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THE GLAMOUR OF TECHNOLOGY

Grand Cinema  
**mico**



Introducing  
Grand Cinema™ MICO 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



### *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.*

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 companies that, through its strong commitment to innovation, know-how and focused activities has been able to establish a remarkable global reputation. Each year, SIM2 invests over 20% of its human resources and over 10% of total revenues 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. Nevertheless, Intellectual Property is an intrinsic element to the very being of SIM2 and, in furthering the quest to ever improve, SIM2 actively encourages the introduction of unique solutions, holding numerous optics and electronics international patents. 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 headquarters are located in Italy with Sister Companies in China, Germany, UK and USA.

## SIM2's ECO-Friendly Policy

“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.”

*Theodore Roosevelt*



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.



### Product Design, raw materials and production

- SIM2 evaluates the environmental impact of its R&D activities, 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.

### Life Cycle Assessment (LCA) -

As part of our efforts to achieve a recycling-based society, SIM2 has approached the LCA methodology to quantitatively and fully evaluate the impact of its products through their entire life cycle.

### RoHS and WEE Directives -

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. SIM2 since 2008 is a member of "Re.Media", one of the most important Italian WEEE Collective Compliance Associations.

**Disposal** - We will endeavor to make product parts suitable for recycling. SIM2 is also

engaged in a project to ease the disposal of hazardous waste such as spent lamps.

**Production: Energy savings** - SIM2's power consumption has 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.

**ISO 14001 Certification** - In 2008, SIM2 has begun the process of acquiring ISO 14001 environmental management system certification for its production facilities.

**Web Site** - 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.



## Think Green with SIM2 Eco-friendly LED Projector Series



### KEY FEATURES:

- SIM2's PureLED technology
- 0,95" 1080p DarkChip4 Single chip DMD
- 1920 x 1080 resolution
- Lighting system: Luminus Phlatlight PT120 R/G/B LEDs
- LED life 30.000 hours
- DynamicBlack™ technology
- Contrast ratio up to 100.000:1 with DynamicBlack™
- Widest color gamut: >128% NTSC, >180% Rec. 709
- Brightness: 800 ANSI Lumens (\*)
- 2 lenses available
- Horizontal and vertical motorized lens shift

SIM2's Grand Cinema™ MICO series has been created to fulfil the needs and dreams of discerning customers seeking to experience the latest light source technology and high resolution DLP chipset in an eco-friendly home theatre projector. The SIM2 Grand Cinema™ MICO series is the result of a lengthy, thorough study of projector design and significant investments in R&D. The SIM2 Grand Cinema™ MICO incorporates PureLED technology, a combination of 0.95" DarkChip4 1080p DLP® chipset from Texas Instruments, 3 individual high power Phlatlight LEDs (one for each color R, G and B), new light engine and video processing. PureLED technology allows the projector to deliver clearer, brighter and more vibrant images, a wider and more consistent color gamut, and Full-On/Full-Off contrast up to 100,000:1.



## SIM2's PureLED Technology

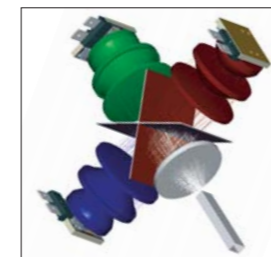
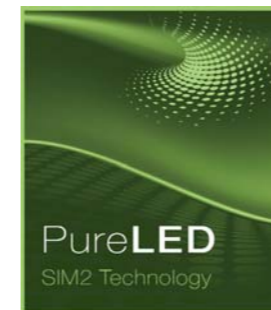


Image accuracy of a projector is governed by the quality of precision optical engineering. A delicate balance is required between light engine, DLP™ chipset and video processing in order to optimise the performance of each. To meet these requirements, SIM2 has implemented a wide range of features into one technology: SIM2's PureLED. First, a trio of RGB high power Phlatlight LEDs by Luminus (one for each primary color R, G and B) replace the color wheel. The LEDs brightness is precisely controlled by an 8-bit-per channel high speed current driver. A sophisticated color sensor - positioned in the light engine - allows the driver to balance the light intensity coming from the three different LED modules, as well as to switch off the 30A driving current to each LED in less than 1 microsecond. Indeed, one of the advantages of LEDs is that they

can be pulsed very rapidly, achieving an impressive active color cycle of 20x per frame of content without detrimental effects on overall life and image quality. This eliminates the sequential color artefacts, while improving contrast ratio, color saturation and grayscale accuracy. Second, the reflective nature of the mirrors on the DLP chip combine with the LED technology to allow more light to reach the screen and deliver a remarkable increase in color gamut. Third, the new light engine produces more than 200 trillion colors and a contrast ratio of 100,000:1. SIM2's PureLED technology implements video processing with enhanced i/p conversion algorithm that allows the Grand Cinema™ MICO projectors to deinterlace and scale both standard and HD signals and reproduce them in Full-HD resolution.



## Extraordinary performances from PureLED technology

The Grand Cinema™ MICO series is built with the eco-friendly, lamp-free PureLED light source technology that can output a pure and narrow light spectrum (one for each primary color) and deliver an incredible 800 ANSI Lumens (\*) of brightness. The use of three separate light elements of red, green and blue, provide a wider and more consistent color reproduction - an unbelievable 28% wider to NTSC - with richer and more saturated colored images. At the same time, it stays consistent over its entire life time with an average lumen decay of less than 5% after 2000 hours. Also, the Grand Cinema™ MICO series is equipped with a technologically advanced liquid-cooling system that reduces its operating noise to an extremely quiet level. And, thanks to the latest TI's Darkchip4 Chip and DynamicBlack™ technology the Grand Cinema™ MICO 50 - the first projector of the series - -delivers an impressive full On-Full Off contrast of 100.000:1 for clear, razor-sharp images.

## Low Cost of Ownership

The Grand Cinema™ MICO series incorporates several advanced features designed to enhance energy efficiency, from optimised power consumption to the high brightness LEDs. Indeed, the Grand Cinema™ MICO projectors give the viewer a totally new home theatre experience in terms of picture quality with the bonus that the user is free from lamp replacement since the typical life of the LED modules is estimated at around 30.000 hours. It means that we could use the projector 4 hours a day over a period of 20 years! The result is an efficient and reliable projector at a low cost of ownership.

## Quick ON/OFF



LEDs light up very quickly, achieving full brightness in microseconds and offering nearly-immediate startup/shutdown. This means that the projector doesn't require minutes to warm-up and cool-down period.







## Placement flexibility & connectivity



For ease of installation, The Grand Cinema™ MICO 50 projector is equipped with both vertical and motorized lens shift and sports the supreme flexibility of two high quality glass lens options, namely T1 (standard lens with short throw ratio) and T2 (optional lens with long throw ratio), accommodating nearly every theatre and various screen sizes. The Grand Cinema™ MICO 50 projector can be connected to a wide selection of video sources via its comprehensive input panel, including two HDCP-enabled HDMI™ sockets, ensuring full compatibility with 1080p HDTV, plus the vast array of today's video sources.





## Eco-Friendly Design



**L**ED lighting technology is the only light source that is truly environmentally friendly.

- Stand-by consumption below 1W: SIM2 Grand Cinema™ MICO requires only 0.75W while in stand-by mode.
- Mercury and lead free – no special recycling is required
- No replacement or stockpiling of hazardous materials.
- Recycling: the packaging is entirely recycled and recyclable.
- The product cabinet is PVC free.
- Power Consumption: SIM2 Grand Cinema™ MICO series gives you an image up to 200" requiring the average energy needed by a 55" LCD TV or a 40" Plasma one.
- SIM2 Grand Cinema™ MICO is certified: CE, EMC, FCC, UL, CB (made by Demko/AS).
- SIM2 Grand Cinema™ MICO series complies with WEEE, RAEE and RoHS directives.

## Technical Specifications

### LIGHT ENGINE

DLP® Type: Single Chip 0,95 1080p DC4

Resolution: Full HD, 1920x1080 pixels

Concept: PureLED technology

Light source: Luminus PhlatLight PT-120 R/G/B LEDs

LED life expectancy: 30,000 hours

Brightness: 800 ANSI Lumens (\*)

Contrast ratio: >100,000:1 "full on full off" with DynamicBlack™

### INSTALLATION

Lens: choice of 2 lenses with motorized zoom and focus adj.

Short Throw Lens (T1): 1.5-2.1:1 (with +/- 5% tolerance)

Long Throw Ratio (T2) 2.1-3.9:1 (with +/- 5% tolerance)

Focusing distance: lens T1 2.2-10m (to focus at 2.2m wide zoom setting must be selected); Lens T2 3-10m (to focus at 3m wide zoom setting must be selected)

Motorized 2D Lens Shift: Up 60%, Down 25% of screen height, Left 7.5%, Right 7.5% of screen width (with +/- 2.5% tolerance)

Digital keystone adjustment, 2D correction

Screen size: 65" - 200" diagonal

Aspect ratio: 4:3, 16:9 Anamorphic, LetterBox, panoramic, pixel to pixel + 3 custom-user adjustments

### ELECTRONICS

Horizontal & vertical scan freq.: 15-91 kHz/24-85Hz

Video systems: NTSC 3.58/NTSC 4.43/ PAL (B/G, D/K, H, I, M, N) / SECAM (B/G, D/K, K1, L) / SDTV / EDTV 480p / EDTV 576p / HDTV 720p / HDTV 1080i / HDTV 1080p

PC/Mac compatibility: from VGA to UXGA

On Board Video Processing: built in, full 10 bit

DynamicBlack™ Technology

### INPUTS/OUTPUTS

Analog: 1 x S-Video (mini-DIN 4 pins)  
1 x Composite Video (RCA)  
1 x Component - Analog YPbPr (RCA x 3)  
1 x Graphic RGBHV (D-Sub 15 pins)

Digital: 2 x HDMI™- HDCP (1.3 with DeepColor)

Control: 1 x USB (B type)  
1 x RS232 (Mini-DIN 9 pins)  
1 x Wired Remote (3.5mm mini-jack)

Miscellaneous: 2 x 12V trigger output

#### GENERAL SPECIFICATIONS

Firmware upgrade: via USB

Projector control: via RS232 serial interface

Mains voltage range: 100-240Vac (50/60Hz)

Power consumption: Max. 370W

Stand-by: <1W

Weight: approx. 25 Kg. (55 lbs)

Dimensions (WxHxD): 540x235x 641mm (21.3" x 9.3" x 25.2")

Operating Temperature: 5° C to 35° C @ 0-2,500 feet

Humidity: 20%-90% (non condensing)

Storage: 20-60° C

#### SUPPLIED ACCESSORIES

Installation and User Manual and Quick Start Guide

AC power cords (2m - 6,6 ft)

Backlit remote control and batteries

HDMI to HDMI cable (3m)

RS232 Adapter cable

#### OPTIONAL ACCESSORIES

Ceiling bracket

Anamorphic lens systems (static or motorized)

(\*) Brightness has been measured with the following settings: Overlap display

mode, native white point, native color gamut, wide zoom mode.



Due to constant product development, specifications and design might be subject to change without notice. MICO SERIES - WORLD - November 2009

