

Teranex Express



Designed for broadcast and post production, Teranex Express is the world's first 12G-SDI real time SD, HD and Ultra HD up, down, cross and standards converter. You get an incredible 1,089 different conversion options using patented Teranex algorithms and image processing for the highest quality, visually lossless conversions. Teranex Express features 12G and 6G-SDI inputs, loops, and outputs, along with an optical fiber connection for working with video over massive distances.

Connections

SDI Video Input

1x (IN A) – 10-bit SD, HD, 2K, 3G HD levels A and B, 6G and 12G UHD switchable.

1x (IN B) – 10-bit SD, HD, 2K, 3G HD and 6G UHD switchable. Usable as dual link input for 4:2:2 3G or 6G UHD

SDI Video Loop

1x (IN A Loop) – Reclocked, 10-bit SD, HD, 2K, 3G HD, 6G and 12G UHD switchable

1x (IN B Loop) – Reclocked, 10-bit SD, HD, 2K, 3G HD, 6G UHD switchable.

SDI Video Output

1x (OUT A) – 10-bit SD, HD, 2K, 3G HD levels A and B, 6G and 12G UHD switchable.

1x (OUT B) – 10-bit SD, HD, 2K, 3G HD levels A and B and 6G UHD switchable. Usable as dual link output for 4:2:2 3G or 6G UHD.

Optical Fiber Video Input (optional)

1x 10bit SD, HD, 3G HD, 2K, 6G and 12G UHD switchable

Optical Fiber Video Output (optional)

1x 10bit SD, HD, 3G HD, 2K, 6G and 12G UHD switchable. Not available while operating in Dual Link or Quad Link output modes.

SDI Audio Input

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

SDI Audio Output

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

Optical Fiber Audio Input (optional)

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

Optical Fiber Audio Output (optional)

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

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 UltraHD. SDI switches between 270 M standard definition SDI, 1.5G HD-SDI and 2K SDI, 3G HD, 6G and 12G UltraHD

Sync Input

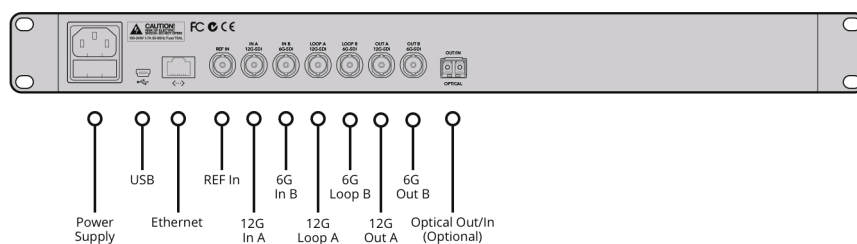
Blackburst or TriSync.

Computer Interface

USB 2.0 mini B port for software updates and Ethernet RJ45 for configuration.

Processor Interface

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



Standards

SD Format Support

525i29.97 NTSC, 625i25 PAL

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
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 2048 x 1080 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

Format Conversion

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

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 OS X

Internal Software Upgrade

Via USB 2.0 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



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

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 Express

SD card with software and manual

Warranty

Product Warranty

12 Month Limited Manufacturer's Warranty

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