



## Ordering Guide: TriCaster® TC410 Plus

TriCaster TC410 Plus Overview	Error! Bookmark not defined.
TriCaster TC410 Plus Product Highlights	3
TriCaster TC410 Plus Key Features	
TriCaster TC410 Plus Technical Specifications	
TriCaster TC TC410 Control Panels	
Reference	11
Ordering Information	

All information included in this Ordering Guide is subject to change without notice.



#### TriCaster® TC410 Plus Overview

NewTek TriCaster TC410 Plus is a complete, cost-effective production solution that takes advantage of the industry's leading software-driven video technology and modern networking to provide users with advanced capabilities and future-ready capabilities for emerging production trends, while sustaining proven workflows and leveraging existing equipment and infrastructure.

With unprecedented power and uncompromising capability, TriCaster TC410 Plus permits today's professional producer, publisher, and content creator to take advantage of hundreds of future-ready capabilities using established and emerging workflows to produce incredible content, and empowers them to embrace new ideas, technologies, and platforms to reach their audiences—whenever and wherever they watch.



#### TriCaster TC410 Plus Product Highlights

TriCaster TC410 Plus represents the continued innovation of the iconic product that defined an industry. Equipped with hundreds of advanced capabilities for proven workflows and future-ready production, it has everything the modern producer, publisher, or content creator needs to deliver programs their way today—and tomorrow.

- Switching, streaming, recording, and delivery in HD and 3G at 60 fps
- True IP switching, with native software-driven processing for maximum production power and flexibility
- Native integration of NDI®, NewTek's innovative Network Device Interface technology, supporting video, audio, and data transmission over IP with near-zero latency
- Comprehensive camera coverage and compelling multi-source video mixing, including 8 external inputs
- Studio-grade Skype® video calling with a channel of Skype TX software integration
- Integrated video servers providing playback, replay, and live editing without any additional hardware
- Multi-channel ISO recording with NDI® and full-resolution QuickTime® and H.264 files for VOD, post-production, and archive
- A channel of live streaming to Facebook Live, Microsoft® Azure®, Periscope, Twitch, YouTube™ Live, and more
- · Real-time social media sharing to Facebook, Imgur, LinkedIn, Twitter, Vimeo, YouTube, and more
- Powerful production automation with custom macro commands, sophisticated full-motion compositing, and flexible control options
- Advanced audio mixing with multi-source configuration and control, professional DSPs, and 4 x 4 x 4 channel routing
- Premier creative capabilities, including multi-bus mix effects, animated titles and transitions, advanced chromakeying, spectacular live virtual sets, and more
- Industry-standard 2RU hardware chassis





TriCaster TC410 Plus live production system (2RU) System appearance subject to change without notice.

## TriCaster TC410 Plus Key Features

Multi-Source Video Mixing	Viewers have their choice of devices. You should have options, too. With 27 source channels, including 8 external inputs, you can easily create compelling content using any combination of compatible video sources, including 3G-SDI, HD-SDI and PTZ cameras, mobile devices, Skype TX video calls, computers, gaming systems, streaming media, video files, graphics, images, animations and more.
Built-In Video Servers	No recorders needed—just add your files with two built-in video servers for ondemand and automated playback, including auto-advancing playlists, on-cue instant replay, live-edited highlight reels, and much more. With responsive player controls, presets, real-time editing tools, selectable transitions, and playlist effects, you have everything needed to make magic from your stored media.
Skype TX Software Integration	Conduct a live Skype video call with any remote guest, anywhere in the world. TriCaster TC410 Plus features a channel of direct Skype TX software integration. The studio-grade version of the popular app, Skype TX enhances the real-time interaction with broadcast-quality video and balanced audio, permitting you to present production-ready conversations, interviews, reports, and more—regardless of the caller's device.
Recording and Replay	Capture all the angles, recording multiple channels of full-resolution video to QuickTime® or H.264 files, or use NDI® sources and record to storage. From archiving the master cut for your content library, to ingesting the raw camera footage for post-production, to caching production extras and presentation materials for on-demand, TriCaster TC410 Plus easily handles the work of multiple professional recorders without the added expense. Insert instant replays from up to 8 NDI or SDI input recordings with a single click instantly; or cue to play on demand instead. Replays include custom in/out transitions and speed control. Create basic highlight clips for instant playback and publishing with shortcut commands
Live Streaming	Stream live to your choice of new media platforms, including user-friendly presets for Facebook Live, Microsoft® Azure®, Periscope, Twitch, YouTube™ Live, and more. With a streaming encoder included, you can easily deliver platform-specific content, while opening up new sponsorship and revenue opportunities.



Social Media Integration	Share real-time updates and on-demand content across your social media accounts, uploading images and video directly to Facebook, Imgur, LinkedIn, Twitter, Vimeo, YouTube and more—complete with comments and hashtags. Plus, with integrated DataLink <sup>TM</sup> , you can add posts and photos from your social networks in on-screen graphics for a truly interactive experience.
Next-Level Automation	Experience new levels of efficiency and productivity with a comprehensive macro automation system that permits you to record, store, edit, and automate your favorite settings and custom command sequences. You can even choose to
	run macros manually from any combination of compatible control interfaces—or set TriCaster TC410 Plus to perform actions automatically.
Live Sound Experience	Set the tone for your production with comprehensive audio integration, including a software-based audio mixer, support for digital, analog and network audio, professional DSPs, fader control, VU metering, Talk Back communication, and $4 \times 4 \times 4$ channel routing to four audio mix outputs.
Phenomenal Creative Elements	With TriCaster TC410 Plus, you have the tools to turn every frame of video into an artistic masterpiece. Consider the screen a blank canvas and unleash your inner artist with multi-bus mix effects, real-time animated titles, data-driven graphics, custom animated transitions, a full-motion composition engine, and more. Let your imagination run wild.
Real-Time Monitoring and Multiviewers	See everything happening during your production with fully adjustable singlescreen or multi-screen monitoring. With three customizable multiviewers, configurable windows and workspace layouts, operator confidence monitors, visual indicators, scopes, and more, you can easily personalize the TriCaster TC410 Plus environment to your preference.
Studio-Grade Video Tools	Perfect your programs with configurable color correction tools, 3D object positioning, and smooth-edge cropping. Apply picture-in-picture effects with optional borders. Use key and fill to produce new composite scenes from different foreground and background elements. Even map live video to moving props and set pieces with real-time motion tracking. And so much more.
Spectacular Live Chromakeying	Think outside the box with real-time keying so crisp and clean, your viewers will never believe it's green screen. With NewTek's powerful LiveMatte™ technology built into every source channel and M/E, you have 16 fully configurable keyers to create composite scenes from live video, graphics and virtual sets for reports, presentations, demonstrations, and more.



World-Class Live Virtual Sets	Save on studio and set expenses without sacrificing production value. With integrated LiveSet™ technology and more than 30 included set designs, TriCaster TC410 Plus can transport your talent into professionally-designed virtual environments, complete with multiple angles, virtual camera movements, realtime reflections, specular highlights, animated lens flares and stunning augmented reality effects that blur the line between virtual and reality.
Interconnected Workflows	You don't work in a silo. Neither should your equipment. With native integration of NDI®, NewTek's innovative Network Device Interface technology, TriCaster TC410 Plus connects to the most prolific IP-based workflow in the industry right out of the box, networking seamlessly with compatible products from hundreds of manufacturers and developers, including NewTek's NC1 Studio I/O Module, NC1 Studio Input Modules, and NewTek Connect Pro software.

Subject to change without notice.

# TriCaster TC410 Plus Technical Specifications

Video Input	$8\ x$ simultaneous external video inputs, supporting any combination of compatible sources in resolutions up to $1080\ up$ to $60fps$	
Network Video Input	8 x IP video inputs via NDI®, resolution-independent, with support for key and fill	
SDI Video Input <sup>1</sup>	4 x 3G/HD/SD-SDI connections supporting video input in any combination of standard formats, resolutions, and frame rates <sup>2</sup> • 1080p: 59.94, 50, 29.97, 25  • 1080i: 59.94, 50  • 720p: 59.94, 50, 29.97, 25  • 576i 50  • 480i 59.94  1 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 1 Skype® video call input 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	<ul> <li>IP video output via NDI®, optionally configurable for:</li> <li>4 x independent video mix outputs</li> </ul>	
SDI Video Output	4 x 3G/HD/SD-SDI connections, optionally configurable for:  • 2 x independent 3G/HD/SD video mix outputs	
Stream Output	1 x resolution-independent streaming video output with simultaneous stream archive	
Multiviewer Output	3 x multiviewer outputs supporting standard display resolutions	



Mix/Effect Buses (M/E)	<ul> <li>4 x M/E buses supporting video re-entry</li> <li>1 x Mix/Effect channel per bus with support for up to 2 sources</li> <li>2 x KEY layers per bus</li> <li>9 x memory slots per bus</li> <li>1 x PREVIZ configuration and preview bus</li> </ul>
DSK Channels	2 x DSK channels
Media	<ul> <li>5 x media players</li> <li>2 x DDR</li> <li>2 x GFX</li> <li>1 x Sound</li> <li>15 x media buffers</li> <li>5 x animation buffers</li> <li>10 x graphic buffers</li> <li>30 x clip players (available for use as transitions or media depending on function)</li> </ul>
Keyers	Integrated LiveMatte <sup>™</sup> chroma and luma keying technology on all source channels and M/E buses  • 8 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 <sup>™</sup> 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	<ul> <li>Record, store, edit and automate commands and user-configured operation sequences</li> <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>
Recording	8 x records from NDI® sources
	5 x configurable video recording channels via IsoCorder™ technology
	• 4 x QuickTime® archival video recorders (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio, with timecode) <sup>3</sup>
	• 2 x H.264 distribution video recorders (multiple profiles)
	<ul> <li>1 x MP3 audio recorder</li> <li><sup>3</sup> QuickTime Player not required for playback in common NLE applications</li> </ul>



Storage	1 x 3TB internal drive		
	Capacity varies by format, resolution and file specification		
	Supports recording to external storage via USB 3.0		
	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)		
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	<ul> <li>Native support for network audio input and output via NDI®</li> </ul>		
	Embedded audio supported for all NDI® input and output video signals		
	• Integrated support $^4$ for Dante $^{TM}$ networking protocol from Audinate $^{\circledast}$		
	Support for AES67 protocol via compatible WDM audio drivers <sup>5</sup>		
	<sup>4</sup> Requires Dante Virtual Soundcard license from Audinate (sold separately)		
	<sup>5</sup> Requires third-party virtual sound card license (sold separately)		
Supported Media File Formats	Import, store, and play back multimedia files, with optional transcoding, including:		
	<ul> <li>Video: AVI, DV, DVCPro, DVCProHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG, MP4, WMV, WebM, and more</li> </ul>		
	<ul> <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>		
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		
Throughput Latency	~1.0-1.5 frames		
A/V Standards	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	2 x 1 Gigabit NIC	
System Physical	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	
	• 26 lbs (12 kg)	

Subject to change without notice.



#### TriCaster TC TC410 Control Panels

With TriCaster TC410 Plus, you have your choice of companion control panels to suit your workflow, environment, and budget. The TriCaster TC1LP and TC1SP control panels are expertly engineered to combine the comprehensive functionality, precision controls, premium hardware mechanics, and ergonomic design that operators need, with modern styling that appeals to clients and executives.

	TriCaster TC1LP Control Panel	TriCaster TC1SP Control Panel
Stripes	2 x panel stripes	1.5 x panel stripes
Source Buttons	24 x switcher source buttons 24 x M/E source buttons	14 x switcher source buttons 11 x M/E source buttons
Joystick	1 x multi-mode joystick (3-axis)	1 x multi-mode joystick (3-axis)
T-Bar	2 x multi-mode T-Bars	1 x multi-mode T-Bar
Connectivity	1 Gigabit NIC	USB
Physical	TriCaster TC1LP chassis with 25W PSU 34.69 x 13.96 x 5.47 in (88.11 x 35.46 x 13.9 cm)	TriCaster TC1SP chassis 23.31 x 12.01 x 5.28 in (59.2 x 30.51 x 13.41 cm)



TriCaster TC1LP control panel





#### TriCaster TC1SP control panel

Panel appearance subject to change without notice.

## Reference

PRODUCT COMPARISON MATRIX			
	TriCaster TC410 Plus	TriCaster TC1	TriCaster Mini Advanced
4K UHD Capable	No	Yes	No
3G HD Capable	Yes	Yes	No
Source Channels	27	36	27
External Inputs	8 4 x 3G SDI	16 4 x 3G SDI	8 4 x 1.5G SDI
4K UHD Inputs	No	16	No
Skype TX Integration	1 channel	2 channels	No
Combined Outputs (max)	13	20	13
Video Mix Outputs	4 4 x 3G SDI ( <u>2 x Independent</u> )	4 1 x 4K UHD or 4 x 3G HD	4 2 x 1.5G HD
Independent Stream Outputs	1	2	1
H.264 Recorders	2	2	2
M/Es	4	4	4



DSK's	2	4	2
Media Players	2 x DDRs 2 x GFX	2 x DDRs 2 x GFX	2 x DDRs 2 x GFX
Multiviewers	3	3	2
Network (NIC)	2 x 1 Gigabit	2 x 1 Gigabit	1 x 1 Gigabit
Audio Channels (per input)	4 channels	4 channels	4 channels
Audio Input Routing	4 x 4 x 4	4 x 4 x 4	4 x 4 x 4

Subject to change without notice.

## NewTek TriCaster TC410 Plus Backplane (2RU)



Subject to change without notice.



# Ordering Information

	TriCaster TC410 Plus Bundle		
TC410PBB	TriCaster TC410 Plus BASE Bundle (includes TriCaster 410 Plus and TC1SP)		
PTTC410P	ProTek for TriCaster TC410 Plus (initial 2 year coverage, includes CS)		
PTPATC410PBB	ProTek with Premium Access for TriCaster TC410 Plus BASE Bundle (initial 2 year coverage, includes CS)		
RPTTC410P	Renewal ProTek for TriCaster TC410 Plus (1 year renewal, includes CS)		
RPTPATC410PBB	Renewal ProTek with Premium Access for TriCaster TC410 Plus BASE Bundle (1 year renewal, includes CS)		
EHWTC410P	2-Year Hardware Warranty for TriCaster TC410 Plus (1 year Extension plus 1 year Standard Warranty, includes CS)		
REHWTC410P	Renewal Extended Hardware Warranty for TriCaster TC410 Plus (1 year renewal, includes CS)		
	TriCaster TC410 Plus "A la Carte"		
TC410P	TriCaster TC410 Plus		
PTTC410PA	ProTek for TriCaster TC410 Plus (initial 2 year coverage)		
PTPATC410P	ProTek with Premium Access for TriCaster TC410 Plus (initial 2 year coverage)		
RPTTC410PA	Renewal ProTek for TriCaster TC410 Plus (1 year renewal)		
RPTPATC410P	Renewal ProTek with Premium Access for TriCaster TC410 Plus (1 year renewal)		
EHWTC410PA	2-Year Hardware Warranty for TriCaster TC410 Plus (1 year Extension plus 1 year Standard Warranty)		
REHWTC410PA	Renewal Extended Hardware Warranty for TriCaster TC410 Plus (1 year renewal)		
	TriCaster TC410 Plus Control Panel		
TC1SP	TriCaster TC1SP (14-Button Control Panel)		
PTTC1SP	ProTek for TriCaster TC1SP (initial 2 year coverage)		



RPTTC1SP	Renewal ProTek for TriCaster TC1SP (1 year renewal)
EHWTC1SP	2-Year Hardware Warranty for TriCaster TC1SP (1 year Extension plus 1 year Standard Warranty)
REHWTC1SP	Renewal Extended Hardware Warranty for TriCaster TC1SP (1 year renewal)
	TriCaster TC410 Plus Software Accessories
NPSubACC	NewTek Premium Access™ Subscription 1 Year Coupon Code for TC1, TC410Plus, TCAE3 and VMC1 (includes LiveGraphics™, LivePanel™, NDI® KVM, Advanced Audio, Virtual PTZ, and access to special LiveSet™ content)
NPSub2YCC	NewTek Premium Access™ Subscription 2 Year Coupon Code for TC1, TC410Plus, TCAE3 and VMC1 (includes LiveGraphics™, LivePanel™, NDI® KVM, Advanced Audio, Virtual PTZ, and access to special LiveSet™ content)
NPSub5YCC	NewTek Premium Access™ Subscription 5 Year Coupon Code for TC1, TC410Plus, TCAE3 and VMC1 (includes LiveGraphics™, LivePanel™, NDI® KVM, Advanced Audio, Virtual PTZ, and access to special LiveSet™ content)
	TriCaster TC410 Plus Hardware Accessories
TCXD850TWF	TriCaster 850 TW DDR Control Surface (available for all HD TriCaster units)
RR2RU3RU	Rack Rails for 2RU and 3RU (available for TriCaster TC1, TriCaster TC1R3, TriCaster 410 Plus, 3Play 3P1, VMC1 R Video Mix Engine and VMC1OUT Studio Expansion Module) Note: For use with roundhole broadcast racks only, not generic server racks.