

## Video Mix Engine

The NewTek IP Series Video Mix Engine is the nucleus of your video production workflow, empowering your organization to ascend to a new level of quality, creativity, flexibility, and performance. Powered by NewTek's industry-leading software-driven live production technology, the Video Mix Engine is where the systems, devices, software, and sources in your workflow converge for mixing, compositing, and delivery with incomparable configuration and control.

Envision your content, creativity, and storytelling defined not by your technology, and instead by your imagination and ingenuity. The Video Mix Engine lets you realize this potential in the production and delivery of broadcasts, performances, presentations, and events, and further in the monetization of content and production-oriented business ventures.

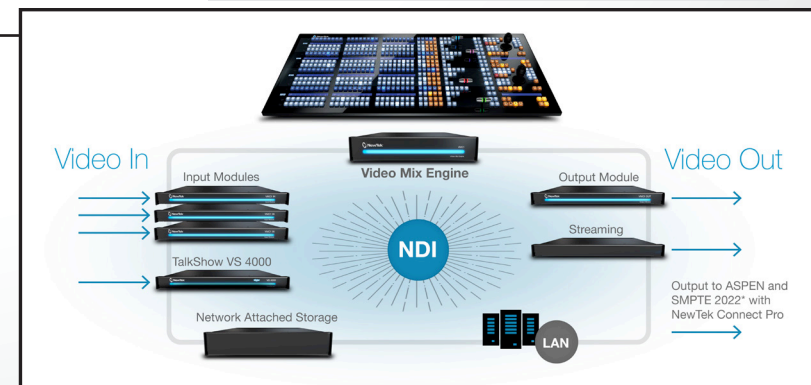
From installation to integration, connection to production, the Video Mix Engine and the NewTek IP Series present possibilities and opportunities that are truly limitless.

### About the NewTek IP Series Ecosystem

The NewTek IP Series is a transformative video ecosystem for interconnected production. It transcends conventional workflows by leveraging innovative NDI technology and modular architecture to form a scalable production network that allows legacy and contemporary technologies to coexist seamlessly, and video, audio, and data to be shared universally between systems and locations across a simplified infrastructure.

### The Video Mix Engine Advantage

- SDI/IP Interoperability**  
 Leverage current and future infrastructure investments to facilitate a gradual transition or immediate migration of your workflow.
- Scalable I/O**  
 Customize your workflow with source and output channels independently configurable through software and expandable through modular integration.
- 3G 1080p Ready**  
 Achieve optimal image quality and performance with flawless multi-format processing and native support for emerging transmission standards.
- Integrated Multiviewer**  
 Outfit your control environment with a single screen or a wall of video, with scalable multi-source monitoring across multiple displays and configurable workspaces.
- Comprehensive Functionality**  
 Advance your productions with unrivaled turnkey capabilities, including multi-source switching, multi-bus mix effects, audio mixing, media playback, graphics, data integration, and real-time visual effects.
- Workflow Automation**  
 Streamline configuration and operation, driving live productions with macro automation from any number or combination of supported control interfaces.
- Future-Proof Solution**  
 Rise to the challenges of today's productions and tomorrow's demands, with forward-thinking technology that accommodates growth, expansion, and progress.



# VMC1 Video Mix Engine Technical Specifications

<b>Local Video Input</b>	4 x 3G/HD/SD-SDI inputs	<b>DataLink</b>	Integrated DataLink™ technology enabling real-time, automated data input from internal and external sources, including webpages, spreadsheets, scoreboards, databases, RSS feeds, watch files, XML, CSV, ASCII and more	<b>Supported Session Formats</b>	<ul style="list-style-type: none"> <li>• 1080p 59.94, 1080p 50, 1080p 29.97, 1080p 25, 1080p 24, 1080p 23.98</li> <li>• 1080i 59.94, 1080i 50</li> <li>• 720p 59.94, 720p 50, 720p 29.97, 720p 25, 720p 24, 720p 23.98</li> <li>• 576i 25</li> <li>• 480i 59.94</li> </ul>
<b>Network Video Input</b>	44 x IP inputs via NDI™, resolution-independent, with support for key and fill	<b>Macros</b>	Record, store, edit and automate commands and user-configured operation sequences <ul style="list-style-type: none"> <li>• Attach to control panel buttons, keyboard shortcuts, hotspots, MIDI and X-keys buttons or GPI triggers</li> <li>• Attach to internal events and state changes, including audio, media playback, tally and specific switcher actions</li> <li>• Supports control via web-based interface</li> </ul>	<b>Supported Media File Formats</b>	Import, store, and play back multimedia files, with optional transcoding, including: <ul style="list-style-type: none"> <li>• Video: AVI, DV, DVCPro, DVCProHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG, MP4, WMV, WebM, and more</li> <li>• Image: PSD, PNG, TGA, BMP, JPEG, JPEG-XR, JPEG2000, EXR, RAW, TIF, WebP, and more</li> <li>• Audio: AIFF, MP3, WAV, and more</li> </ul>
<b>PTZ Video Input</b>	8 x PTZ inputs supporting serial and network protocols, including RS232, RS422 and IP	<b>Recording</b>	4 x configurable video recording channels via IsoCorder™ technology <ul style="list-style-type: none"> <li>• 4 x QuickTime® archival video recorders (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio)</li> <li>• 1 x MP3 audio recorder</li> </ul> <i>* QuickTime Player not required for playback in common NLE applications</i>	<b>Monitoring</b>	Support for up to 4 multiviewer displays with configurable workspaces and viewports
<b>Local Video Output</b>	4 x 3G/HD/SD-SDI outputs 4 x multiviewer outputs <ul style="list-style-type: none"> <li>• 1 x DVI user interface with multiviewer</li> <li>• 1 x DVI multiviewer</li> <li>• 1 x Displayport multiviewer</li> <li>• 1 x HDMI multiviewer</li> </ul>	<b>Storage</b>	2 x 3TB internal drive <ul style="list-style-type: none"> <li>• Capacity varies by format, resolution and file specification</li> <li>• Supports recording to external storage via USB 3.0 and eSATA</li> <li>• Supports shared storage integration and third-party partner solutions</li> </ul>	<b>Signal Monitoring</b>	Integrated waveform and vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 709
<b>Network Video Output</b>	4 x IP mix outputs via NDI 4 x IP source outputs via NDI 4 x IP media player outputs supporting embedded alpha channel via NDI 15 x IP media buffer outputs supporting embedded alpha channel via NDI 8 x IP internal router outputs via NDI	<b>Grab</b>	Grab full resolution, de-fielded still images from external video sources and outputs	<b>Processing</b>	Video: Floating Point YCbCr +A 4:4:4 Audio: Floating Point, 96 kHz
<b>Live Streaming</b>	1 x configurable streaming video output with simultaneous stream archive	<b>Export</b>	Export video and image files to social media, FTP, local or external volumes, and network servers, with optional transcoding	<b>Throughput Latency</b>	~1.0-1.5 frames
<b>Mix/Effect Buses (M/E)</b>	8 x M/E buses supporting video re-entry <ul style="list-style-type: none"> <li>• 1 x Mix/Effect channel per bus with support for up to 4 sources</li> <li>• 4 x KEY layers per bus</li> <li>• 9 x memory slots per bus</li> <li>• 1 x PREVIZ configuration and preview bus</li> </ul>	<b>Audio Mixer</b>	Integrated multi-channel audio mixer with support for 8-channel audio, DSPs and 4x8x8 audio input routing	<b>A/V Standards</b>	<ul style="list-style-type: none"> <li>• 3G-SDI video conforms to SMPTE 424M (Level A)</li> <li>• HD-SDI video conforms to SMPTE 292M</li> <li>• SD video conforms to SMPTE 259M and ITU-R BT.656</li> <li>• Analog audio levels conform to SMPTE RP-155</li> </ul>
<b>DSK Channels</b>	4 x DSK channels	<b>Local Audio Input</b>	4 x SDI embedded 1 x Balanced XLR stereo pair (Line) 3 x Balanced 1/4" stereo pairs (Line)	<b>Tally</b>	Support for hardware tally via HD15 GPI connector, network tally via NDI, and Blackmagic Design® SDI tally standard
<b>Media</b>	5 x media players <ul style="list-style-type: none"> <li>• 4 x DDR</li> <li>• 1 x Sound</li> <li>• 15 x media buffers</li> <li>• 10 x animation buffers</li> <li>• 5 x graphic buffers</li> <li>• 55 x clip players (available for use as transitions or media depending on function)</li> </ul>	<b>Local Audio Output</b>	4 x SDI Embedded 1 x Balanced XLR stereo pair 1 x Balanced 1/4" stereo pair 1 x Stereo 1/4" (phones)	<b>Genlock</b>	Genlock input supporting SD (Bi-level) or HD (Tri-level) reference signals
<b>Keyers</b>	Integrated LiveMatte™ chroma and luma keying technology on all source channels and M/E buses <ul style="list-style-type: none"> <li>• 44 x input keyers</li> <li>• 4 x media player keyers</li> <li>• 8 x M/E keyers</li> <li>• 15 x buffer keyers</li> </ul>	<b>Network Audio</b>	<ul style="list-style-type: none"> <li>• Native support for network audio input and output via NDI</li> <li>• Embedded audio supported for all NDI input and output video signals</li> <li>• Integrated support for Dante™ networking protocol from Audinate®</li> </ul> <i>* Requires Dante Virtual Soundcard license from Audinate (sold separately)</i>	<b>GPI</b>	Supports GPI signals via JLCopper Electronics eBox GPI interface
<b>COMPs</b>	Integrated video composition engine on the switcher and each M/E bus to create, store, and apply layer configurations and DVE-style motion sequences <ul style="list-style-type: none"> <li>• 16 x configurable COMP presets per bus</li> </ul>			<b>MIDI</b>	Support for standard MIDI protocol enabling third-party device control
<b>Virtual Sets</b>	Integrated LiveSet™ technology with 30+ live virtual sets and box effects included			<b>System Drive</b>	120GB SSD

Subject to change without notice.  
 For complete technical specifications, please visit the IP Series page at [www.newtek.com](http://www.newtek.com).  
 International pricing and availability may vary. Please email [sales@newtek.com](mailto:sales@newtek.com) for details.

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