

Video Input

32 x simultaneous external video inputs, supporting any combination of compatible sources in resolutions up to UHD at frame rates up to 60fps (2160p 59.94)

Network Video Input

32 x IP inputs via NDI®, resolution-independent, with support for key and fill

SDI Video Input¹

8 x 3G/HD/SD-SDI connections supporting video input in any combination of standard formats, resolutions, and frame rates²

- 1080p: 59.94, 50, 29.97, 25
- 1080i: 59.94, 50
- 720p: 59.94, 29.97, 25
- 576i 50
- 480i 59.94

¹ *Optionally supports up to 32 simultaneous 3G/HD/SD-SDI video inputs or quad-link 3G-SDI video inputs (4K UHD) via network integration with NewTek NC1 conversion modules* ² *Available frame rates determined by session video standard (NTSC or PAL)*

PTZ

Support for up to 32 simultaneous Pan-Tilt-Zoom (PTZ) robotic cameras via serial and network protocols, including RS232, RS422 and IP, with integrated controls and preset system

Conference Calling

Support for multiple simultaneous video call inputs with Microsoft Skype TX, Microsoft Teams™, Zoom Meetings™, Slack, Discord™, and Tencent™ software integration using the Live Call Connect feature,

Video Output

Configurable for up to 8 independent HD or 2 UHD video mix outputs, with simultaneous delivery via IP and SDI

Network Video Output

48 x IP outputs via NDI® (HD and SD sessions only)

- 8 x video mix outputs in resolutions up to 1080p at frame rates up to 60fps (1080p 59.94) or 2 x UHD video mix outputs at up to 60 frames per second (2160p 59.94)
- 8 x direct IP source outputs via NDI® translation of local SDI inputs or 2 x upconverted UHD outputs at up to 60 frames per second (2160p 59.94)
- 4 x direct IP source outputs via NDI® translation of media players, with support for embedded alpha channel
- 15 x direct IP source outputs via NDI® translation of media buffers, with support for embedded alpha channel

- 3 x Multiviewer outputs (if 3 monitors are connected).
4K support on 2x Multiviewer outputs while the 3rd outputs in HD
- 1 x User Interface with dedicated multiviewer
- 1 x teleprompter output (LiveStory™ Creator)
- 8 x selectable IP outputs via internal NDI® matrix router

SDI Video Output

8 x 3G/HD/SD-SDI connections, optionally configurable for:

- 8 x independent 3G/HD/SD video mix outputs supporting standard NTSC and PAL formats, resolutions, and frame rates³
- 2 x UHD video mix output via 3G-SDI quad-link grouping, supporting frame rates up to 60fps (2160p 59.94)

³ Available frame rates determined by session video standard (NTSC or PAL)

Stream Output

2 x resolution-independent streaming video outputs, independently configurable, with simultaneous stream recording. Support for SRT streaming has been enabled.

Multiviewer Output

4 x multiviewer outputs supporting standard display resolutions, using any combination of available connections. Support for 4K on 2x DisplayPorts

- 1 x HDMI
- 3 x DisplayPort

Mix/Effect Buses (M/E)

8 x M/E buses supporting video re-entry

- 1 x Mix/Effect channel per bus with support for up to 4 sources
- 4 x KEY layers per bus
- 9 x memory slots per bus

1 x PREVIZ configuration and preview bus

DSK Channels

4 x DSK channels

Media

5 x media players

- 4 x DDR
- 1 x Sound

15 x media buffers

- 10 x animation buffers with GIF support

- 5 x graphic buffers

Keyers

Integrated LiveMatte™ chroma and luma keying technology on all source channels and M/E buses

- 32 x input keyers
- 4 x media player keyers
- 8 x M/E keyers
- 1 x PREVIZ keyer
- 15 x buffer keyers

COMPs

Integrated video composition engine on the switcher and each M/E bus to create, store, and apply layer configurations and DVE-style motion sequences

- 16 x configurable COMP presets per bus

Virtual Sets

Integrated LiveSet™ technology with 30+ live virtual sets and box effects included

DataLink

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

Macros

Record, store, edit and automate commands and user-configured operation sequences

- Attach to control panel buttons, keyboard shortcuts, hotspots, MIDI and X-keys® buttons or GPI triggers
- Attach to internal events and state changes, including audio, media playback, tally and specific switcher actions
- Supports control via web-based interface

Recording

32 x total video recording channels

- 8 x configurable M/E channels for HD or 2 x for UHD
- 8 x physical SDI inputs
- 4 x DDR's
- 2 x streaming encoders
- Support for growing file playback from DDR's

- Instant Replay capability on each input
- 32 x total configurable inputs

Storage

4TB Media Storage (4 x 1 TB SSD in RAID 0)

- Quantity varies by format, resolution and file specification
- Supports recording to external storage via 7 USB 3.2 type A, and 1 USB 3.2 type C, 1 USB 2.0 (Gen2, Type A)
- Supports shared storage integration and third-party partner solutions

Grab

Grab full resolution, deinterlaced still images from external video sources and outputs

Export

Export video and image files to social media, FTP, local or external volumes, and network servers, with optional transcoding

Audio

16 channels of audio passthrough

Integrated multi-channel audio mixer with support for 8-channel audio, DSPs and

4x8x8 audio input routing

Local Audio Input

- 8 x SDI embedded
- 1 x Balanced XLR stereo pair (Line)
- 3 x Balanced 1/4" stereo pairs (Line)

Local Audio Output

- 8 x SDI Embedded
- 1 x Balanced XLR stereo pair
- 1 x Balanced 1/4" stereo pair
- 1 x Stereo 1/4" (phones)

Network Audio

- Native support for network audio input and output via NDI[®]
- Embedded audio supported for all NDI[®] input and output video signals
- Integrated support⁵ for Dante[™] networking protocol from Audinate[®]
- Support for AES67 protocol via compatible WDM audio drivers⁶

⁵ Requires Dante Virtual Soundcard license from Audinate (sold separately)

⁶ Requires third-party virtual sound card license (sold separately)

Supported Media File Formats

Import, store, and play back multimedia files, with optional transcoding, including:

- Video: AVI, DV, DVCPro, DVCProHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG, MP4, WMV, WebM, and more
- Image: PSD, PNG, TGA, BMP, JPEG, JPEG-XR, JPEG2000, EXR, RAW, TIF, WebP, and more
- Audio: AIFF, MP3, WAV, and more

Monitoring

Support for up to 4 multiviewer displays with configurable workspaces and viewports. Support for 4K on 2 multiviewers while the other 2 multiviewers output in HD.

Signal Monitoring

Integrated waveform and vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 709

Processing

- Video: Floating Point YCbCr +A 4:4:4:4
- Audio: Floating Point, 96 kHz

Throughput Latency

~1.0-1.5 frames

A/V Standards

- UHD video conforms to SMPTE 2036 (UHDTV1 using Square Division Quad Split)
- 3G-SDI video conforms to SMPTE 424M (Level A)
- HD-SDI video conforms to SMPTE 292M
- SD video conforms to SMPTE 259M and ITU-R BT.656
- Analog audio levels conform to SMPTE RP-155

Tally

Support for hardware tally via HD15 GPI connector, network tally via NDI®, and Blackmagic Design® SDI tally standard

Genlock

Genlock input supporting SD (Bi-level) or HD (Tri-level) reference signals

GPI

Supports GPI signals via JLCooper Electronics eBox GPI interface

MIDI

Support for standard MIDI protocol enabling third-party device control

System Drive

250GB SSD

NIC

- 1 x 10 GbE NIC

- 1 x 1 Gigabit NIC

System Physical

3RU chassis with 650W redundant PSU and multi-tiered hardware and software fail-safe

- 19.0 x 5.25 x 19.57 in (48.3 x 13.34 x 49.7 cm) with rack ears attached
- 34 lbs (15 kg)

Subject to change without notice.