E-Cinema
Broadcasting
Entertainment Industry
Post-production

Cinema Solutions

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SIM2 Multimedia is certified
UNI EN ISO 9001
SIM2 Multimedia

SIM2 Multimedia is a worldwide leading manufacturer of high-end home theatre products, leading provider of high-end professional Videowall solutions to the retail, public large venues and institutional markets and manufacturer of professional projection systems for E-Cinema applications. Over the years, SIM2 has gained in reputation meeting the industry’s demands for new, emerging technologies, offering high-quality, design, effective, reliable, and intuitive solutions that meet the customer’s need in any application. Two core divisions target the key markets of the company: the Top Home Theater Business Unit with a full range of front and rear-projectors (1 or 3-chip DLP® technology based) that has pioneered the concept of design and adaptability to the household environment, and the Large Display Solution Business Unit with its comprehensive line of Videowalls, display wall controllers, networking modules and interfaces and NOW encompassing the new CINEMA Applications Division. SIM2 has a permanent staff of 120 people, 20% of which are employed in the Research and Development Department. The marketing policies of the company are world-oriented with a direct presence in Italy (headquarters), Germany, UK, USA and China (subsidiaries), and in over 45 countries worldwide through partnerships with highly qualified distributors. This network of worldwide distribution, coupled with excellent customer service, guarantees absolute confidence over time. Research and Development: a constant effort for innovation SIM2 Multimedia invests over 20% of its human resources and over 10% of total turnover in R&D activities, assuring continuing product innovation. The SIM2 R&D team is totally committed to the investigation of new technologies, hence promoting progress with constantly new innovative products.

SIM2’s areas of excellence

• Among the first companies world-wide to develop High Definition projectors
• Development capacity of innovative optical systems: more than 12 international patents
• High skills in electronic solutions for video and image processing
• Development of complex systems for control rooms
The SIM2 ProCinema line has been designed to meet the requirements of professional projection applications (E-Cinema, pre-show, post production, pre-views, advertising, edutainment, auditorium and conference room), and it benefits from the experience gleaned from SIM2’s technological background coupled with multiple international patents. It will not only open new business channel opportunities, but will also bring SIM2’s brand values of quality and innovation to the wider global video projection market.

The aim of SIM2 ProCinema division is very simple.

1. Digital Projection technology development has reached a point where it is amazingly close to actual Analog Cinema and is improving!
2. Being able to provide to our customer one of the best pictures available in the market we want to invest such expertise on the most close application: PROFESSIONAL CINEMA.

Pro-Cinema line in not only a simple projection line but also:

• A flexible platform for “Small-Mid Venue” applications
• An affordable and HIGH performing solution for both “E-Cinema and Pre-Show” segments

This platform guarantees QUALITY, INDEPENDENCE and FLEXIBILITY to the users, which are the main requirements to be hoped from the Cinema world for the transition from the Film to Digital projection.

Benefits for Digital Transition

PRODUCERS
• Perfect and constant reproduction of director version
• Low equipment costs
• Distribution speed (SAT/IP)
• Content longevity
• Archives

GOVERNMENT
• Protect and encourage local and specialized cinemas
• Protect and encourage local and European Production
• Distributor effectiveness
• Local/Regional Archives

DISTRIBUTORS
• Low copy costs
• Increased security
• Increased flexibility
• Subtitling
• Distribution cost/speed

EXHIBITORS
• Local advertising
• Alternate contents
• Scheduling flexibility
• Simplified workload
• Transport costs
• Copy quality

DISTRIBUTED MEDIA
• Low equipment costs
• Distribution quality
• Low copy costs
• Increased effectiveness
• Transport costs

PROFESSIONAL CINEMA
• Protect and encourage local and specialized cinemas
• Protect and encourage local and European Production
• Distributor effectiveness
• Local/Regional Archives

DISTRIBUTORS
• Low copy costs
• Increased security
• Increased flexibility
• Subtitling
• Distribution cost/speed

EXHIBITORS
• Local advertising
• Alternate contents
• Scheduling flexibility
• Simplified workload
• Transport costs
• Copy quality

Digital & Electronic cinema benefits

• Almost unlimited archive or HD-quality content availability
• Heterogeneous and INDEPENDENT content easily available
• Longevity of picture quality
• Transmission bandwidth
• Production costs
• Competitive managing and servicing costs (closer to 35mm)
• Flexible business model
• Reduced initial investments
• More opportunities for Independents producers
• More scheduling flexibility for exhibitors or distributors

Transition from analog to digital

PROJECTOR: key element in the cinema digital chain

Projector today shall be:
• DLP®: a standard in all quality markets
• 3-Chip DLP®: most successful and consolidate technology
• Reliable: DLP allows longevity and maintenance
• Affordable: best price/performance ratio

PROFESSIONAL CINEMA
The ProC3 projector system has been designed to meet the requirements of emerging e-cinema applications. Based on 3-chip DLP®-based light engine by SIM2, this projector delivers high brightness, remarkable black depth and contrast ratio, and image richness. The ProC3 utilizes Texas Instruments’ latest HD2+ DarkChip™3 (DC3), that embraces a series of refinements aimed at enhancing performance and delivers all the details available from today’s high definition sources.

For ease of installation, the projector sports two, new particles-free, high quality glass lens options, namely T1 (optional lens with long throw ratio: 1,5-2:1) and T2 (standard lens with long throw ratio: 2-3:1), making it possible to project an immaculate image on a big screen up to 9 mt (29.52 ft).

This projector features a wide choice of inputs (including analog RGB, YprPb, CVBS, S-Video, HDMI™ and DVI-D via HDMI™).

Key features
• 3-chip HD2+ DarkChip3™ DMD technology by Texas Instruments
• 1280x720 pixel resolution
• High Brightness and high contrast ratio, no dynamic iris or shutter
• High light efficiency with custom optics and optimized lamps
• CinemaScope, Academy flat and wide formats (customizable)
• Full Digital inputs: DVI via HDMI™ (HDMI-HDCP compatible)
• High Bit rate video processing (10 Bit per color)
• Choice of 2 zoom lenses, vertical shift.
• The smallest and lightest 3-Chip DLP® projector (<12 Kg.)
• New EasyCinema Software for accurate colorimetry calibration
• Metal cabinet and horizontal shift option (double projection)
• Easy access to lamp for replacement
• Greater freedom for colorist & director through: P7 Wide color gamut compatible with REC709
• Flawless proprietary Fiber Optic connection to remote interface (Proc3 HOST only)
• Installation flexibility and professional reliability
• Full range of digital and analog inputs

The PROC3 HOST, the latest addition to SIM2’s front projection professional range, takes a modular theme for its design, by dividing the projector into its two major constituent parts: the projector itself and the processing electronics. This design approach not only allows for one simple connection between the units, but also eliminates the detrimental signal losses suffered when using long cable runs from the source components in a system.

The HOST concept (High-definition Optical Signal Transfer) is the high-integrity fiber-optic connection method used between the projector and HOST video input processing unit. This simple single connection can be run to distances of up to 250m (750ft), whilst maintaining total signal integrity. The HOST module can be sited with the source components, keeping their cable lengths (and picture quality losses) to a minimum. The HOST module’s on-board readout displays all vital system information at the touch of a button.

SIM2’s Live Color Management
SIM2’s Live Color Management offers complete control over color temperature via user-defined adjustments corresponding to specific points on the CIE chart that defines color hue and saturation.

Gamma Correction
ProCinema Gamma Correction that determines the system’s response to the grey scale optimizes image-based variations in the source material and individual preferences.

SIM2’s EASYCINEMA Software provides a perfect colorimetry calibration in order to set performances at the highest possible level.
• Automatic color adjustment
• Projector full remote control
• Connection management
• P7 color management (Primaries, Secondaries, white point)
• Customizable white point
• Automatic color adjustment
• Color probe management
Pro5000

Key Features

- 3 x 0.95" 1080p DLP® DarkChip3™ by Texas Instruments
- Resolution 1920x1080 pixels (as per standard Full HD sources)
- High light efficiency with custom optics and optimized lamp (300W)
- High brightness (5000 ANSI lm), high native contrast ratio (typ.3000:1), no dynamic iris or shutter
- Full Digital and professional Inputs: DVI or HDMI™, HD-SDI and Ethernet connection
- New Easy Cinema Software for accurate colorimetry calibration dedicated to Cinema Professionals
- Horizontal / Vertical shift with memo position for flexible installation
- Choice of 6 lenses: from Wideangle to Tele
- Dust Filters
- CinemaScope, Academy and wide formats (customizable)
- Stackable option
- Greater freedom through: P7 Wide color gamut compatible with REC709
- Remote control and monitoring via network interface

The PRO5000 projection system has been designed to meet the requirements of the E-Cinema market, offering a high quality product that meets the increased interest of theatre owners to display alternative contents.

Incorporating the latest generation of 3-chip DLP® technology SIM2’s PRO5000 projection system provides images of exceptional brightness, resolution, color depth and a native contrast ratio of 3000:1 for deep blacks and dynamic image, without Iris or lens shutters. In fact, this 3-Chip DLP® is considered the pinnacle of digital projection and it is this technology which forms the basis of the PRO5000. Three 0.95" DarkChip3™ DMDs are utilized in this design to produce a resolution of 1920x1080 pixels (1080p) in order to achieve crystal-clear, uncompressed HD images. With its state-of-the-art proprietary optical engine and for optimum performance, this professional projector uses customized optical components, lenses and prisms. Latest 10-bit per color video processing reproduces images flawlessly.

SIM2’s Live Color Management offers complete control over color temperature via user-defined adjustments corresponding to specific points on the CIE chart that defines color hue and saturation.

SIM2’s Live Color Management

SIM2’s Live Color Management offers complete control over color temperature via user-defined adjustments corresponding to specific points on the CIE chart that defines color hue and saturation.

Gamma Correction Curves

ProCinema Gamma Correction that determines the system’s response to the gray scale (0 255) optimizes image-based variations in the source material and individual preferences.

SIM2 EASYCINEMA Software

SIM2 EASYCINEMA Software provides a perfect colorimetry calibration in order to set performances at the highest possible level.

- Projector full remote control.
- Connection management
- P7 color management
- Customizable white point.

Installation Flexibility

Installation flexibility is ensured with a wide range of projection lenses. The high quality lenses with high-resolution optics are with both motorized zoom and focus adjustments and motorized horizontal / vertical shift.
**SIM2's Live Color Management**
SIM2's Live Color Management offers complete control over color temperature via user-defined adjustments corresponding to specific points on the CIE chart that defines color hue and saturation.

**Gamma Correction Curves**
ProCinema Gamma Correction that determines the system’s response to the gray scale to optimize image-based variations in the source material and individual preferences.

**SIM2 EASYCINEMA Software**
SIM2 EASYCINEMA Software provides a perfect colorimetry calibration in order to set performances at the highest possible level.
- Projector’s full remote control
- Connection management
- P7 color management
- Customizable white point

**Key Features**
- 3 x 0.95” 1080p DLP® DarkChip3™ by Texas Instruments
- Full HD 1920x1080 pixels
- High brightness 7500 ANSI lm for big screen over 15mts (49 ft) in cinemascope
- Full Digital and professional Inputs: DVI or HDMI™, HD-SDI and Ethernet control connection
- Greater freedom in professional picture adjustment through: P7 Wide color gamut compatible with REC709
- High Bit rate video processing (10 bit per color)
- Zoom /Focus plus Horizontal/ Vertical shift with memorized position
- Choice of 6 lenses: from Wideangle to Tele
- Dust Filters
- Customizable formats: CinemaScope (2.35:1), Academy flat (1.85:1) & wide (1.78:1)
- Easy Cinema Software
- Remote control and monitoring via network interface
- Dual Lamp Management for higher brightness, perfect screen size match, more durability and 24/7 applications
- Flawless proprietary Fiber Optic connection to remote interface (Pro5DL HOST only)
- Installation flexibility and professional reliability
- Full range of digital and analog inputs

**Installation Flexibility**
Installation flexibility is ensured with a wide range of projection lenses. The high quality lenses with high-resolution optics are available with motorized zoom and focus adjustments and motorized horizontal/vertical shift.

**Pro5DL and Pro5DL HOST**

The **PRO5DL** projection system has been designed to meet the requirements of the E-Cinema market, offering a high quality product that meets the increased interest of theatre owners to display digital contents. Incorporating the latest generation of 3-chip DLP® technology SIM2’s PRO5DL projection system provides images of exceptional brightness, maximum resolution, color depth and a native contrast ratio of >2500:1 for deep blacks and dynamic image, without Iris or lens shutters. In fact, this 3-Chip DLP® is considered the pinnacle of digital projection and it is this technology which forms the basis of the PRO5DL. Three 0.95” DarkChip3™ DMDs are utilized in this design to produce a resolution of 1920x1080 pixels (1080p) in order to achieve crystal-clear, uncompressed HD images. With its state-of-the-art optical engine and for optimum performance, this professional projector uses customized optical components, lenses and prisms. Latest 10-bit per color video processing reproduces images flawlessly and a dual lamp system assures durability for professional 24/7 applications.

The **PRO5DL HOST**, the latest addition to SIM2’s front projection professional range, takes a modular theme for its design, by dividing the projector into its two major constituent parts: the projector itself and the processing electronics. This design approach not only allows for one simple connection between the units, but also eliminates the detrimental signal losses suffered when using long cable runs from the source components in a system.

The **HOST concept (High-definition Optical Signal Transfer)** is the high-integrity fiber-optic connection method used between the projector and HOST video input processing unit. This simple single connection can be run to distances of up to 250m (850ft) whilst maintaining total signal integrity. The HOST module can be sited with the source components, keeping their cable lengths (and picture quality losses) to a minimum. The HOST module’s on-board readout displays all vital system information at the touch of a button.

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**HOST UNIT**
### Technical features

#### WHY SIM2

- 3-chip DLP technology is more **EFFICIENT** than a single chip
- SIM2 has LONGER EXPERTISE in 3chip technology (>32 years!!!)

#### Front projection professional systems

- Structured Company (R&D, production, Integration and service)
- Digital distribution Expertise
- Technology Know How (means key element control)
- Solutions Modularity (Scalability)
- Solutions Flexibility (customization)
- Capability to build an integrated network

### PROC3

<table>
<thead>
<tr>
<th>LIGHT ENGINE</th>
<th>DLP® Type</th>
<th>Resolution:</th>
<th>Lens:</th>
<th>Brightness:</th>
<th>Contrast ratio (Full ON/ Full OFF):</th>
<th>Lamps power consumption and lifespan:</th>
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</thead>
<tbody>
<tr>
<td>3 Chip DMDs H20+ DarkChip3™</td>
<td>3 Chip DMDs H20+ DarkChip3™</td>
<td>1280x720 pixels</td>
<td>3 lenses with motorized zoom and focus adj.</td>
<td>4000 lm</td>
<td>&gt;1000:1</td>
<td>250W (x2) (dimmable to 250W), 3000 hours* eco mode</td>
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</table>

### ELECTRONICS

- Motorized zoom and focus adjustments and motorized horizontal/vertical shift
- >2000 hours* eco mode
- 3 chip DMD 0.95” 1080p DarkChip3™

### INSTALLATION

- Lens Type L0 (Optional): Throw ratio 1.39 - 1.87:1
- Lens Type L1 (Optional): Throw ratio 1.87 - 2.56:1
- Lens Type L2 (Optional): Throw ratio 1.12:1 (Fixed wide angle)
- Lens Type L3 (Optional): Throw ratio 1.12:1 (Fixed wide angle)

### PC/Mac

- On Board Video Processing:
  - From VGA to UXGA @ 60Hz
  - From UXGA to UXGA @ 60Hz
  - From UXGA to UXGA @ 60Hz

### Front projection professional systems

#### WHY SIM2

- 3-chip DLP technology is more **ACCURATE** than a single chip
### General Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>PROC3</th>
<th>PROC3 Host</th>
<th>PROC5000</th>
<th>PROC5DL</th>
<th>PROC5DL Host</th>
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<tbody>
<tr>
<td>Mains voltage range</td>
<td>100-240Vac ±10% (48/62Hz)</td>
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<td>100-240Vac ±10% (48/62Hz)</td>
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<tr>
<td>Power consumption</td>
<td>approx. 380W</td>
<td>approx. 380W</td>
<td>approx. 400W</td>
<td>approx. 700W</td>
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<td>SUPPLIED ACCESSORIES</td>
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<td>Installation and User Manual</td>
<td>AC power cords (2m - 6.6 ft)</td>
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<td>Backlit remote control and batteries</td>
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<td>EasyCinema software</td>
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<td>CERTIFICATIONS</td>
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<td>Safety</td>
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<td>in compliance with EN 60950/UL60950</td>
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</table>

### Alternate Content

- Art & Independent Movies
- Documentaries
- Docu-Fiction
- Educational Programmes
- TV Series
- Events
- Drama
- Opera
- Classical
- Concerts
- Private Events
Advantages of anamorphic attachments

- No light loss: the complete 16:9 panel is used
- The attachment widens the picture horizontally by a factor of 1.33
- The height of the picture is not altered
- Cinemascope (21:9) film is projected without black bars at the top and bottom after the optical correction

Which formats can be achieved?
1.33x attachment solves the image conversion (aspect ratio) optically without loss in light or resolution from:
- 4:3 to 16:9
- 16:9 to 4:3
- 16:9 to 21:9 Cinemascope (2.35:1)

... with anamorphic attachments ..
- +33% vertical resolution; more rows are used
- +33% light used, black bars are eliminated
- The image width is 33% larger at the same projection distance (with an anamorphic factor of 1.33)
A) The product
A complete system for the reception, storage and projection of digital contents in equipped theatre/conference rooms.

B) Theater room kit
It will be installed and configured in properly equipped theatre rooms. Hardware system that permits the programming and the projection of the audio-visual contents received in the theatres. The main functions are:
- Receive the requested contents.
- Load on a local storage support the contents received through external supports.
- Visualize the content available in local support through a proper projection system.
- Integrate the playlist of contents with further possible contents (i.e. advertising / trailer)
- Execute the content playout.
- Record the playout information
- It allows the remote monitoring of the theatre room kit
It is not included in the theatre room kit:
- Acquisition ticketing data from registers and from logs originated from the projector: accounting data
- Sending of accounting and monitoring data to the operation centre
- Management, storage and transmission of the contents.

The theatre room kit is made up of:
1. Professional SCREEN
2. SIM2 PROJECTOR
3. HD VIDEO PLAYER MPEG2/WM9 (H264) PEG2000 optional)
   - Digital Image Output: DVI
   - Audio Output: S/PDIF for Stereo or 5.1 AC3 Digital Audio
   - Image resolution: Variable from SD PAL/NTSC to HD 1080p
   - I/O Ports: Gigabit Ethernet Port, RJ-45 USB 2.0 - 1394 Port
   - Power Supply: 100-240V AC 50/60Hz, ~1.5A
   - Operating Temperature: 10 to 40°C
   - Operating Humidity: 20% to 90% non-condensing
   - Security: 128-bit AES Encrypted Content Storage, DRM (optional, only for WM9 format)
4. LOCAL NETWORK
   - Gigabit Ethernet LAN
   - Gigabit Ethernet Switch
   - CAT6 cables
   - Gigabit Network Attached Storage (NAS), RAID from 120GBytes to 1TBytes.
5. SERVER/ RECEIVER (valid for the following options)
   - MDF Push server
6. SATELLITE KIT + DISH (alternative)
   - PCI board DVB-S (In Door Unit)
   - Parabolic Dish 96/120 cm + LNB + supports (Out Door Unit)
7. ADSL KIT (alternative)
   - Modem Router ADSL
   - Firewall
   - NAT

THEATRE ROOM KIT - A
Suggested for High Definition Theatres or 3D, for a max capability of 500-800 seats.
1. Professional projection screen with the base of about 10-15 mt (2.35:1)
2. SIM2 PRO5DL/HOST projector 3chip DLP FULL HD (1920x1080)
3. Professional HD Video Player/server MPEG4, MPEG2 e WM9 (H264) PEG2000 optional)
4. Local network
5. Server/Receiver (if required)
6. Satellite Kit + Dish (alternative)
7. ADSL Kit (alternative)

THEATRE ROOM KIT - B
Suggested for High Definition Theatres or 3D, for a max capability of 300-500 seats.
1. Professional projection screen with the base of about 8-10 mt
2. SIM2 PRO5DL/HOST 3chip DLP FULL HD (1920x1080)
3. Professional HD Video Player/server MPEG4, MPEG2 e WM9 (H264) PEG2000 optional)
4. Local network
5. Server/Receiver
6. Satellite Kit + Dish (alternative)
7. ADSL Kit (alternative)

THEATRE ROOM KIT - C
Suggested for Theatres d’Essai or Roll Out (Multiplex second release) for a max capability of 50-150 seats.
1. Professional projection screen with the base up to 5-8 mt
2. SIM2 ProC3 3chip DLP (1280x720) projector 3chip DLP
3. Professional HD Video Player/server MPEG4, MPEG2 e WM9 (H264) PEG2000 optional)
4. Local network
5. Server/Receiver
6. Satellite Kit + Dish (alternative)
7. ADSL Kit (alternative)