

THE GLAMOUR OF TECHNOLOGY

SIM2 Grand Cinema™  
**C3X LUMIS**



## SIM2 Grand Cinema C3X LUMIS Series

The Glamour of Technology



# SIM2 's VISION

Deliver images that will become life's driving passion, an inspiration to the human experience, and a vital working tool.



## About SIM2 Multimedia



Founded in 1995, SIM2 is an Italian electronics company and worldwide manufacturer of award winning home theater products and leading provider of high-performance large screen systems (for control rooms, information, communication, and simulation) and professional projection systems for E-cinema applications. In a world dominated by large multinational corporations, SIM2 is one of the few European companies that, through its strong commitment to innovation, know-how and focused activities has been able to establish a remarkable global reputation. The company provides the world's most comprehensive and impressive collection of displays and high-end large screen displays

on the market today. SIM2 Multimedia's headquarters are located in Pordenone, Italy.

### Mission Statement

In a world ruled by visual communication, where images and pictures are what we all look for first, information need to be presented clearly, sharply, and consistently. To carry out its vision, SIM2 identify and exploit state-of-the-art technologies to create and supply top-quality, innovative display solutions that help people realize dreams, unleash emotions, connect, and improve their living and working standards.

## A constant effort for innovation



Each year, SIM2 invests over 20% of its human resources and over 10% of total turnover in R&D activities. The SIM2

R&D Team is totally committed to the

investigation and implementation of new technologies, hence the ability of SIM2 to

constantly offer new and advanced

products that embody outstanding

performance, uniqueness and longevity.

Indeed, throughout the years, SIM2 has

consistently introduced a succession of

world firsts, always raising the bar in terms

of performance and industrial design.

Nevertheless, Intellectual Property is an

intrinsic element to the very being of SIM2

and, in furthering the quest to ever

improve, SIM2 actively encourages

innovation and the introduction of unique

solutions, holding numerous optics and

electronics international patents.

### Quality and Reliability: a must for all SIM2 products

During the production process, the

smallest to the largest component

undergoes the most rigorous quality check

of our expertise to ensure superior

products with high reliability. SIM2 has

always taken great pride in giving our

customers the best possible experience

from our products by choosing only high-

quality materials.

## Markets and Distribution

SIM2 currently contributes to the advancement of society with diverse businesses focused on six core competence segments: Home theatre, Command & Control, Professional Venue, Digital Signage, Electronic Cinema, Brionvega audio.

The Company is world-oriented with a presence in over 60 countries world-wide through partnerships with highly qualified distributors; all offering the same excellent customer service standards as the main company.

SIM2's National Sales Organizations are located in Italy (headquarters), China, Germany, UK and USA.

## The Awards and recognitions

Being a company involved in an hi-tech business such as multimedia communications, involves a relentless search to develop and improve your product range. This is the only way to achieve new goals, and to be awarded by the most important professional authorities. Here are some of the most important recognitions we've had to date: 35 Product of the Year awards, 22 Reference Product awards, 31 Best Product awards, 6 Innovation awards, 5 Design Awards, and a nomination to ADI Compasso d'Oro Award, the most important prize world-wide for the Industrial Design system since 1954.





## Legendary Hollywood filmmaker endorse SIM2 products



“When I was searching for a projector for my studio, I tested many brands. SIM2 beat them all by many, many miles.”  
*David Lynch*

SIM2 is honoured to announce the formal endorsement of legendary Hollywood filmmaker, painter, composer, and performance artist David Lynch. Mr. Lynch, a longtime SIM2 customer, has enjoyed the company’s unmatched product quality in his own Hollywood studio for many years—his endorsement comes from personal experience and is a testament to SIM2’s legendary image reproduction.

David Lynch is a three-time Academy Award nominee for Best Director and a winner at the Cannes and Venice film festivals.







“The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired in value.”

## Think Green!



SIM2 is devoted to improving people's lives and help achieve a sustainable society, continuously striving on reducing the effects on the environment by developing environmentally compatible products and processes.

SIM2 promotes its Corporate Environmental Policy (CEP) activities based on the conviction that all human behaviour influences the environment, and we wish to be a part of sustainable global development.

Our commitment extends to finding a balance between the needs of the environment and the quality, performance, economic value, and life cycle of our products. Indeed, through the use of design and best management practices, improvements are continually made to conserve natural resources and to minimize the use of environmentally sensitive materials.

## SIM2 Eco-Friendly Policy



### **P**roduct Design, raw materials and production -

SIM2 evaluates the environmental impact of its R&D activities, and establishes and maintains environmental objectives and target programs, taking all the necessary steps to reduce the impact in subsequent phases of the product's life cycle. Also, during the design of the product a purchasing preference is given to recycled and environmentally-friendly materials. SIM2 will ensure that the chosen suppliers have adopted environmentally appropriate outlooks and policies.



**R**oHS compliance - It is SIM2's policy to conduct business in a manner consistent with sound environmental management practices and to comply with applicable environmental laws and regulations. The Restriction of Hazardous Substances (RoHS) Directive is intended to reduce the use of 6 substances that may pose risks to human health or to the environment. SIM2 established internal product environmental assurance standards that include the six hazardous substances in electrical and electronic equipment banned by the RoHS

**L**ife Cycle Assessment (LCA) - As part of our efforts to achieve a recycling-based society, SIM2 has started to approach the LCA methodology to quantitatively and fully evaluate the impact of its products through their entire life cycle. SIM2 is working to make Lifecycle assessments mandatory for all new products.



**D**isposal - We will endeavor to make product parts suitable for recycling. This entails making significant components easily identifiable during disassembly, and thereby making it possible to choose the best method of disposal or recycling. SIM2 is also engaged in a project to ease the disposal of hazardous waste such as spent lamps.

**WEEE Directive:** The European Union (EU) Directive on WEEE (waste from electrical and electronic equipment) is intended to protect the quality of the environment and human health through the prudent use of natural resources and the adoption of waste management strategies that focus on recycling and reuse. SIM2 since 2008 is a member of "Re.Media", one of the most important Italian WEEE Collective Compliance Associations.

**P**roduction: Energy savings - We have been working hard to improve production quality and efficiency giving cleaner technology a high priority when choosing methods of production and equipment. Clear indexes of this trend are SIM2's power consumption - diminished by 25% (24.88%) from 1999 to 2008 (electrical consumption per worked day) - and its water demand decreased by 80% in the same period.

Nothing is unthinkable, nothing is impossible



**ISO 14001 Certification** - In 2008, SIM2 has begun the process of acquiring ISO 14001 environmental management system certification for its production facilities. The International Standards Organization (ISO) establishes performance objectives and environmental management systems to prevent pollution, ensure compliance with regulations, and achieve continual improvement.

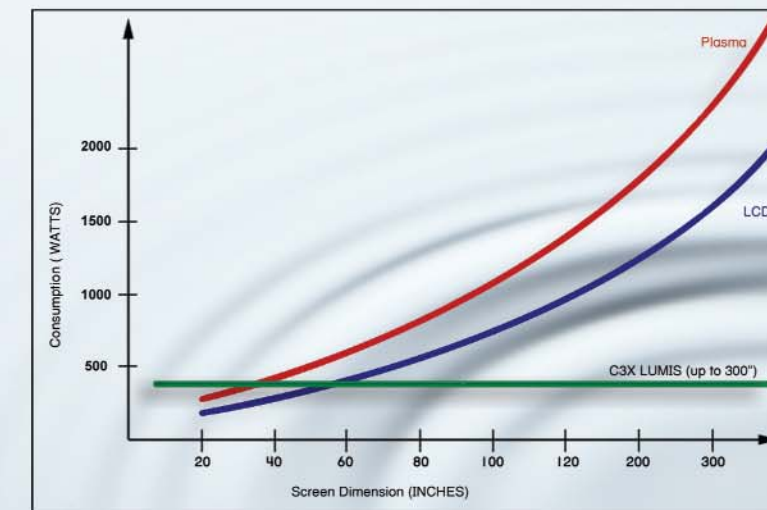
**WebSite** - How you represent yourself on the web and even the colors you use on your website can make an impact to the environment. Although CRT monitors are getting less and less, it is proven that they consume less power displaying dark colors than light. A study by the US Department of Energy has determined that redesigning Google's site in black would save 750 megawatt hours per year. This is why SIM2 has chosen a dark background for its new web site. Nonetheless, SIM2 web pages have a printer friendly option that enables black text on a white background and removes excessive images and navigation bar, hence reducing excessive use of ink and paper.

**SIM2 Print-less program** - The company has also adopted a "Print-Less" Program that utilizes digital documents to help reduce printed paper, thus decreasing the impact of excessive paper waste on the environment. The more users will do online, the less they will need paper. Keep files on computers instead of in file. Review documents onscreen rather than printing them out. SIM2 website features a long list of documents for download, including catalogs, user manuals, whitepapers, etc.

## Grand Cinema™ C3X LUMIS: Eco-friendly Design

- **Stand by consumption below 1W** - The Grand Cinema™ C3X Lumis requires only 0.9W while in stand by mode.
- **Toxic substances** - Grand Cinema™ C3X Lumis doesn't contain dimethylfumarate (DMF), lead, cadmium, hexavalent chromium, PBB (polybrominated biphenyls), and PBDE (polybrominated diphenyl ethers). Nevertheless, it complies with WEEE, RAEE and Rohs directives.
- **Life cycle assessment (LCA)** - Grand Cinema™ C3X Lumis is based on the LCA methodology.
- **Recycling** - The packaging is entirely recycled and recyclable. The product cabinet is PVC-free.
- **Power consumption** - Grand Cinema™ C3X LUMIS gives you an image up to 300" requiring the average energy needed by a 55" LCD TV or a 40" plasma one.
- **Grand Cinema™ C3XLumis is certified** : CE, EMC, FCC, UL, CB made by Demko/AS, CCC is in progress.

**POWER CONSUMPTION**  
Grand Cinema C3X LUMIS vs. LCD & PLASMA TV sets



Sources: Internet - Product datasheets



## Introducing Grand Cinema™ C3X LUMIS Series

The Grand Cinema™ C3X LUMIS projectors, latest additions to SIM2's award-winning Grand Cinema™ C3X series, are totally unique to SIM2 and represent the culmination of 10 years of innovation and research in the field of video projector design and technology. The Grand Cinema™ C3X LUMIS series features two models: the C3X LUMIS HOST and the new C3X LUMIS. These two projectors represent the pinnacle of home cinema projection, offering unprecedented picture quality for the discerning home theatre customer.

### Key Points

- 3-chip Full HD DLP®-based home theatre projector
- New revolutionary re-designed ALPHAPATH™ compact light engine
- SIM2's DynamicBlack™ Technology Enhanced Solution
- SIM2's User Adjustable Iris system
- New dimmable 280W lamp
- 35,000:1 contrast ratio
- Completely re-designed electronics assembly
- Live Colors Calibration software
- C3X LUMIS HOST only: High definition Optical Signal Transfer (H.O.S.T. by SIM2)  
lossless fiber-optic connection to distances up to 250m (750ft)





## Revolutionary New ALPHAPATH™ Light Engine

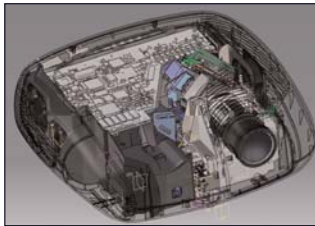


The most critical component in a home cinema front projection unit has always been its light engine. A projector's image accuracy is governed by the quality of this piece of precision optical engineering. In order to obtain the best projected image quality, a delicate balance is required between the light engine, the DLP® chipset and the control electronics. Building on its heritage of high-end light engine design, SIM2 developed a new and innovative optical system to re-size the light-path whilst maintaining BOTH its length (necessary for optimum picture control) AND its compactness (required for installation and interior-design constraints). This folded light path, patented and named ALPHAPATH™, is the result of years of SIM2's advanced R&D optical and thermal analysis.





# Revolutionary New ALPHAPATH™ Light Engine in detail



The Grand Cinema™ C3X LUMIS series' light engine incorporates many advanced new features:

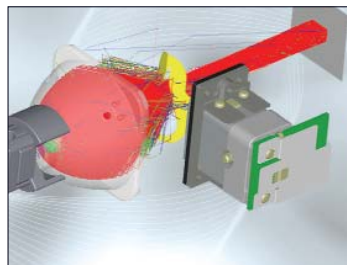
- **New Die-cast aluminium body for improved heat management:** A new die-cast aluminum design dramatically improves the thermal management of the light engine, which means that the Grand Cinema™ C3X LUMIS projectors are now able to use a more powerful lamp (280W) to deliver brighter images on-screen. This improved design also houses the new elements of the DynamicBlack™ system and user adjustable iris.
- **New tapered rod-integrator for greater image uniformity:** The purpose of the rod-integrator is to accept the raw light

energy from the lamp and convert it into a pure and refined beam of light. It is also where the light spot from the lamp is turned into a precise 16:9 shape before it illuminates the DMD chipset. This new tapered design helps further improve color uniformity and efficiency of light transmission.

- **New Coatings on the prism assembly to further enhance colour performance:** The three DMD's (Micro-Mirror Device) are mounted directly onto the prism assembly, making the optical purity of this component crucial to the final image quality. New optical coatings have been applied to the prisms to further enhance color and picture performance.



## SIM2 unique implementation of DynamicBlack™ technology



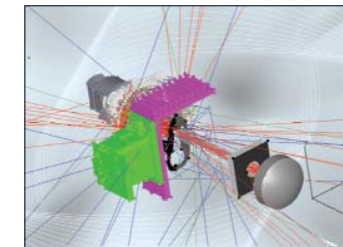
The Grand Cinema™ C3X LUMIS series combines DynamicBlack™ technology with the world-renowned technical expertise of SIM2's R&D design team to achieve enhanced contrast and black level performance. This improved black level enables the Grand Cinema™ C3X LUMIS projectors to produce images that contain the maximum amount of detail possible in dark scenes without compromising black level or the excellent dynamic range available from DLP® technology.

SIM2 has developed a unique solution to achieve this, using three distinct specialized components: DynamicBlack™ technology, a user adjustable iris and a new dimmable lamp.





## SIM2 unique implementation of DynamicBlack™ technology



SIM2's approach to implementing DynamicBlack™ technology within the Grand Cinema™ C3X LUMIS series is both radical and ingenious in its execution. In a conventional design the Dynamic Iris would be normally positioned inside the lens assembly, but for our engineers this simply wasn't good enough. After extensive research and testing, undertaken to find the ideal position of the DynamicBlack™ system, it was decided to place the dynamic aperture between the lamp and the entrance to the rod-integrator - the proven best position within the illumination path to deliver the desired results. Moreover, SIM2 optical specialists designed the dynamic iris in a non-symmetric and folded shape powered by an ultra fast step motor (similar to those used in hard disc drivers) in order to prevent unwanted stray light inside the optical path. DynamicBlack™ automatically adjusts the dynamic iris position to the picture content with microsecond precision, extending the depth of black level and providing richer detail in dark scenes. This extended dynamic range creates a more life-like, three-dimensional quality to the image.



## Stunning Contrast and High Brightness



**S**IM2's unique light engine design and DynamicBlack™ technology Enhanced Solution, in partnership with the latest 0,95"

1080p DarkChip4 DLP® chipset from Texas

Instruments, enable the Grand Cinema™ C3X

LUMIS series to achieve an incredible contrast

ratio of up to 35.000:1. The projectors are able

to display images with incredible realism thanks

to the ability to reproduce almost imperceptible

details in very dark scenes, whilst at the same

time maintaining a superb color depth, a deep

black level, and a high brightness.





# Improved Thermal Management



Product reliability is very important to a customer purchasing a specialist electronic device like a home theater projector, it was therefore vital to create a product that delivered high performance, along with long-term reliability. With a more powerful lamp, SIM2 engineers needed to design into the Grand Cinema™ C3X LUMIS cabinet optimized 'air tunnels' to direct the cool air to where it is most needed: around the lamp and Dynamic Black™ assembly. This allows the projector to maintain a lower internal temperature, placing less stress on the delicate components and ensuring improved reliability.

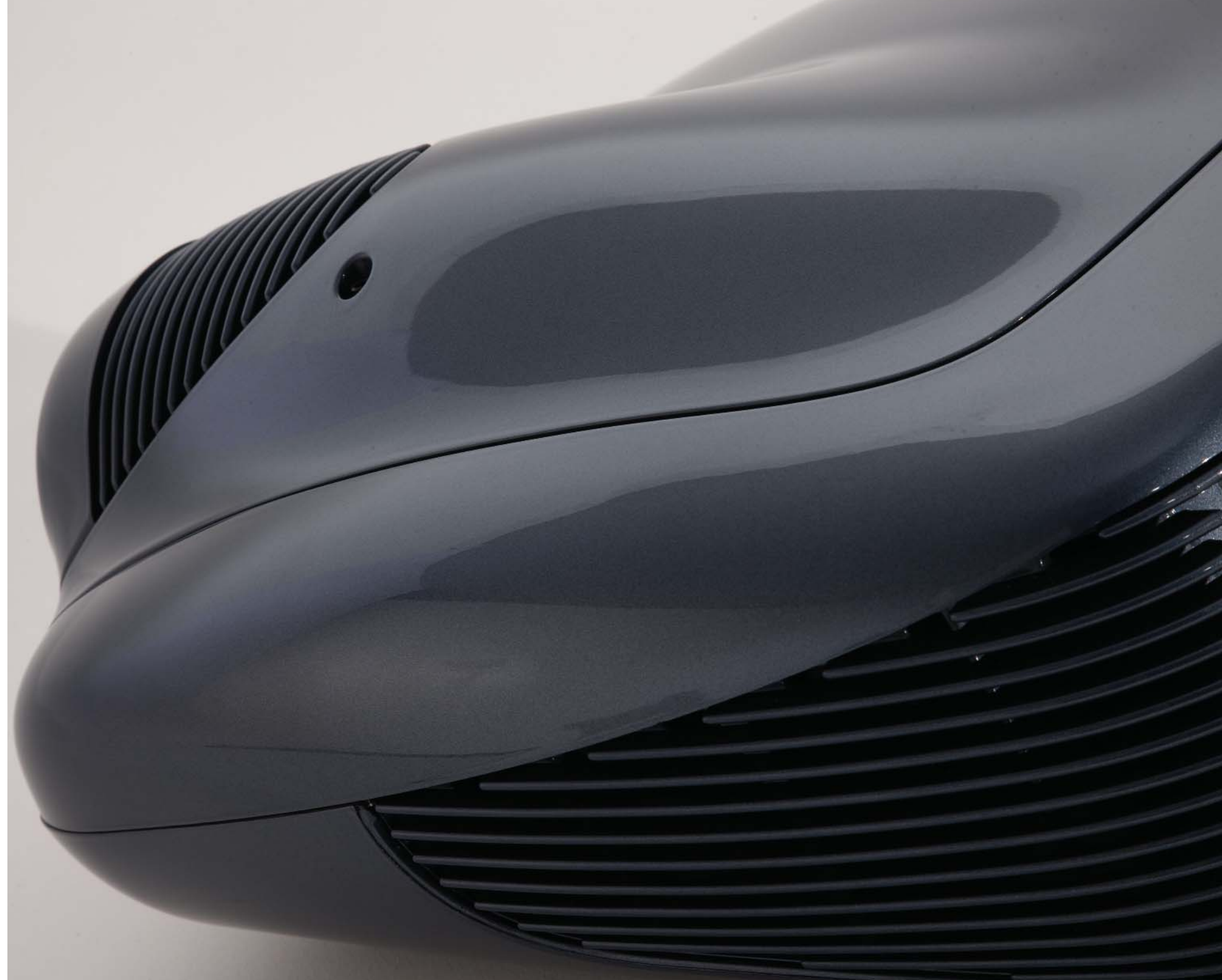


## Supreme Flexibility



The Grand Cinema™ C3X LUMIS series are very powerful projectors that can also be discreet when needed. The high-efficiency 280W lamp overcomes above average levels of ambient light and allows illumination of larger screens. For dedicated, light-controlled home theater rooms, the DynamicBlack™ and the User Adjustable Iris can be set to give stunning 3D-like images and optimum black level performance. And, for ease of installation and positioning, a choice of three lens options is available: T1 (short-throw), T2 (standard long-throw lens), and T3 (long-throw).

The Grand Cinema™ C3X LUMIS series is so flexible that you can use it at home either to project images of artwork in high definition to create stunning visual effects, or simply as a centerpiece of entertainment for the whole family.





## Future-proof inputs



On the connectivity front, the Grand Cinema™ C3X LUMIS series has an extensive choice of both analogue and digital video inputs, ensuring full compatibility with 1080p HDTV and the vast array of today's video sources. Add to this, the wide choice of control options on offer - IR, RS232 and IP addressable (the latter for C3X LUMIS HOST only), and the Grand Cinema™ C3X LUMIS series becomes a very potent proposition for installers and customers alike. Also, the Grand Cinema™ C3X LUMIS HOST model features the SIM2 HOST (High-definition Optical Signal Transfer) module that houses the projector's control electronics in a discrete unit designed for maximum flexibility of placement, thanks to SIM2's HOST three-line digital high-integrity fiber-optic connection. This simple single connection can be run to distances of up to 250m (750ft), and is impervious to electrical interference - even when placed in conduit containing high voltage electrical cables - maintaining total signal integrity between source and projector. The HOST module incorporates superbly flexible video switching with no less than six HDCP-compliant HDMI inputs, three HD-capable component-video inputs, and an array of legacy composite and S-video inputs, as well as RGB, DVI and SDI professional inputs. A dedicated 10/100 Mbit Ethernet connector (LAN) is fitted as standard, allowing the product to be connected to a LAN network or to the internet. This network connection can be used to remotely-control the projector using TCP/IP commands or to feedback projector operating status information such as serial number, working hours and firmware version to a designated e-mail address.



## Live Colors Calibration Software



To aid calibration of the projector, the Grand Cinema™ C3X LUMIS series features SIM2's advanced Live Colors Calibration software that enables complete adjustment of the primary, secondary and white point color coordinates. This PC-based software gives calibration experts unprecedented control over the projector image quality. The image can be further optimized by using one of the nine sets of gamma curves available. These can be used to correct for variations in the source material, differing levels of ambient lighting, or simply to allow for individual viewing preferences.

## New User-Friendly User Interface



The Grand Cinema™ C3X LUMIS model's new control electronics allowed our software engineers to develop a new User Interface. This new OSD (On Screen Display) simplifies remarkably menu navigation by the end-user, creating a more gratifying experience when operating the product. New easily identifiable colored icons, as well as a help-bar – friendly suggesting which remote control buttons should be used for each operation - have been added for this purpose. The result is a totally new, enhanced user-friendly interface.







# Italian Design and color Palette

For many, the cabinet design of a product is almost as important as its performance, particularly when it will be placed in the middle of a living room. The Grand Cinema™ C3X LUMIS series is elegance at its best; a projector that deserves to be placed on view. Featuring a new, more aggressive design by Giorgio Revoldini, its smooth curves are in trend with previous Grand Cinema™ models and are

easy on the eye. No need to conceal it; the C3X can be happily left out in the room where it is guaranteed to attract envious praise from visiting friends.

The Grand Cinema™ C3X LUMIS HOST is available in high-gloss Silver-Black standard finish, while the Grand Cinema™ C3X LUMIS in high-gloss Gun Metal standard finish. Optional colors are available upon request.

STANDARD COLOR Grand Cinema™ C3X LUMIS HOST	STANDARD COLOR Grand Cinema™ C3X LUMIS	OPTIONAL COLORS Grand Cinema™ C3X LUMIS series		
				
High Gloss Silver/Black finish	High Gloss Gun Metal gray finish	High Gloss and Matte Black finish	High Gloss and Matte White finish	High Gloss and Matte Red finish









# Technical Specifications

	C3X LUMIS	C3X LUMIS HOST
<b>LIGHT ENGINE</b>		
Technology: 3 x chip DMDs 0.95" 1080p DC4	●	●
Resolution: Full-HD - 1920 x 1080 pixels	●	●
DynamicBlack™ technology: SIM2's DynamicBlack™ Technology Enhanced Solution	●	●
User Adjustable IRIS: 5 steps controlled	●	●
Contrast Up to 35.000:1 (Full ON/ Full OFF)	●	●
Lens: High quality, high resolution improved optics for higher contrast and black level with both motorized zoom and focus adj.	●	●
Lamp: 280W UHP (dimmbable to 230W) - 2000 hours <sup>(1)</sup> Typical	●	●
Brightness: Adjustable from 1200 up to 3000 ANSI Lumens based on lens type <sup>(2)</sup>	●	●
<b>INSTALLATION</b>		
Throw Ratio standard lens: 1.75-2.48:1 (type T2)	●	●
Throw Ratio optional lenses: 1.37-1.66:1 (type T1) - 2.6-3.9:1(type T3)	●	●
Optical Shift: Manual: Vertical + 50% max.	●	●
Digital Keystone Adjustment	●	●
Picture size (inches diagonal): 70-250	●	●
Aspect Ratio: 4:3, 16:9 Anamorphic, LetterBox, panoramic, pixel to pixel + 3 custom-user adjustments	●	●
<b>ELECTRONICS</b>		
Horizontal & Vertical scan freq.: 15-80 kHz / 24-30 Hz and 48-100 Hz	●	●
Color System: PAL (B,G,H,I,M,N,60); SECAM; NTSC 3.58; NTSC 4.43	●	●
PC graphic standards: VGA, SVGA, XGA,SXGA, UXGA, WUXGA	●	●
SDTV: 480i/p, 576i/p,	●	●
HDTV: 720p/50, 720p/60, 1080i/50, 1080i/60, 1080p/50, 1080p/60, 1080p/24	●	●
On-board Video processing: 10 bit	●	●

	C3X LUMIS	C3X LUMIS HOST
<b>INPUTS/OUTPUTS</b>		
Digital:	2 x HDMI (v.1.3 with Deep Color)	6 x HDMI (v.1.3 with Deep Color)

	-	1 x DVI (DVI-D)
	-	1 x HD-SDI (BNC)
Analog:	1 x Composite Video (RCA)	2 x Composite Video (RCA)
	1 x S-Video (Mini DIN 4 pins)	2 x S-Video (Mini DIN 4 pins)
	1 x Graphic RGBHV (D-sub HD 15 pins)	2 x Graphic RGBHV (D-sub HD 15 pins)
	1 x Component - YCbCr/RGBs (RCA)	3 x Component - YCbCr/RGBs (RCA)
	-	1 x RGBHV progressive analog (BNC)
Control:	1 x RS-232 (D-sub 9 pins)	1 x RS-232 (D-sub 9 pins)
	1 x USB	1 x USB
	-	1 x Ethernet (RJ45)
Miscellaneous:	3 x 12V 100mA	2 x 12V 100mA
		1 x 12V 100 mA on projector
	-	3 x fiber optics link (LC)

GENERAL SPECIFICATIONS

Software Control: Upgradable via RS-232 serial interface or USB	●	●
Power supply:: 100 - 240 VAC +/- 10% (48/62 Hz)	●	●
Power consumption:	382 W max	420 W max.
Projector dimensions (WxHxD): 435 x 190 x 430 mm (17.1"x7.5"x16.9")	●	●
HOST dimensions (WxHxD)	-	438 x 90 x 301 mm (17"x3.5"x11.8")
Projector weight: 11 Kg. / 24.3 lbs	●	●
HOST weight: 2.5 Kg. / 5.5 lbs	●	●

SUPPLIED ACCESSORIES

Installation and User Manual, AC power cords (2m-6.6 ft), Backlit remote control and batteries, Live Colors Calibration software (CD Rom)

OPTIONAL ACCESSORIES

Ceiling bracket, IR Repeater, Anamorphic lens systems (static or motorized)

<sup>(1)</sup> 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.

<sup>(2)</sup> ANSI Lumen Specification: 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 T3 type lens (wide angle zoom settings), 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 certification.