

4K
e-shift4

D-ILA

HDR
High Dynamic Range



DLA-RS620 4K-resolution D-ILA Projector

- Dynamic contrast ratio: 1,600,000:1 • Native contrast ratio: 160,000:1
- Brightness: 2,000 lm • Compatible with HDMI standard (4K60P 4:4:4) and HDCP 2.2



DLA-RS520 4K-resolution D-ILA Projector

- Dynamic contrast ratio: 1,300,000:1 • Native contrast ratio: 130,000:1
- Brightness: 1,900 lm • Compatible with HDMI standard (4K60P 4:4:4) and HDCP 2.2



DLA-RS420 4K-resolution D-ILA Projector

- Dynamic contrast ratio: 400,000:1 • Native contrast ratio: 40,000:1
- Brightness: 1,800 lm • Compatible with HDMI standard (4K60P 4:4:4) and HDCP 2.2



See the shower of light and details in pitch darkness

4K video full of reality is achieved through high brightness and ultimate dynamic range



[Exceptionally bright 2,000 lumens*¹ to offer bright, high-resolution images]

The combination of 265W high-output NSH lamp and highly efficient optical engine on the new D-ILA projectors delivers a brightness of 2,000 lumens*¹. What's more, smoother and more powerful pictures can be achieved through JVC's original D-ILA device with an even narrower gap between pixels for efficient use of light. Powerful, vivid and highly detailed 4K high-definition video can be enjoyed even in environments where it's hard to block out light, such as living rooms, that are not ideally suited for viewing high-definition videos.

*1: DLA-RS620



[High contrast ratio of D-ILA projectors delivers images with full of presence]

JVC's original D-ILA device combined with an optical engine equipped with a wire grid that complements the new high-output lamp results in high native contrast ratio of 160,000:1*². Input signals are analysed with an original algorithm that is combined with Intelligent Lens Aperture, which automatically controls the black level of the image to achieve an ultimate dynamic contrast of 1,600,000:1*². The synergetic effect based on the ultimate dynamic range stemming from high-brightness, delivers sensational 4K video full of reality.

*2: DLA-RS620

[Compatible with high-resolution and dynamic HDR*³ content]



Compared to SDR*⁴ sources, HDR content typified by UHD Blu-ray disc requires the performance capability of video display equipment with extended brightness range, 10-bit dynamic range, and wider spectrum. And to meet such requirements of the source, D-ILA projectors reproduce the maximum potential of HDR content by making use of its high native contrast ratio as well as high brightness and wider spectrum. The projector is designed to switch automatically to HDR picture mode*⁵ when HDR10 signals are received for easy reproduction, and is compatible with Hybrid Log-Gamma that will come into use for broadcasting applications.

*3: Stands for high dynamic range.

*4: Stands for standard dynamic range.

*5: Auto switching may not work for certain types of signal.

[Complies with the HDCP 2.2 standards to enable 18Gbps 4K signal input]

The projectors are capable of receiving full spec 4K signals including 4K/60P 4:4:4, 4K/60P 4:2:2/36-bit and 4K/24P 4:4:4/36-bit as the units comply with the latest HDMI standard with 18 Gbps transmission band-width compatibility for reproducing more vivid colours with more precise gradation. In order to be compatible with copyright-protected content such as OTT video services and the UHD Blu-ray discs, the projectors comply with the latest HDMI standard and HDCP 2.2.

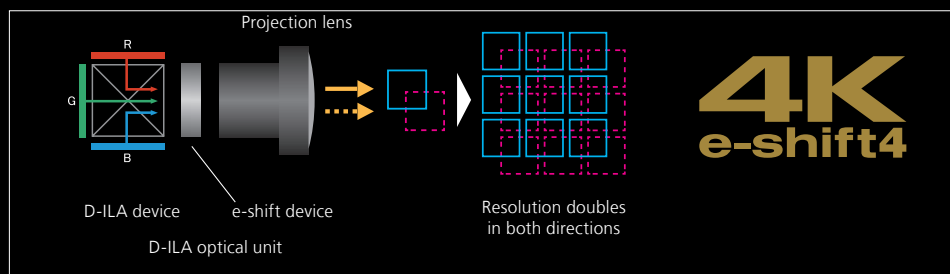
Smooth, vivid and high-definition. 4K quality as only D-ILA makes possible.

Technologies to realise D-ILA 4K images

[Original 4K e-shift Technology continues to evolve]

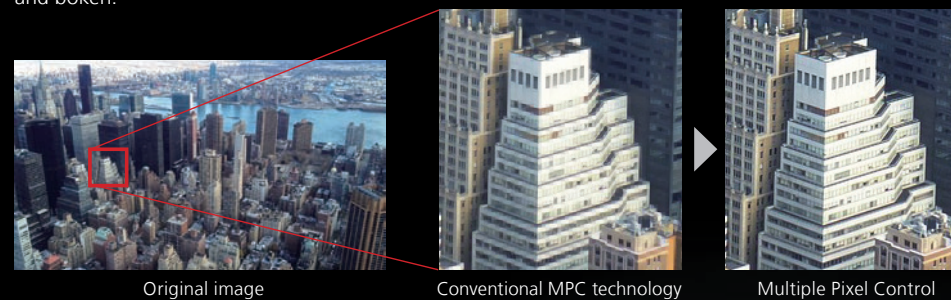
JVC's e-shift technology shifts sub-frames by 0.5 pixels both vertically and horizontally to achieve 4 times the pixel density of the original content. The latest e-shift4 Technology is capable of inputting full-spec 4K video signals including 4K60P 4:4:4 thanks to the optimised engine and newly adopted high-power lamp. These improvements result in an even higher definition picture with more precision.

4K e-shift4 Technology



[Multiple Pixel Control]

D-ILA projectors feature original high-performance image processing technology, Multiple Pixel Control. Through adoption of a new analysis algorithm, the MPC is capable of more accurate diagonal-detection between frames for both full HD and full 4K resolution signals, delivering a thoroughly immersive high-definition 4K image. Compared to conventional band processing, MPC achieves the utter reality of 4K quality by detecting and processing images in a higher frequency range to achieve exceptional presence and bokeh.



High-quality moving images

[Exceptional motion image processing technologies for smooth video reproduction]

Two technologies are featured on the D-ILA projector – a moving image interpolation technology Clear Motion Drive that is compatible with 4K60P 4:4:4 signals and Motion Enhance technology that controls the driving performance of D-ILA devices by image characteristics. Owing to the two original technologies, the projector is capable of reducing ghosting or afterimage issues often found in fast-moving images to reproduce a crisp and smooth moving images.



[Low Latency Mode]

The D-ILA projectors feature Low Latency Mode, which suppresses display delay for faster response when receiving signals from PC and game consoles. These projectors are designed to satisfy not only movie viewers but those play games on a big screen.



Technologies to create images that match viewer preferences

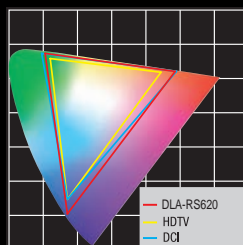
JVC's advancing technologies and functions

[Original Real Colour Imaging Technology*⁶]

The colour reproduction ability on the original Real Colour Imaging Technology has improved with its capability to accurately grasp the colour information for precise reproduction. Also with the adoption of a new colour filter capable of covering the DCI*⁷ colour space, it is now possible to reproduce colours true to the original for exceptionally beautiful 4K images.

*6: DLA-RS620 and DLA-RS520.

*7: DCI stands for Digital Cinema Initiatives, a new standard for digital cinema.



[Colour Management System with 6-Axis Matrix]

A 6-axis matrix of red, green, blue, cyan, magenta, and yellow enables the precise adjustment of hue, saturation, and intensity. Only the colour being adjusted will be shown in colour while the others are grey-toned, making operation more intuitive.

[Auto-Calibration Function*⁸]

Using an optical sensor, precise calibration can be performed in just a few easy steps to match the changes in optical characteristics caused by the installation situation of the projector. Auto-Calibration optimises all essential elements found in the image, including colour balance, gamma characteristics, colour space, and colour tracking.



Immediately after use



1,000 hrs after use



After Auto-Calibration

12-point manual gamma adjustment

Manual gamma adjustment, as requested by users, has been added to the calibration software. In addition to PC-based adjustments that are reflected to the image in real-time, adjustments using optical sensor can also be performed. It also features importing and exporting of gamma data.



*8: Exclusive JVC software installed on a PC connected to the projector via a LAN connection and optical sensor are required to set viewing configurations and auto calibration. Please visit the JVC website for the details.

[Screen Adjustment Modes]

The projector selects the best mode to match the screen being used for images with natural colour balance. The modes are compatible with the latest models offered by the world's major screen manufacturers.*⁹

*9: Please refer to JVC website for a comparison table of primary screens and adjustment modes



Screen Adjustment Modes OFF



Screen Adjustment Modes ON

[Pixel Adjust Function]

The Pixel Adjust function allows users to precisely correct colour deviation in 1/16-pixel increments. It is also capable of segmenting the entire screen into 121 points and adjusting them individually to realise clearer video without colour deviation. Two settings can be stored in the memory.

[Lens Memory Function]

This function stores ten*¹⁰ separate lens adjustments for zoom, shift and focus that can be easily recalled when needed. Memory settings can be switched between each setup via the remote controller.

*10: DLA-RS620 and DLA-RS520

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

[Industry Certified Projectors – THX 3D Display and ISF Certifications*11]

Accreditation with THX 3D Display Certification which was established to ensure that the certified projectors will precisely reproduce 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.

*11: DLA-RS620 and DLA-RS520. Licensed with ISF (Imaging Science Foundation) C3 mode.



Feature Comparison

Model	DLA-RS620	DLA-RS520	DLA-RS420
4K e-shift4 Technology*12	●	●	●
18Gbps 4K signal input/HDCP 2.2	●	●	●
HDR compatibility	●	●	●
3D capability	●	●	●
Multiple Pixel Control	●	●	●
Clear Motion Drive	●	●	●
Motion Enhance	●	●	●
Low Latency Mode	●	●	●
Real Colour Imaging Technology	●	●	—
Colour Temperature (Xenon light-source colour)	●	●	—
Picture Tone	●	●	●
Pixel Adjust	● (by 1/16-pixel increment, 2 memories)	● (by 1/16-pixel increment, 2 memories)	● (by 1/16-pixel increment, 2 memories)
Lens Memory	● (10 memories)	● (10 memories)	● (5 memories)
Screen Adjustment Mode	●	●	●
Auto Calibration*13	●	●	●
12-point manual gamma adjustment*14	●	●	●
Picture Data In/Out*14	●	●	●
THX 3D Display Certification	●	●	—
ISF C3 mode	●	●	—

*12: This function cannot be used while projecting in 3D mode. *13: Requires a commercially available optical sensor and dedicated software as well as PC and LAN cables.

*14: Requires dedicated software as well as PC and LAN cables.

[Even brighter and high-quality 3D images of D-ILA]

In addition to JVC's original Frame Addressing method to reproduce 3D images with vivid colours, the optical engine featuring a set of new D-ILA devices is capable of achieving more brightness. Furthermore, 3D image adjustment functions such as Crosstalk Cancelling are featured to offer the kind of realistic and exciting 3D images that only D-ILA can provide.

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 and the User Manual carefully before viewing any 3D source.

Optional Accessories



Replacement Lamp

PK-L2615U



RF (radio frequency) 3D Glasses

PK-AG3



RF (radio frequency) 3D Synchro Emitter

PK-EM2

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 $\pm 5\%$ variation.

Specifications

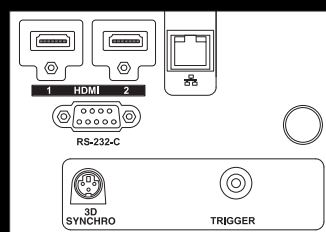
	DLA-RS620	DLA-RS520	DLA-RS420
Device	0.7 inch Full HD D-ILA (1920x1080) x3		
4K e-shift4 Technology	●		
Resolution	3840 x 2160 ^{*1}		
Lens	x2 Zoom & Focus: Motorised; f=21.4-42.8mm / F3.2-4		
Lens Shift	$\pm 80\%$ Vertical and $\pm 34\%$ Horizontal (motorised)		
Lens Cover	●	●	—
Projection Display Size	60 inch – 200 inch (diagonal)		
Light Source Lamp	NSH 265W (lamp life: approx. 4,500 hours when the lamp is in Low mode)		
Brightness	2,000 lm	1,900 lm	1,800 lm
Contrast Ratio	Dynamic	1,600,000:1	1,300,000:1
	Native	160,000:1	130,000:1
Input Terminal	HDMI	2 (3D/Deep Colour/HDCP2.2)	
Output Terminal	Trigger	1 (Mini jack, DC12V/100mA)	
	3D Sync	1 (Mini DIN 3pin)	
	RS-232C	1 (D-sub 9pin)	
Control Terminals	LAN (RJ-45)	1	

		DLA-RS620	DLA-RS520	DLA-RS420
Video Input Signal Format (Digital)		480p, 576p, 720p 60/50, 1080i 60/50, 1080p 60/50/24, 3840 x 2160p 60/50/30/25/24, 4096 x 2160p ^{*2} 60/50/30/25/24		
PC Input Signal Format (HDMI)		VGA/SVGA/XGA/WXGA/WXGA+/SXGA/WSXGA+		
3D Format	Frame Packing	720p 60/50, 1080p 24		
	Side-by-Side (half)	720p 60/50, 1080p 60/50/24, 1080i 60/50		
	Top & Bottom	720p 60/50, 1080p/24		
Power Consumption		380W (Normal standby: 1.5W, Eco-mode standby: 0.4W)		
Fan Noise		21dB (When the lamp is in Low mode)		
Power Requirement		AC110V-240V, 50/60Hz		
Dimensions (W x H x D)		455 x 179 x 472 mm		
Weight (net)		15.6kg	15.6kg	15.4kg

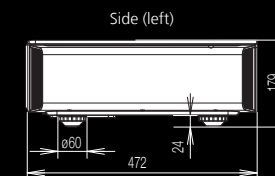
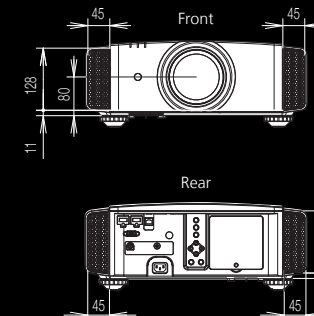
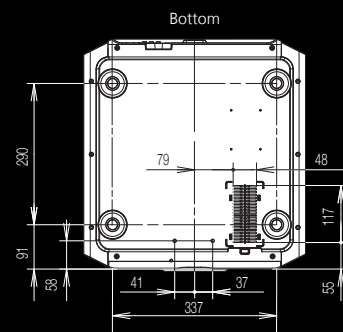
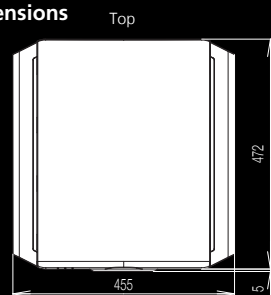
*1 Resolution is 1920x1080 at 3D mode.

*2 When the video input signal is at 4096 x 2160p, data above 3,840 is not displayed equally on the left and right.

Connectors



External Dimensions (unit: mm)



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Printed in Germany

PJC-16002EJ

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