TriCaster® TC1 Technical Specifications

Video Input	16 x simultaneous external video inputs, supporting any combination of compatible sources in resolutions up to 4K UHD at frame rates up to 60fps (2160p 59.94)
Network Video Input	16 x IP video inputs via NDI®, resolution-independent, with support for key and fill
SDI Video Input[1]	4 x 3G/HD/SD-SDI connections supporting video input in any combination of standard formats, resolutions, and frame rates[2] • 1080p: 59.94, 50, 29.97, 25 • 1080i: 59.94, 50 • 720p: 59.94, 50, 29.97, 25, 24, 23.976 • 576i 50 • 480i 59.94 [1] *Optionally supports up to 16 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 8 simultaneous Pan-Tilt-Zoom (PTZ) robotic cameras via serial and network protocols, including RS232, RS422 and IP, with integrated controls and preset system
Skype TX	Native support for up to 2 simultaneous Skype® video call inputs via Skype TX software integration, including tally and Talk Back communication
Video Output	Configurable for up to 4 independent video mix outputs, with simultaneous delivery via IP and SDI
Network Video Output	IP video output via NDI®, optionally configurable for: • 4 x independent video mix outputs • 1 x 4K UHD video mix output
SDI Video Output	4 x 3G/HD/SD-SDI connections, optionally configurable for: • 4 x independent 3G/HD/SD video mix outputs • 1 x 4K UHD video mix output via 3G-SDI quad-link grouping
Stream Output	2 x resolution-independent stream outputs, independently configurable, with simultaneous stream archive
Multiviewer Output	3 x multiviewer outputs supporting standard display resolutions • 1 x DVI user interface with multiviewer • 1 x HDMI multiviewer • 1 x DisplayPort multiviewer
Mix/Effect Buses (M/E)	4 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 • 2 x DDR • 2 x GFX • 1 x Sound 15 x media buffers • 10 x animation buffers • 5 x graphic buffers 30 x clip players (available for use as transitions or media depending on function)
Keyers	Integrated LiveMatte™ chroma and luma keying technology on all source channels and M/E buses • 16 x input keyers • 4 x media player keyers • 4 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	8 x configurable video recording channels via IsoCorder™ technology • 8 x NDI recordings (scalable to higher number with Premium Access) • 4 x QuickTime® archival video recorders (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio, with timecode)[3] • 2 x H.264 distribution video recorders (multiple profiles) [3] *QuickTime Player not required for playback in common NLE applications*
Storage	4TB internal media storage • 2 x 4TB 7200 RPM, 128MB Cache, SATA 6.0Gb/s, 3.5″ Internal Hard Drive • Capacity varies by format, resolution and file specification • Supports recording to external storage via USB 3.0 and eSATA • 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 Mixer	Integrated multi-channel audio mixer with support for quad-channel audio, DSPs and 4x4x4 audio input routing
Local Audio Input	4 x SDI embedded 1 x Balanced XLR stereo pair (Line) 3 x Balanced 1/4” stereo pairs (Line) Support for USB audio device input via compatible WDM audio drivers
Local Audio Output	4 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 support[4] for Dante™ networking protocol from Audinate® • Support for AES67 protocol via compatible WDM audio drivers[5] [4] *Requires Dante Virtual Soundcard license from Audinate (sold separately)* [5] *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 3 multiviewer displays with configurable workspaces and viewports
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
Latency	Processing Latency: ~1.0-1.5 frames Practical Throughput Latency: 4 frames
A/V Standards	• 4K 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	120GB SSD
NIC	NIC 1 x 10 Gigabit Ethernet 1 x 1 Gigabit Ethernet
USB	1 x USB 3.2 Gen 2 Type-C 7 x USB 3.2 Gen 1 Type-A
System Physical	**TriCaster TC1** 2RU chassis with 400W PSU and multi-tiered hardware and software fail-safe • 19.0 x 3.5 x 19.57 in (48.3 x 8.9 x 49.7 cm) with rack ears attached **TriCaster TC1 (Redundant Power Option)** 3RU chassis with 500W 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