

# CRYSTAL 4 Sh SuperHybrid



MINIMALIST ELEGANCE  
HIGH PERFORMANCES  
LUXURIOUS DESIGN

The new high-precision lens, coupled our latest laser-hybrid light source, the latest 0.66" DMD with state of the art processing and perfect HDR management, creates the best SIM2 middle hi-end product we've ever made.

## High Brightness & High Dynamic Range (HDR)

The Crystal 4 Sh Superhybrid features a brightness as high as 3,600 lumens.

Because brightness is the key factor in experiencing all the benefits of the HDR processing in image quality, projectors with limited brightness suffer from low peak brightness which limits its dynamic range (no HDR ability). That said, brightness without dynamics and proper management is not enough to create an extraordinary picture: based on our 20 years of experience in DLP development, coupled with the experience gained in designing the award- winning NERO 4S, we are now able to provide simply the best emotive experience in home cinema.

## Perfect HDR

SIM2 is the company with one of the longest and most qualified experiences in the field of HDR, both in flat monitors and in video projection, having started to work on HDR more than 13 years ago. HDR processing is THE real revolution in video imaging and home cinema performance. The Crystal 4 Sh SuperHybrid features the same HDR processing developed for the world famous SIM2 NERO 4S, recognized as the reference standard for HDR image perfection.

The result of this accurate HDR processing is to

make visible all image details either in the dark and/or bright parts of the image: an impressive cinematic achievement and quite an experience!

## Accurate and vibrant lively Colors

A weak point of many Laser hybrid projectors has been the "colors": images often appear yellowish or greenish. The Crystal 4 Sh SuperHybrid sports a perfect white point color and an expanded color space, achieving the DCI standard \* (the color space of commercial Digital Cinema projectors).

This means perfect reproduction of images that look nothing more than "natural"

\* figure calculated statistically. Due to optical tolerances the products may have slightly different color spaces.

## New laser

The use of the latest developments in the blue laser as well as in phosphor technology in the Crystal 4 Sh SuperHybrid combine high brightness with a color gamut that not only reaches REC709 but goes far beyond it, offering natural, true colors with correct color stability.

The Crystal 4 Sh SuperHybrid features the latest semiconductor technology in solid-state laser applications for blue coherent light emissions.

## Color improvement

The Crystal 4 *Sh* SuperHybrid uses 2 color wheels: one with phosphors and one with dichroic filters. The first with its latest generation green and yellow phosphors offers constant emissions over time and as the temperature changes.

The second purifies the colors, with which SIM2, with its long experience in the field of colorimetric reproduction, has reached an unusual degree of colorimetric reproduction accuracy in the Crystal 4 *Sh* SuperHybrid.

## Projection lens

The Crystal 4 *Sh* SuperHybrid uses a high resolution, very low dispersion 1.6x zoom projection lens. This lens allows together with the excellent performance of the DMD, very low background light and a contrast at the highest levels seen on the market.

Its characteristics of clarity, sharpness and uniformity over the whole screen, of low chromatic aberration and low geometric distortion, allow the Crystal 4 *Sh* SuperHybrid to achieve impeccable optical performance typical of much higher priced projection systems.

## Last and best DMD chip

SIM2 has chosen one of the largest and much improved UHD 4K DMD chip released by Texas Instruments for all its home cinema projectors including the new Crystal 4 *Sh* SuperHybrid. The 0.66" DMD chip allows a higher brightness and much lower dispersed light, compared to the smaller 0.47" chip, thus delivering images with a higher contrast and lower black level: perfect for home cinema applications.

## Anticlippping Contrast Adjustment: properly adjusted according to the "nit" of the disk

SIM2 developed special processing that automatically adapts the parameters of the projector to the various Blu-ray disks and in particular to the "nits" of the disks, thus preventing the clipping of the image in the bright part. The result is a rich image with all details visible.



Weight: 14,5 kg

Available: Black & White



Dimensions: 507 x 392 x 181 mm (W x D x H)

## SuperHybrid mode

This special processing dramatically improves the contrast by adjusting dynamically all the parameters of the projector in combination with the laser source.

## Automatic Color Calibration

Like the Nero 4S, the Crystal 4 *Sh* SuperHybrid comes with the LCC 4.0 (Live Color Calibration), a special PC software developed by SIM2 that allows accurate automatic color calibration. By connecting a color probe and the projector to the PC, the Sw allows graphic adjustment of both the primary and secondary colors to arrive at the target chosen. The process can also be automatic.

## Luxury and elegant crystal glass cabinet

Home cinema projectors are now used more and more in living rooms as well as bedrooms, therefore they have to be properly integrated in interiors to avoiding the appearance of an obtrusive piece of technology that degrades the aesthetics of the room.

The Crystal 4 *Sh* SuperHybrid sports an elegant and minimalist crystal glass-based cabinet for a sleek look when installed in the ceiling, over a bookshelf or furniture. It comes in either a white or black glass finish, one that can be integrated in modern or classic environments. An invisible crystal glass back door hides all the inputs, cables, and connectors.

## "A whisper in the air"

In some installations, the projector is really close to the viewers (i.e. small theatres with a low ceiling, etc.) and therefore the projector has to be really silent.

The new Crystal 4 *Sh* SuperHybrid is one of the most silent projectors in the market. Thanks to the design of the cooling system, and the solid 6 mm Crystal glass cabinet that prevents noise to come out from top, back and front of the projector.



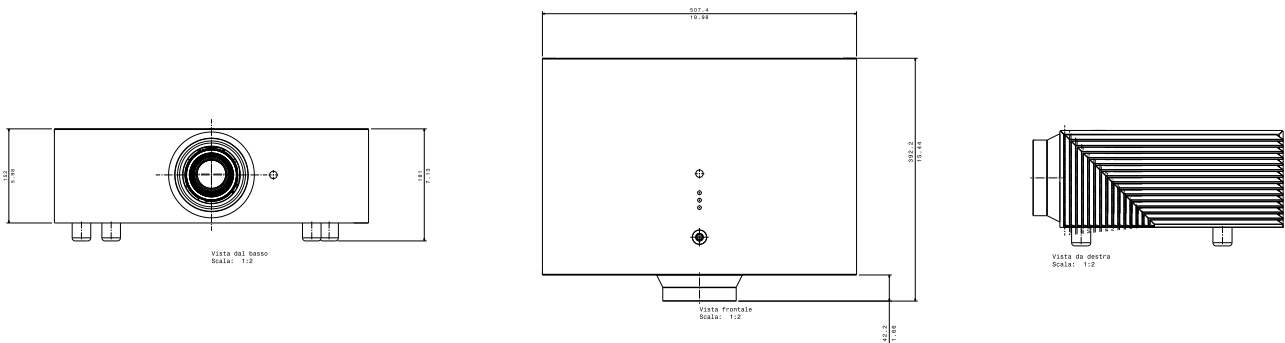
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## Technical Specifications



DLP® Type and image resolution:	0.66" UHD DMD, 3840x2160 pixel
Dynamic Range:	HDR 10, HLG with dedicated EOTF display modes and four presets
Motion Compensation:	3 Settings available
Light Engine:	100% Off-Set
Brightness:	3600 lm
Light Source:	Laser Hybrid, Blue Lasers and Phosphors Color Wheel
Color Adjustments:	Primary and Secondary colors, White Point
Color Wheel:	RGBY, no white sector
Lens:	High definition pure-glass lens optics
Lens shift:	100%-115% (Lens Offset)
Lens Throw ratio (+/-5%):	1.4 – 2.24 :1
Zoom Range (Ratio):	1.6X
INPUTS/OUTPUTS:	<b>Inputs:</b> 1xHDMI 2.0 HDCP 2.2 /MHL 2.1, 1xHDMI 1.4a HDCP 1.4, 1xVGA HD15 <b>Output:</b> 1xUSB Type A Charger only (5V/1.5A), 1x12V Trigger <b>Communication:</b> RJ-45 (support, web control), RS232 9 D-SUB, USB-Type A (service-FW upgrade)
Vertical scan freq.	24-120 Hz
Mains voltage range:	100-240 Vac, +/- 10%, 50-60Hz, Autoranging
Power consumption:	395W max, <0.5W stand by mode
Projector weight:	14,5 kg
Projector dimensions (WxHxD):	507 x 392 x 181 mm



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