

Teranex 2D Processor



Perfect for regular conversions as well as capture and playback. Get SD/HD and 3 Gb/s SDI, HDMI and analog in and out, 8 channel AES/EBU, 4 channel balanced analog input and output as well as consumer HiFi audio input connections. Thunderbolt port for computer capture and playback, RS-422 deck control, reference input, and ethernet are included for remote configuration. Get amazing processing with high quality de-interlacing, up conversion, down conversion, SD and HD cross/standards conversion, automatic cadence detection, removal and correction even with edited content, noise reduction, adjustable scaling and aspect ratio conversion, all with full timecode and multi-channel audio conversion.

\$1,995

Connections

SDI Video Input

1x 10-bit SD, HD, 3Gb/s HD and 2K switchable.

SDI Video Loop

1x reclocked 10-bit SD, HD, 3Gb/s HD and 2K switchable.

SDI Video Output

2x 10-bit SD, HD, 3Gb/s HD and 2K switchable.

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.

HDMI Video Output

1x HDMI type A connector.

Analog Audio Output

4x outputs of professional balanced analog audio on DB-25 for 4 audio channels. Pinout compatible with Yamaha™, Mackie™, Sony™ and Apogee™ connectors.

AES/EBU Audio Input

4x AES/EBU pairs on DB-25 for 8 audio channels. Sample rate converted. Pinout compatible with Yamaha™, Mackie™, Sony™ and Apogee™ connectors.

AES/EBU Audio Output

4x AES/EBU pairs on DB-25 for 8 audio channels. Pinout compatible with Yamaha™, Mackie™, Sony™ and Apogee™ connectors.

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).

Dolby Support Built-In

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

Timecode Input

Support for VITC/ATC. No support for LTC.

Timecode Output

Support for VITC/ATC. No support for LTC.

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.

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.

Analog Audio Input

4x inputs of professional balanced analog audio on DB-25 for 4 audio channels. Pinout compatible with Yamaha™, Mackie™, Sony™ and Apogee™ connectors. 2x inputs of unbalanced analog audio on RCA connectors for consumer equipment.

HDMI Audio Input

8 Channels

HDMI Audio Output

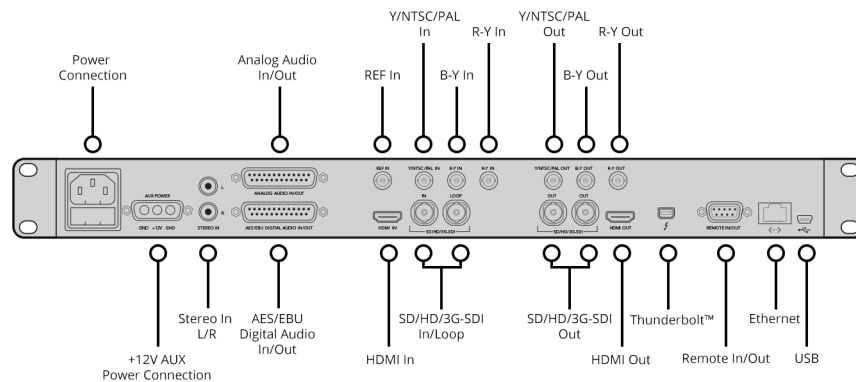
8 Channels

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.

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.)

Audio Sampling

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

Video Sampling

4:2:2

Color Precision

10-bit

Color Space

REC 601, REC 709

SDI Format Support

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

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

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 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.

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

1x built-in international AC power supply with IEC C14 inlet. 100-240V, 50-60Hz. 1x 12V DC military grade port can be used for external battery power and/or failover redundancy with optional "brick" DC adapter.

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 2D Processor

Software CD

Warranty

12 Months Limited Warranty.

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