

madVR Envy - Model Comparison¹⁰

| Features by model ⁴ | Pro | Extreme |
|---|---------------------|---------|
| HDR Dynamic Tone Mapping (DTM) | | |
| Frame by frame DTM, no metadata required | ✓ | ✓ |
| Advanced dual-algorithm scene change detection | ✓ | ✓ |
| Contrast Recovery (off, low, medium, high) | All | All |
| Shadow Detail Recovery (off, low, medium, high, very high, insane) | All except "insane" | All |
| Highlight Recovery up to 4K24 (off, low, medium, high, very high, insane) | All except "insane" | All |
| Highlight Recovery at 4K60 (off, low, medium, high, very high, insane) | - | All |
| DTM with 1080p60 HDR | ★★★★★ | ★★★★★ |
| DTM with 4K24 HDR | ★★★★★ | ★★★★★ |
| DTM with 4K60 HDR | ★★★★★ | ★★★★★ |
| Scaling | | |
| AI-based ring-free & artifact-free chroma upscaling | ✓ | ✓ |
| AI-based ring-free & artifact-free image upscaling | ✓ | ✓ |
| Upscaling can be switched to either optimize high or low quality sources | ✓ | ✓ |
| Upscaling to 4K24 | ★★★★★ | ★★★★★ |
| Upscaling to 4K60 | ★★★★★ | ★★★★★ |
| Upscaling to 8K24 ¹ | - | ★★★★★ |
| Upscaling to 8K60 ¹ | - | ★★★★★ |
| Sharp & ring-free high quality downscaling | ★★★★★ | ★★★★★ |
| Aspect Ratios & Front Projection | | |
| Automatic aspect ratio and black bar detection | ✓ | ✓ |
| Automatic IMAX aspect ratio changes | ✓ | ✓ |
| Masking for projection screens | ✓ | ✓ |
| Image shift for CIW projection | ✓ | ✓ |
| Advanced convergence correction | ✓ | ✓ |
| Automatic activation of JVC & Sony lens memories (via IP control) | ✓ | ✓ |
| Non-linear Stretch (NLS) ¹¹ | ✓ | ✓ |
| Advanced geometry correction (e.g. for curved screens) ¹¹ | - | ✓ |
| AI-based anamorphic stretch upscaling for 1080p projectors | ★★★★★ | ★★★★★ |
| AI-based anamorphic stretch upscaling for 4K projectors | ★★★★★ | ★★★★★ |
| AI-based anamorphic stretch upscaling for 8K projectors | - | ★★★★★ |
| Artifact Reduction and Edge/Texture Enhancement | | |
| AI-based algorithm to reduce compression artifacts | ★★★★★ | ★★★★★ |
| Algorithm to reduce banding artifacts | ★★★★★ | ★★★★★ |
| Edge enhancement (aka sharpening) | ★★★★★ | ★★★★★ |
| Texture detail enhancement | ★★★★★ | ★★★★★ |
| Planned Future Algorithms^{2,4} (added via software updates) | | |
| AI-based motion interpolation | - | ★★★★★ |
| AI-based motion compensated video deinterlacing | - | ★★★★★ |
| AI-based motion compensated multi frame noise/grain reduction | - | ★★★★★ |
| AI-based grain agnostic sharpening | - | ★★★★★ |
| AI-based 4K HDR dynamic tone mapping processing | - | ★★★★★ |
| Additional undisclosed AI-based algorithms and features | - | ★★★★★ |

| General | | |
|---|---|---|
| 32 bit floating point per component processing | ★★★★★ | ★★★★★ |
| Extreme quality dithering algorithm | ★★★★★ | ★★★★★ |
| Smooth motion algorithm for displays with no (or poor) 24 FPS support | ★★★★★ | ★★★★★ |
| Automatic optimization of algorithm quality levels | ✓ | ✓ |
| 3D LUT calibration using CalMAN, LightSpace, DisplayCAL, and more ³ | ✓ | ✓ |
| Large 3D LUT w/ 274,625 (65 * 65 * 65) or 16,777,216 points (256 * 256 * 256) | ✓ | ✓ |
| Software updates easily installable via Envy menu | ✓ | ✓ |
| Remote technical assistance from authorized dealers ("madAssist") | ✓ | ✓ |
| Highly intuitive user interface, true plug-and-play installation in 1 minute ⁵ | ✓ | ✓ |
| IP control | ✓ | ✓ |
| Frame packed 1080p 3D support ⁷ | ✓ | ✓ |
| Remote control included | Dual band IR + RF | Dual band IR + RF |
| Supported max input formats | 60 Hz: 4096x2160 in 12 bit 4:2:0, 4:2:2 or 8 bit 4:4:4, RGB 30 Hz: 4096x2160 in 12 bit 4:2:0, 4:2:2 or 12 bit 4:4:4, RGB | |
| Supported max output resolutions ¹ | All up to 4K60 | All up to 8K60 |
| Hardware and Miscellaneous | | |
| Warranty on parts and labor | 24 Months | 36 Months |
| General CPU processing power (cores / threads) | 4 / 4 | 6 / 12 |
| General graphics processing power (GFLOPS) | 4,300 | 10,100 |
| Specialized AI graphics processing power (Tensor core GFLOPS) | - | 81,100 |
| Quality when running multiple demanding algorithms simultaneously ⁶ | ★★★★★ | ★★★★★ |
| HDMI 2.0b 18.0 Gbps input ports | 1 | 1 |
| HDMI 2.0b 18.0 Gbps output ports | 1 | 2 |
| HDMI 2.0b 18.0 Gbps no-latency pass-thru | 1 | 1 |
| DisplayPort 1.4 DSC 36.4 Gbps output ports ^{1,4} | 2 | 2 |
| Optional (paid) upgrade to HDMI 2.1 output ² | ✓ | ✓ |
| Optional (paid) upgrades to keep Envy up-to-date in the future ² | - | ✓ |
| Power consumption | 60W - 205W | 60W - 350W |
| AC power input | 110V - 240V | 110V - 240V |
| AC power frequency | 50Hz - 60Hz | 50Hz - 60Hz |
| Dimensions and Weight | | |
| Unit dimensions with feet (W x D x H) | 17.32 x 17.13 x 6.89" 440 x 435 x 175 mm | 17.32 x 17.13 x 6.89" 440 x 435 x 175 mm |
| Shipping dimensions (W x D x H) | 22 x 23 x 13" 560 x 584 x 330 mm | 22 x 23 x 13" 560 x 584 x 330 mm |
| Shipping weight | 26 lbs (11.8 Kg) | 28 lbs (12.7 Kg) |
| Rack mount kit available ⁸ | ✓ | ✓ |
| Rack units ⁹ | 4 RU | 4 RU |
| ¹ Using DisplayPort 1.4 DSC output port, or future HDMI 2.1 output port. ² Date of availability TBD, not likely before 2021. ³ Supports CalMAN, ColourSpace, LightSpace, DisplayCAL & ArgyllCMS, ChromaPure and HCFR. ⁴ Subject to change without notice. ⁵ Insert HDMI cables. Done. No configuration needed. ⁶ For example, running upscaling & motion interpolation together. ⁷ Supports frame packed 1080p 3D only. ⁸ Custom rack shelf with form-fit face plate available through Middle Atlantic in lieu of using rack mount kit. 5 RU in this configuration. ⁹ Please allow for 1 RU clearance above unit for cooling. ¹⁰ Preliminary, subject to change. ¹¹ Coming soon. | | |