Lumagen® Radiance Pro

All Radiance Pro™ Video Processors PROVIDE THE SAME:

Award Winning In-Motion Image Video Processing & Proprietary Algorithms

Ultimate Video Flexibility FOR Your Home Cinema

***Celebrated Feature Set*:**

- HDMI 2.0 4k60 Input & Output
- 12-bit 4:2:2 Video Pipeline
- Automatic Aspect Ratio Detection & Selection
- Industry's Best Dynamic Tone Mapping for HDR Content with Accurate Color Rendition when compared to Studio Masters
- Best Quality Scaling for In-Motion Content
- True Genlock:
  - Each Input Frame is Output Exactly Once
  - Optimal Lip-Sync
  - Game Mode (3 mS video delay) with all Processing Enabled
- Programable Video Delay
- Fast Source Switching
- As measured by Tektronix® (HDMI 2.1 FRL):
  - Low Output Electrical Noise
  - Low HDMI Output Jitter with 4XXX Models
  - Ultra Low Output Jitter with 5XXX Models for Improved Audio Quality
- Darbee Vision Enhancement
- Compatible with Dolby® LLDV™
- Non-Linear-Stretch
- Directly Control Seymour Screen Excellence Screen Masking
- Additional Customization Features
- Housed in a 1U Rack Mountable Case (Some models available in Compact Case)
- Free Software Updates Continue After Purchase
- 2 Years Limited Warranty, Extendable to 5 Years

Unparalleled Customer Service

SEE WHAT THE DIRECTOR INTENDED WITH Lumagen's Radiance Pro COMMERCIAL GRADE Video Processors

Radiance Pro GIVES You Control TO Optimize & Customize Your Home Cinema Experience

Choice OF Configuration

Ports Ranging from 1 to 10 Inputs & 1 to 4 Outputs

Numerous Radiance Pro Models: 4XXX and 5XXX

Choice OF System Connectivity

Video Processor Before OR After the Audio Processor

Radiance Pro 5XXX Models' Ultra Low HDMI Output Jitter Before the Audio Processor for Improved Audio

Choice OF Enhancements

Customizable DTM, Darbee™ Vision AND/OR Sharpening Filter

See Back for more Technical Information on Lumagen's Outstanding Quality In-Motion Image Processing.

Lumagen has a 22-year legacy of designing video processors offering the highest quality in-motion image science based processing. The Radiance Pro™ series is designed to be adaptable to incorporate new features as technologies evolve, providing industry professionals and movie enthusiast's the best image experience.
A Lumagen video processor is considered by many experts to be an essential part of any quality home cinema.

CEDIA SPECIAL: Upgrade 4140 to 18G Out for FREE thru 9/30/24

For Testimonials about the Lumagen Radiance Pro Video Processor Experience Visit www.lumagen.com

Radiance Pro™ 4k60 Video Processor Series

See what the director intended™

The Radiance Pro™ series supports 4k60 inputs, and outputs, including HDCP 2.3, HDR10, and HLG, and is compatible with Dolby® LLDV™ sources. Winner of a *Home Cinema Choice™ Best of 2021* award, and a *Best Video Product* award in Australia in 2021, the Radiance Pro is not standing still. Lumagen is adding to its 22-year legacy of video processor development by continuing to enhance features and algorithms, and adding a single-input, single-output model for those who would like to place the Radiance Pro after the AV switching.

The Radiance Pro series of video processors offers up to ten inputs, four outputs, and a multitude of video processing, setup, and calibration features. Much more than an HDMI switcher, the Radiance Pro has a host of features to improve the image on your screen. It is considered by many experts to be an essential part of any quality home cinema.

Optimizing HDR content has perhaps become the most important video processing feature. The Radiance Pro Dynamic Tone Mapping (DTM) analyzes multiple regions of every frame of content, detects scene changes, and optimizes the image for each frame of content. Jon Thompson, a movie producer who is responsible for post-production image quality at a major studio, recently evaluated the Radiance Pro DTM versus the other options. He said that "the other DTM options are not even in the same league as the Radiance Pro."

Scaling quality again comes to the forefront with the 4k projectors and televisions. It should be intuitively obvious that home cinema scaling must be evaluated at viewing distance using actual moving image video content. The Tektronix PQA600C quantitative image analysis program is used by major studios and broadcast networks and includes 30 years of development by perception physicists. It includes viewing distance in its evaluation of scaling. The Radiance Pro has the industry's best motion picture scaling and scores more than 20% higher than the competition using the Tektronix analysis software. Lumagen's scaling provides the best quality scaling for 1080, 720, and SD, sources for 4k projectors and TVs. Scaling is also essential for aspect-ratio control, especially when using an anamorphic lens. In addition, the Radiance Pro has an edge-sharpening feature that helps restore detail lost during compression of the digital content.

Minimizing signal jitter is an extremely important criteria for HDMI. The Radiance Pro 5XXX series HDMI output clock jitter has been measured at about 10 pS. This is an ideal clock to send to the audio processor to minimize jitter at the DACs. Reduced jitter at the DAC reduces distortion. Lumagen has many reports of the 5XXX significantly improving audio due to this ultra-low jitter HDMI output.

Reference quality colorimetry is often overlooked as part of a high-end home theater. The Radiance Pro can provide automated video equalization, using third party calibration software, with more accuracy than calibration without a 3D LUT. Using the Radiance Pro's DTM, and Color Management System, you can *See what the director intended™* .

Other features include image-based instant-auto-aspect detection and selection for HD, 3D, and 4k UHD and HDR sources. Anamorphic support with, or without, an anamorphic lens. Image based auto-aspect selection, plus precise geometry adjustments including size, and masking, are available. The Radiance Pro's Non-Linear-Stretch (NLS) feature allows the user to stretch 16:9 content to fill an anamorphic screen using their preferred settings. For 16:9 screens and TVs, an anamorphic image can be placed anywhere in the active screen area, or with zoom, and/or cropping, can fill a larger portion of the screen. Multiple configuration memories allow for different independent configurations, such as day, night, sports, and black-and-white.

The adaptability of the Radiance Pro is second to none. Using Field Programmable Gate Array (FPGA) technology, the Radiance Pro can add hardware image processing and setup features long after installation. The Radiance Pro is adding new features over time. One example is HDR Dynamic Tone Mapping was added four years after product introduction and is available to all Radiance Pro owners by simply updating to the latest free release.

Radiance Pro Models:

4140:	In: 1 – 18G. Out: 1 – 9G (Compact Case)	4140-18G:	In: 1 – 18G. Out: 1 – 18G
4240-18G:	In: 2 – 18G. Out: 1 – 18G, 1 – Audio	4242-18G:	In: 4 – 18G. Out: 1 – 18G, 1 – Audio
4244-18G:	In: 6 – 18G. Out: 1 – 18G, 1 – Audio	4246-18G:	In: 8 – 18G. Out: 1 – 18G, 1 – Audio
4444-18G:	In: 6 – 18G. Out: 2 – 18G, 2 – Audio	4446-18G:	In: 8 – 18G. Out: 2 – 18G, 2 – Audio
5244:	In: 6 – 18G, Out: 1 - 18G, 1 – 9G	5348:	In: 10 – 18G,Out: 2 – 18G, 1 – Audio

Radiance Pro 4140

Radiance Pro 4242

Radiance Pro 4446

Radiance Pro 5348

Key Features

- *Proprietary Lumagen NoRing™ scaling*
- *HDR10, and HLG, Dynamic Tone Mapping*
- *Compatible with Dolby® LLDV™*
- *Image based source instant auto-aspect selection*
- *Desaturates Rec 2020 content for a Rec 709 TV/projector*
- *Anamorphic screen support for up to 4k sources with, or without, an anamorphic lens*
- *Programmable output aspect, size, and masking*
- *Darbee™ Digital Visual Presence (DVP™) for ≤ 1080p60*
- *Inputs and outputs support HDCP 1.X and HDCP 2.3*
- *Supports processing of 2D, and 3D, sources*
- *Up to ten 4k60 inputs, at up to 18 GHz. Varies with model*
- *One (4140), to four (444X), outputs (same source)*
- *FPGA design allows for software upgrades with new video features and algorithms*
- *All models have the same video processing quality*
- *PiP/PoP for 444X models (future update)*
- *Per-pixel SD/HD deinterlacing*
- *4913-point (17x17x17) 3D LUT based CMS*
- *21-point Parametric Grayscale calibration*
- *Directly control Seymour Screen Excellence™ screen masking*
- *Rack-mountable (except compact models)*
- *Less than 35 Watts*
- *Two-year Limited Warranty*
- *Optionally extend Limited Warranty to 5 years*

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