Teranex AV

Teranex AV is specifically designed with new features for live events and professional AV installations, as well as broadcast and post production workflows. You get 1,089 up, down, cross and standards conversions for all formats up to 2160p60, along with Teranex's patented algorithms and legendary image quality. Teranex AV offers low latency, and features a still store for adding logos and graphics, a live freeze frame and can generate a reference signal. You get professional 12G-SDI and quad SDI connections which can be used simultaneously, consumer HiFi, XLR audio, HDMI in, loop and outputs, and more! There are even metal brackets at the rear to prevent cables and connections from getting damaged when installed in tight locations!

$1,695

Connections

SDI Video Input
1x BNC (IN A) – 10-bit SD, HD, 2K, 3G HD levels A and B, 6G and 12G Ultra HD auto switching.
1x BNC (IN B) – 10-bit SD, HD, 2K, 3G HD levels A and B, 6G and 12G Ultra HD auto switching. Usable as 2nd input or for dual link input for 4:2:2 3G or 6G Ultra HD

SDI Video Input Loop
1x BNC (IN A Loop) – Reclocked, 10-bit SD, HD, 2K, 3G HD, 6G and 12G Ultra HD auto switching.
1x BNC (IN B Loop) – Reclocked, 10-bit SD, HD, 2K, 3G HD, 6G and 12G Ultra HD auto switching.

SDI Video Output
1x BNC (OUT A) – 10-bit SD, HD, 2K, 3G HD levels A and B, 6G and 12G Ultra HD auto switching.
1x BNC (OUT B) – 10-bit SD, HD, 2K, 3G HD levels A and B, 6G and 12G Ultra HD auto switching. Usable duplicated output or dual link output for 4:2:2 3G or 6G Ultra HD.

HDMI Output
1x HDMI 2.0 type A connector.

SDI Audio Input
16 channels in SD, HD, 3G HD, 2K and Ultra HD.

SDI Audio Output
16 channels in SD, HD, 3G HD, 2K and Ultra HD.

Optical Fiber Connection
1x SFP Optical Fiber connector cage.

Optical Fiber Video Input (optional)
1x 10bit SD, HD, 3G HD, 2K, Ultra HD switchable.

Optical Fiber Video Output (optional)
1x 10bit SD, HD, 3G HD, 2K, Ultra HD switchable. Not available while operating in Dual Link or Quad Link output modes.

Optical Fiber Audio Input (optional)
16 channels in SD, HD, 3G HD, 2K and Ultra HD.

AES/EBU Digital Audio Input
2x XLR - 2 pairs (4 channels) professional 110Ω balanced digital audio (XLRs are shared with analog inputs)

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

Multi Rate Support
SDI connections are switchable between standard definition, high definition and Ultra HD. SDI switches between 270 Mb/s standard definition SDI, 1.5 Gb/s HD-SDI and 2K SDI, 3G HD, 6G and 12G Ultra HD.

Reference Input
1x BNC - Blackburst in SD or tri-level sync in HD.

Reference Output
1x BNC - Internal reference generator providing blackburst or tri-level sync output at the current output frame rate.

Quad SDI Video Output
4x BNC (Channels A, B, C, D) - 10-bit 3G-SDI Quad Link output when processor output video format is UHD. For other output formats, these connectors will supply four additional replicated SDI outputs.

HDMI Input
1x HDMI 2.0 type A connector.

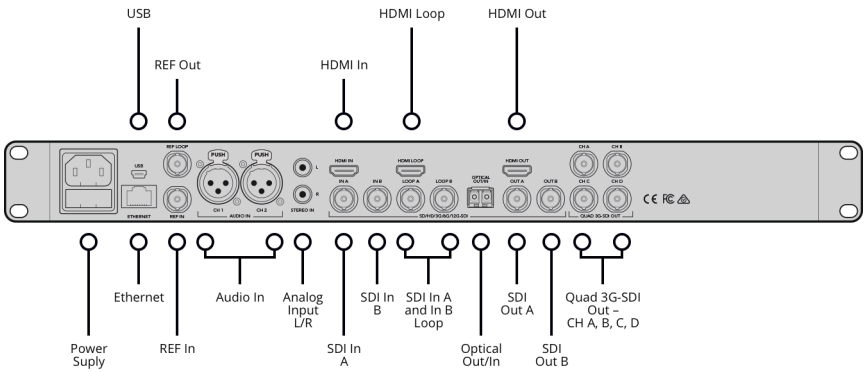
HDMI Loop Output
1x HDMI 2.0 type A connector.

Optical Fiber Audio Output (optional)
16 channels in SD, HD, 3G HD, 2K and Ultra HD.

Analog Audio Input
2x XLR - 2 channels professional balanced analog audio (XLRs are shared with AES/EBU inputs)

Computer Interface
USB type C port for software updates and Gigabit Ethernet RJ45 for remote control and configuration.

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



Standards

SD Format Support
525i29.97 NTSC, 625i25 PAL

1.5G-SDI HD Format Support
720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30,
1080PsF23.98, 1080PsF24, 1080PsF25, 1080PsF29.97, 1080PsF30
1080i50, 1080i59.94, 1080i60

3G-SDI HD Format Support
1080p50, 1080p59.94, 1080p60 levels A and B

2K Format Support
2K DCI 23.98p, 2K DCI 24p
2K DCI 23.98PsF, 2K DCI 24PsF

Ultra HD Format Support
2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60

SDI Compliance
SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 372M, 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.

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, 2K DCI and Ultra HD 3840 x 2160 switchable.

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	2K 1080p23.98	2K 1080PsF23.98	2K 1080p24	2K 1080PsF24	Ultra HD 2160p23.98	Ultra HD 2160p24	Ultra HD 2160p25	Ultra HD 2160p29.97	Ultra HD 2160p30	Ultra HD 2160p50	UltraHD 2160p59.94	Ultra HD 2160p60
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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2K 1080p23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2K 1080PsF23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2K 1080p24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2K 1080PsF24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p23.98	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p24	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p29.97	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
UltraHD 2160p59.94	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra HD 2160p60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Processing

Aspect Ratio Conversion
Real time variable and fixed aspect ratio conversions.

Real Time Video Processing
Includes noise reduction, cadence detection with insertion/removal, scene cut detection, color correction and proc amp control

Low Latency Processing
Real time processing with 2 frame latency, available for selected format conversions.

Format Conversion
Real time up conversion, down conversion , cross conversion and SD/HD/Ultra HD standards conversion.

Colorspace Conversion
Hardware based real time

Still Store
Capture a video frame into non-volatile memory from the current input signal.

Freeze Frame
Temporarilly freeze incoming live video.

Test Patterns
SMPTE 75% Bars; full-field color bars 75%; convergence grid; multi-burst; black.

Output Switching
Output may be switched between the input video, internal black, user still frame or a freeze frame from the input video.

Software

Software Control
Teranex Setup software control application included free of charge for changing settings via Windows 8.1, Windows 10 and Mac OS X

Internal Software Upgrade
Via USB type C using the included Teranex Setup application

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
1 x built-in international AC power supply with IEC C14 inlet. IEC power cable required. 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 AV
SD card with software and manual

Warranty

Product Warranty
12 Month Limited Manufacturer's Warranty

Blackmagic Design Authorized Reseller