SONY®

CINE ALTA 4K

SRX-R110/SRX-R105
SRX-S110/SRX-S105

SXRD Projectors for Large-Venue Applications

THE NEW WAY OF BUSINESS℠

SXRD

Bringing More Information and Enabling Greater Im
with an Impressive 1800:1 Contrast Ratio for Large-

mersion by Display of Amazing 4K Images
venue Applications

Sony is proud to introduce a series of SXRD™ ultra high-resolution projectors, which offer supreme picture quality and reality for applications that require highly sophisticated visuals. This state-of-the-art Sony projector series, comprising the SRX-S110, SRX-S105, SRX-R110, and SRW-R105 models, provides a new solution for applications such as command & control, simulations, computer visualizations, planetarium and museum exhibitions, and much more.

Each model is equipped with three Silicon X-tal Reflective Display (SXRD) imaging devices and delivers an amazing resolution of 4096 x 2160 pixels (H x V) – more than four times the resolution of consumer HDTV (1920 x 1080, 16:9 wide screen format). This high-resolution capability allows full HD images to be displayed simultaneously in four quadrants or in a twin "side by side" display.

The projectors also offer a contrast ratio of more than 1800:1. In addition, the SRX-S110 and SRX-R110 models provide a high brightness of 10,000 ANSI lumens*, while the SRX-S105 and SRX-R105 models offer a brightness of 5,000 ANSI lumens.

The use of twin Xenon lamps combined with multiple gamma curves of 1.8, 2.2, and 2.6 means they offer pure, high-quality color tonal reproduction.

The SRX-S110 and SRX-S105 models – each with one pre-installed DVI input module – have a 1080/60P display capability available only with these units, making them ideal for high-end computer graphic-based projection applications. On the other hand, the SRX-R110 and SRX-R105 models – with no pre-installed input modules – are more suited to video-based projection applications.

Sony SXRD 4K projectors are the ultimate tool for projecting images in large-venue applications.

* ANSI lumens is a measuring method of the American National Standards Institute IT 7.228. Since there is no uniform method of measuring brightness, specifications will vary among manufacturers.
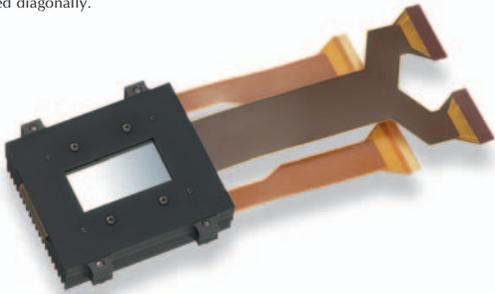
Silicon X-tal Reflective Display (SXRD) imaging device

The SXRD device used by the SRX-Series projectors is a 1.55-inch* Liquid Crystal on Silicon based imager developed by Sony using cutting-edge manufacturing technology. High-quality, accurate visuals are created using this brilliant imaging device.

*Measured diagonally.

High resolution 4K

Sony SXRD display devices deliver the exceptionally high resolution of 4K (4096 H x 2160 V pixels at 1.896:1 aspect ratio), more than four times as many pixels as full HDTV (1920 x 1080, 16:9 wide screen format).
The SXRD device helps to achieve this resolution by incorporating nearly 8.85 million pixels per imager at a narrow pitch of 8.5 micrometers. These high-density pixels, which are one quarter the size of pixels projected using typical 2K resolution projection systems (2.2 million pixels), provide an amazing picture. Even in multi-screen mode, full 2K resolution per quadrant is possible.
The resolution available from the Sony SRX-Series projectors enables a new level of visual projection.

full HDTV
(1920 x 1080,
16:9 wide screen format)

2K
(4096 H x 2160 V pixels)

4K
(4096 H x 2160 V pixels at 1.896:1 aspect ratio)
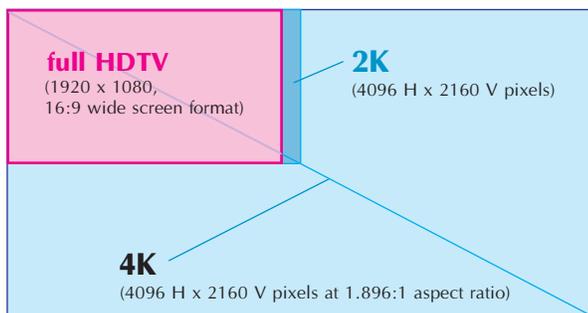
High 1800:1 contrast ratio

The SRX-Series projectors offer a high contrast ratio of more than 1800:1* through the use of Sony's unique SXRD device. The SXRD imaging device itself achieves a contrast ratio of over 4000:1.
This stunning picture quality makes the projectors ideal for applications in which dynamic range is essential.
The high contrast ratio has been achieved through two key technologies – the exclusive 'Vertically Aligned Liquid Crystal' system and an extremely thin liquid crystal cell gap.
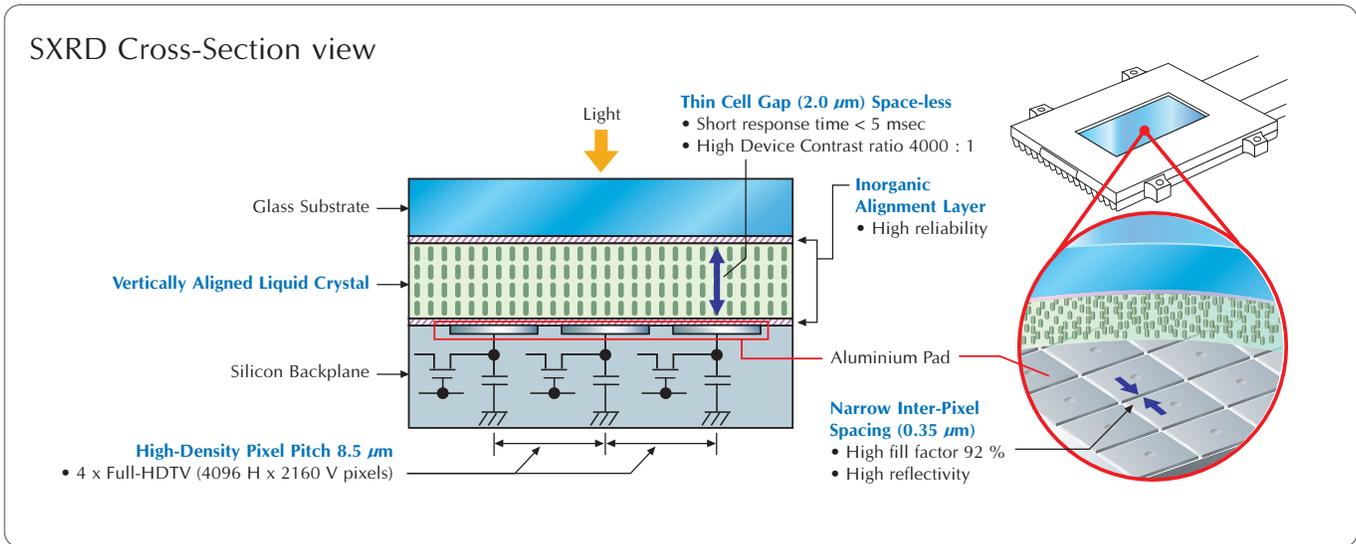
*The contrast ratio is measured from a screen offering a gain of 1.0.

Vertically Aligned Liquid Crystal system

In every type of projector system, displaying absolute black is a major issue in order to achieve a high contrast ratio.
In other words, the contrast ratio of a projector depends on how effectively the light from the source can be blocked so it does not leak through the imager.
All Liquid Crystal Display (LCD) devices control the amount of light to be projected by applying an electric field to the liquid crystal gap. In typical LCD devices, black is produced when an electric field is applied across the liquid crystal cell gap. However molecules near the surface of the glass substrate may not be accurately controlled due to the influence of the alignment film. This is not an issue for bright images. However, when displaying dark images, light may tend to leak from the LCD device, since the molecules near the surface are less accurately controlled. This results in a creamy black instead of a deep black.
The SXRD device does not exhibit these characteristics. This is because the Vertically Aligned Liquid Crystal system displays black when the electric field is not applied and because all molecules are in the correct alignment, the polarized light alignment is also optimized. The direct result is a far deeper black level, leading to a high contrast ratio.

SXRD Cross-Section view

Light

Thin Cell Gap (2.0 μm) Space-less
• Short response time < 5 msec
• High Device Contrast ratio 4000 : 1

Glass Substrate

Inorganic Alignment Layer
• High reliability

Vertically Aligned Liquid Crystal

Silicon Backplane

Aluminium Pad

High-Density Pixel Pitch 8.5 μm
• 4 x Full-HDTV (4096 H x 2160 V pixels)

Narrow Inter-Pixel Spacing (0.35 μm)
• High fill factor 92 %
• High reflectivity

Thin liquid crystal cell gap

Another important factor allowing for the high contrast of the SXRD projectors is the SXRD device's ultra thin cell gap of less than 2 micrometers. With conventional Vertically Aligned Liquid Crystal systems, a thin cell gap could not be achieved. Sony has overcome this difficulty through the use of innovative planarization technology in the silicon backplane structure and an advanced silicon wafer-based assembly process.

The SXRD device also adopts a structure that does not use "spacers". These are columns found in conventional reflective liquid crystal devices to maintain a constant gap between the liquid cell floor and the top of the device. Spacers tend to both scatter and reflect light, which can impair high contrast pictures. In the spacerless SXRD device, these artifacts are no longer seen.

Short response time

The thin cell gap structure in SXRD devices also contributes to an ultra-fast response time of 5 milliseconds. The SXRD device reacts promptly to an instantaneous change of picture content, enabling them to display a smooth motion. Consequently, the SRX-Series projectors virtually eliminate motion blur; a particularly significant benefit for visuals that include fast-moving objects.

Reliable imaging device

The SRX-Series projectors use high-power, bright lamps. As a result, special attention has been paid to the reliability of the SXRD device. The inorganic materials utilized for the alignment layer of the SXRD device are resistant to deterioration or deformities that could occur due to the intense heat and light generated by the powerful twin lamp system.

Highly pure, superb color tonal reproduction

Xenon lamp provides highly bright and pure light source

The SRX-S110 and SRX-R110 models provide a high brightness of 10,000 ANSI lumens* by employing two 2kW Xenon lamps, while the SRX-S105 and SRX-R105 models offer a brightness of 5,000 ANSI lumens by using two 1 kW Xenon lamps.

The Xenon lamps utilized by SRX-Series projectors achieve a wide color range by dispersing a very flat and wide light spectrum.

*Measured under conditions with the lamp power at 100% in dual-lamp mode.
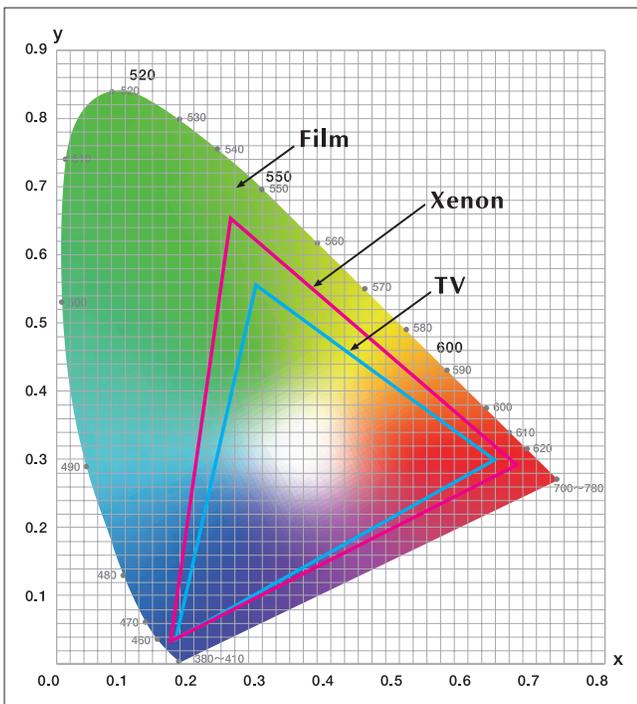
CIE chart

Color Space Conversion (CSC) function

The SRX-Series projectors feature a CSC function to help users easily adjust projector's color space to that defined by either the ITU*-R BT.709-3 standards for digital HDTV studio color space, or the new DCDM color space. The latter is significantly wider than ITU 709 and takes advantage of the spectrum emitted by the Xenon lamp. The target color gamut parameters satisfying the ITU-R BT. 709-3 standard or DCDM specification are automatically calculated from settings on the supplied SRX Controller software, and then applied to the projector. The internal test generator simplifies adjustment and lets the operator align the projector in minutes. White point and color primary points can be aligned to either of these standards or to the customer's application needs.

* International Telecommunication Union

12-bit LCD driver

The SRX-Series projectors utilize a 12-bit imager driver that reproduces extremely natural-looking images. This eliminates quantizing and edge errors that take away from the real resolution that these projectors can achieve.

Gamma curve selection

The SRX-Series projectors provide three preset gamma curve values. Users can select an optimum value from 1.8, 2.2, and 2.6 according to the desired gray scale.

6

Operational versatility

Dual-lamp system with selectable lamp modes

The SRX-Series projectors adopt a unique lamp system that uses two lamps for reliable, flexible and efficient use of light sources. With this dual-lamp system, users can operate the projector using both lamps for full brightness or can select single lamp operations.

The dual-lamp mode provides maximum lamp power, and at the same time enables virtually fail-safe operation; if one bulb burns out the other can keep projecting images.

In the single-lamp mode, users can select either of the two lamps manually, or the projector can automatically select a lamp based on each lamp's operating time. Another automatic mode is provided to make the lamps operate alternately at user-defined intervals selectable from four hours to twelve hours (in increments of one hour). This feature is useful for the application where "24/7" operation is required, but lamp life needs to be maximized.

The lamp power can be set between 100 % and 51 %, in eight steps. This function, combined with the selectable lamp modes, contributes to achieving longer lamp life.
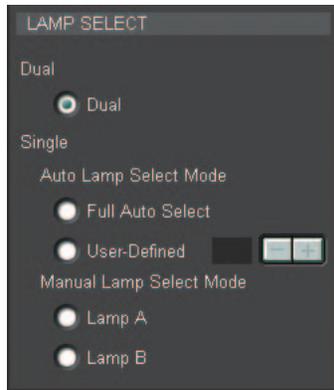
Variety of lenses

Five optional zoom lenses and a short throw prime lens are available for the SRX-Series projectors. They are designed to project images of extreme resolution and contrast with minimal chromatic aberration from 72 inches (1,829 mm) to 610 inches (15,497 mm) in screen width. The short throw lens works in special applications, such as rear projection, where minimal space behind the screen is desired.

Table of the available lenses

LKRL-90: 0.9x fixed focal length projection lens	
LKRL-Z115: 1.48 to 1.81x projection zoom lens	
LKRL-Z117: 1.72 to 2.39x projection zoom lens	
LKRL-Z119: 1.81 to 2.94x projection zoom lens	
LKRL-Z122: 2.33 to 3.96x projection zoom lens	
LKRL-Z140: 3.81 to 7.12x projection zoom lens	

Zoom/Focus memory function

The SRX-Series projectors are equipped with Zoom and Focus Memory functions that make it easy to switch the projection between two types of aspect ratios.

When used with the optional LKRL-Z117 and LKRL-Z122 Zoom Lenses, any seven zoom and focus positions can be memorized and instantly recalled via the SRX Controller software. This allows full screen display regardless of the aspect ratio. An electronic vertical alignment feature is included in the same memory to compensate for vertical changes in the image should the projector be mounted at a down angle.
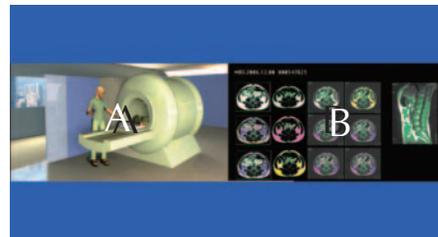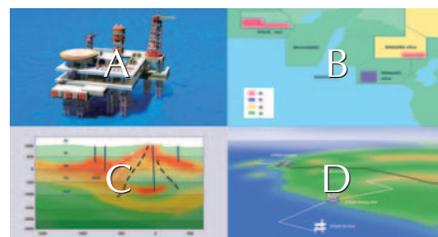

LKRL-Z122 Zoom Lens

Multiple screen capability

The SRX-Series projectors provide single-mode, dual-mode, and quad-mode display. In quad mode, four quadrants of full 2K images (2048 x 1080 pixels) can be projected simultaneously. In single mode, an ultra high and smooth resolution 4096 x 2160-pixel image is projected.
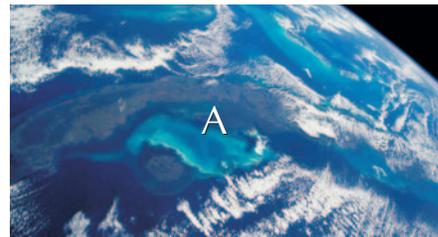
Single-mode

Dual-mode

Quad-mode

Option slots

LKRI-001
Analog Input Board

LKRI-002
HD-SDI (4:2:2) Input Board

LKRI-003
Dual-link HD-SDI Input Board

LKRI-004
DVI Interface Board

Input signal flexibility

To increase the configuration flexibility of the SRX-Series projectors, slots are available to accommodate four different optional boards that connect to various types of signal format.

The SRX-S110 and SRX-S105 models are equipped with a DVI signal input module as standard, which provides the 1080/60P input capability available only with these units. In addition to the standard DVI input, three slots are available for the installation of other input modules. Meanwhile, the SRX-R110 and SRX-R105 models have four available slots for even more flexible input configurations. These four input boards can be accommodated simultaneously in the side panel of the projector. Users can select the screen mode from single, dual, and quad mode, and assign the appropriate signal board to each quadrant.

	Resolution	SRX-S110/S105	SRX-R110/R105	Remarks
1	1024 x 768 at 60 Hz (XGA)	YES	YES	VESA
2	1280 x 960 at 60 Hz (SXGA)	YES	YES	VESA
3	1280 x 1024 at 60 Hz (SXGA)	YES	YES	VESA
4	1400 x 1050 at 60 Hz (SXGA+)	YES	YES	VESA
5	1600 x 1200 at 60 Hz (UXGA)	YES	YES	VESA
6	2048 x 1080 at 60 Hz	YES	NO	
7	1920 x 1080 at 24 Hz	YES	YES	
8	2048 x 1080 at 24 Hz	YES	YES	
9	1920 x 1200 at 59.95 Hz Reduced Blanking (WUXGA)	YES	NO	VESA
10	1920 x 1080 at 60 Hz	YES	NO	EIA/CEA-861B
11	2048 x 1080 at 48 Hz	YES	YES	

•The **LKRI-001** Analog Input Board utilizes 5 BNC connectors that can accept 0.7 volt analog signal levels as RGBS, RGB sync on G, RGBHV or YUV formats.

•The **LKRI-002** HD-SDI (4:2:2) Input Board can accept both SMPTE 259M SD digital 525/625 line video and SMPTE 292M 1080 4:2:2 Y·Pb·Pr serial picture data. Switching is automatic by detection of the input signal frequency.

•The **LKRI-003** Dual-link HD-SDI Input Board can accept any of the following signals: SMPTE 372M dual-link HD-SDI (4:4:4), SMPTE 292M HD-SDI (4:2:2), dual-link DC-SDI (RGB 4:4:4), DC-SDI (YPbPr 4:2:2), or 12-bit (X'Y'Z' 4:4:4) signals.
With four LKRI-003 boards, the SRX-R110 or SRX-R105 can project 4096 x 2160 4k images.

•The **LKRI-004** DVI Interface Board can accept DVI signals up to 2048 x 1080.

Simple Installation

SRX-Series projectors can be installed easily into almost any environment. Compared with conventional projectors in the ultra-high resolution class, they are highly compact and lightweight. Plus, their power requirements are also reasonable – due to the use of single-phase power, which allows for remarkably low power consumption and simpler installation.

To aid effective cooling, an optional exhaust duct adaptor is available, which allows the projectors to be easily connected to a common 8-inch type duct system.

Simple remote controller unit

Each SRX-Series projector is supplied with a remote controller unit that can perform various simple functions such as turning the lamp power on/off, adjusting the zoom/focus, and controlling the lens shift.

Colorimetry setting
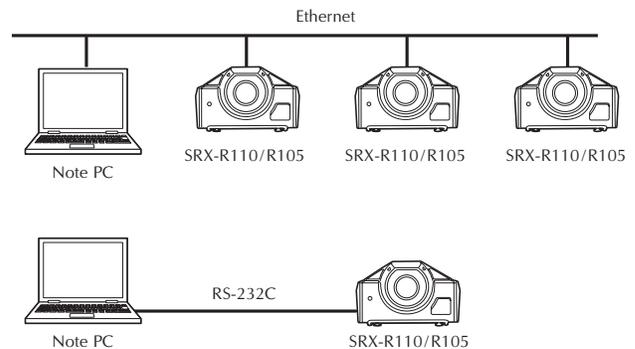
Easy setup on a PC using supplied softwar

The SRX-Series projectors come equipped with the SRX Controller software that allows easy setup and adjustments via its intuitive GUIs on a PC*. These projectors can be controlled through either Ethernet or RS-232C interfaces, and multiple projectors can be controlled from a single PC**.
A comprehensive range of setup parameters including input configurations, colorimetry controls, installation adjustments and maintenance settings can be controlled via this software.

* System requirements for the setup software OS: Microsoft Windows® XP Professional.
** When using an Ethernet connection.

Installation setting

Easy maintenance

Special consideration for maintenance issues was involved in the development of the SRX-Series projectors.
Lamp bulbs and lamp house units used in the projectors can be easily replaced on site without any special tools, thus shortening the downtime required for their replacement, and eliminating cumbersome adjustments after the replacement.
The supplied setup software is another convenient tool for maintenance. This allows operators to easily verify lamp's operating time. Automatic email alerts from the projector provide operators with maintenance reminders as well as error messages.

# Dimensions
Unit=inches (mm)

SRX-R110/SRX-R105

52 1/4 (1326)

21 3/4 (500)
29 1/4 (740)

44 (1116)

19 5/8 (498)

29 3/4 (754.5)

6 5/8 (167)

14 1/8 (357)

12 5/8 (320)

15 5/8 (395)
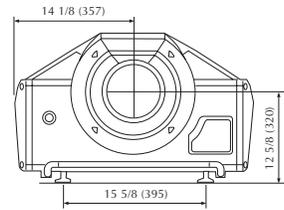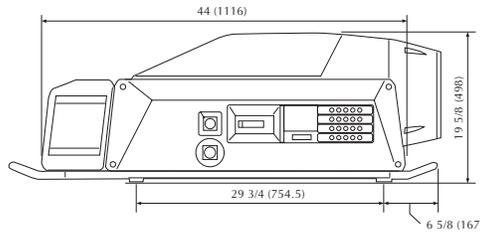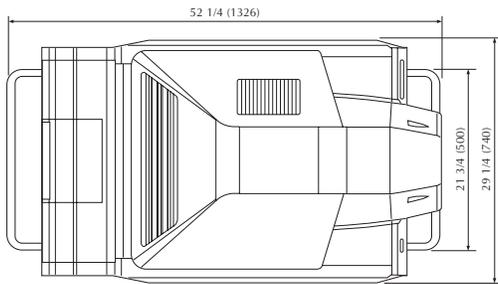
Optional Accessories

LKRL-90 Lens
0.9x Fixed Focal Length
Projection lens

LKRL-Z115 Zoom Lens
1.5 to 1.9*x zoom lens

LKRL-Z117 Zoom Lens
1.73 to 2.41x zoom lens

LKRL-Z119 Zoom Lens
1.81 to 2.94x zoom lens

LKRL-Z122 Zoom Lens
2.31 to 3.92x zoom lens

*The number denotes the ratio of the projection distance to the screen width.

LKRL-Z140 Zoom Lens
4.0 to 7.0x zoom lens

LKRI-001
Analog Input Board

LKRI-002
HD-SDI (4:2:2) Input Board

LKRI-003
Dual-link HD-SDI Input Board

LKRI-004
DVI Interface Board

LKRX-105
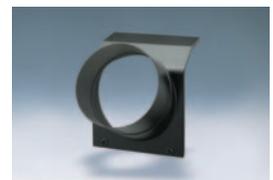1kW Xenon lamp bulb for
replacement (for SRX-R105)

LKRX-B105
1kW Xenon lamp house unit for
replacement (for SRX-R105)

LKRX-110
2kW Xenon lamp bulb for
replacement (for SRX-R110)

LKRX-B110
2kW Xenon lamp house unit for
replacement (for SRX-R110)

LKRA-001
8-inch Exhaust Duct Adaptor

Specifications

SXRD Device Main Specifications

SXRD Device Main Specifications	
Display device	SXRD (Silicon X-tal Reflective Display)
Size	1.55-inch across Diagonal
Resolution	4096(H) X 2160(V) Pixels
Reflectivity	72 %
Contrast (as device)	More than 4000 : 1
Pixel pitch	8.5 μm
Width (between pixels)	0.35 μm
Response speed	5 msec (tr + tf)
Liquid crystal mode	Vertical Aligned Mode
Alignment layer	Inorganic Thin Film
Backplane process	0.35 μm MOS Process
Liquid crystal cell gap	Less than 2 μm

	SRX-S110 / SRX-S105	SRX-R110 / SRX-R105
Optical		
Projection system	3-SXRD panel, prism color integrated system	
Imaging device	SXRD, 1.55-inch (diagonal), 4096(H) x 2160(V) pixels on each chip	
Lamp	2 kW Xenon lamp x 2 (SRX-R110)	
	1kW Xenon lamp x 2 (SRX-R105)	
Screen coverage	14 feet to 51 feet (Approx. 4.5 m to 15.5 m) (viewable area, measured horizontally)	
Light output	10,000 ANSI lumens ±10 % (SRX-R110/S110)*	
	5,000 ANSI lumens ±10 % (SRX-R105/S105)	
General		
White reference	Xenon white reference	
Contrast	more than 1800:1	
Resolution	600 TV lines (SDI input/SMPTE-259M)	
	1920 x 1080 pixels (HD-SDI input, SMPTE-292M)	
	4096 x 2160 pixels (RGB)	
Signal specifications	Video: Component (Y・Cb・Cr), HD (G・B・R/Y・Pb・Pr) Computer: XGA, SXGA, UXGA DVI-D: XGA, Quad-VGA, SXGA, UXGA, WUXGA, 1920 x 1080, 2048 x 1080	Video: Component (Y・Cb・Cr), HD (G・B・R/Y・Pb・Pr) Computer: XGA, SXGA, UXGA
Power requirements	AC 200 to 240 V, 50/60 Hz (SRX-R110/S110)	
	AC 100 to 240 V, 50/60 Hz (SRX-R105/S105)	
Operating temperature	+41 °F to +90 °F (+5 °C to +35 °C)	
Storage temperature	-4 °F to +140 °F (-20 °C to +60 °C)	
Operating humidity	35 % to 85 % (without condensation)	
Storage humidity	10 % to 90 %	
Dimensions (W x H x D)	Approx. 29 4/5 x 19 4/5 x 52 3/5 inchs (740 x 500 x 1330mm)	
Weight	Approx. 242 lb 8oz (110 kg)	
Input/Output		
Input A	DVI-D interface board	Open for optional signal interface board
Input B	Open for optional signal interface board	
Input C	Open for optional signal interface board	
Input D	Open for optional signal interface board	
Remote interface	D-sub 9-pin, RS-232C (female) x 1 Ethernet terminal, 10Base-T/100Base-TX x 1	

White reference:

	X	Y
White reference	0.3140	0.3510

	SRX-S110 / SRX-S105	SRX-R110 / SRX-R105
Input Boards		
LKRI-001 Analog input board	BNC x 5, HD/SD analog video input, RGB/Y・Cb・Cr selectable	

Computer signals
R	0.7 Vp-p ±2 dB positive, 75 Ω
G	0.7 Vp-p ±2 dB positive, 75 Ω
B	0.7 Vp-p ±2 dB positive, 75 Ω

Sync
| HD Horizontal | TTL level, high impedance, sync positive/negative |
| HD Vertical | TTL level, high impedance, sync positive/negative |

Standard definition video [Y・Cb・Cr]
Y	1.0 Vp-p ±2 dB sync negative, 75 Ω
Cb	0.7 Vp-p ±2 dB positive, 75 Ω
Cr	0.7 Vp-p ±2 dB positive, 75 Ω

High definition video [RGB]
R	0.7 Vp-p ±2 dB positive, 75 Ω
G with sync	1.0 Vp-p ±2 dB, 75 Ω, Tri-level sync: ±0.3 Vp-p / Bi-level sync: 0.3 Vp-p
B	0.7 Vp-p ±2 dB positive, 75 Ω

High definition video [Y・Pb・Pr]
Y	1.0 Vp-p ±2 dB, 75 Ω,Tri-level sync: ±0.3 Vp-p / Bi-level sync: 0.3 Vp-p
Pb	±0.35 Vp-p ±2 dB, positive 75 Ω
Pr	±0.35 Vp-p ±2 dB, positive 75 Ω

	SRX-S110 / SRX-S105	SRX-R110 / SRX-R105
LKRI-002 HD-SDI (4:2:2) input board	BNC x 2 (Input x 1,Loop-through out x 1) HD-SDI (SMPTE-292M / ITU-R.BT709 / BTA-S004) SDI (SMPTE-259M / ITU-R.BT601)	
LKRI-003 Dual-link HD-SDI input board	BNC x 4(Input x 2,Loop-through out x 2) HD-SDI (Single-link, HD-SDI/4:2:2,SMPTE-292M):Y・Pb・Pr, DC-SDI (Single-link, DC-SDI/4:2:2):Y・Pb・Pr, Dual-link HD-SDI (Dual-link HD-SDI/4:4:4,SMPTE-372M):RGB, Dual-link DC-SDI (Dual-link DC-SDI/4:4:4):RGB	
LKRI-004 DVI Interface Board	1024 x 768 at 60 Hz (XGA), 1280 x 960 at 60 Hz (SXGA), 1280 x1024 at 60 Hz(SXGA), 1400 x 1050 at 60 Hz (SXGA+), 1600 x 1200 at 60 Hz (UXGA), 2048 x 1080 at 60 Hz, 1920 x 1080 at 24 Hz, 2048 x 1080 at 24 Hz, 1920 x 1200 at 59.95 Hz Reduced Blanking (WUXGA), 1920 x 1080 at 60 Hz, 2048 x 1080 at 48 Hz	1024 x 768 at 60 Hz (XGA), 1280 x 960 at 60Hz (SXGA), 1280 x 1024 at 60 Hz (SXGA), 1400 x 1050 at 60 Hz (SXGA+), 1600 x 1200 at 60 Hz (UXGA), 1920 x 1080 at 24 Hz, 2048 x 1080 at 24 Hz
Others		
Safety regulations	[UL60950 listed], [cUL60950], [FCC Class A], [IC Class A], [VCCI Class A], [EN60950],[CE Class A], [C-tick], [GB4943], [GB9254], [K60950], [CISPR22], [CISPR24]	
Supplied accessories	Remote controller x 1/ CD-ROM x 1 (Remote control application for Windows® XP Professional Edition) / Dry cell (AA size) x 2 / Ethernet Cross Cable (3 m) x 1	
	Operation instructions x 1 / Installation manual x 1	
Optional accessories	LKRL-90: 0.9x Fixed Focal Length Projection lens	
	LKRL-Z115: 1.48 to 1.81x zoom lens	
	LKRL-Z117: 1.72 to 2.39x zoom lens	
	LKRL-Z119: 1.81 to 2.94x zoom lens	
	LKRL-Z122: 2.33 to 3.96x zoom lens	
	LKRL-Z140: 3.81 to 7.12x zoom lens	
	LKRI-001: Analog input board	
	LKRI-002: HD-SDI (4:2:2) input board	
	LKRI-003: Dual-link HD-SDI input board	
	LKRI-004: DVI interface board	
	LKRX-105: 1kW Xenon lamp bulb for replacement (for SRX-R105)	
	LKRX-B105: 1kW Xenon lamp house unit for replacement (for SRX-R105)	
	LKRX-110: 2kW Xenon lamp bulb for replacement (for SRX-R110)	
	LKRX-B110: 2kW Xenon lamp house unit for replacement (for SRX-R110)	
	LKRA-001: 8-inch Exhaust Duct adaptor	

Preset Data of Input Signals

No	Signal Number	fH	fV	Aspect	Horizontal Sampling	Vertical Sampling
0	NO INPUT	0	0			
3	VIDEO60(480_60I)	15.73 kHz	59.94 kHz	4:3	1280	480
4	VIDEO50(575_50I)	15.63 kHz	50.00 kHz	4:3	1280	570
5	HDTV(1080_60I)	33.75 kHz	60.00 kHz	16:9	1920	1080
23	1024 x 768_VESA60	48.36 kHz	60.00 kHz	4:3	1024	768
24	1024 x 768_VESA70	56.48 kHz	70.07 kHz	4:3	1024	768
25	1024 x 768_VESA75	60.02 kHz	75.03 kHz	4:3	1024	768
26	1024 x 768_VESA85	68.68 kHz	85.00 kHz	4:3	1024	768
32	1280 x 960_VESA60	60.00 kHz	60.00 kHz	4:3	1280	960
33	1280 x 960_VESA75	75.00 kHz	75.00 kHz	4:3	1280	960
36	1280 x 1024_VESA60	63.97 kHz	60.01 kHz	5:4	1280	1024
37	1280 x 1024_VESA75	79.98 kHz	75.03 kHz	5:4	1280	1024

No	Signal Name	fH	fV	Aspect	Horizontal Sampling	Vertical Sampling
38	1280 x 1024_VESA85	91.15 kHz	85.02 kHz	5:4	1280	1024
39	1600 x 1200_VESA60	75.00 kHz	60.00 kHz	4:3	1600	1200
45	1080_50I	31.25 kHz	50.00 kHz	16:9	1920	1080
47	720_60P	45.00 kHz	60.00 kHz	16:9	1280	720
48	720_50P	37.50 kHz	50.00 kHz	16:9	1280	720
49	1080_48I (24PsF)	27.00 kHz	48.00 kHz	16:9	1920	1080
(75)	1080_60i	33.75 kHz	60.00 kHz	16:9	1920	1080
(76)	1080_25PsF	31.25 kHz	50.00 kHz	16:9	1920	1080
(77)	1080_30PsF	33.75 kHz	60.00 kHz	16:9	1920	1080

Note:＊When a signal other than the preset signals shown above is fed into this projector, the images may not be projected properly.

＊SXGA+(1400 x 1050) computer signal is not supported by this projector. If this signal is fed into the projector, one of the four directions of an image are irregularly missing.

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