

# PremierViewProHD-IW

Professional HD Image Scaler with 3D Extraction, Warping  
Rotation, Soft Edge Blend with Black Level Correction

**PVProHD-IW** provides industry-leading warp and edge blend capability together with superb scaling, broadcast grade de-interlacing, noise reduction and image enhancement allowing users to project outstanding images on curved and complex screen shapes and blend multiple projectors on flat or curved screens.

**3D Left/Right Extraction and Alignment** is supported for passive 3D projection with sub-pixel accurate alignment capabilities and input compatibility with all mandatory HDMI 3D formats. Third party software for camera based automatic alignment is also available.

For curved screens, Warp configuration is easily set up from a laptop or PC to suit the display screen using Calibre's Warp Generator tool which allows points to be dragged and dropped to create the image shape.

PVProHD-IW automatically recalculates warp parameters to suit all input picture size or aspect ratio changes. Unlike competitor products there's no need to load a different warp map for each input configuration, signal or aspect ratio change. The warp performance, dynamic warp recalculation, flexibility and image clarity far exceed that provided by competitor solutions.

Edge blending is performed using Calibre's proprietary algorithms and blend processor which allow precise control of blend S-curve, gamma and blend region width and can work with 1, 2, 3 or 4 blend edges. Black level correction is also provided with independent control of up to 9 regions with 10-bit adjustment granularity and correction of imager border zones. Blend processing is 48-bit per pixel accurate for de-gamma, blend, black-level correction and re-gamma.

Automatic Pan/Zoom/Tilt can be enabled to allow correct image area selection by simply configuring each scaler's x & y location within the overall blended image, or this can be disabled for manual configuration or for use with multi-head graphics cards.

Video image stability and motion performance are outstanding with per pixel motion adaptive de-interlace for SD and HD. Per pixel motion adaptive noise reduction together with image enhancement techniques improve HD sources and near-HD quality from SD.



- 3D Left/Right Extraction & Alignment for Passive 3D Projection Systems
  - Flexible and easy warp configuration via PC app with drag-drop grid points
  - Outstanding warped image quality with up to 1024-tap scaling filters
  - Edge Blending, multi-region professional grade processing at 48-bit/pixel
  - Programmable Blend Curves, Blend Width & Blend Gamma matching
  - 9-Region Black Level Correction with 4-Corner Trim for DMD Halo Removal
  - Color and Gamma controls, RGB Gain and Cut-off calibration
  - Image Flip L/R/U/D, Image Rotation in 1deg steps via Warp Generator
  - Picture in Picture (PiP) including PiP across blend region capability
  - Automatic Audio Delay Correction for video processing delay
  - 2D image detail enhancement, real-time unsharp mask and sharpness control, stunning HD performance, near-HD from SD
  - Broadcast grade motion adaptive SD & HD de-interlacer with 3:2, 2:2 and non-standard/variable cadence detection with video over film support
  - Temporal/film noise filtering HD & SD, MPEG2 noise reduction for SD
  - Genlock, Video I/O lock and I/O Track
  - Digital and Analog inputs, DVI, HDMI with deep color & 3D support, HDSDI, Component, Composite, S-Video, VGA
  - Geometry correction with 4-corner warping/pinning
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- Processing mode can be chosen for best picture quality and image enhancement or lowest latency. Audio is automatically delayed to correct for video processing delays, with a versatile range of audio input and output connections.
  - System control is via a front-panel LCD menu controlled using rugged front panel keys with inbuilt status indication via color change. Four user-programmable fast input select keys are provided together with "live feed" indication via the input status key.
  - Remote control is provided via TCP/IP or RS232, for which a simple to use PC-based application is provided.
  - Warp maps can be generated used Calibre's easy to use Warp Generator with drag and drop grid points, or via third party auto-alignment software

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### Inputs

1x HDMI with audio & deep color, HDCP compatible, 3D capable  
 1x DVI-D, HDCP compatible  
 1x HD-SDI (SD-SDI compatible)  
 2x Composite Video via BNC (NTSC/PAL/SECAM)  
 2x S-Video via MiniDIN (NTSC/PAL/SECAM)  
 2x Component video YPbPr/YPbPrS/RGB/RGBS HD/ED/SD via BNCs  
 1x SVGA via 15HDD

2x SPDIF coaxial digital audio via RCA  
 2x Toslink fiber-optic audio  
 4x Stereo analog audio pair via 2 RCAs

### Genlock

Genlock to house sync, component input, HDMI/DVI, SVGA or HDSDI. (NB DVI cannot be used for genlock if HDMI is displayed and vice-versa.)

### Outputs

1x DVI-D, HDCP compatible, HDMI1.3 deep color capable, dual-function output automatically switches between DVI, HDMI or HDMI1.3 depending on display device connected.  
 1x SVGA via 15HDD (NB: SVGA is blanked when the HDMI or DVI input is HDCP encrypted, this is due to HDCP licensing rules).  
 1x SPDIF coaxial digital audio via RCA  
 1x Toslink fiber-optic audio  
 1x Stereo analog audio pair via 2 RCAs

### Display Modes

640x480, 800x600, 852x480, 853x480, 1024x768, 1280x720, 1280x768, 1360x768, 1365x768, 1366x768, 1368x768, 1400x768, 1366x1024, 1400x1050, 1600x1200, 1920x1080, 1920x1200, 2048x1080 and custom user configurable output modes



### User Controls

#### Control/Ports

Front panel controls with character LCD display  
 4 user configurable presets  
 Programmable soft keys for fast input switching  
 Remote control via RS232 serial port  
 Remote control via TCP/IP  
 IR remote control (optional)  
 USB port for firmware update  
 PC control software included  
 Warp Generator PC tool for image warping alignment, also compatible with third party blend and warp auto-alignment systems

#### Signal Paths

10-bit ADCs for composite, S-Video, 12-bit ADCs for component video  
 10-bit HDMI, 8-bit DVI support, 10-bit HD/SD-SDI  
 Up to 1024-tap filters in warp engine  
 Internal scaling and processing up to 16-bit per color per pixel, 48-bit total

#### Modes of Operation

(1) Full image processing and filtering, with or without I/O frame rate tracking, or I/O lock mode or Genlock mode. (NB I/O lock mode only recommended for use with DVI/HDMI output, not SVGA output)  
 (2) Low latency mode with reduced processing

#### Power

Integral PSU, 100-240VAC 50/60Hz, power via IEC connector.  
 Rear-mounted power switch.  
 Front standby/on control key.  
 Premium-grade cooling fan for reliable installation in equipment racks

#### Mounting Information

Extremely rugged, professional 19" (2U) Rack case with carrying handles.  
 Case color : Black

#### Warranty

3-year return to base warranty covers parts and labor, shipping excluded.

#### Product Code

PVProHD-IW

PVProHD model >	AV	DC	IW	LED
DVI/HDMI Inputs	x	x	x	x
Component Inputs	x	x	x	x
Composite/S-Video Inputs	x	x	x	x
VGA Analog Input	x	x	x	x
HD-SDI Input	x	x	x	x
Genlock	x	x	x	x
DVI/HDMI Output	x	x	x	x
VGA Analog Output	x	x	x	x
Programmable Audio Follow Video	x	x	x	x
Audio in via L/R analog, SPDIF, Toslink optical or HDMI	x	x	x	x
Realta-based HQV Processing	x	x	x	x
PIP	x	x	x	x
TCP/IP Control	x	x	x	x
Low Latency Mode (system setting)	x		x	x
Low Latency Mode (per signal format, per input channel)		x		
48-bit per pixel edge blend			x	
Optimized for 2K/1080p outputs, 2K input capable		x		
Seamless switching, last frame hold	x	x	x	x
Extreme image shrink, edge-based window size controls				x
Black crush (coring)				x
Edge Blending			x	
Auto pan/zoom/tilt of content for blending/tiling with multiple units			x	x
4-Corner embedded warp	x	x	x	
Warp Mapping – free form to arbitrary shapes and curves		x	x	
3D HDMI Left/Right Extraction for Passive 3D			x	

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