

Teranex 3D Processor



Get all the connections, processing and quality of the Teranex 2D model but with added dual link SD/HD and 3 Gb/s SDI and HDMI 3D inputs and outputs for dual stream 3D conversions and Dual Link 4:4:4 quality conversions. Get the same amazing processing features plus 3D features such as 3D dual stream processing, conversion between 3D formats, patent pending 3D simulation and 3D camera rig alignment! With the Teranex 3D processor, you can connect both left and right eye feeds and perform high quality de-interlacing, up conversion, down conversion, SD and HD cross/standards conversion, automatic cadence detection, removal and correction, even adjustable scaling and aspect ratio conversion on both eye channels at the same time! When capturing via a Thunderbolt port you get support for capture and playback of two independent video files for each eye, as well as full support for 3D capable NLE software!

\$3,995

Connections

SDI Video Input

1x (IN A) - 10-bit SD, HD, 3Gb/s HD, 2K switchable. Usable for encoded 3D HD-SDI input. 1x (IN B) - 10-bit SD, HD, 3Gb/s HD and 2K switchable. Usable as dual link HD-SDI for 4:2:2 or 4:4:4 connection or 3 Gb/s for HD-SDI 4:4:4 or 2K. Also usable for dual stream 3D (Right Eye) input.

SDI Video Input Loop

1x (IN A Loop) - Reclocked, 10-bit SD, HD, 3 Gb/s HD, 2K switchable. 1x (IN B Loop) - Reclocked, 10-bit SD, HD, 3 Gb/s HD, 2K switchable.

SDI Video Output

1x (OUT A) - 10-bit SD, HD, 3Gb/s HD and 2K switchable. Usable for encoded 3D HD-SDI output. 2x (OUT B) - 10-bit SD, HD, 3Gb/s HD and 2K switchable. Usable as dual link HD-SDI for 4:2:2 or 4:4:4 connection or 3 Gb/s for HD-SDI 4:4:4 or 2K. Also usable for dual stream 3D (Right Eye) output and encoded 3D HD-SDI output.

Analog Audio Input

2x professional balanced analog audio via XLR connectors for 2 channels (shared with AES/EBU Audio Input). 2x inputs of unbalanced analog audio on RCA connectors for consumer equipment. 2x inputs of unbalanced analog audio on RCA connectors for consumer equipment.

Analog Audio Output

2x professional balanced analog audio via XLR connectors for 2 channels (shared with AES/EBU Audio Output).

AES/EBU Audio Input

2x AES/EBU audio pairs via XLR connectors for 4 channels (shared with Analog Audio Input).

AES/EBU Audio Output

2x AES/EBU audio pairs via XLR connectors for 4 channels (shared with Analog Audio Output).

Dolby Support Optional

Dolby® E/AC-3 support in frame rate conversions with the optional Dolby® E/AC-3 decode and encode modules. Dolby metadata support using RS-485 on DB-9.

Timecode Input

Support for VITC/ATC. 1x XLR for LTC Input.

Timecode Output

Support for VITC/ATC. 1x XLR for LTC Output (pass-through only).

Multi Rate Support

SDI, HDMI and component analog video connections are switchable between standard definition and high definition. SDI switches between 270 Mb/s standard definition SDI, 1.5 Gb/s HD-SDI and 2K SDI and 3 Gb/s HD-SDI. HDMI connections are switchable between standard definition, high definition and 3D high definition with frame packing.

Analog Video Input

1x Component YUV on 3 BNCs switchable to Composite. Component supports HD and SD.

Analog Video Output

1x Component YUV on 3 BNCs switchable to Composite. Component supports HD and SD.

HDMI Video Input

1x HDMI type A connector including 3D frame packing support.

HDMI Video Output

1x HDMI type A connector including 3D frame packing support.

SDI Audio Input

16 channels in SD, HD, 3Gb/s HD and 2K. (16 channels in HD and 2K, and 8 channels in SD for capture via Thunderbolt port)

SDI Audio Output

16 channels in SD, HD, 3Gb/s HD and 2K. (16 channels in HD and 2K, and 8 channels in SD for playback via Thunderbolt port)

HDMI Audio Input

8 Channels.

HDMI Audio Output

8 Channels.

Dolby Support Built-In

Dolby® AC-3 pass through in all conversions. Dolby® E pass through except during video frame rate conversions.

Sync Input

Blackburst in SD or TriSync HD.

Device Control

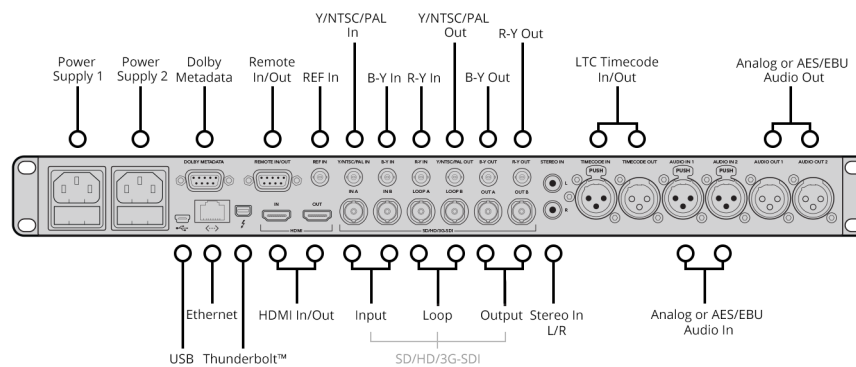
Sony™ compatible RS-422 deck control port. Serial ports TxRx direction-reversible under software control.

Computer Interface

Thunderbolt port for capture and playback of video and audio. USB 2.0 mini B port for software updates and configuration.

Processor Interface

Illuminated pushbuttons, status LEDs and LCD with easy to use onscreen menus.



Standards

SD Format Support

625/25 PAL and 525/29.97 NTSC.

HD Format Support

720p50, 720p59.94, 720p60, 1080PsF23.98, 1080p23.98, 1080PsF24, 1080p24, 1080PsF25, 1080p25, 1080PsF29.97, 1080p29.97, 1080PsF30, 1080p30, 1080i50, 1080p50, 1080i59.94, 1080p59.94, 1080i60 and 1080p60.

2K Format Support

2048 x 1080PsF23.98, 2048 x 1080p23.98, 2048 x 1080PsF24 and 2048 x 1080p24.

Audio Sampling

Television standard sample rate of 48kHz and 24-bit HD, 20-bit SD

Video Sampling

4:2:2 and 4:4:4 switchable

Color Precision

10-bit

Color Space

REC 601, REC 709

HD-SDI 3D Support

Top and bottom, side by side, line by line, dual stream.

Analog Format Support

525 NTSC, 625 PAL, 720HD and 1080HD switchable.

Analog Component

NTSC/PAL 10-bit and 16x Over-sampled Output. HD 10-bit and 4x Over-sampled Output.

Analog Composite

NTSC/PAL 10-bit and 16x Over-sampled Output.

HDMI Color Precision

4:2:2 10-bit

SDI Compliance

SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 372M and SMPTE 425M.

SDI Metadata Support

VITC/ATC support, SMPTE 12M. Video indexing support including WSS, RP186 and AFD, SMPTE 2016. Closed captioning support for conversions to and from 608 and 708, SMPTE 334M. (Capture and playback via Thunderbolt port supports RP188, VANC using up to 3 lines of video in file including closed captioning.)

HDMI 3D Support

Top and bottom, side by side, line by line, frame packing.

SDI Format Support

525 NTSC, 625 PAL, 720HD, 1080HD and 2K 2048 x 1080 switchable.

Copy Protection

HDMI input is unable to capture from copy protected HDMI sources. Always confirm copyright ownership before capture or distribution of content.

Conversions

IN \ OUT	480i59.94	576i50	720p50	720p59.94	720p60	1080p23.98	1080PsF23.98	1080p24	1080PsF24	1080p25	1080PsF25	1080p29.97	1080PsF29.97	1080p30	1080PsF30	1080i50	1080p50	1080i59.94	1080p59.94	1080i60	1080p60	2k1080p23.98	2k1080PsF23.98	2k1080p24	2k1080PsF24	
480i59.94	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
576i50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
720p50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
720p59.94	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
720p60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080PsF23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080PsF24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080PsF25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p29.97	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080PsF29.97	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080PsF30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080i50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080i59.94	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p59.94	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080i60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1080p60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2k1080p23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2k1080PsF23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2k1080p24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2k1080PsF24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Processing

Aspect Ratio Conversion

Real time variable and fixed aspect ratio conversion including proprietary "SMART" aspect.

Real Time Video Processing

Includes noise reduction, cadence detection with insertion/removal and cadence correction, scene cut detection, color correction, and proc amp control.

Real Time 3D Processing

3D synchronization, patent pending 2D to 3D simulation and 3D camera align.

Real Time Effects during playback on a computer with Thunderbolt™ technology

Final Cut Pro X internal effects. Premiere Pro CC Mercury Playback Engine effects. Avid Media Composer 6™ internal effects.

Format Conversion

Real time up conversion, down conversion, cross conversion and SD/HD standards conversion on capture. Most conversions are also available on 3D formats.

Colorspace Conversion

Hardware based real time.

Software

Software Included

Desktop Video software installs Media Express, Disk Speed Test, LiveKey, Blackmagic system preferences and Blackmagic driver for video capture and playback via the converter's Thunderbolt port. Blackmagic UltraScope software for waveform monitoring from the converter's Thunderbolt port.

Installation

Connected via a Thunderbolt cable (not included) to computers with Thunderbolt technology for video capture and playback.

Software Control

Software control utility included free for changing settings via Windows 7 or Windows 8 and Mac OS X.

Internal Software Upgrade

Automatically upgrades when new software is connected via USB 2.0.

Operating Systems



Mac OS X 10.10 Yosemite, Mac OS X 10.11 El Capitan or later.



Windows 8.1 or Windows 10.

Physical Specifications



Power Requirements

Power Supply

2x built-in international AC power supplies with IEC C14 inlets for failover redundancy. 100-240V, 50-60Hz.

Environmental Specifications

Operating Temperature
5° to 50° C (41° to 122° F)

Storage Temperature
-20° to 45° C (-4° to 113° F)

Relative Humidity
0% to 90% non-condensing

What's Included

Teranex 3D Processor
Software CD

Warranty

12 Months Limited Manufacturer's Warranty.

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Blackmagic Design Authorized Reseller