JVC®

The Perfect Experience

DLA-SH4K

4K2K D-ILA Projector 4096 x 2400

Ultra High Resolution D-ILA projector has arrived.

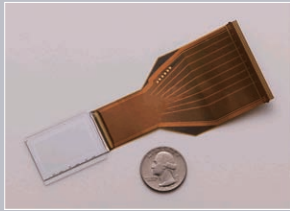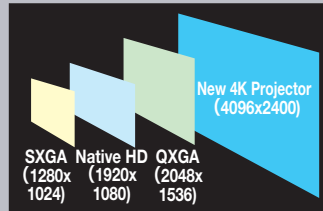# "Ultra High Resolution Image & Real Black"

D·ILA®

DLA-SH4K

Ultra high resolution, high contrast, high-grade projector

■ Mounts newly developed miniature ultra definition 4K2K D-ILA device

Adoption of a new construction and production process allows a 6.8 μm pixel pitch and 0.25 μm pixel gap with a high aperture ratio of more than 93%. Moreover, a 1.27-inch miniature 4K2K D-ILA device delivers high-definition display images of 10 mega pixels (4096 x 2400 pixels). Besides compatibility with 4K digital cinema, the projector also offers Full HD, four multi screen window display and 4x enlarged WUXGA images for high-end design and CAD applications.
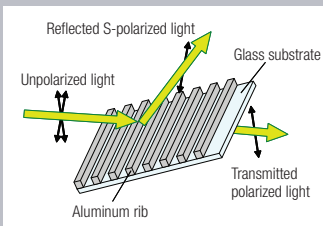
1.27-inch 4K2K D-ILA device

4096 x 2400 pixels—more than four times the pixel count of Full-HD

New 4K Projector (4096x2400)

SXGA (1280x1024)　Native HD (1920x1080)　QXGA (2048x1536)

■ 10,000:1 high contrast ratio provides real black

The new Wire Grid polarizers adopted in the optical engine are an inorganic light reflection polarizing plate made from arrays of aluminum ribs with a width of a few tens of nanometers, aligned with a pitch of over hundred nanometers of the surface of a glass substrate. They have lower angle dependency for polarized light, effectively minimizing any leakage of light to the lens when the image is black. Besides, technology to reduce variations in orientation, applying new liquid crystals and new orientation technologies achieve a 20,000:1 device contrast ratio. The combination of the new engine and new devices deliver native 10,000:1 high-contrast images.

Reflected S-polarized light
Glass substrate
Unpolarized light
Transmitted polarized light
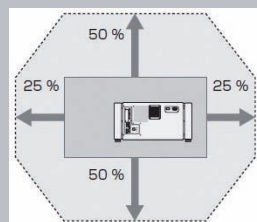Aluminum rib

Wire grid reflection polarizing plate

■ 3500 Lumen light output

A new optical design featuring an 825 W Xenon lamp generates 3500 lumens of light output, and delivers excellent color rendering. Lamp power is adjustable in eight steps over the range from 825 to 660 W.
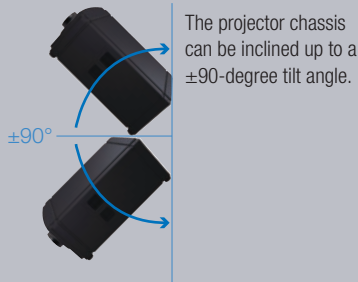
Flexible installation

■ Vertical/horizontal lens shift

Horizontal lens shift (±25%/zoom lens, ±5%/short lens) as well as vertical shift (±50%/zoom lens, ±15%/short lens) permits more flexible layout.

■ Inclined installation

The projector chassis can be inclined up to a ±90-degree tilt angle.

±90°

50 %
25 %　　25 %
50 %

Moving range of projected images achieved by lens shift

■ Small, lightweight, and stackable design

The new projector chassis achieves approximately a 65% reduction in size compared to a conventional projector of the same class, and weighs 59kg(lens included). Moreover, the stackable design allows greater installation flexibility for applications such as 3D.

■ Compatible with AC100V – 220V power source

The device operates with a universal 100 V – 220 V AC power supply and consumes less than 1.5 kW of power.

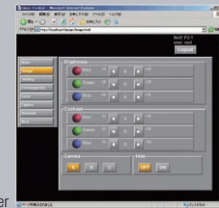## User-friendly interface and excellent operability

■ Incorporates DVI(Dual-Link) x 4 input terminals

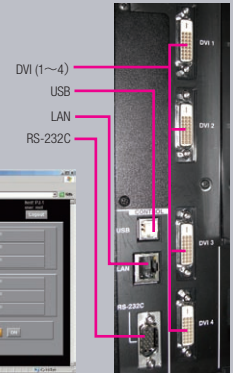For maximum flexibility, a wide array of PC input resolutions are supported.

■ Network available

Besides a conventional RS-232C interface, an Ethernet interface makes adjustment and installation from web browsers on PCs possible. Moreover, networking allows multiple projectors to be operated with a single PC. An e-mail function also enables sending out error messages and lamp replacement reminders.

Back panel
DVI (1〜4)
USB
LAN
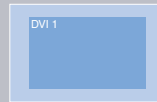RS-232C

Network Browser

■ Test patterns incorporated

Six built-in test patterns are incorporated – Color Bars, Color Crosshatch, Crosshatch, Staircase, Ramp, and Flat.
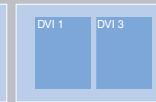
Wide range of display options

■ Multi-screen (single-, two-, and four-screen modes)

Up to four screens with full-HD images and images with WUXGA resolution can be displayed simultaneously.
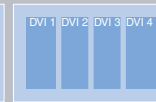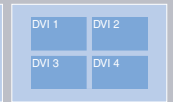
■ Normal　　■ 2-stripe　　■ 4-stripe　　■ Cross

Normal	2-stripe	4-stripe	Cross
DVI 1	DVI 1 / DVI 3	DVI 1 / DVI 2 / DVI 3 / DVI 4	DVI 1 / DVI 2 / DVI 3 / DVI 4

● Connections in two/four screen mode *2
In two- or four-screen mode, signals from two or four PCs can be displayed simultaneously.

PC1, PC2				
Resolution	Channel	Link status	Output state	
2048×1200	1ch	Single	Normal	2048×1200
2048×1080	1ch	Single	Normal	2048×1080
1920×1200	1ch	Single	Normal	1920×1200
1920×1080	1ch	Single	Normal	1920×1080
1600×1200	1ch	Single	Normal	1600×1200
1280×1024	1ch	Single	Normal	1280×1024
1024×768	1ch	Single	Normal	1024×768
800×600	1ch	Single	Normal	800×600
640×480	1ch	Single	Normal	640×480

Notice: The frame rate is converted to 60 Hz regardless of synchronizing frequencies at the PC side.

● Connections in single-screen mode *2
In single-screen mode, up to four signals from a single PC are displayed as a single image.

PC					Displayed image from the projector
Resolution	Channel	Link status	Output state		
4096×2400	2ch	Dual	2-stripe	2048×2400	4096×2400
	4ch	Single	Cross	2048×1200	
			4-stripe	1024×2400	
4096×2160	2ch	Dual	2-stripe	2048×2160	4096×2160
	4ch	Single	Cross	2040×1080	
			4-stripe	1024×2160	
3840×2400	2ch	Dual	2-stripe	1920×2400	3840×2400
	4ch	Single	Cross	1920×1200	
			4-stripe	960×2400	
3840×2160	2ch	Dual	2-stripe	1920×2160	3840×2160
	4ch	Single	Cross	1920×1080	
			4-stripe	960×2160	
2048×1200	1ch	Single	Normal	2048×1200	4096×2400
2048×1080	1ch	Single	Normal	2048×1080	4096×2160
1920×1200	1ch	Single	Normal	1920×1200	3840×2400
1920×1080	1ch	Single	Normal	1920×1080	3840×2160
1600×1200	1ch	Single	Normal	1600×1200	3200×2400
1280×1024	1ch	Single	Normal	1280×1024	2560×2048
1024×768	1ch	Single	Normal	1024×768	2048×1536
800×600	1ch	Single	Normal	800×600	1600×1200
640×480	1ch	Single	Normal	640×480	1280×960

Notice: The frame rate is converted to 60 Hz regardless of synchronizing frequencies at the PC side.

*2 A change of display settings might be required depending on your graphics board.

■ Three types of gamma table incorporated

Three separate Gamma Tables are incorporated to allow for customization for different image sources and viewing environments.

■ Convergence adjustment function incorporated

Color registration of RGB panels in the optical system can be mechanically adjusted in 1/4 and 1/10 pixel increments.
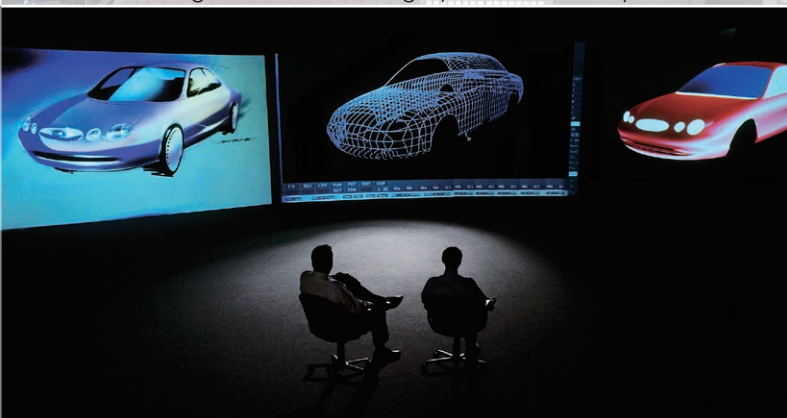
■ Planetariums
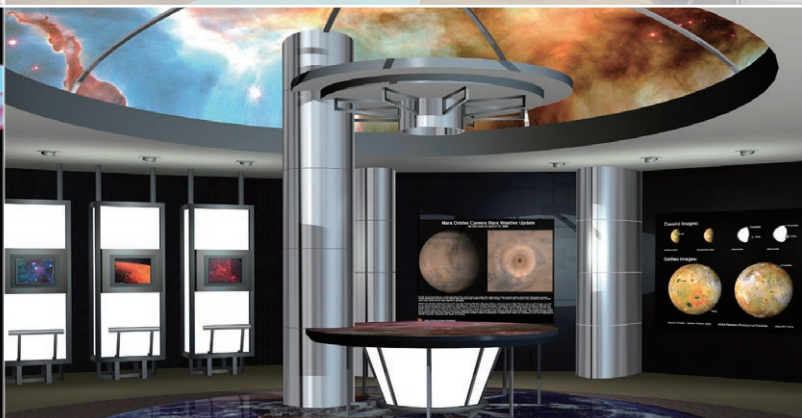
■ Aircraft and car simulators

■ Broadcasting stations and image-production companies
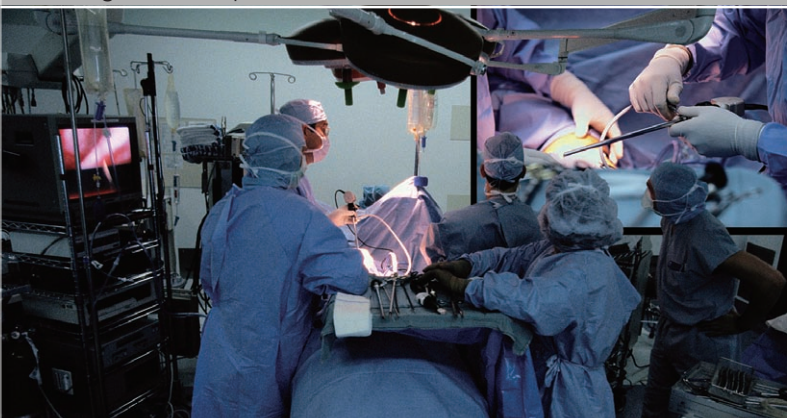
■ Presentation rooms

■ Design, R&D departments

■ Art galleries and museums

■ Medical institutions

■ Monitoring centers

■Specifications

Model name		**4K2K D-ILA projector**	
Display panel	Type	D-ILA	
	Aspect ratio	17:10 (approx.)	
	Display size (diagonal)	1.27"	
	Pixel pitch	6.8 μm	
	Pixel gap	0.25 μm	
	Effective resolution	4096 x 2400	
Light-source lamp	Type	Xenon	
	Power adjustment	660 W — 825 W (80% — 100%), 8 steps	
	Qty	1	
	Warning	1500H	
	Accumulated lamp time counter	Yes	
Projection lens	Model name	**GL-MS4015SZG**	**GL-MS4011SG**
	Type	Zoom lens	Short throw lens
	Focus	Motorized	Motorized
	Zoom	Motorized	—
	Zoom ratio	1.50 — 1.84 (1.22x)	1.1:1
	Horizontal shift	Motorized	Motorized
	Horizontal shift range	±25%	±5%
	Vertical shift	Motorized	Motorized
	Vertical shift range	±50%	±15%
	Projection picture size	80" — 300"	50" — 250"
	F number	(W) 3.2 — (T) 3.42	3.2
Optical system	Lightning system	Polarization converter PBS array	
	Light combination system	Polarizing direction: SPS	
	Max light output	3500 lm (@825 W)	
	ON/OFF contrast	10,000: 1 (typical)	
	ANSI contrast	300:1 (typical)	
	Reference color temperature	5500 K (typical)	
	Peripheral brightness	More than 90%	
Electric system	Digital video input format	4096 x 2400, 4096 x 2160	
		3840 x 2400, 3840 x 2160	
		2048 x 1200. 2400 x 1080, 1920 x 1080, 1920 x 1200, 1600 x 1200, 1280 x 1024, 1024 x 768, 800 x 600, 640 x 480	
	Display mode	Dual (left/right), Quad (left/right/top/bottom)	
I/O terminals	DVI input	DVI-D x 4 (12bit expanded input capable)	
	Ethernet	RJ45 x 1	
	USB	Type B (slave) x 1	
	RS-232C	D-sub 9-pin male x 1	
	SERVICE USB	Type A (master) x 2	
	SERVICE RS-232C	RS-232C x 1	
Power	Input voltage range	AC 100 — 240 V (single-phase)	
	Input frequency	50/60 Hz	
	Max current	15 A	
	Power consumption	1,500 W	
	Connector type	3-pin inlet	
Dimensions		600 (W) x 827 (D) x 340-390 (H) mm	
Weight	Body only	50 kg (176.35 lbs.)	
Operation	Temperature	+10°C — +35°C (50°F — 95°F)	
Environment	Humidity	Less than 90% (no condensation)	
Storage temperature		-5°C — +60°C (23°F — 140°F)	

■Screen Size and Distance Chart

Projection picture size (diagonal) Aspect ratio 17:10	Image width	Projection distance		
		GL-MS4015SZG		GL-MS4011SG
		Tele	Wide	1.1:1
50 (approx. 1.27 m)	1.10 m	—	—	1.16 m
60 (approx. 1.53 m)	1.32 m	—	—	1.41 m
70 (approx. 1.78 m)	1.54 m	—	—	1.66 m
80 (approx. 2.03 m)	1.75 m	3.19 m	2.58 m	1.91 m
90 (approx. 2.29 m)	1.97 m	3.60 m	2.91 m	2.16 m
100 (approx. 2.54 m)	2.19 m	4.01 m	3.25 m	2.41 m
110 (approx. 2.79 m)	2.41 m	4.42 m	3.58 m	2.66 m
120 (approx. 3.05 m)	2.63 m	4.83 m	3.91 m	2.91 m
130 (approx. 3.30 m)	2.85 m	5.24 m	4.25 m	3.17 m
140 (approx. 3.56 m)	3.07 m	5.65 m	4.58 m	3.42 m
150 (approx. 3.81 m)	3.29 m	6.06 m	4.91 m	3.67 m
160 (approx. 4.06 m)	3.51 m	6.46 m	5.25 m	3.92 m
170 (approx. 4.32 m)	3.73 m	6.87 m	5.58 m	4.17 m
180 (approx. 4.57 m)	3.94 m	7.28 m	5.91 m	4.42 m
190 (approx. 4.83 m)	4.16 m	7.69 m	6.24 m	4.67 m
200 (approx. 5.08 m)	4.38 m	8.10 m	6.58 m	4.92 m
210 (approx. 5.33 m)	4.60 m	8.51 m	6.91 m	5.17 m
220 (approx. 5.59 m)	4.82 m	8.92 m	7.24 m	5.43 m
230 (approx. 5.84 m)	5.04 m	9.33 m	7.58 m	5.68 m
240 (approx. 6.10 m)	5.26 m	9.74 m	7.91 m	5.93 m
250 (approx. 6.35 m)	5.48 m	10.15 m	8.24 m	6.18 m
260 (approx. 6.60 m)	5.70 m	10.55 m	8.58 m	—
270 (approx. 6.86 m)	5.92 m	10.96 m	8.91 m	—
280 (approx. 7.11 m)	6.14 m	11.37 m	9.24 m	—
290 (approx. 7.37 m)	6.36 m	11.78 m	9.57 m	—
300 (approx. 7.62 m)	6.57 m	12.19 m	9.91 m	—

*Throw distances are design specification.
There is ±5% variation (GL-MS4015SZG).
There is ±1% variation (GL-MS4011SG).

■Dimensions

30 (1-3/16)
688 (27-1/8)
803 (31-11/16)
30 (1-3/16)
φ127 (5)
663 (27-1/8)

827 (32-9/16)
449 (17-11/16)
199 (7-7/8)
14-5/16
362 (13-1/2)
342
677 (26-11/16)
M10, D: 10 (7/16) x 12
Depth of screwing:
10 — 20 (7/16 — 13/16)
Suction
257.6 (10-3/16)
36 (1-7/16)

457 (18)
211 (8-5/16)
136 (5-3/8)
317 (12-1 /2)
Center of lens
Suction
φ43.5 (1-3/4)
26 — 46
(1 — 1-13/16)

Exhaust
434 (17-7/8)
315 (12-7/16)

Unit: mm (inches)