JVC®

The Perfect Experience

DLA-HD1

Full High-Definition Home Theater Front Projector

D-ILA®

Full HD
1920x1080


True Black
INTELLIGENT PROJECTION SYSTEM

Remarkable Picture Quality

The DLA-HD1 brings full-HD to your home with the industry's highest native contrast ratio: 15,000:1. The "native" means that it does not rely on an iris mechanism to maximize contrast depending on the average brightness of one scene. This technical slight of hand, employed on other projectors, effectively changes overall luminosity, so that blacks are slightly bleached in bright scenes, while light colors appear duller in dark scenes.

Conventional Projector

DLA-HD1

There is neither an iris mechanism nor compromise in the DLA-HD1 projector. D-ILA is a mature technology, perfected by JVC, which can reproduce the brightest, most vivid colors simultaneously with the subtlest shadows, down the deepest, truest blacks. Only D-ILA can reproduce in full the rich image information contained in a high-definition source, be it broadcast or optical disc.

•••Advanced Technologies

There are a number of advanced technologies behind the beautiful picture quality of the DLA-HD1 projector.

1. JVC's original **D-ILA (Direct-drive Image Light Amplifier) technology** ensures a natural, rich, flicker-free picture which does not suffer from the sort of color-breaking phenomenon that can often occur with single-device projectors, especially when there is rapid movement. The result is a smooth picture, like that produced by film, with fine detail from one edge of the screen to the other. And there is also no obvious "screen-door" effect when using D-ILA devices, so the high-definition picture is like that produced by a film projector.

2. The new **optical engine with wire-grid polarizers** ensures precise light polarization that results in achieving a native contrast ratio of 15,000:1. Objects that are normally black are shown with true blacks. And, irrespective of brightness, consistent response is assured, allowing the reproduction of a wide range of intermediate colors.

3. The large diameter, all-glass **Fujinon lens system** with 16 elements in 13 groups significantly reduces chromatic aberration and ensures a high-resolution picture, with every point on the screen perfectly in focus. Also, the high-performance 2x zoom lens enables you to enjoy a large and impressive image even in smaller rooms.

Fujinon is a registered trademark of Fuji Photo Film Co., Ltd.

4. Finally, the **VXP video processor** generates high-quality output using a combination of advanced digital technologies.

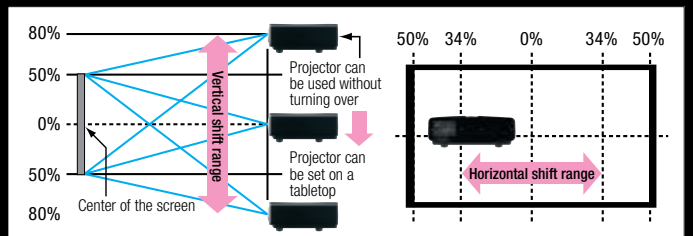
VXP and Visual Excellence Processing are trademarks of Gennum Corporation.

VXP BY GENNUM

Easy Home Theater Setup

Setting up a home theater system may sound daunting, and in the past it may have been. But JVC has incorporated into the design of the DLA-HD1 projector several ingenious features that make setup flexible and easy.

Take, for example, the **lens shift function**. Its generous ±80% vertical range means you can install the projector on a table, the floor or the ceiling, and still position the picture just where you want it. The same intelligent projection system offers a ±34% horizontal shift, so you do not have to have the projector directly in front of the screen either.



*The vertical and horizontal lens shifts cannot be set to maximum values at the same time.

Installing a projector on the ceiling has usually been problematic because of the top cooling vents, but JVC has put both **air intake and exhaust vents on the front of the unit**. You can thus place the DLA-HD1 projector right up against a wall, or even tabletop.

Another thoughtful touch is the position of the access panel for replacing the lamp. This is on the side of the projector, so it is always easy to get to.

Access for lamp replacement

User-friendly Design & Controls

Once installed, the DLA-HD1 projector continues to be user-friendly every day – starting with a handy **self-illuminating remote control**. The buttons light up automatically, making it easy to operate even in a dark room. The remote control also includes direct keys to adjust frequently used functions such as contrast and brightness, in addition to video input selection.

A convenient and detailed **video adjustment menu** allows you to easily adjust the picture to suit the source video and your own preferences.

Additionally, the projector is equipped with **2 separate HDMI terminals** on the back panel that ensure HDTV signals are transferred without any degradation.

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

True Black. The Intelligent Projection System makes all scenes shine.

D-ILA®

Full HD 1920×1080

DLA-HD1

Full High-Definition Home Theater Front Projector

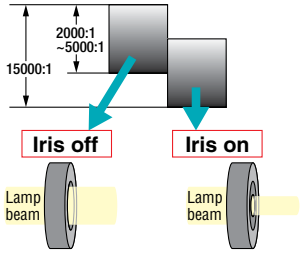
JVC DLA-HD1 Intelligent Projection System is an extraordinary front projector as it offers an exquisitely detailed full-HD picture with the industry's highest native contrast ratio[1] of 15,000:1.This is achieved without an iris mechanism to ensure true black reproduction and make colors sparkle, highlighting subtle nuances in scenes. In addition to its beautiful picture quality, this projector also offers appealing versatility and user-friendly operation. The lens shift function allows you to install the projector virtually anywhere in the room, exactly where you want it. What's more, the front cooling design means that it is unnecessary to allocate space on top or behind the projector. And, video adjustments are made easy by the handy remote controller that illuminates automatically when the room is dark. Offering optimum levels of performance and quality, the DLA-HD1 is sure to satisfy even the most discerning video enthusiasts.

**1 Native contrast of 15,000:1 for home theater projectors (JVC survey as of January 2007).*

Comparison between conventional projectors and the DLA-HD1

The secret behind the exquisite, film-like picture quality with 15,000:1 native contrast ratio lies in the innovative D-ILA device technology, the optical engine and the fact the DLA-HD1 projector does not rely on iris control. Conventional front projectors use an iris control to boost contrast ratio. With such projectors, picture resolution may be excellent, but the picture lacks good contrast. Here you can see the difference between a conventional projector with iris control and JVC's DLA-HD1.

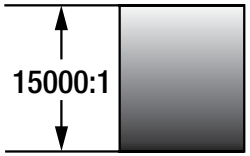
Conventional Projector



For bright scenes the iris is opened, making peak values brighter, but at the same time blacks are lighter than they should be.

For dark scenes the iris aperture is reduced, causing blacks to appear darker but at the same time peak values are also darker.

DLA-HD1

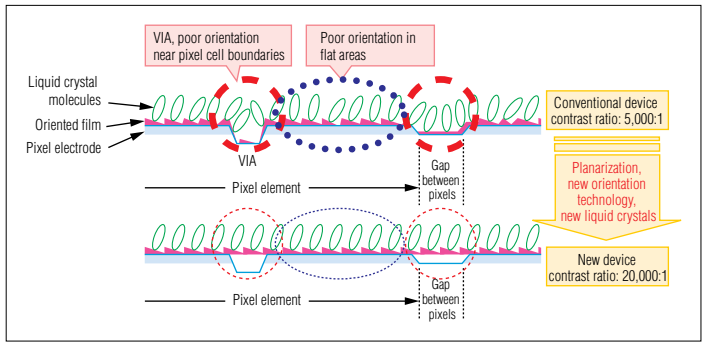


The newly developed 0.7-in. full HD D-ILA device can display peak whites and deep blacks on the same screen.

Newly developed 0.7-in. full HD D-ILA device

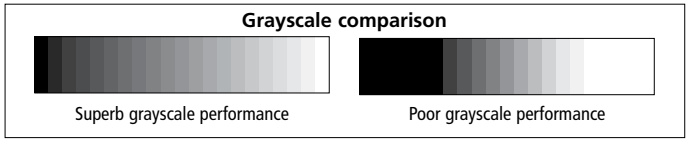
Conventional D-ILA devices suffer from surface unevenness, minute gaps and irregularities that are unavoidable using normal semiconductor manufacturing processes. Discontinuities between individual pixel cells or where the pixel cells are connected with the underlying semiconductor structure disturb the orientation of the liquid crystals, and the resulting diffraction and other effects lead to stray light. In the manufacture of this newly developed device, technology has been adopted to ensure extreme planarization; this reduces to an absolute minimum such stray light.

Moreover, as a result of employing new liquid crystal materials and orientation technologies, the gap between pixel cells has been optimized, reducing it from the previous 3.2 microns to 2.3 microns, cutting light loss from the liquid crystal layer itself, and significantly improving compensation accuracy. Such new technologies have realized the extremely high device contrast ratio of 20,000:1, and at the same time halved response time from 8msec (Tr+Td) to 4msec.



Professional-standard grayscale performance

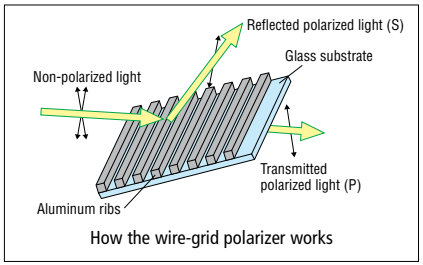
JVC's original D-ILA pulse drive produces clear, high-precision gradations without employing error diffusion. High-precision calibration technology enables the faithful reproduction of dark pictures, in which luminance is 10% or less, so that the blacks can still be differentiated, thus resulting in pictures with appreciable texture.



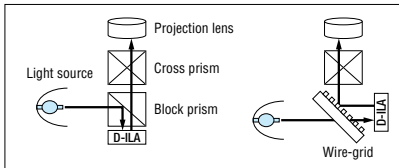
New optical engine with wire-grid polarizers

Using a conventional PBS (Polarizing Beam Splitter), comprised of a glass prism with multilayer interference film, optical properties can vary considerably depending on the angle of the incident light beam; this makes it difficult to realize high contrast.

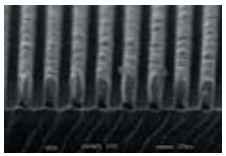
However, the wire grid design employed for JVC's newly developed optical engine uses an inorganic reflective polarizing plate made from a glass substrate on the surface of which are ultra-fine aluminum ribs. This reduces to an absolute minimum the amount of stray light reaching the lens. The combination of this polarizer with the newly developed D-ILA device increases contrast by a factor of 5.



How the wire-grid polarizer works



New optical engine with wired-grid polarizers



Enlarged photo of the wire-grid polarizers

GF9351 video processor from Gennum Corporation

The GF9351 video processor made by Gennum Corporation ensures the faithful reproduction of high-quality images thanks to a high-precision scaling function and four VXP™ technologies — FineEdge™, FidelityEngine™, TruMotionHD™ and RealityExpansion™.

Four VXP™ Technologies

- **FineEdge™**
  Edge correction technology that gets rid of the jaggy artifacts that can affect diagonal lines, creating instead smooth outlines.
- **FidelityEngine™**
  Imaging technology that improves detail while reducing noise. This technology ensures a clear, detailed picture even when using video sources with lower resolutions.
- **TruMotionHD™**
  De-interlacing technology that supports HD signals (1080i), converting them to high-quality 1080p signals for playback.
- **RealityExpansion™**
  10-bit image processing technology. This technology can upsample 4:2:2 (Y:Cb:Cr) video signals to the 4:4:4 format; it delivers outstanding image processing at a level comparable to that of broadcast masters.

VXP and Visual Excellence Processing are trademarks of Gennum Corporation.

Projection Distance Chart

Screen Size (16:9) Inches and (mm)						Throw Distance			
						Minimum		Maximum	
Diagonal		Height		Width		Feet - Inches	Meters	Feet - Inches	Meters
60″	(1523)	29 3/8″	(747)	52 1/4″	(1327)	5′ - 10″	1.78	11′ - 10 3/4″	3.63
68 7/8″	(1749)	33 3/4″	(857)	60″	(1524)	6′ - 8 1/2″	2.05	13′ - 8″	4.17
80 3/8″	(2040)	39 3/8″	(1000)	70″	(1778)	7′ - 10 1/4″	2.39	15′ - 11 3/4″	4.87
91 3/4″	(2332)	45″	(1143)	80″	(2032)	8′ - 11 3/4″	2.74	18′ - 3 1/4″	5.57
103 1/4″	(2623)	50 5/8″	(1286)	90″	(2286)	10′ - 1 1/2″	3.09	20′ - 6 3/4″	6.27
114 3/4″	(2915)	56 1/4″	(1429)	100″	(2540)	11′ - 3 1/4″	3.44	22′ - 10 1/2″	6.97
126 1/4″	(3206)	61 7/8″	(1572)	110″	(2794)	12′ - 5 1/4″	3.79	25′ - 2 1/4″	7.68
137 3/4″	(3498)	67 1/2″	(1715)	120″	(3048)	13′ - 7″	4.14	27′ - 6″	8.38
149 1/8″	(3789)	73 1/8″	(1857)	130″	(3302)	14′ - 9″	4.50	29′ - 9 3/4″	9.09
160 5/8″	(4081)	78 3/4″	(2000)	140″	(3556)	15′ - 11″	4.85	32′ - 1 1/2″	9.79
172 1/8″	(4372)	84 3/8″	(2143)	150″	(3810)	17′ - 1″	5.21	34′ - 5 1/2″	10.50
183 5/8″	(4663)	90″	(2286)	160″	(4064)	18′ - 3 1/4″	5.57	36′ - 9 1/2″	11.21
195 1/8″	(4955)	95 5/8″	(2429)	170″	(4318)	19′ - 5 1/4″	5.93	39′ - 1 1/2″	11.92
200″	(5079)	98″	(2490)	174 1/4″	(4426)	19′ - 11 1/4″	6.08	40′ - 1 1/2″	12.23

**Projection distances are design specifications, so there is ±5% variation.*
**52 1/4″ is the minimum screen width*
**174 1/4″ is the maximum screen width*

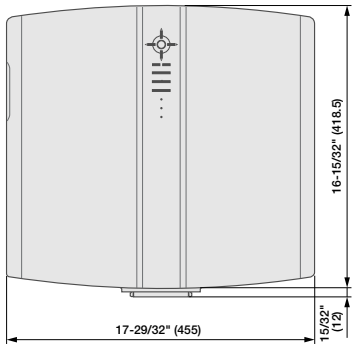
Specifications

Display device	Full HD D-ILA device
Panel size	0.7 inch x 3 (16:9)
Resolution	1,920 x 1,080 pixels
Lens	X2 Manual zoom/focus lens f=21.3-42.6mm F=3.2-4.3
Projection size	60 inches to 200 inches
Lens shift function	±80% vertical and ±34% horizontal
Light source lamp	200-watt ultra high-pressure mercury lamp
Light output	700 lm
Contrast ratio	15,000:1
Video input terminals	HDMI x 2
	Component x 1 (3RCA) can also be used as a RGB terminal.
	S Video terminal (mini DIN4 pin) x 1
	Composite x 1 (1RCA terminal)
Control terminals	RS-232 (D-sub9 pin)
Video input signals	480i/p, 576i/p, 720p60/50, 1080i60/50, 1080p60/50/24, NTSC/NTSC4.43/PAL/PAL-M/PAL-N/SECAM
Noise level	25dB (in normal mode)
Power consumption	280 watts (2.7 watts while in stand-by)
Dimensions (W x H x D)	17-29/32″ x 6-51/64″ x 16-15/32″ (455 x 172.5 x 418.5mm) without extrusions
Weight	25.6lbs. (11.6kg)
Provided accessories	Power source cable x 1, self-illuminating remote control x 1, AAA size batteries, and lens cap

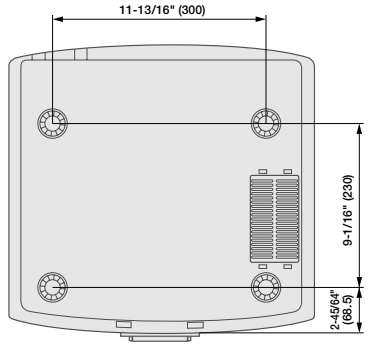
External Dimensions

Unit: inch (mm)

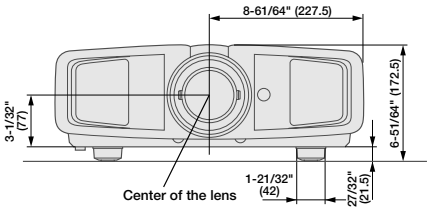
■ Top



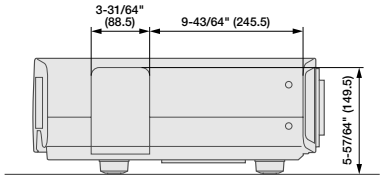
■ Bottom



■ Front



■ Side (left)



Rear Terminals

Optional Accessory

User-replaceable Lamp
BHL5009-S

Inside this projector there is a high-pressure mercury lamp. This type of lamp 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 variance between individual lamps in regards to how many hours they will operate before requiring replacement.
A separate charge is payable for installation, if required.
Design and specifications are subject to change without notice.
• 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).
VXP and Visual Excellence Processing are trademarks of Gennum Corporation. Fujinon is a registered trademark of Fuji Photo Film Co., Ltd. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
All other brand or product names may be trademarks and/or registered trademarks of their respective owners. Any rights not expressly granted herein are reserved.

JVC®

DISTRIBUTED BY

EURO2008 Austria-Switzerland

JVC Jazz Festival

http://www.jvc.com