JVC

DLA-NZ9/DLA-NZ8/DLA-NZ7/DLA-N5

D-ILA Projectors

8K e-shift X

BLU-Escent

D-ILA

HDR High Dynamic Range

HDR10+

8K. LASER. HDR. The NEW ULTIMATE

World First 8K Input Home Theater Projector

8K. LASER. HDR. The NEW ULTIMATE

The rise of new devices has always been driven by innovation. In 2021, JVC proudly introduces a line-up of new projectors featuring the world's first 8K60p/4K120p signal input*1 and 8K/e-shiftX technology, a proprietary BLU-Escent laser diode light source to project the high-resolution 8K image with full depth and dimensionality, and the latest HDR10+ format compatibility.
8K, Laser, HDR are the keywords that describe where we stand today, and they feature prominently in JVC's latest line-up.
Welcome to the dawn of the New Ultimate.

*1: As a home theatre projector, as of September 2021; according to a research by JVCKENWOOD.

8K e-shift X

World's first 8K60p/ 4K120p input home theatre projector[*1]

2021

4K e-shift
4K/e-shift model
2011

4K
Native 4K D-ILA Device
2016

8K e-shift
8K/e-shift model
2018

2010 2015 2020

BLU-Escent

BLU-Escent laser with Ultra-High Contrast Optics including all-glass lens

HDR10+

HDR High Dynamic Range

HDR10+ and HDR10 projection with Frame Adapt HDR and Theater Optimizer

isf ccc

ISF C3 (certified calibration controls) license

8K Resolution with 8K60p/4K120p Input and JVC Original 8K/e-shiftX Technology

4K120p input ideal for Low Latency mode

NZ9 NZ8 NZ7

Because these projectors are equipped with 4K120p input, signal latency is infinitesimal, making it effective when displaying high frame-rate gaming content on large screens. What's more, Low Latency Mode reduces delay in displaying PC signals and games, and improves response to the users' rapid operations.

4K Input

From Blu-ray and gaming consoles to 4K streaming services, native 4K content can be enjoyed to its fullest on JVC D-ILA projectors (4K120p input; the DLA-N5 features 4K60p input only).

Equipped with newly developed 8K/e-shiftX technology to achieve 8K resolution

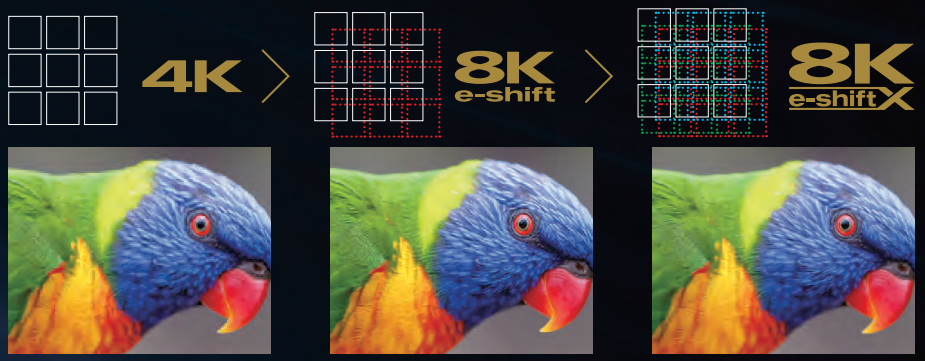
NZ9 NZ8

8K Input

NZ9 NZ8 NZ7

Experience the overwhelming resolution achieved by 8K input and 8K/e-shift, or 8K input and 8K/e-shiftX.

Significant progress has been made to our proprietary 8K/e-shift technology – which combines "e-shift" high-resolution display technology that doubles the resolution by shifting a pixel by 0.5 pixels, and 0.69-inch native 4K D-ILA device. Shift direction has increased from the conventional two diagonal directions to four directions of up, down, left, and right, to enable display of 8K signal information in its entirety. The result is an 8K resolution, enhancing the sense of three-dimensionality and immersion.



See how the native 4K image becomes sharper with 8K/e-shift processing, and as if it is alive with 8K/e-shiftX processing.

World's first home projector capable of inputting 8K60p/4K120p signals

These projectors adopt LSIs*2 developed with the latest technology to process the vast amount of 8K input data, and an up converter to bring any source up to high definition 8K resolution. As a result, more beautiful and realistic video images full of contrast and reality can be enjoyed regardless of the source, from video streaming to 4K UHD-BD videos.

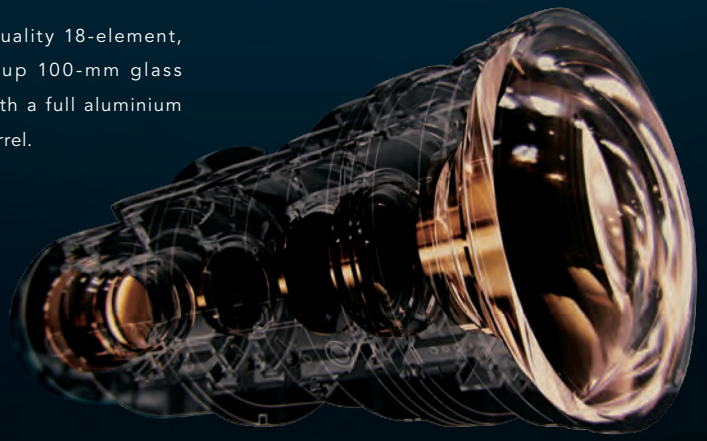
*2: Except for the DLA-N5

Essential all-glass lens to depict all the data in the 8K image

The high-end DLA-NZ9 is equipped with an 18-element, 16-group all-glass lens featuring a full aluminium lens barrel*3. To project high-resolution 8K images to every corner of the screen, the projector incorporates five ED lenses calibrated for differences in the R/G/B refractive index to reduce chromatic aberration and colour fringing when lens shift kicks in to deliver precise reproduction of 4K- or 8K-resolution*4 projection.

*3: 65 mm diameter, 17-element, 15-group all glass lens is featured on the DLA-NZ8, NZ7 and N5 models.
*4: Resolution varies depending on the model.

High-quality 18-element, 16-group 100-mm glass lens with a full aluminium lens barrel.

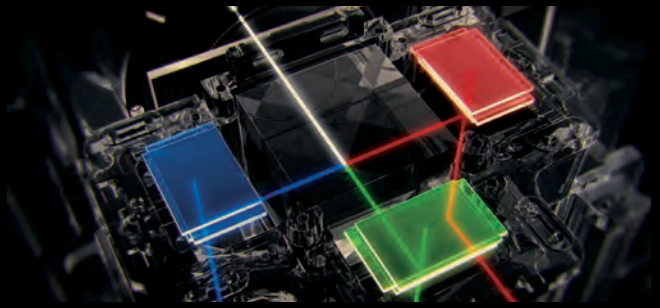


Ultra-High Contrast Optics with 4K D-ILA device

NZ9 NZ8

High-resolution image projection is reliant on the device and the optical system. The refined 0.69-inch 4K D-ILA device has doubled the speed required to display images from 120 Hz to 240 Hz-equivalent. The new Ultra-High Contrast Optics featured on the DLA-NZ9 and NZ8 contribute to achieve optical brightness as high as 3,000 lumens*5, and the new optics has dramatically improved the image quality by thoroughly suppressing the return of unnecessary light to the projection screen.

*5: Brightness of 3,000 lumens for the DLA-NZ9 and 2,500 lumens for the NZ8. Refer to page 10 for the brightness of other models.



4K D-ILA®

NZ9

NZ8
NZ7
N5

BLU-Escent

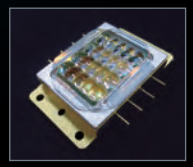
JVC's Original Laser Diode Light Source, Offers Depth and Dimensionality to 8K Imagery

Reliability-proved BLU-Escent Laser Diode for exceptional brightness and longevity

NZ9 NZ8 NZ7

The light source for these projectors (except for the DLA-N5) is the latest blue laser diode BLU-Escent, which is featured in JVC professional projectors. BLU-Escent technology has been adopted for home theatre projectors to achieve exceptional brightness and longevity of 20,000 hours*6. Laser diode allows dynamic control of brightness to reproduce images that are closer to human perception. Combining the latest BLU-Escent package with the D-ILA device achieves detailed, smooth, powerful video expression.

*6: In theory, this amounts to 20 years or more while watching a 2.5-hour movie every day.

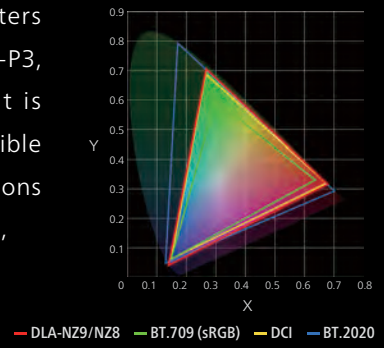


The advantage of laser diode over lamp is because multiple laser chips make it possible to compensate for the loss of one chip using other chips.

Vivid colour images achieved with DCI-P3-equivalent wide colour gamut

NZ9 NZ8

The use of a laser light source and cinema filters enables a wide colour gamut equivalent to DCI-P3, not to mention BT.709. When HDR content is projected on the DLA-NZ9 or the NZ8, it's possible to richly reproduce colours such as the gradations of the sky and ocean, the contrast of red roses, or a row of fresh green trees.



Unparalleled black level and high luminance deliver images brimming with reality

NZ9 NZ8 NZ7

Native contrast as high as 100,000:1 is delivered by these projectors'*7 optical engine alone. But on top of that, in combination with the dynamic light source control, an astonishing dynamic contrast of ∞ (infinity) :1 can be achieved for models equipped with the BLU-Escent light source.

*7: Native contrast ratio of 100,000:1 for the DLA-NZ9, 80,000:1 for the NZ8, and 40,000:1 for the NZ7, all with ∞:1 dynamic contrast ratio. The N5 delivers 40,000:1 native contrast ratio with 400,000:1 dynamic contrast ratio.

Enhanced Industry-leading HDR Performance with the Latest Signal Formats including HDR10 Plus

HDR (High Dynamic Range) drastically improves expressive power of images

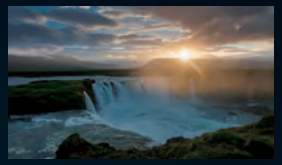
When it comes to reproducing the rich video information of HDR content, including the extended brightness range, BT.2020 wide colour gamut and 10-bit gradation, rely on one of the new D-ILA projectors. New models support all HDR formats including HDR10 for Blu-ray and streaming, HLG for broadcasting, and the latest HDR10+[*8] signal format with dynamic metadata compatibility.

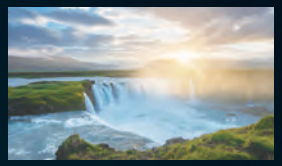
*8: The DLA-N5 does not support the HDR10+.

Support for two dynamic tone mappings

NZ9 NZ8 NZ7

JVC projectors are compatible with the two dynamic tone mappings of HDR10+ and Frame Adapt HDR. HDR10+ contains the metadata of the producer's intentions for each scene, and with such data, the projector is able to automatically reproduce images as the creator had planned. Frame Adapt HDR instantly analyses the peak brightness in HDR10 content using an original algorithm, and adjusts to the optimal dynamic range for image projection. Even content without mastering information can be analysed based on the input signal, so all kinds of HDR10 content can be viewed with optimal picture quality.





With conventional projectors, a scene mixed with bright and dark settings tends to become too bright or too dark.

Theater Optimizer for optimal reproduction of HDR content suitable to each environment

Brightness of the projector screen varies depending on the screen size, gain, frequency of use, and settings. JVC projectors intelligently adjust tone mapping so that the content can be viewed at the appropriate brightness by automatically analysing the environment in which the projector is used, simply by entering the screen size and gain information under Theater Optimizer in the Frame Adapt HDR picture mode. This ensures reference picture quality at the appropriate brightness, suitable to each custom home theatre environment.

JVC projectors featuring Frame Adapt HDR and Theater Optimizer can express HDR/HDR10+ content at optimum brightness and darkness in each scene as the creator intended.

ADJUSTMENTS AND INSTALLATION

■ **Clear Motion Drive's** compensation accuracy has been improved in the periphery of intersecting objects. Added with Motion Enhance technology, the projector can reproduce much smoother moving images[*9].

Clear Motion Drive: Off　　Clear Motion Drive: On

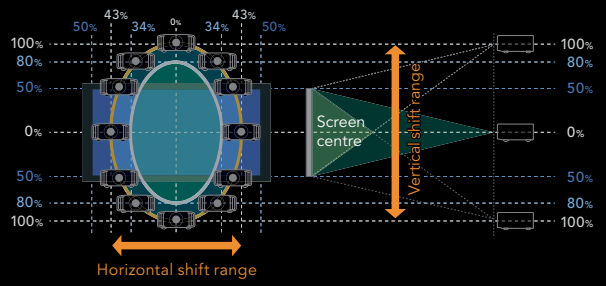
*9: The function is disabled when inputting 4K120p signals.

■ **Auto Calibration function** optimizes all essential elements found in the image, including colour balance, gamma characteristics, colour space, and colour tracking, using an optical sensor and proprietary software[*10].

Immediately after use　　1,000 hrs after use　　After Auto-Calibration

*10: An optical sensor and proprietary software, which is downloadable from JVC website, are required to perform auto calibration function. Refer to the JVC website for details.

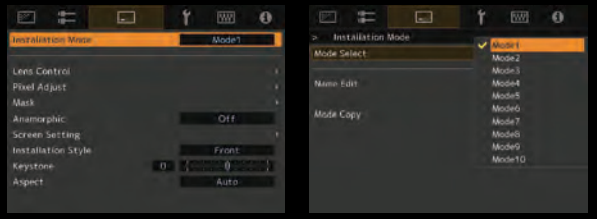
■ **Lens Shift function** is used to install the projector with flexibility. Vertical/horizontal wide shift ranges help project images without distortion.



Above diagram shows shift range for the 16:9 aspect ratio projection.

■ **6-axis Colour Management System** with red, green, blue, cyan, magenta, and yellow axes enables the precise adjustment of hue, saturation, and intensity.

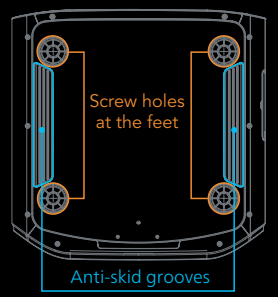
■ **Installation Mode** allows users to centrally manage eight settings (Lens Control, Pixel Adjustment, Mask, Anamorphic on or off, Screen Setting, Installation Style, Keystone, and Aspect) to enjoy projected video optimized for each environment. Ten different mode settings can be named and stored in memory.



Installation Mode and Memory graphical interfaces

Scan or click on the QR code to access the Screen Adjustment Mode Table

■ **Intake/exhaust layout and Footprint designed for ease of installation.** Rear air intake and front exhaust layout provide flexibility for a variety of installations. Screw holes at the feet are compatible with a conventional ceiling-mount bracket, while the anti-skid grooves prevent the projector from slipping when installed.



DLA-NZ9 D-ILA Projector

8K e-shift X | BLU-Escent | HDR | HDR10+ | isf

100mm HQ Lens

DLA-NZ8 D-ILA Projector

8K e-shift X | BLU-Escent | HDR | HDR10+ | isf

DLA-NZ7 D-ILA Projector

8K e-shift | BLU-Escent | HDR | HDR10+ | isf

DLA-N5 D-ILA Projector

4K | HDR | isf

For more information on the 2021 D-ILA projectors, scan or click on the QR code to access the Official Website

Specifications

GENERAL		DLA-NZ9	DLA-NZ8	DLA-NZ7	DLA-N5
Device		0.69-inch Native 4K D-ILA Device (4096 x 2160) x3			
e-shift		8K/e-shiftX (4-direction shift)		8K/e-shift (2-direction shift)	–
Display Resolution		8192 x 4320			4096 x 2160
Lens	Type	x2 Motorised Zoom & Focus, All-glass Lens			
	Diameter	100 mm	65 mm		
Lens Shift	Vertical/Horizontal (motorised, in 16:9 aspect ratio)	±100% / ±43%	±80% / ±34%		
Projection Display Size (diagonal)		60 inch - 300 inch	60 inch - 200 inch		
Light Source		BLU-Escent Laser Diode			NSH 265 W
Brightness		3,000 lm	2,500 lm	2,200 lm	1,800 lm
Contrast Ratio	Dynamic	∞:1			400,000:1
	Native	100,000:1	80,000:1	40,000:1	40,000:1
DCI-P3 Colour Gamut		•		–	
Input Terminal	HDMI	2 (48Gbps, HDCP2.3, no support for CEC)			2 (18Gbps, HDCP2.3, no support for CEC)
	TRIGGER	1 (Mini Jack, DC12V/100mA)			
Output Terminals	3D SYNCHRO	1 (Mini-Din 3pin)			
	RS-232C	1 (Dsub 9pin)			
Control Terminals	LAN	1 (RJ-45)			
Service Terminal	SERVICE	1 (USB Type A, for firmware update)			
Power Consumption	Projector in use	440 W		420 W	400 W
	Standby	Eco-mode: 0.3 W			
	Networked standby	1.5 W (LAN)			
Fan Noise		24 dB (In Low Mode)			
Power Requirement		AC100-240 V, 50/60 Hz			
Dimension (W x H x D, including feet)		500 x 234 x 528 mm	500 x 234 x 505 mm		500 x 234 x 495 mm
Weight (net)		25.3 kg	23.1 kg	22.5 kg	19.6 kg

FEATURES		DLA-NZ9	DLA-NZ8	DLA-NZ7	DLA-N5
8K60p Input		•	•	•	–
4K120p input		•	•	•	(4K60p input only)
Ultra-High Contrast Optics		•	•	–	–
HDR	HDR10+	•	•	•	–
	HLG	•	•	•	•
	Mastering Info Display	• (Max CLL/Max FALL)			
	Frame Adapt HDR	•	•	•	•
	Theater Optimizer*11	•	•	•	•
	Auto Tone Mapping	•	•	•	•
3D Support		•	•	•	•
Clear Motion Drive		•	•	•	•
Motion Enhance		•	•	•	•
Low Latency Mode		•	•	•	•
Auto Calibration		•	•	•	•
Installation Mode		• (10 memories)			
isfccc Certification		•	•	•	•
Screen Adjustment Mode		• (180 modes)			• (168 modes)

*11: Theater Optimizer can be activated only when the projector's picture mode is set to Frame Adapt HDR.

Optional Accessories

PK-AG3 **RF 3D Glasses**

Full recharge takes 2.5 hours and works for 100 hours. Includes USB-Mini USB cable.

PK-EM2 **RF 3D Emitter**

Signal reaches to 10 meters. No IR signal interruption with other equipment. No limitation to the number of the glasses.

PK-L2618U **Replacement Lamp** N5

Lamp time of 4,500 hours at Low Lamp power setting, 3,500 hours at High Lamp power setting.

Projection Distance Chart

DLA-NZ9

	Screen size aspect ratio: 16:9				Screen size aspect ratio: 2.35:1 (Cinematic)			
	Screen size		Projection distance		Screen size		Projection distance	
Screen diagonal (inch)	Width (mm)	Height (mm)	Wide (m)	Tele (m)	Width (mm)	Height (mm)	Wide (m)	Tele (m)
60	1,328	747	1.75	3.61	1,402	597	1.86	3.82
90	1,992	1,121	2.67	5.46	2,103	895	2.83	5.77
100	2,214	1,245	2.98	6.07	2,337	995	3.15	6.41
110	2,435	1,370	3.28	6.69	2,571	1,094	3.47	7.06
120	2,657	1,494	3.59	7.30	2,805	1,193	3.79	7.71
150	3,321	1,868	4.51	9.15	3,506	1,492	4.76	9.66
200	4,428	2,491	6.04	12.22	4,674	1,989	6.38	12.91
250	5,535	3,113	7.57	15.30	5,843	2,486	7.99	16.15
280	6,199	3,487	8.48	17.14	–	–	–	–
300	–	–	–	–	–	–	–	–

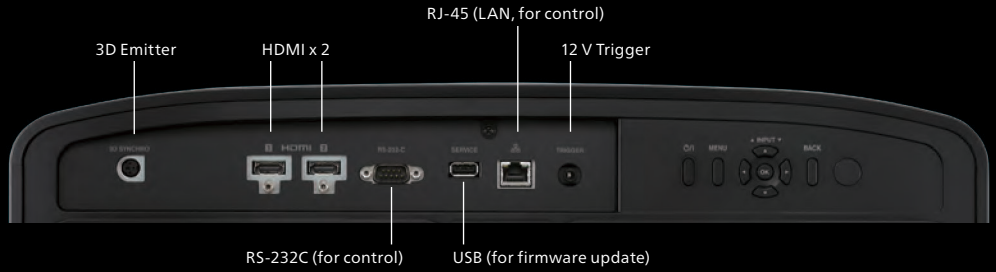
*Projection distances are design specifications, so there is ±5% variation.

DLA-NZ8/DLA-NZ7/DLA-N5

	Screen size aspect ratio: 16:9				Screen size aspect ratio: 2.35:1 (Cinematic)			
	Screen size		Projection distance		Screen size		Projection distance	
Screen diagonal (inch)	Width (mm)	Height (mm)	Wide (m)	Tele (m)	Width (mm)	Height (mm)	Wide (m)	Tele (m)
60	1,328	747	1.88	3.85	1,402	597	1.99	4.07
90	1,992	1,121	2.84	5.80	2,103	895	3.00	6.13
100	2,214	1,245	3.16	6.45	2,337	995	3.34	6.81
110	2,435	1,370	3.49	7.10	2,571	1,094	3.68	7.50
120	2,657	1,494	3.81	7.75	2,805	1,193	4.02	8.18
150	3,321	1,868	4.77	9.70	3,506	1,492	5.04	10.24
200	4,428	2,491	6.38	12.95	–	–	–	–

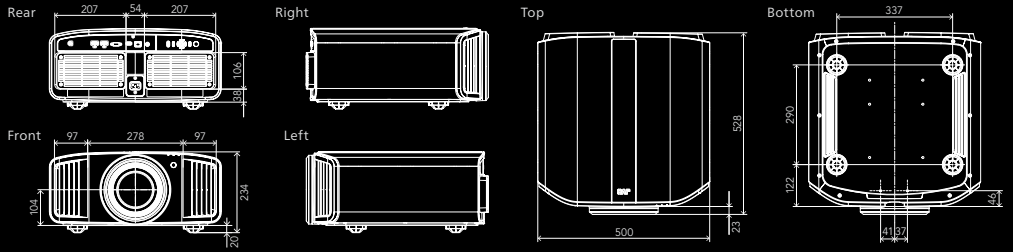
*Projection distances are design specifications, so there is ±5% variation.

Connectors

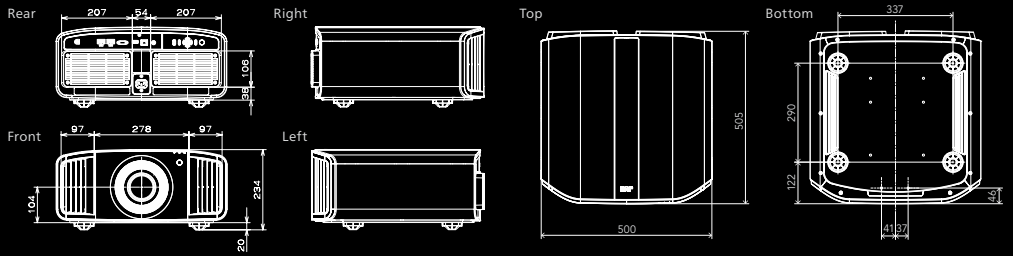


External Dimensions

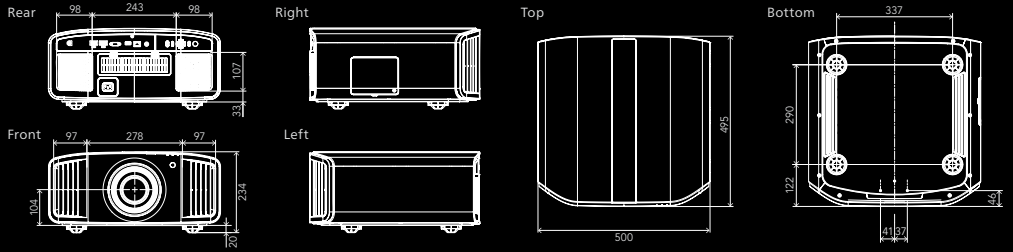
DLA-NX9



DLA-NZ8/DLA-NZ7



DLA-N5



Note: As stated in this brochure, the DLA-NZ9, DLA-NZ8, and DLA-NZ7 models are the world's first home theatre projectors (as of September 2021) to support 8K60p/4K120p input; according to a research conducted by JVCKENWOOD.
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