

SIM2 NERO4 PLATFORM/ 4K HDR at its best!





Introducing **SIM2 NERO 4S UHD HDR**

Premium movie experience

Enjoy the clarity and realism of the top of the line of SIM2's single-chip DLP®-based projectors: UHD (Ultra High Definition) images with the all-new SIM2 NERO 4S UHD HDR projectors. Featuring Texas Instruments' DLP® 4K UHD chipset, SIM2 NERO 4S UHD HDR deliver exceptional 4K images, high brightness and an accurate, vibrant color palette. The SIM2 NERO 4S UHD HDR models feature a typically stylish 'made-in-Italy' design: a distinctive, contemporary cabinet enriched by a luxurious crystal finish by designer Giorgio Revoldini. Available in Black crystal glass with matte black accents.

SIM2 NERO 4S UHD HDR: Designed for use with medium / large Home Theater and Hi-Graphics installations.

SIM2 Dual NERO 4S UHD HDR: Dual projection system for an amazing mix of power flexibility and redundancy, coupled with top-notch performance. Designed for use with large Theaters and Entertainment installations.

Key Features

- Two models available
- Super High Definition Optics
- New, high-precision telecentric optical path
- DLP technology for a true "Hollywood" lifetime picture quality experience
- 1-chip DMD, 4K UHD Image resolution
- Full HDR features
- 4 HDR presets for 4 screen sizes
- Fully automated SDR-HDR passages
- High Brightness
- Full color adjustments and Live Color Calibration software (LCC)
- Wide Horizontal and Vertical optical shift
- 2x Super power zoom
- Remote Info function (SIM2 Customer Care 4)
- SIM2 Perfect Fit Feature
- Adjustable iris with memory

4K resolution and extreme flexibility

SIM2 has consistently set new standards of performance and design in projection, allied with unprecedented innovation. The all-new SIM2 NERO 4S UHD HDR models are no exception. The SIM2 NERO 4S UHD HDR projectors deliver class-leading picture quality through the partnership of the latest **4K UHD DLP® chipset** from Texas Instruments, super high-precision and resolution optics and SIM2's advanced video processing technology, for a lucid and colorful viewing experience. DLP® from Texas Instruments is Hollywood's choice of technology for movie theaters and conveys extraordinary image quality that brings out the smallest

details - even during high-speed sequences – with assured, long-lasting performance.

The flexibility of the SIM2 NERO 4S UHD HDR is truly unique: featuring a super power 2x zoom and a super wide lens shift, it suits perfectly almost all large theater applications.

With SIM2 NERO 4S UHD HDR projectors the “widescreen” ratio is easier to achieve than ever thanks to SIM2's **Perfect Fit function**. Zoom and focus positioning can be, in fact, stored for 10 different picture formats, from standard 16:9 to 2.40:1 aspect ratio (Letterbox or Anamorphic). Once set up, the Lens Memory is recalled at the touch of a button; the image is automatically adjusted to fit the

screen format preference without the an external anamorphic lens. Also, the SIM2 NERO 4S UHD HDR models are equipped with autofocus tracking for an always perfect focus in any specific installation condition, as well as a remote Info function that provides continuous information on all internal functions.

To aid calibration, the SIM2 NERO 4S UHD HDR projectors feature SIM2's advanced **Live Colors Calibration 4.0 software** that allows professional calibration of all projection parameters such as complete adjustment of the primary, secondary and white point color coordinates. Live Colors Calibration allows accurate adjustment of the color volume.

SIM2 PERFECT FIT

TYPICAL SETUP FOR A
2.35:1 CINEMASCOPE
SCREEN SIZE

10 Lens Positions (zoom
and focus) can be stored
and easily recalled to
automatically adapt your
image to up to a 2.40:1
Super Cinemascope
screen size.

MEMORY 1 (EXAMPLE): 16:9 IMAGE ON CINEMASCOPE SCREEN SIZE (2.35:1)

2.35:1
screen format

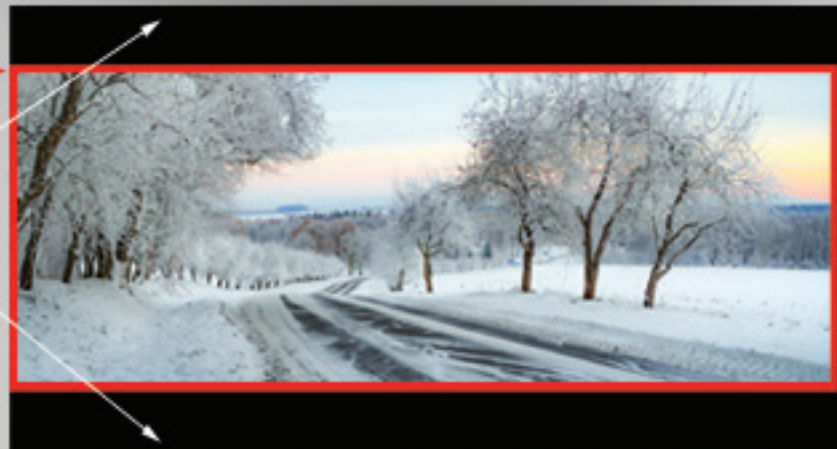
16:9 image size



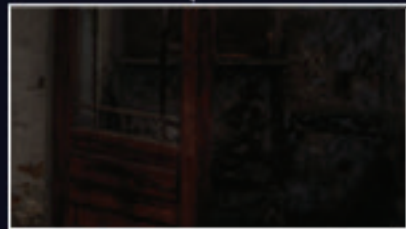
MEMORY 2 (EXAMPLE): 2.35:1 IMAGE SCREEN SIZE

2.35:1
screen format

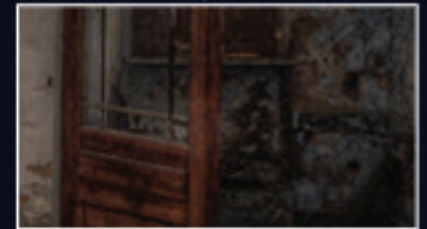
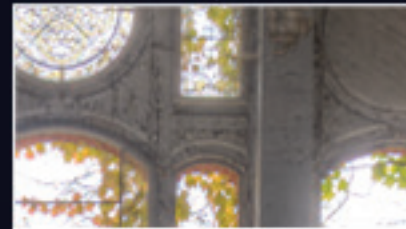
Black bands in the 16:9
DMD format, when the
native signal content is
2.35:1



CONVENTIONAL HIGH RESOLUTION IMAGE



HDR IMAGE



HDR: different processing for different screens

SIM2 NERO 4S UHD HDR are not only a HDR-capable (accepting an HDR-encoded signal via HDMI 2.0a, HDCP 2.2) but it presents a full set of features dedicated to HDR picture display. They offer automatic metadata recognition and an advanced calibration mode, with 4 presets to automatically fit different screen sizes. The metadata describe the characteristics of the image being displayed (peak luminance, color gamut, etc.) and the SIM2 NERO 4S UHD HDR detects them and automatically enables its HDR mode. Nonetheless, it adjusts the image data through a process called tone mapping, for softening the clipping of high lights. In HDR mode, the projectors have 4 presets that allow customers to obtain the standard EOTF

(Electro Optical Transfer Function) SMPTE ST2084 behavior, with which HDR video content is packaged, suitable for 4 different types of installation, for a correct playback of HDR video materials and simplified installation. The SIM2 NERO 4S UHD HDR have been designed for this behavior to be as faithful as possible to the ideal behavior it needs to have. In addition, 4K UHD resolution, 8/10/12 color bit depth processing and YCC 4:4:4 color coding, combined with HDR technology, allow the SIM2 NERO 4S UHD HDR to deliver unbeatable image quality. By means of its high peak luminance, inky blacks, and vibrant color gamut, SIM2 NERO 4S UHD HDR provides images where every scene is replicated with extreme realism, just as

the human visual system would perceive it in the real world.

ABOUT HDR TECHNOLOGY

In the real world, the intensity of natural light can span up to 14 orders of magnitude from night to direct sunlight. The ratio between max. and min. luminance is called dynamic range. The human eye can instantaneously perceive up to 5 orders of magnitude without adaptation. HDR (High Dynamic Range) is the ability to render a large range of luminance in a display, from extremely dark to extremely bright values, hence creating brighter whites, darker blacks and richer colors.

High Precision **TELECENTRIC OPTICAL PATH**

In order to obtain the best projected image accuracy, a delicate balance is required between the light engine, the DLP® chipset and the video processing electronics. Building on its heritage of high-end light engine design, SIM2 has invested heavily in the development of a high-precision telecentric optical system. The SIM2 NERO 45 UHD HDR models' pure-glass lens provides an unprecedented resolution of 93 line pairs per millimeter to guarantee exceptional on-screen clarity. Special coatings have been applied to the optical components to further enhance image and color performance. Installation aids include wide ratio zoom lens (2x zoom) and fully motorized focus and zoom adjustments, plus optical lens shift to adjust the

position of the image up to +/- 75% vertically and up to +/- 30% horizontally.

The 2x zoom lens provides easy, simple, effortless, and accurate setup in most size rooms and applications; for instance, for a 140-inch diagonal screen size, the projector can be installed from between 4.2 to 8.3 meters (from 13.7" to 27.3") from the screen.

Why a Telecentric Optical System?

In a telecentric optical system the chief ray is parallel to the optical axis. The optical system can be telecentric in the object space, in the image space or in both of them. The telecentric system has no perspective error. The size of an object moving towards or far from the lens appears to be always the same. Telecentric lenses are used widely for industrial application

where precise measurements are required. The main advantage of a telecentric system is its independence from the position of the object or of the image. The telecentricity guarantees that there is no magnification change during refocusing. A further advantage of telecentric lenses is their low distortion. The rays cross the telecentric lens elements forming small AOI (Angle of Incident) and this guarantees good performance in terms of color separation and glare.

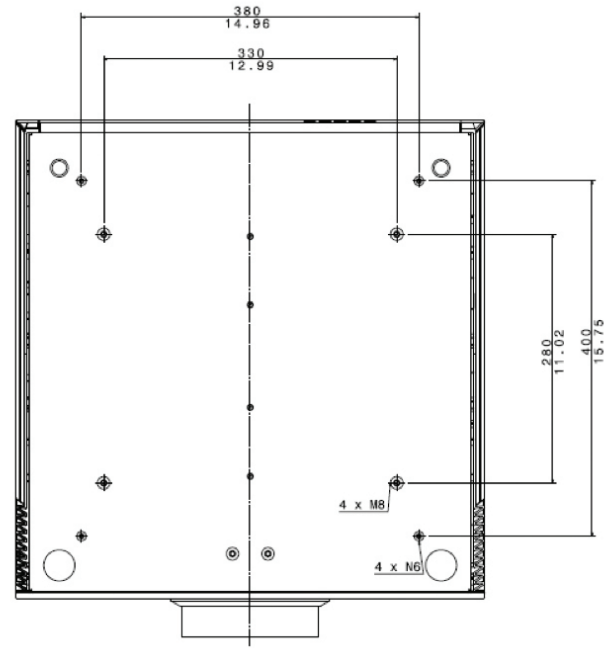
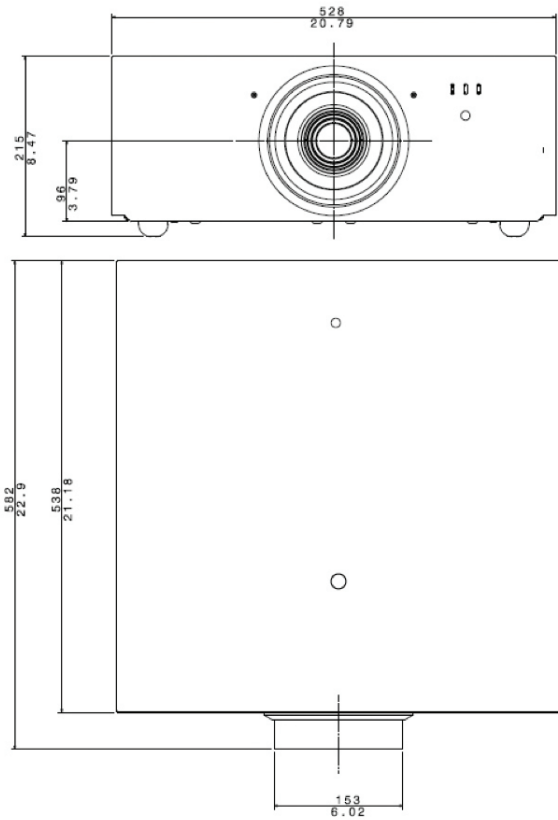
SIM2 NERO 4S UHD HDR



SIM2 NERO 4S UHD HDR

Technical Specifications

Feature	DUAL NERO 4S UHD HDR	NERO 4S UHD HDR
DLP® Type and image resolution:	Dual projection system: 2x custom-tuned projectors 1-chip DMD 0.67" UHD 4K UHD (3840x2160 pixels): 8.3M pixels	1-chip DMD 0.67" UHD 4K UHD (3840x2160 pixels): 8.3M pixels
Dynamic Range:	HDR compliant with dedicated Display Modes and 4 presets to cover different screen sizes	
Light Source and brightness ⁽¹⁾ :	2x 450W lamp (dimnable) > 10.000 Ansi Lumens	450W lamp (dimnable) up to 6.000 Ansi Lumens
Adjustable iris	● 10 apertures memorized	
SIM2 Perfect Fit and autofocus tracking	●	
Remote Info function	SIM2 Customer Care 4	
Live Colors Calibration 2	●	
Lens - Resolution:	Super high definition pure-glass lens with telecentric optics - 93 lines pairs per millimeter	
Lens Throw ratio (+/-5%):	1.36-2.68:1	
Zoom & Focus:	Motorized with position memory encoders	
Optical Shift:	+/-75% Vertical, +/- 30% Horizontal	
INPUTS/OUTPUTS (Single projector):	2x HDMI (v.1.4a - HDCP 1.4) - 1x HDMI (v.2.0a - HDCP 2.2) - 1x HDMI audio/video out (v.1.4a - HDCP 1.4) - 1x Display Port 1.2 - 1x VGA / 3x YCrCb Component - 1x USB (A type - FW UpGrade) - 1x RJ45 - 1x RS232 (D-sub 9 pin) - 2x IR receivers - 1x wired IR receiver - 2x 12V 200 mA output	
Horizontal & Vertical scan freq.	15-91 KHz/24-120 Hz	
UHD	@ 24/25/30/50/60/70/72/75 Hz	
Mains voltage range	100-240 +/-10% (50/60 Hz)	
Single Projector weight:	32 Kg. / 70.5 lbs	
Single Projector dimensions (WxHxD):	528 x 215 x 582 mm (20.8" x 8.5" x 22.9")	



⁽¹⁾ This is the typical projector brightness specification found in most sales literature. This measurement allows for direct comparison with other manufacturer's projectors. Measurements are taken in a totally dark test room with brand new lamp at full power, lamp's native white color temperature, internal test pattern (full white) and in compliance with ANSI IT7.228-1997 specification.

⁽²⁾ Lamp life: the hours quoted have been measured in a lab under ideal test conditions. Lamp life varies depending on usage conditions and the surrounding environment. This is an average value that cannot be guaranteed and is not protected by warranty.

NERO 4S - vers. 2 - Due to constant product development, specifications are subject to change without notice.



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