

The RadianceXE™ dramatically improves the picture quality for all your A/V installations, with superior, industry-leading Radiance™ processing, plus provides a flexible A/V central switching and distribution hub.



RadianceXE supports new multi-channel Dolby TrueHD and DTS-HD Master Audio formats, and provides more robust output to support longer HDMI cable distances.

RadianceXE Video Processor/Switcher

Video Processor Features

- HDMI 1.3 support including all uncompressed audio formats, Dolby TrueHD and DTS-HD
- Powerful Radiance™ processing produces extraordinary picture quality with any signal source or display, overcoming limitations of built-in display processing
- Exclusive No-Ring™ video scaling technology converts all input signals, up to 1080p, to the display's native resolution while maintaining pristine image quality, with no edge-ringing scaling artifacts
- Exceptional image enhancement and artifact reduction features make noisy SD signals and heavily compressed HD signals look nearly as good as high-bandwidth HD pictures, even on large screen displays
- State of the art de-interlacing of SD/HD film or video source signals produces cinematic picture quality on progressive-only displays and projectors
- Exclusive 11-point parametric gamma and white balance calibration offers more precise grayscale luminance and color correction of input signals and displays than possible with normal one or two-point display adjustments
- Exclusive 3D CMS Palette™ seven-point input/output color gamut calibration provides accurate gamut correction for all input signals and displays, with no control interaction
- Exclusive Color & Hue Offsets accurately correct red/green color push, producing rich, true colors for all video images
- Simple and flexible calibration of all combinations of signal source and display conditions, with 32 calibration memories per input and eight calibration output memories
- Switches and converts all your A/V source signals to dual HDMI outputs to feed multiple video displays or A/V receivers
- Super-fast, seamless HDMI switching, with dedicated receivers on all HDMI inputs
- Easily incorporate into any third-party automation control system with standard serial interface

RadianceXE Video Processor Specifications

Processing & Scaling:

Scaling: Lumagen proprietary No-Ring™ scaling
 Processing Bit Depth: 10-bit

De-interlacing:

SD/HD Film Source Method: 2:2, 3:2 and 3:3 inverse-telecine pull-down

SD/HD Video Source Method: Per-pixel motion-adaptive deinterlacing with adaptive diagonal filtering

Video Latency: 20-38 mS (US)

Image Enhancement:

Noise Reduction: MPEG mosquito and block artifact reduction
 3D temporal noise reduction for SD/HD sources

MPEG Decoding Correction: CUE and ICP filtering

User-Adjustable Image Enhancement:
 - Per-pixel SD/HD detail enhancement
 - Adaptive contrast enhancement

Configuration:

Configuration Memories per Input: Four master, each w/8 format sub-memories

Output Configuration Memories: Eight

Input Aspect Ratios: 7 (4:3, Lbox, 16:9, 1.85, 2.35, 2 NLS)

Non-linear-stretch (NLS) modes: User programmable 4:3 to 16:9 and 16:9/1.85 to 2.35

Output Aspect Ratios: Programmable (1.33 to 2.50)

Color Encoding: Programmable by Input and Output (Rec 601/Rec 709)

Frame Rate Conversion: From SD/HD 24 Fps film sources to 24 Hz, 48 Hz, or 72 Hz output; From SD/HD 25 Fps film sources to 50 Hz or 75 Hz output

Picture-In-Picture (PIP): Between any two inputs

Output Masking (Blanking): Adjustable per output
 Y/C Delay: Independent Red and Blye Y/C Delay Adjustments

Anamorphic Lens Support: User programmable non-linear-stretch modes; Two programmable 12V trigger outputs

Signal Routing: Flexible audio/video routing with configurable HDMI EDID feedback

Calibration:

Picture Controls: Black Level, White Level, Color, Hue
 Color Gamut Calibration: 3D CMS Palette™ seven-point Input/output adjustments

Gamma Calibration: Global gamma factor offset correction; Two-point, five point, or 11 point parametric luminance adjustments

Grayscale Calibration: Two-point, five point, or 11 point parametric RGB adjustments

Color Push Calibration: Color & hue offsets in RGB color space

Test Patterns: Extensive set of patterns for evaluation, configuration, and calibration

Control: IR Control with supplied remote, IR format Command Input, RS232 Input, Two programmable Trigger Outputs

Hardware:

Power Supply: 12.0 VDC at 5.0 A

Rack Mounting: Rack mount ears are provided

Certification:

UL, CE, ISF

Weight and Size (approximate): **unpacked**

Total weight: 9.7 pounds

Size: 3.75" x 17" x 10" (HWD)

RadianceXE Connections

Inputs:

18 Video Inputs: (6 are HDMI 1.3)

18 Audio Inputs: (HDMI inputs are Dolby True HD/DTS-HD capable)

HDMI Receivers: Independent receiver on each HDMI input

HDMI Input Support: Up to 1080p60 w/HDCP

SD Signal Detection: Automatic detection of NTSC, PAL, SECAM

SD Input Signal Formats: Analog inputs support NTSC (M, Japan, 4.43), PAL (B, D, G, H, I M, N, Nc) and SECAM (B, D, G, KK1, L)

Outputs:

Video: 2 HDMI 1.3 video

Audio: 2 Digital coaxial (S/PDIF)

HDMI Output Support: Up to 1080p60 w/HDCP

HDMI Power: Each HDMI output provides +5V at 50mA to external device

Digital Audio: Eight channel at 96 kHz

