

Teranex Express



Teranex Express is the world's first real time SD, HD and Ultra HD broadcast standards converter! Featuring advanced patented algorithms, Teranex Express gives you the visually transparent, high-quality conversions that are mandated by major broadcasters and studios worldwide! You get an incredible 1089 SD, HD and Ultra HD up, down and standards conversions in full 10-bit quality! You also get amazing processing with high quality de-interlacing, noise reduction, automatic cadence detection, removal and correction even with edited content, adjustable scaling and aspect ratio conversion, all with full timecode and multi-channel audio conversion.

Connections

SDI Video Inputs

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 and 6G Ultra HD auto switching. Usable as dual link input for 4:2:2 3G or 6G UHD.

SDI Video Input Loops

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, 3 Gb/s HD, 6G Ultra HD auto switching.

SDI Video Outputs

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 and 6G Ultra HD auto switching. Usable as dual link output for 4:2:2 3G or 6G Ultra HD.

Quad SDI Video Outputs

SMPTE 435-1 - Quad HD Split (square division method) only. Utilizes SDI Out A for quadrant A, SDI Out B for quadrant B; reconfigures SDI In A Loop for quadrant C, SDI In B Loop for quadrant D.

Optical Fiber Video Inputs

1x 10bit SD, HD, 3G HD, 2K, Ultra HD auto switching.

Optical Fiber Video Outputs

1x 10bit SD, HD, 3G HD, 2K, Ultra HD auto switching. Not available while operating in Dual Link or Quad Link output modes.

SDI Audio Inputs

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

SDI Audio Outputs

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

Optical Fiber Connection (optional)

1x SMPTE optical fiber SFP socket.

Optical Fiber Audio Inputs

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

Optical Fiber Audio Outputs

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

Dolby® Support Built In

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

Timecode Inputs

Support for VITC/ATC. No support for LTC.

Timecode Outputs

Support for VITC/ATC. No support for LTC.

Multi Rate Support

SDI connections are switchable between standard definition, high definition and UltraHD. 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

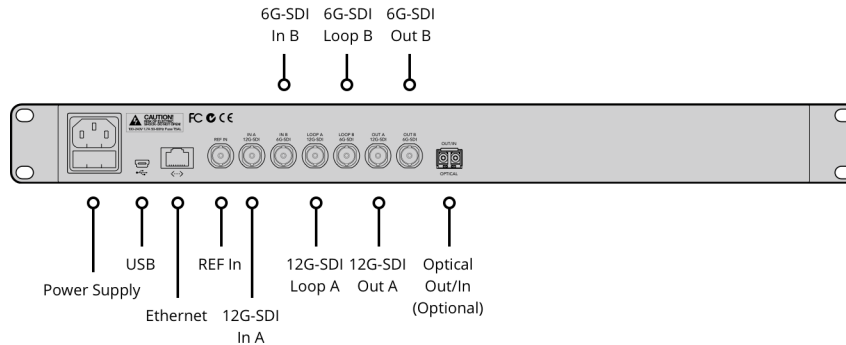
1x BNC - Black Burst or Tri-level sync.

Computer Interface

1x USB 2.0 mini B port for software updates.
1x RJ45 10/100 Ethernet for remote control and configuration.

Processor Interface

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



Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

1.5G-SDI HD Video Standards

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 Video Standards

1080p50, 1080p59.94, 1080p60 levels
A and B

2K Video Standards

2K DCI 23.98p, 2K DCI 24p

2K DCI 23.98PsF, 2K DCI 24PsF

Ultra HD Video Standards

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

Video Sampling

4:2:2 SDI

Color Precision

10-bit

Color Space

REC 601, REC 709

SDI Video Standards

525 NTSC, 625 PAL, 720HD, 1080HD,
2K 2048 x 1080 and Ultra HD 3840 x
2160 auto switching.

Real Time Video Processing

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

Format Conversion

Real time up conversion, down conversion , cross conversion and SD/HD/UHD standards conversion.

Test Patterns

SMPTE 75% Bars; full field color bars 75%; convergence grid; multiburst ; black.

Colorspace Conversion

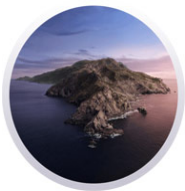
Hardware based real time

Software**Software Control**

Teranex Setup software control application included free of charge for changing settings via Windows 8.1, Windows 10 and Mac.

Internal Software Upgrade

Via USB Type-B 2.0 using the included Teranex Setup application

Operating Systems

Mac 10.14 Mojave,
Mac 10.15 Catalina or later.



Windows 8.1 and 10.

Physical Specifications**Physical Installation**

1 rack unit size. Less than 5 inches deep.

Power Requirements

Power Supply

1 x built-in international AC power supply with IEC C14 inlet. IEC power cable required. 100-240V, 50-60Hz

Typical Power Consumption

42 watts

Environmental Specifications

Operating Temperature

0° to 40° C (32° to 104° F)

Storage Temperature

-20° to 45° C (-4° to 113° F)

Relative Humidity

0% to 90% non-condensing

What's Included

Teranex Express

SD card with software and manual

2x Bumper guards with 4x M4 screws

Warranty

12 Month Limited Manufacturer's Warranty

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