Blackmagicdesign

UltraStudio 4K Extreme 3

UltraStudio 4K Extreme 3 is the world's most advanced capture and playback solution for PCIe and Thunderbolt computers! It features incredibly fast 40Gb/s Thunderbolt 3, advanced 12G-SDI and HDMI 2.0 connections for working at up to 60 frames per second with deep color, 12-bit RGB, support for HDR workflows via HDMI 2.0a and extremely large 4K frame sizes, even in 3D! Featuring the widest range of analog and digital connections, UltraStudio 4K Extreme is compatible with virtually any camera, deck, router or display. There's even an extremely powerful hardware encoder built-in that supports realtime H.265 encoding!

$2,995

Connections

SDI Video Input
2 x 12Gb/s and 2 x 6Gb/s SD/HD/2K/4K. Supports single/dual/quad link 4:2:2/ 4:4:4. 2D/3D switchable.

SDI Video Loop
4 x reclocked SD/HD/2K/4K linked to corresponding inputs.

SDI Video Output
2 x 12Gb/s and 2 x 6Gb/s SD/HD/2K/4K. Supports single/dual/quad link 4:2:2/ 4:4:4. 2D/3D switchable.

SDI Video Repeated Output
2 x 12Gb/s and 2 x 6Gb/s SD/HD/2K/4K. Supports single/dual/quad link 4:2:2/ 4:4:4. 2D/3D switchable.

Optical Fiber Input/Output
2 x 12Gb/s Optical Fiber (Optional).

HDMI Video Input
HDMI 2.0 type A connector with support for 2160p60

HDMI Video Output
HDMI 2.0 type A connector with support for 2160p60

Analog Video Output
1 x Component YUV on 3 BNCs, 1 x composite NTSC/PAL on 1 BNC

SDI Audio Input
16 Channels embedded in SD/HD/2K/ 4K.

SDI Audio Output
16 Channels embedded in SD/HD/2K/ 4K.

HDMI Audio Input
8 Channels embedded in SD/HD/4K.

HDMI Audio Output
8 Channels embedded in SD/HD/4K.

Analog Audio Input
4 Channels of professional balanced analog audio via XLR connectors and 2 channels of consumer unbalanced via RCA connectors.

Analog Audio Output
4 Channels of professional balanced analog audio via XLR connectors.

AES/EBU Audio Input
2 Channels unbalanced with sample rate converter on BNC connector.

Mic Input
1 x 48V microphone input via XLR connector. Phantom Power switchable via software control.

Timecode Input
1 x XLR Input.

Timecode Output
1 x XLR Output.

Sync Input
1 x Reference input. Blackburst in SD or Tri-Sync in HD.

Sync Output
1 x Reference Loop Output. Blackburst in SD or Tri-Sync in HD.

Device Control
2 x Sony™ compatible RS-422 deck control ports. Serial ports TxRx direction reversible under software control.

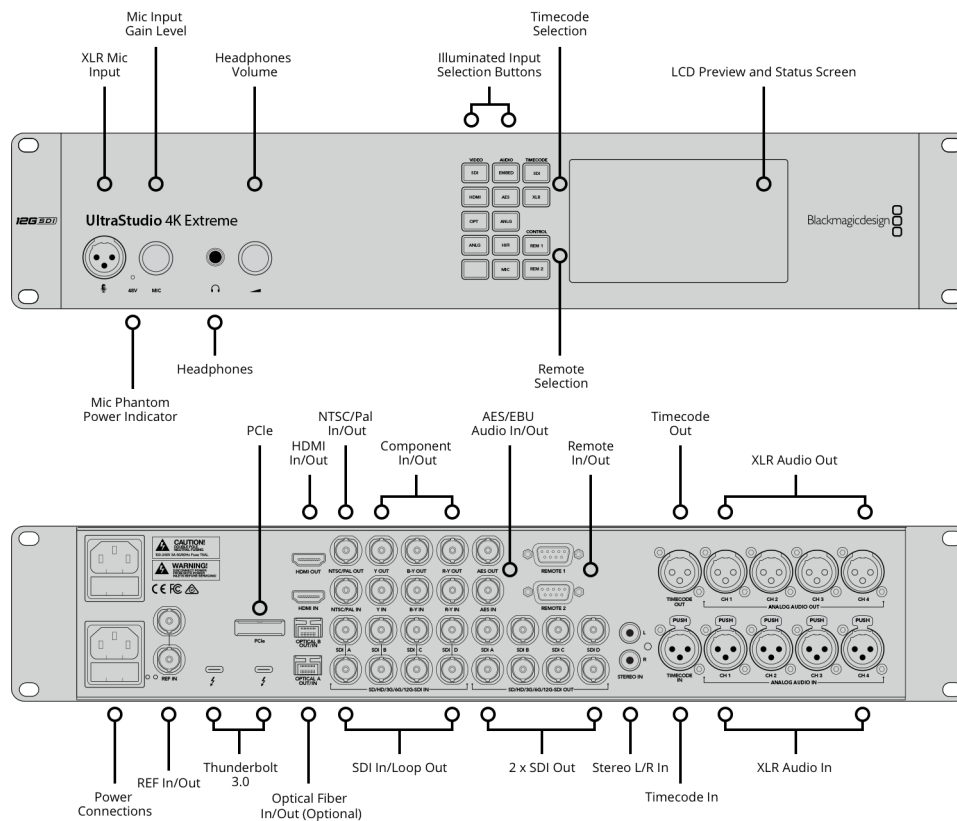**Computer Interface**
Thunderbolt™ 3, PCI Express

Power
2 x built-in international AC power supply with IEC C14 inlet. 120-240V, 50-60Hz.

Analog Video Input

1 x Component YUV on 3 BNCs, 1 x composite NTSC/PAL on 1 BNC

AES/EBU Audio Output

2 Channels unbalanced on BNC connector.

Codecs

Supports: AVC-Intra, AVCHD, Canon XF MPEG2, Digital SLR, DV-NTSC, DV-PAL, DVCPRO50, DVCPROHD, DPX, HDV, HEVC, XDCAM E XDCAM HD422, Apple ProRes 4444, Apple ProRes 422 HQ, Apple ProRes 422, Apple ProRes LT, Apple ProRes 422 Proxy, Uncompr Uncompressed 10-bit 4:2:2, Uncompressed 10-bit 4:4:4.

Software

Software Included

DaVinci Resolve, Media Express, Disk Speed Test, LiveKey, Blackmagic Desktop Video Utility and Blackmagic driver on Mac OS X. DaVinci Resolve, Media Express, Disk Speed Test, LiveKey, Blackmagic Desktop Video Utility and Blackmagic driver on Windows 7, 8 and 10. Blackmagic Desktop Video Utility and Blackmagic driver on Linux.

Internal Software Upgrade

Firmware built into software driver. Software driver loads upgrades at system start or via updater software.

Software Applications

DaVinci Resolve

Fusion 8

Final Cut Pro X

Premiere Pro CC

Avid Media Composer

After Effects CC

Avid Pro Tools

Steinberg Cubase

Steinberg Nuendo

Photoshop CC

Other supported applications include:

Nuke, Steinberg Nuendo, Avid Symphony, Avid News Cutter, Tools On Air just:in & live:cut & just:play & just:live, Softron OnTheAir, MovieRecorder and OnTheAir CG, Flash Media Live Encoder, Flash Media Encoder, Wirecast, Livestream Procaster, Resolume Avenue 4, Sony Vegas Pro, Corel VideoStudio Pro X4, CyberLink Power Director, MAGIX Video Pro X4, Vidblaster Pro & Studio & Broadcast, Uniplay, Playbox AirBox, CasparCG, Magicsoft CG, Xsplit Broadcaster, Imagine Communications Velocity & InfoCaster.

SDI Video Standards

SD Format Support
525/29.97 NTSC, 625/25 PAL.

HD Format Support
1280 x 720p50, 1280 x 720p59.94, 1280 x 720p60, 1920 x 1080i50, 1920 x 1080i59.94, 1920 x 1080i60, 1920 x 1080PsF23.98, 1920 x 1080PsF24, 1920 x 1080PsF25, 1920 x 1080PsF29.97, 1920 x 1080PsF30, 1920 x 1080p23.98, 1920 x 1080p24, 1920 x 1080p25, 1920 x 1080p29.97, 1920 x 1080p30, 1920 x 1080p50, 1920 x 1080p59.94, 1920 x 1080p60.

2K Format Support
2048 x 1080PsF23.98, 2048 x 1080PsF24, 2048 x 1080PsF25, 2048 x 1080p23.98, 2048 x 1080p24, 2048 x 1080p25.

Ultra HD Format Support
3840 x 2160p23.98, 3840 x 2160p24, 3840 x 2160p25, 3840 x 2160p29.97, 3840 x 2160p30, 3840 x 2160p50, 3840 x 2160p59.94, 3840 x 2160p60.

4K Format Support
4096 x 2160p23.98, 4096 x 2160p24, 4096 x 2160p25.

SDI Compliance
SMPTE 292M, SMPTE 259M, SMPTE 296M, SMPTE 372M, SMPTE 425M level A, SMPTE 425M level B, ITU-R BT.656 and ITU-R BT.601.

SDI Audio Sampling
Television standard sample rate of 48 kHz and 24-bit.

SDI Video Sampling
4:2:2, 4:4:4 and 4:4:4:4.

SDI Color Precision
8, 10-bit YUV 4:2:2 and 8, 10, 12-bit RGB 4:4:4.

SDI Color Space
REC 601, REC 709.

SDI Configuration
SDI output is configurable for Quad Link 3Gb/s via Blackmagic Desktop Video Utility. When using single link 12Gb/s on SDI A or dual link 6Gb/s on SDI A and B, SDI C and D will output downconverted HD.

SDI Metadata Support
HD RP188. Closed captioning.

HDMI Video Standards

SD Format Support
525/29.97 NTSC, 625/25 PAL.

4K Format Support
4096 x 2160p23.98, 4096 x 2160p24.

Audio Sampling
Television standard sample rate of 48 kHz and 24-bit.

HDMI Video Sampling
4:2:2 and 4:4:4.

Multiple Rate Support
HDMI and SDI video connections are switchable between SD/HD/2K and 4K. Component analog video connections are switchable between SD and HD.

HD Format Support

1280 x 720p50, 1280 x 720p59.94, 1280 x 720p60, 1920 x 1080i50, 1920 x 1080i59.94, 1920 x 1080i60, 1920 x 1080p23.98, 1920 x 1080p24, 1920 x 1080p25, 1920 x 1080p29.97, 1920 x 1080p30, 1920 x 1080p50, 1920 x 1080p59.94, 1920 x 1080p60.

Ultra HD Format Support

3840 x 2160p23.98, 3840 x 2160p24, 3840 x 2160p25, 3840 x 2160p29.97, 3840 x 2160p30, 3840 x 2160p50, 3840 x 2160p59.94, 3840 x 2160p60.

HDMI Color Precision

10-bit RGB in HD, 10-bit YUV in 4K.

HDMI Configuration

HDMI 2.0 supports Deep Color and automatically configures to connected display.

Copy Protection

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

Processing

Encoding

Hardware based real time h.265 encoder.

Colorspace Conversion

Hardware based real time.

3D Processing

Dual stream and frame packed capture & playback.

Ultra HD Down Conversion

Built in, high quality hardware down converter outputs Ultra HD to HD with down-converted signal on SDI outputs C & D.

HD to SD Down Conversion

Built in, high quality hardware down converter outputs HD to SD with down-converted signal on SDI output B, Component and Composite NTSC/PAL. SD output selectable between letterbox, anamorphic 16:9 and center cut 4:3.

HD Up Conversion

Built-in, high quality hardware up conversion from SD to 720HD or 1080HD on playback. Selectable between 4:3 pillarbox, 14:9 zoom and 16:9 zoom.

HD Cross Conversion

Built in, high quality hardware cross conversion from 720p to 1080i and 1080i to 720p on playback.

Real Time Effects

DaVinci Resolve, Final Cut Pro X internal effects. Premiere Pro CC Mercury Playback Engine effects. Avid Media Composer internal effects.

Physical Installation

Requires computer with either a Thunderbolt port or available PCIe slot. PCIe cable and interface card available separately. Please check support pages to see the full system requirement.

Operating Systems

Mac OS X 10.9 Mavericks, Mac OS X 10.10 Yosemite, Mac OS X 10.11 El Capitan or later.
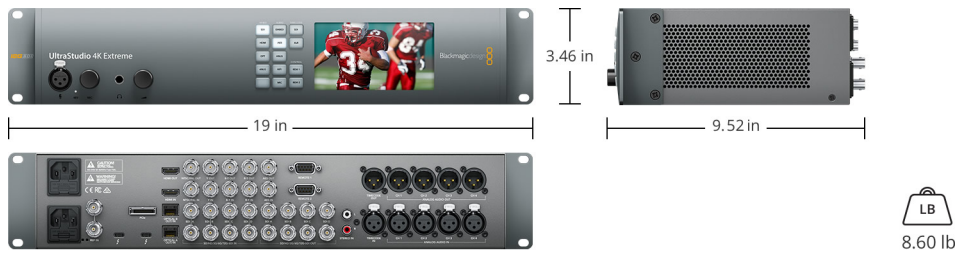
Windows 8.1 or Windows 10.

Power Requirements

2 x built-in international AC power supply with IEC C14 inlet. 120-240V, 50-60Hz.

Physical Specifications

3.46 in

19 in

9.52 in

8.60 lb

Environmental Specifications

Operating Temperature
5° to 40° C (41° to 104° F)

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

Relative Humidity
0% to 90% non-condensing

Safety Compliance

FC ⊘ C E

What's Included

UltraStudio 4K Extreme 3
SD card with software and manual
DaVinci Resolve SD card

Warranty

3 Year Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller