JVC ®

PROFESSIONAL

True SXGA in The World's Smallest and Lightest Package

Ready for the future: Introducing JVC's DLA-DS1, the world's smallest and lightest projector with true SXGA capability

Over the next few years, demand for SXGA resolution is expected to increase rapidly.
In the near future, this high-resolution format is likely to account for half the display market,
making it the dominant display standard.
Clearly, then, SXGA capability is critical to meeting the image display demands of the future.

Now you can take advantage of true SXGA resolution without having to commit to a big,
expensive permanent projector installation. Thanks to JVC's original 1PBS optical engine,
the high-resolution DLA-DS1 D-ILA™ projector not only delivers full-quality SXGA pictures,
it's also smaller and lighter than any other projector in its class — small enough to set up just about anywhere,
and light enough to move easily from room to room as required.

With its virtually unlimited information processing potential,
D-ILA™ technology is destined to become the premier display technology
for digital cinema and other high-end applications in the future.
This technology has already made our current D-ILA™ device the leader in the market
for high-performance large-screen display projectors.
Now we are developing a new generation of D-ILA™ devices (0.7" SXGA+ device, 1.3" QXGA device, etc.)
that will pave the way for even more exciting applications in the future.

"D-ILA™ Quality"—
# natural, smooth image with optimized contrast

JVC's original D-ILA™ technology for unsurpassed image quality

JVC's D-ILA™ (Direct Drive Image Light Amplifier) technology features a high-density, reflective liquid crystal structure that provides you with today's optimal combination of brightness, resolution, contrast and color for the big screen. Thanks to a 93% aperture ratio, it also provides the highest native resolution with the least visible pixels, making images as smooth and natural as film.

1,365 x 1,024 native resolution for true SXGA resolution without compression plus UXGA compatibility

With extra-high resolution of up to 1,365 x 1,024 pixels, the DLA-DS1 easily handles even the super-sharp clarity of an SXGA (1,280 x 1,024 pixels) image. It reproduces the picture without the scaling or loss of quality typically associated with projection of high-resolution computer graphics and CAD/CAM images. With video resolution of 1000 TV lines, small text, characters, icons and cursors are clearly legible even at the corners of the projected image.

Moreover, the DLA-DS1 has input capability up to 105 kHz, making it compatible with resolutions as high as UXGA (1,600 x 1,200).
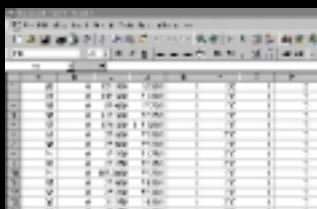
Ordinary resolution
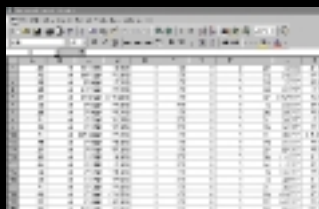
SXGA resolution

Technologies for enhanced image quality

The powerful image reproduction performance of the DLA-DS1 is enhanced by an array of unique JVC imaging technologies that assure the best possible results with any image source.

• *Adaptive DPC (Digital Pixel Conversion) Technology*

This optimizes image scaling to best match the D-ILA™'s pixels, eliminating the annoying jagged edges found with other digital technologies. As a result, you can obtain smooth and natural images regardless of the source resolution (up to 105 kHz).

• *Digital Gamma Correction*

With accurate color reproduction capability, this circuitry provides superior color performance by ensuring accurate gray scale, from sheer black to shining white. That's critical for all your images, from subtle skin tones in home theater screenings to the complex coloration of workstation graphics.

DLA-DS1

JVC current LCD projector

Comparison of gradation characteristics

• *Color Enhancement Technology*

This compensates for color contours to eliminate blur for crisper and sharper video images.

• *200 W UHP lamp*

The superb **1,300 ANSI lumen** image of the D-ILA™ picture shines through even in a brightly lit room thanks to the powerful new **200 W UHP lamp**.
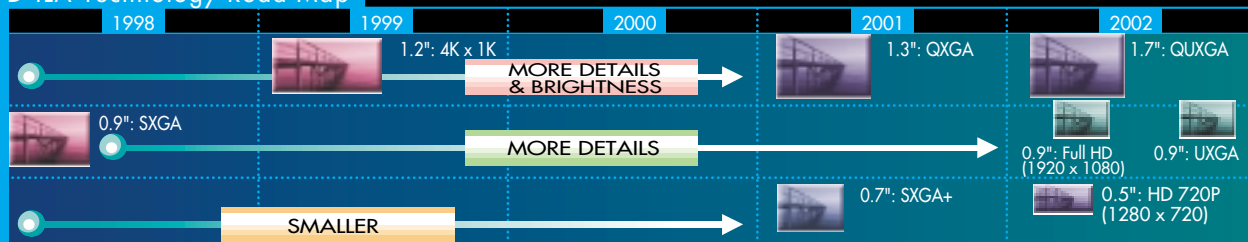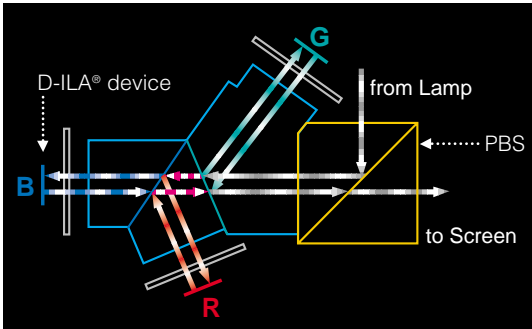
Compatibility with the future

The continued advance of digital technologies means that more visual information is processed, and more details have to be displayed. As a result, both desktop and notebook PCs are moving towards the SXGA display standard, digital camera resolutions are increasing into the mega-pixel range, and high-quality video sources like HDTV are making their way into many homes. With its true SXGA-based design, the DLA-DS1 can accurately project images from any of these sources. And, with "Class B" classification, the DLA-DS1 is completely suitable for home use. The ideal home theater projector, it is also fully compatible with digital TV — 480i, 480p, 720p and 1080i, making it the right choice for the future.

D-ILA™Technology Road Map

1998	1999	2000	2001	2002
	1.2": 4K x 1K	MORE DETAILS & BRIGHTNESS	1.3": QXGA	1.7": QUXGA
0.9": SXGA		MORE DETAILS	0.9": Full HD (1920 x 1080)	0.9": UXGA
	SMALLER	0.7": SXGA+	0.5": HD 720P (1280 x 720)	

World's smallest and lightest

1PBS system — patent pending

In order to incorporate the high performance of its D-ILA® projection technology into a compact unit that can be installed anywhere, JVC developed a completely new optical system that uses **only one PBS (Polarized Beam Splitter).** As a result, the DLA-DS1 weighs a **mere 13.2 lbs (6.0 kg.).** As easy to move around as a notebook computer, the DLA-DS1 can go anywhere, anytime, assuring a top-quality, high-impact presentation every time.

Easy-to-use and user-friendly design

A straight blue line on the top panel runs parallel to the lens axis to make it easier to correctly align the unit's direction.
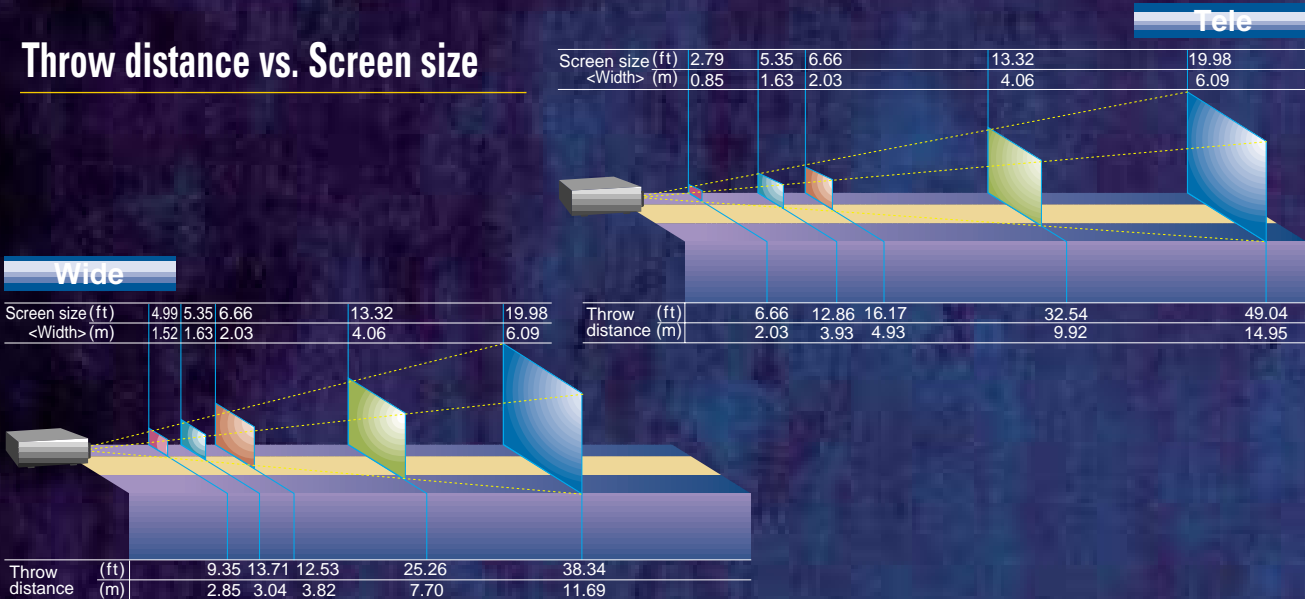
Quick lamp & filter replacement

Installation is a snap. Setup is just a matter of plug and play — align the blue line (optical axis) on the unit vertically with the screen surface and you're ready to go. The **quick alignment** function automatically sets up the projector's phase/tracking/position in a matter of seconds. **A cooling vent located on the front directs warm exhaust forward, where it's less likely to bother anyone.** Acoustic **noise** generation is **minimal** — almost below the threshold of normal hearing. **The lamp and filter can be replaced from the front** so there's no need to move or lift the projector. And when you do need to move the projector, **the belt handle** is provided for easy carrying.

Throw distance vs. Screen size

Tele

| Screen size (ft) | 2.79 | 5.35 | 6.66 | | 13.32 | | 19.98 |
| <Width> (m) | 0.85 | 1.63 | 2.03 | | 4.06 | | 6.09 |

| Throw (ft) | | 6.66 | 12.86 | 16.17 | 32.54 | | 49.04 |
| distance (m) | | 2.03 | 3.93 | 4.93 | 9.92 | | 14.95 |

Wide

| Screen size (ft) | 4.99 | 5.35 | 6.66 | | 13.32 | | 19.98 |
| <Width> (m) | 1.52 | 1.63 | 2.03 | | 4.06 | | 6.09 |

| Throw (ft) | | 9.35 | 13.71 | 12.53 | 25.26 | | 38.34 |
| distance (m) | | 2.85 | 3.04 | 3.82 | 7.70 | | 11.69 |

Meeting the need for true SXGA capability and affordable convenience

The DLA-DS1 can faithfully reproduce all the details of the original image when it is connected to an SXGA resolution notebook PC, digital camera or JVC digital presenter.

SXGA
Notebook PC

SXGA~UXGA
Digital camera

SXGA
AV-P1000 digital presenter
(replaces OHP system)

W-VHS High-Definition VCR

Powerful presentation support system

• Digital keystone correction
Keystone correction of ±20°/35°* with the direct button.
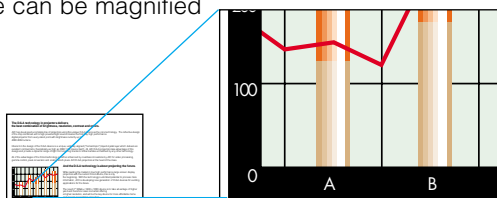
Before correction   After correction   Before correction
* Setting is possible via the RS-232C interface.

• 1.3x optical zoom/16x digital zoom function
The picture can be magnified up to 16x.

• Freeze frame
Lets you freeze the current image (still picture), so you can set up the next presentation.

• User selectable color temperature
The optimum color temperature can be set for each media source (PC/TV, Cinema), making images more natural and smooth.

• User channel presets
For the most specialized applications, up to 40 user channels can be preset (freq./phase/H Pos./V Pos./HV resolution/ tone selection) for flexibility and ease of use.

• Hide buttons

• Environment-friendly fluorescent remote control

• Remote control signal reception window on the rear panel for easier control over presentations

Major Specifications

SYSTEM

Image Device	3 D-ILA™ (0.9 inches diagonal)
Projection Lens	1.9 to 2.5 : 1 (Throw distance: Screen width), F3.6, manual zoom/focus, 50% fixed offset
Brightness	1,300 ANSI lumens
Native Resolution	1,365 x 1,024 pixels
Source Resolution	Up to 1,600 x 1,200, 1000 TV lines (4:3, vertical, video input)
Uniformity	85% or more
Scan Frequency Horizontal	15 – 105 kHz
Vertical	50 – 90 Hz
Data Clock	160 MHz
Screen Size Wide	4.99 ft – 19.98 ft (1.52 m – 6.09 m) (width)
Tele	2.79 ft – 19.98 ft (0.85 m – 6.09 m) (width)
Throw Distance	Approx. 6.56 ft – 49.2 ft (2 m – 15 m)
Lamp	200 watts, UHP
Speaker	1.0 W, monaural

SOURCES

Computer	VGA, SVGA, XGA, SXGA, UXGA, MAC, SUN, SGI, etc.
Video	PAL, SECAM, NTSC/NTSC 4.43
DTV (Digital TV)	480i, 480p, 720p, 1080i
Audio	2 sources (RCA, mini jack)

CH SETTING

CH Auto Search	130 sources (VGA to UXGA)
User CH Setting Source	40 CH
User CH Setting	Freq./phase/H Pos./V Pos./HV resolution/tone selection
Quick Alignment	CH auto tracking (phase/tracking/position)
External Switcher Control	User CH switcher No. setting (10 CH) ON/OFF hide CH selection

GENERAL

Power Requirement	100 – 240 V, 50/60 Hz AC
Power Consumption	270 W
Dimensions (W x H x D)	11.4" x 5.2" x 13.8" (excluding lens) (290 x 132 x 350 mm)
Weight	13.2 lbs. (6.0 kg)

REAR PANEL

INPUTS

1 RGBHV (BNC)	Computer and DTV
1 Component (Y, Pr, Pb)	Video and DTV (1 RGBHV and 1 Component inputs use a common connector.)
1 RGB (15-pin VGA)	Computer
1 Composite	
1 S-Video	

EXTERNAL CONTROL

|	
Control Terminal	Serial: 1 source (RS-232C, D-sub 9-pin) Remote: 1 source (wired remote, mini jack)
IR Remote Control	Fluorescent type

Allowable input signals

Signal		Number of pixels (dots)	Horizontal frequency H (kHz)	Vertical frequency V (Hz)
Video system	Video			
	HDTV (1035i) 60Hz		33.75	60.00
	HDTV (1035i) 59Hz		33.72	59.94
	480p	720x483	31.47	59.94
	720p 60Hz	1280x720	45.00	60.00
	720p 59Hz	1260x720	44.96	59.94
	1080i 60Hz	1920x1080/2	33.75	60.00
	1080i 59Hz	1920x1080/2	33.72	59.94
	NTSC		15.734	60
	PAL		15.625	50
	SECAM		15.625	50
PC system	PC96 PC/AT DOS/V			
	VESA350	640x350	37.86	84.13
	PC98	640x400	24.83	56.42
	VGA 60Hz	640x480	31.47	59.94
	VGA 72Hz	640x480	37.86	72.81
	VGA 75Hz	640x480	37.50	75.00
	VGA 85Hz	640x480	43.27	85.01
	SVGA 56Hz	800x600	35.16	56.25
	SVGA 60Hz	800x600	37.88	60.32
	SVGA 72Hz	800x600	48.08	72.19
	SVGA 75Hz	800x600	46.88	75.00
	SVGA 85Hz	800x600	53.67	85.06
	XGA 43Hz	1024x768/2	35.52	43.48
	XGA 60Hz	1024x768	48.36	60.00
	XGA 70Hz	1024x768	56.48	70.07
	XGA 75Hz	1024x768	60.02	75.03
	XGA 85Hz	1024x768	68.68	85.00
	SXGA 43Hz	1280x1024/2	46.43	43.44
	SXGA 60Hz	1280x1024	63.98	60.02
	SXGA 75Hz	1280x1024	79.98	75.03
	SXGA 85Hz	1280x1024	91.15	85.02
	UXGA 60Hz	1600x1200	75.00	60.00
	Mac			
	MAC 13	640x480	35.00	66.67
	MAC 16	832x624	49.73	74.55
	MAC 19	1024x768	60.24	74.93
	MAC 21	1152x870	68.68	75.06

Notes
- The resolution for the input signals is listed in the above table.
- Even signals in the frequency range that can be input may not be displayed normally depending on the type of the signal.
- When a signal other than listed above is input, the image could be partially erased or an unneeded fold-over image could appear.
- Some signals other than listed above can be displayed. But they may require adjustment.
- Even some of the signals listed above may require adjustment depending on the video board used.
- Composite sync (Ca) and G on Sync signals cannot be handled depending on the devices connected.
- The VGA signal of the PC system could be displayed in 480p mode of the VIDEO system. (In this case, the projector enters video menu mode when the MENU button is pressed.)

Dimensions

11.4" (290 mm)

5.2" (132 mm)

13.8" (350 mm)
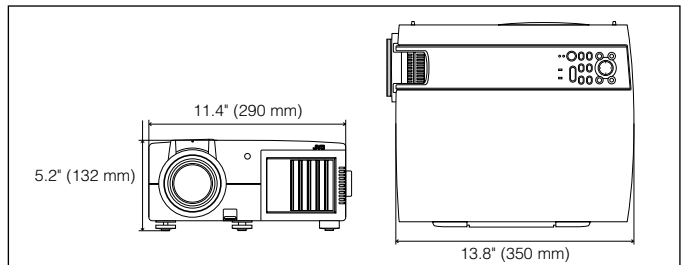
AV-P1000
digital presenter

- High-resolution 1,280 x 960 pixels equivalent to SXGA images
- RGB (SXGA to VGA) or NTSC/PAL output
- Simultaneous display
- 3-picture memory
- Smooth transitions with freeze function
- 20x zooming (4x electronic zoom combined with 5x power zoom)
- 2 zoom presets
- Camera/PC input selector
- Pointer indication
- Book holder