NewTek
TriCaster™

NEW!
TRICASTER
TCXD850

HD
PORTABLE
LIVE
PRODUCTION

NewTek
TriCaster™

STREAM OR DIE

High definition (HD), live, multi-camera video production no longer requires giant production trucks with banks of monitors, miles of cables, tape machines, video recorders, video effects generators, titling stations, audio mixers and more. Today, all of that power, quality and potential exists in a 20-pound box small enough to fit in a backpack with the flexibility for one person or a small team to deliver

network-quality video. *TriCaster*™ makes it possible for you to broadcast, project, live stream or record full HD programming.

TriCaster is a high definition, network-quality portable live production solution. In one small box you gain multi-channel HD switching, HD network-style virtual sets, HD titling, HD digital disk recording, audio mixing, HD editing, full HD streaming and more.

Live video is a dominant force in our world from the Internet to digital billboards to traditional television broadcasting. Viewers immediately recognize the difference between well-crafted, network-style programs and simple webcam streams. This is why producers and sponsors worldwide choose TriCaster productions where they can achieve professional results that match their brand.

As the worldwide leader in portable live production, NewTek has empowered thousands of TriCaster users from major players like BBC, CBS Radio, ESPN X Games, Fox News, Fox Sports, France Televisons, Mediaset, MTV, RTBF, RTL West, SISLIVE, Sky News, TV4, TWiT.TV, to local & web TV, universities, institutions, OECD, European parliament, stadiums, radios, press group and more. Each of these organizations has used TriCaster portable live production to build their brands and extend their reach through the power of network-quality video streamed live to the Web.

For the first time the ability to produce and deliver live HD network-quality television is open to everyone. You no longer need a television network to broadcast. **TriCaster** is the studio. The Internet is the network.

As more viewers migrate to the Web, producers are seeing the value in developing unique content for live webcasts. Streaming with TriCaster can increase advertising inventory and sponsorship revenue by providing extended, alternative and simulcast programming in addition to regular broadcasts. Further, streaming allows producers and sponsors to reach a more diverse, global audience, or dive deeper into a hyper-local market.

Streaming provides the ability to deepen the relationship with fans, viewers and listeners by providing "behind the velvet rope access" and "back stage passes" to events and activities where public admission is not feasible.

> "I am now doing by myself what 22 people and a half million dollar control room did, thanks to NewTek TriCaster" – Leo Laporte, TWiT, Technology Journalist

> "NewTek TriCaster is one of the pioneers of Internet streaming." – Richard Hart, ABC News

TRICASTER USERS

INTUITIVE INTERFACE

NewTek TriCaster™

TriCaster TCXD850

1 LIVE PRODUCTION provides control of an entire multi-channel HD production. Connect up to eight HD or standard definition (SD) cameras, digital or analog audio, and go live with simultaneous output to video, projector and the Web.

2 LIVE VIRTUAL SETS in HD give you the flexibility of expansive, professional sets even though your location may have limited space. With live, multi-camera smooth zooming, show your talent in a network-style studio without the need for a camera operator or expensive motion control system. Sets include double box effects with options for stand-up and one or two presenters.

3 ON-SCREEN MONITORS let you select shots with confidence. Displays include cameras, clips and iVGA™ networked computer inputs, along with the ability to send all monitors to a second display, and enlarge your workspace.

4 PREVIEW AND PROGRAM MONITORS let you display titles or a transition on-screen, while showing what source is up next. Innovative color Waveform Monitors and Vectorscopes ensure perfect signal quality for your live production.

5 ADVANCED VIDEO SWITCHER gives you unprecedented control over all inputs. Select a live output on Preview, and use either the on-screen T-bar or the optional LC-11 hardware to transition easily from one source to another. Versatile production tools such as Virtual Inputs and dual downstream keys provide the ability to easily create dynamic overlays and graphics.

6 VIDEO TRANSITIONS add interest and impact to your live production. Use any of the 200-plus HD broadcast-quality effects to transition from one source to another and fly titles and inserts on and off screen.

7 LIVE TITLES give you a broadcast look with graphics, titles and animated overlays on top of your live video. Lock a title or bug to a camera or virtual input and set the in and out motion for each.

8 ONE-BUTTON INTERNET STREAMING allows you to use Adobe® Flash® or Windows Media® to deliver a live stream directly to the Web, in 720p HD and other streaming profiles with simultaneous archive for later viewing. ONE BUTTON RECORDING captures your live production as a full HD resolution video file.

9 AUDIO MIXING gives you complete control over microphones, line inputs and clip playback levels. You can also adjust input trim levels for the best possible audio. In addition, the system provides both AES and embedded digital audio for pristine sound.

10 DIGITAL MEDIA PLAYERS include two DDRs for video playback, titles, stills, music and sound, making it easy to add video clips and imagery to your production, as well as auto-insert clips captured during a live event for immediate playback. HD and SD resolutions are supplied in a variety of popular file formats.

11 VIRTUAL INPUTS provide eight customized inputs to configure virtual sets, layer live elements, assign titles, set upstream picture-in-picture elements and much more. These settings can be used as templates for easy creation of other mix effects, and are instantly available in the preset bin along the left.

HD PORTABLE LIVE PRODUCTION

NewTek TriCaster™

NewTek
TriCaster™
TCXD850

NEW!

TriCaster TCXD850 is the latest addition to the NewTek HD portable live production family. This durable rack mount system provides the highest quality, 32-bit floating point with 4:4:4:4 video processing.

HD PORTABLE LIVE PRODUCTION

TriCaster TCXD850 accepts high definition video in 1080p, 1080i and 720p along with SDI, Y/C, component and composite. Whether you work with a team or operate on your own, *TriCaster TCXD850* is easy to learn and provides the following benefits:

- 22-channel switcher
- Eight simultaneous HD/SD inputs
- Eight Virtual Inputs which function as an advanced mix/effects bus with positioning and overlay capabilities
- Five digital Media Players for video playback, titles, stills, music and sound
- 16 analog XLR audio inputs

- Digital audio input options include eight AES/EBU inputs and full support for SDI-embedded audio.
- Two iVGA™ inputs deliver imagery or LiveText CG pages, from networked computers to the switcher or overlay channels
- HDMI program out for projector (IMAG) or other monitoring applications
- 32 hours of 1080i recording capacity (2 TB)
- Three removable SATA II drive bays
- Three (SD and analog) video output rows provide flexible simultaneous HD and SD video output from HD sessions
- Durable 19'' rack mount case
- Redundant power supply

NewTek TriCaster™

NewTek TriCaster™
TCXD850

[1] Both digital (SDI) and analog video output connectors are active at all times.

✔ HD rows output HD-SDI and HD Component
✔ SD rows can be configured as "SDI + Component" or "SDI + Composite + Y/C"

FOR LIVE PRODUCTIONS:
✔ Output Row 1 and 2 run at the session resolution
✔ Output Row 3 always provides an SD output, which can either be 16:9 or 4:3 aspect

FOR POST PRODUCTIONS:
✔ For HD projects, all outputs are HD. Output consists of 3 HD-SDI and 3 HD Component
✔ For SD projects, output consists of 3 SD-SDI connections, 1 SD Component, 2 Composite and 2 Y/C

"Last year, before TriCaster, we produced about 50 live events. This year, with TriCaster we've done over 600." - Chuck Muncie, KadyTV former San Diego Chargers Pro Bowl running back

"TriCaster allows us to compete immediately with the best visuals and the best sound." - Peter Himmelman, "Furious World", Emmy® and GRAMMY® -nominated composer and performer

"If you were impressed when manufacturers began putting home theatres in boxes, wait until you feast your eyes on NewTek TriCaster, which packs an entire live television production studio into a comparable cube of space." - Eliot Van Buskirk, WIRED

Dimensions	48,3 D x 18,4 H x 54,6 W (cm)	Weight	19,5 kg
Video Input	8 Simultaneous Inputs. Any Combination of: HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite. HD-SDI Video Conforms to SMPTE 292M and SD Video Conforms to SMPTE 259M and ITU-R BT.656.	Audio Input	8 x 2 Balanced XLR at Line and Mic Level 8 AES3/EBU BNC Connectors 8 SDI Embedded Analog Audio Levels Conform to SMPTE RP-155 Phantom Power Option
Video Output[1]	3 HD/SD-SDI 3 HD/SD Component HDMI Output Aux VGA/DVI Output User Interface VGA/DVI Output	Audio Output	4 Balanced XLR (Program Out) 4 Balanced XLR (Auxiliary Out) 2 AES/EBU (Program Out) 3 SDI Embedded (Program Out) 1 Stereo 1/4" Headphone Jack
Video Processing	32-Bit Floating Point, YCbCrA 4:4:4:4	Audio Processing	32-Bit Floating Point, 96 kHz, 4 Channels
TriCaster Multi-Standard Supported Formats	1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p 576/25i,1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i (16:9 and 4:3)	Recording Capacity	~ 36 Hours 1080i Removable Drive Bays for Unlimited Record Time and Backup Capability
Presets	Numerous Preset Bins (includes individual production sessions)	Mix HD/SD Sources	Yes
Video Ingest	1, 6-pin IEEE FireWire®	Tally	DB15 Connector for 8 PGM Row Tally Lights
iVGA™ Network Selections	2 Channels Dedicated to Separate iVGA™ Sources (select instantly from unlimited network sources)	Network Connection	1GBit Connection for Network Inputs and Streaming Output
Virtual Set Support	Yes - 18 HD Virtual Sets Included (can be positioned, scaled, and rotated in 3D)	Virtual Input Overlay	1 Channel with Keying, Effects with Positioning, Scaling, Cropping, and 3D Rotation
Virtual Inputs (M/E)	8 Independent Channels with Presets	Main Overlay	2 Downstream Keys with Independent Effects with Keying, Positioning, Scaling, Cropping and 3D Rotation
Media Player	2 DDRs, Stills, Titles, Audio Player (all video sources provide output with alpha channel, for use in overlays, virtual sets, etc.)	On-Screen Multi-Preview Monitors	"All Sources," "Computer Sources," "Camera Inputs," "Preview and FX" or "Scopes with Switchable Input" (full-time, tabbed - all run at full field rate)
Projector Output	Yes - 16:9 and 4:3 Aspects	Projector Resolutions	Up to 1920 x 1200
Full HD 720p 16:9 Streaming	Yes	Live Webcasting	Yes - Adobe Flash, Windows Media Push/ Pull and VC-1 Codec Support
Waveform Monitor and Vectorscopes	Yes - Full Field Rate with Color Preview	Record to Disk	Simultaneous Recording of Full Resolution MPEG-2 and Archive of Web Stream
Integrated Character Generator	Yes	Nonlinear Editor	Yes
File Formats	AVI, DNXHD, DV, M4V, MPEG-2, QuickTime, H264, HDV, JPG, PNG, PSD and More	Render Outputs	AVI, DV, MPEG-2, MP4 (iPod and PSP), QuickTime
Form Factor	Rack Mount (4U with optional rails)	Redundant Power Supply	Yes
Drive Bays	3 Trayless SATA II Removable Drive Bays	Accessory Options	LC-11, TimeWarp™ and LiveText™

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

NewTek TriCaster

NewTek TriCaster™

TCXD300

HD PORTABLE LIVE PRODUCTION

TriCaster TCXD300 is a high definition, network-quality portable live production solution. In one small box, you have multi-channel HD switching, HD network-style virtual sets, HD titling, HD digital disk recording, audio mixing, HD editing, full HD streaming and more. This compact system is easy to set up, and delivers the following benefits:

- 13-channel switcher
- Three simultaneous HD/SD inputs
- Five Virtual Inputs

- Two digital Media Players
- LiveMatte™ controls for clean keying
- Multi-channel audio mixer for full audio mixing with audio follow video
- Ability to add networked PCs or Macs as an input source using iVGA
- Multi-view monitor option for complete display of the entire production
- Hundreds of HD transitions with forward/reverse options and speed controls

Dimensions	44,5 D x 21,6 H x 26,4 W (cm)	Weight	9 kg
Video Input	3 Simultaneous Inputs. Any Combination of: HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) and Composite	Audio Input	2 Balanced Combination XLR/Phone Jacks 2 x 4 Balanced Phone Jacks 3 x 2 AES3/EBU BNC Connectors 3 x SDI Embedded Phantom Power Option
Video Output[1]	3 HD/SD-SDI 3 HD/SD Component	Audio Output	4 Balanced Phone Jacks (Program Out) 4 Balanced Phone Jacks (Auxiliary Out) 2 AES/EBU (Program Out) 2 AES/EBU (Auxiliary Out) 3 SDI Embedded 1 Stereo 1/4" Headphone Jack
Video Processing	32-Bit Floating Point, YCbCrA 4:4:4:4	Audio Processing	24-Bit, 48 kHz, 4 Channels
TriCaster Multi-Standard Supported Formats	1080i 50, 720p 50, 576i 50, 1080i 59.94, 720p 59.94, 480i 59.94 (16:9 and 4:3)	Recording Capacity	~ 18 Hours 1080i
Presets	Numerous Preset Bins (including individual production sessions)	Mix HD/SD Sources	Yes
Video Ingest	1, 6-pin IEEE FireWire®	Tally	3 Tally Light Connections (Program, Preview and both)
iVGA™	Unlimited Connections via Ethernet	Network Connection	1GBit Connection for Network Inputs and Streaming Output
Virtual Set Support	Yes - 15 HD Virtual Sets Included (can be positioned and scaled)	Virtual Input Overlay	1 Channel with Transitions
Virtual Inputs (M/E - Style)	5 Inputs with Keying, Effects with Positioning, Scaling and Cropping	Main Overlay	2 Downstream Keys with Independent Effects with Keying, Positioning, Scaling and Cropping
Media Player	1 Each DDR, Stills, Titles (with Alpha Channel assignable to Downstream Key)	On-screen Multi-Preview Monitors	"All Sources," or "Preview and FX" or "Scopes with Preview" (full-time, tabbed)
Projector Output	Yes - 16:9 and 4:3 Aspects	Projector Resolutions	Up to 1920 x 1200
Full HD 720p 16:9 Streaming	Yes	Live Webcasting	Yes - Adobe Flash, Windows Media Push/ Pull and VC-1 Codec Support
Waveform Monitor	Yes	Vectorscope	Yes
Integrated Character Generator	Yes	Nonlinear Editor	Yes
File Formats	AVI, DV, MPEG-2, QuickTime, HDV, JPG, PNG, and More	Render Outputs	AVI, DV, MPEG-2, MP4 (iPod and PSP), QuickTime
Record to Disk	Simultaneous Recording of Full Resolution MPEG-2 and Archive of Web Stream	Accessory Options	LC-11, TimeWarp™ and LiveText™

NewTek TriCaster™

HD NETWORK-STYLE VIRTUAL SETS

With NewTek LiveSet™ virtual set technology you can achieve the look of a sophisticated studio setting in a small space without the need for complex external equipment. Virtual Inputs make it easy to pre-assign your saved **TriCaster** set effects. With lights, a simple camera setup and a green or blue backdrop, your on-camera talent can be placed in any one of the 15 included HD LiveSet virtual sets.

HD
NETWORK-STYLE
VIRTUAL
SETS

- Set designs include two-person and stand-up for versatility
- Double box effects are included for most virtual sets
- Animate zoom option provides smooth live zoom from shot to shot

- Adjust zoom speed with slow, medium and fast presets or manually set the speed
- Easily resize and position camera inputs – camera never needs to be physically repositioned or adjusted
- Each Virtual Input provides an overlay channel for an additional layer of effects
- Add video, graphics and branding to virtual monitors in the live virtual sets
- Professional sets designed with Emmy® Award-winning NewTek LightWave 3D® with reflections and refractions for complete realism

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"Just because it's the Internet, it doesn't have to be compromised. TriCaster delivers the professionalism we require."
- Robin Ruzan, The Room Live, actress/comedian/writer, credits include "SNL," and "Curb Your Enthusiasm"
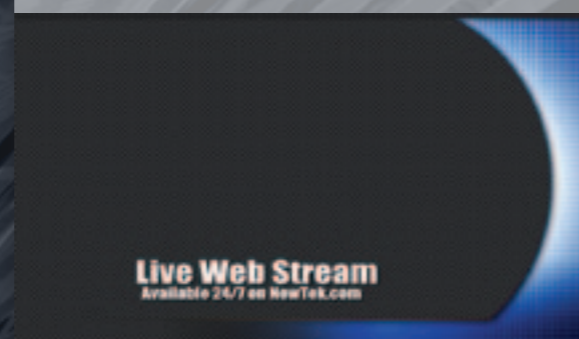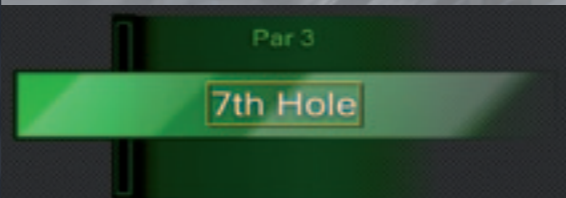
NewTek
TriCaster™

HD TITLES AND GRAPHICS

Great-looking titles and graphics significantly enhance any project. **TriCaster** titling allows you to easily create and update titles and graphics on-the-fly during your live production. Multiple channels of overlays and the ability to pre-assign individual transitions to any source make it fast and simple to create sophisticated graphics.

✔ Overlay channels of upstream and downstream keying provide multiple layers of graphics and titles
✔ Titles and graphics can be easily resized and positioned to suit your needs
✔ Title templates can be updated live
✔ Easily change font, font size and add bold, italic or underline
✔ Add pictures to title templates for total customization
✔ Spell check assures that titles are accurate

"TriCaster brings a whole new professionalism to the Web; it makes it easy for anyone to do live production."
- Mike Rotman, director, Kevin Pollak Chat Show

BLAZING-FAST HD EDITING

Prepare video content for your live production with NewTek's resolution-independent video editor designed to work quickly and efficiently on any project.

● Mix both HD and SD on the same timeline in real-time, for complete flexibility
● Provides real-time, up and down conversion
● Offers real-time 3D position, size and rotation

● Delivers real-time, interpolated slow motion
● Instantly playback quenced mages for quick review
● Storyboard and timeline views are linked so that you can review your progress in the most suitable form
● Clip inherit provides instant replacement of selected clips
● Unlimited project undo lets you retrace every action
● Animated titling provides complex motion graphics

"TriCaster TCXD300 handled I/O and mixing so well and was so simple to operate that, even as a rank beginner, I was able to focus on the art of the edit rather than making the equipment work. And that, my friends, is the sign of a great piece of gear." - Jan Ozer, EventDVLive

BLAZING-FAST HD EDITING

NewTek **TriCaster**

LC-11

LC-11 hardware offers a physical connection to each input during your live presentation. Large, backlit, easy-to-read buttons enable quick transition from one source to the next, along with zoom control for live virtual sets. LC-11 eliminates the need to use a keyboard or mouse, and provides the flexibility to add members to the production team.

"We've always wanted to do Web streaming and it's always been difficult – now we've discovered NewTek TriCaster and it's incredible."
- Geoff Petrulis, director, internet operations, 96.3 KSCS Radio

TimeWarp™

TimeWarp™ brings slow motion replay to your fingertips. Connected to your TriCaster, TimeWarp allows you to select, mark and playback clips at various motion speeds. Expand your team with a TimeWarp operator, and amaze your audience with instant replay. With TimeWarp, you can take your sports and event production to a whole new level.

"[NewTek TriCaster] put us right in the mix of the live action and you can't do that from a production truck, even if you could park it on the side of a mountain." - Kate Nelligan programming producer, Global X Events and Development for ESPN

LiveText™ 2

LiveText™ is HD remote titling and graphics software that runs independently on a computer that is networked with **TriCaster,** during a live production. This allows the director to keep an eye on the action, and the graphics operator to focus on titles. Use the integrated DataLink™ to update scores, times or changing information during fast-paced, live productions. Whether preparing a large number of titles in pre-production or making last-minute changes during the show, **LiveText** makes your production run fast and smooth.

3PLAY™

Multi-Channel HD/SD Slow Motion Replay

High definition, slow motion replay is no longer out of reach with NewTek **3PLAY**. Now, sports broadcasters, teams, leagues, schools and organizations have an affordable option for multi-channel, HD/SD replay. The small size and portability of 3PLAY enhance production at any venue. The ability to connect to TriCaster, or any switcher, provides the ultimate flexibility for all production environment. 3PLAY is the perfect replay solution for live production.

Inputs
- Three serial digital inputs with HD/SD SDI support
- Three component inputs with HD/SD support
- Three Y/C inputs**
- Three composite inputs**

Outputs
- Three serial digital outputs with HD/SD SDI support
- Three component outputs with HD/SD support
- Three Y/C outputs**
- Three composite outputs**

Formats
- Video is compressed using MPEG2, VBR, I-Frame only
- 1080i 50 Hz*   • 1080i 59.94 Hz
- 720p 50 Hz*   • 720p 59.94 Hz
- 576i 50 Hz*   • 480i 59.94 Hz*

- Offer 30 hours of storage (10 hours of three simultaneous channels)

3PLAY supports both 16:9 and 4:3 aspects
* Requires the multi-standard version of 3PLAY
** SD Only
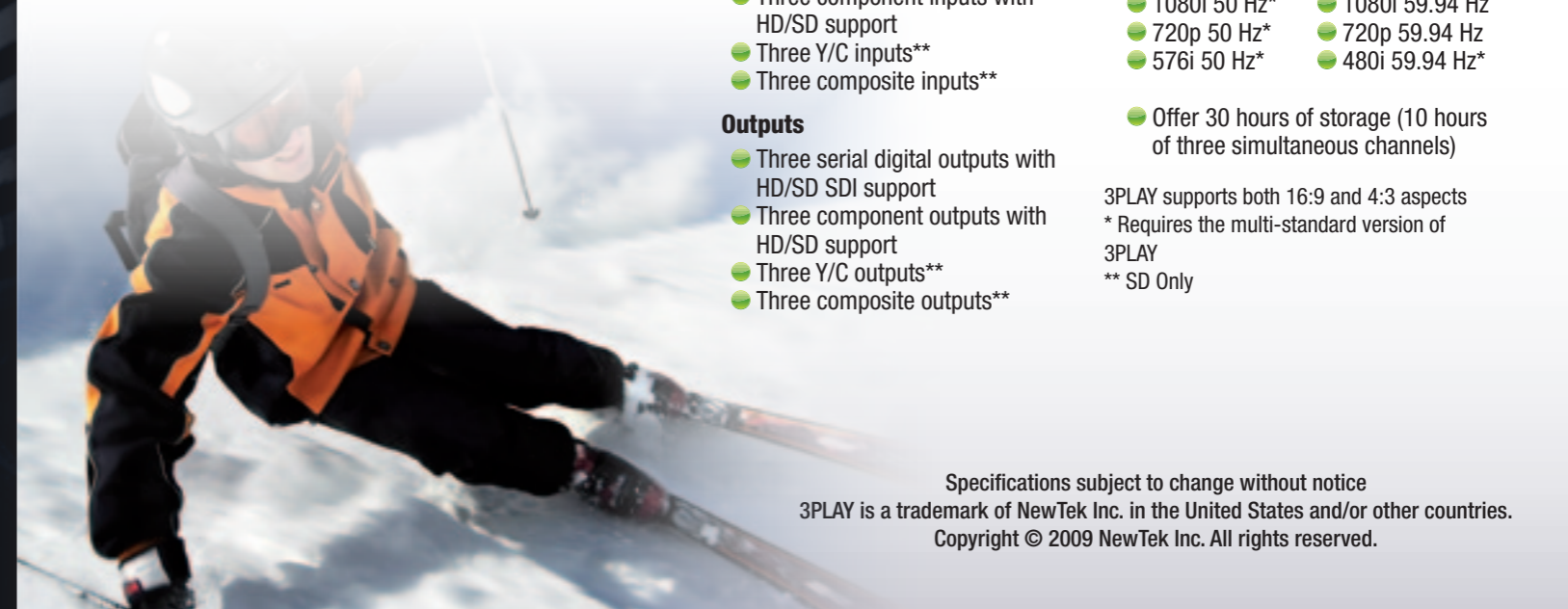
NewTek TriCaster™ BROADCAST

TriCaster BROADCAST™, with SDI support. delivers efficiency and reliability. With audio embedded in the video signal, you can depend on a fast, professional setup.

TriCaster BROADCAST makes it possible for you to deliver network-quality programs to video, projector and the Web. The full range of professional tools includes six camera inputs, live virtual sets, double box effects and much more.

SD PORTABLE LIVE PRODUCTION

NewTek TriCaster™ STUDIO

TriCaster STUDIO™ is a live production workhorse that offers the ability to switch six cameras and includes real-time key generation, live titling, audio mixing, live streaming, virtual sets and more.

With TriCaster STUDIO you have the power of a live television truck in one simple-to-use portable system.

SD PORTABLE LIVE PRODUCTION

NewTek TriCaster™

TRICASTER MODELS

	TriCaster TCXD850	TriCaster TCXD300	TriCaster BROADCAST	TriCaster STUDIO
Video	HD & SD (simultaneous output)	HD & SD (simultaneous output)	SD	SD
Supported standard	1080p, 1080i, 720p, 576i, 480i HD-SDI, HD Component, SDI, Component, Y/C, Composite	1080i, 720p, 576i, 480i HD-SDI, HD Component, SDI, Component, Y/C, Composite	576i, 480i (4:3 and 16:9) SDI, Component, Y/C, Composite	576i, 480i (4:3 and 16:9) Component, Y/C, Composite
Number of inputs	8 Live & 8 Virtual	3 Live & 5 Virtual	6	6
Video projector output	DVI & HDMI	DVI	DVI	DVI
Multi preview (DVI out)	Yes	Yes	No	No
Mix HD and SD sources	Yes	Yes	No	No
Web streaming	Yes, Flash WMV, Profile up to 720p	Yes, Flash WMV, Profile up to 720p	Yes, Flash WMV	Yes, Flash WMV
Virtual sets	Yes (animated zoom)	Yes (animated zoom)	Yes	Yes
Chromakeyer	Yes, LiveMatte HD	Yes, LiveMatte HD	Yes, LiveMatte	Yes, LiveMatte
Downstream Keyer	2 + 1 Virtual	2 + 1 Virtual	1	1
Interactive Titling	Yes, HD/SD	Yes, HD/SD	Yes	Yes
Video DDR	2	1	2	2
Record PGM out	Yes	Yes	Yes	Yes
External computer display in PC & MAC	2 iVGA	iVGA	iVGA	iVGA
PGM freeze frame	Yes	Yes	No	No
Input PROC Amps	Yes, including iVGA	Yes, including iVGA	Yes	Yes
Vectoscope /Waveform	Yes (colour)	Yes (colour)	Yes	Yes
Non linear editing	Yes	Yes	Yes	Yes
Multi-standard PAL/NTSC	Yes	Yes	Yes	Yes
Tally	Yes - PGM & Preview	Yes - PGM & Preview	Yes - PGM	Yes - PGM
Audio	SDI embedded, AES and analog	SDI embedded, AES and analog	AES and analog	Analog
Weight	19 Kg / 43 lbs	9 Kg / 20 lbs	7,3 Kg / 16 lbs	7,3 Kg / 16 lbs
Dimensions	48.3 D x 18.4 H x 54.6 W (cm) 19 D x 7.25 H x 21.5" W (in)	44.5 D x 21.6 H x 26.4 W (cm) 17.5 D x 8.5 H x 10.4" W (in)	44.5 D x 21.6 H x 26.4 W (cm) 17.5 D x 8.5 H x 10.4" W (in)	44.5 D x 21.6 H x 26.4 W (cm) 17.5 D x 8.5 H x 10.4" W (in)

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NewTek TriCaster™

Mix Certified hit

event DV BEST OF 2006 Editors' & Columnists' Picks

Editors' Pick

DEMO@15! PRODUCER'S PICK

HOT PRODUCTS

studio "Hot" rating

VIDEOGUYS TOP 10

READERS' CHOICE AWARDS 2006 WINNER

BYTE.com Media Lab's "Cold, Dead Fingers" Award

Government Video SALUTE 2005

READERS' CHOICE

Videomaker Best Products 2005

NAB 2006 AWARD FOR INNOVATION IN MEDIA

The 4EVER SHOW EVENT VIDEO PRODUCT INNOVATION AWARD

NewTek TriCaster NAB 2005

ComputerGraphics WORLD Editor's Pick NAB 2005

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