UltraStudio 4K Extreme 3



UltraStudio 4K Extreme 3 is the world's most advanced capture and playback solution for PCI Express 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. Featuring the widest range of analog and digital connections, UltraStudio 4K Extreme 3 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!

$3,549

Connections

SDI Video Inputs
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 Outputs
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 Rates
270Mb, 1.5G, 3G, 6G, 12G.

Optical SDI
Supports 2 optional SMPTE modules.

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

SDI Video Repeated Outputs
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.

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

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

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

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

Optical Fiber Inputs/Outputs (Optional)
2 x 12Gb/s Optical Fiber.

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

AES/EBU Audio Outputs
2 Channels unbalanced on BNC connector.

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

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

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

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

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

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

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. Tri-Sync or Black Burst.

Sync Output

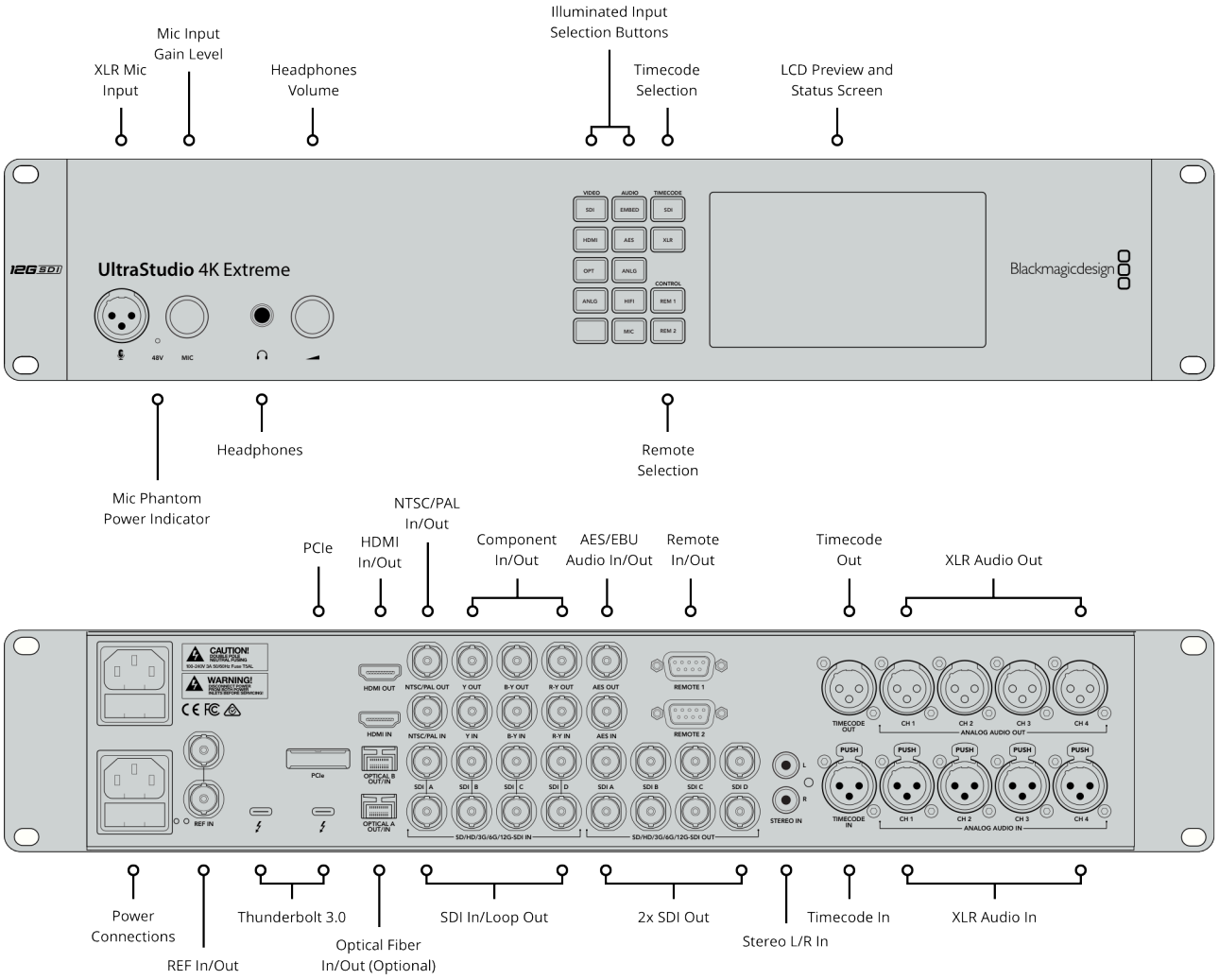
1 x Reference Loop Output. Tri-Sync or Black Burst.

Computer Interface

Thunderbolt™ 3 (Mac OS and Windows), PCI Express 4 lane generation 2.

Power

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



Supported Codecs

AVC-Intra, AVCHD, Canon XF MPEG2, Digital SLR, DV-NTSC, DV-PAL, DVCPRO50, DVCPROHD, DPX, HDV, HEVC, XDCAM EX, XDCAM HD, XDCAM HD422, DNxHR & DNxHD, Apple ProRes 4444, Apple ProRes 422 HQ, Apple ProRes 422, Apple ProRes 422 LT, Apple ProRes 422 Proxy, Uncompressed 8-bit 4:2:2, 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 and Windows. Media Express, 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



Final Cut Pro X



Adobe Premiere Pro CC



Avid Media Composer



Adobe After Effects CC



Avid Pro Tools



Steinberg Cubase



Steinberg Nuendo



Adobe Photoshop CC

Other supported applications include:

The Foundry Nuke, Grass Valley Edius, Sony Catalyst Production Suite, Tools On Air Just: Play & Live & In, Softron MovieRecorder & MReplay, Adobe Flash Media Live Encoder, Telestream Wirecast, Resolume Arena, Magix Vegas Pro & Movie Edit Pro Premium, Corel VideoStudio Pro, CyberLink PowerDirector, Vidblaster X & Studio & Broadcast, Uniplay One & CG, CasparCG Server, Magicsoft CG, Xsplit Broadcaster, Imagine Communications Velocity & InfoCaster, DevTek Easy Media Suite, Metus Ingest, Boinx Software MimoLive, Cinegy Capture Pro, vMix Live, Renewed Vision ProPresenter, Ventuz Director, Class X Liveboard & Coral CG, Glookast Capturer, Open Broadcaster Software Studio, Nautilus NEMO3D, Derivative TouchDesigner, Assimilate Scratch, Burst Video WebClip2Go,
Burst Video [REC]Marker
, Autodesk Flame, Zoom.

HDR and REC 2020 playback and capture is application dependent, check with your software vendor.

These are third party applications and support may vary, check with your software vendor.

SDI Video Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

HD Video Standards
720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p47.95,
1080p48, 1080p50, 1080p59.94,
1080p60
1080PsF23.98, 1080PsF24,
1080PsF25, 1080PsF29.97, 1080PsF30
1080i50, 1080i59.94, 1080i60

2K Video Standards
2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI,
2Kp29.97 DCI, 2Kp30 DCI,
2Kp47.95 DCI, 2Kp48 DCI, 2Kp50 DCI,
2Kp59.94 DCI, 2Kp60 DCI
2KPsF23.98 DCI, 2KPsF24 DCI,
2KPsF25 DCI, 2KPsF29.97 DCI,
2KPsF30 DCI

Ultra HD Video Standards
2160p23.98, 2160p24, 2160p25,
2160p29.97, 2160p30, 2160p47.95,
2160p48, 2160p50, 2160p59.94,
2160p60

4K Video Standards
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI,
4Kp29.97 DCI, 4Kp30 DCI,
4Kp47.95 DCI, 4Kp48 DCI, 4Kp50 DCI,
4Kp59.94 DCI, 4Kp60 DCI

3D Video Standards
720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p47.95,
1080p48
1080PsF23.98, 1080PsF24,
1080PsF25, 1080PsF29.97, 1080PsF30
1080i50, 1080i59.94, 1080i60
2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI,
2Kp29.97 DCI, 2Kp30 DCI,
2Kp47.95 DCI, 2Kp48,
2KPsF23.98 DCI, 2KPsF24 DCI,
2KPsF25 DCI
2160p23.98, 2160p24, 2160p25,
2160p29.97, 2160p30, 2160p47.95,
2160p48
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI,
4Kp29.97 DCI, 4Kp30 DCI,
4Kp47.95 DCI, 4Kp48 DCI

SDI Compliance
SMPTE 259M, SMPTE 274M,
SMPTE 292M, SMPTE 296M,
SMPTE 372M, SMPTE 424M,
SMPTE 425M, SMPTE 435, SMPTE
2048-1, SMPTE 2081-10, SMPTE
2081-11, SMPTE 2082-10, SMPTE
ST2108-1, ITU-R BT.656 and ITU-R
BT.601.

SDI Metadata Support
RP 188/SMPTE 12M-2 and
closed captioning.

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

SDI Video Sampling
4:4:4, 4:2:2

SDI Color Space
REC 601, REC 709, REC 2020.

HDR Support
HDR metadata packing, HLG and PQ
transfer characteristics.

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.

HDMI Video Standards

SD Video Standards
525i59.94 NTSC, 625i50 PAL

HD Video Standards
720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p50,
1080p59.94, 1080p60
1080i50, 1080i59.94, 1080i60

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

4K Video Standards
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI,
4Kp29.97 DCI, 4Kp30 DCI, 4Kp50 DCI,
4Kp59.94 DCI, 4Kp60 DCI

3D Video Standards
720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30,
1080i50, 1080i59.94, 1080i60

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

HDMI Video Sampling
4:4:4, 4:2:2, 4:2:0

HDMI Color Space
REC 601, REC 709, REC 2020.

HDR Support
HDR static metadata packing, HLG
and PQ transfer characteristics.

HDMI Configuration
HDMI 2.0b supports Deep Color and
HDR. Automatically configures to
connected display.

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

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

Hardware Frame Buffer

ARGB, BGRA (8-bit RGB 4:4:4:4), r210 (10-bit RGB 4:4:4), R12B and R12L (12-bit RGB 4:4:4) up to 2160p30.
2vuy (8-bit YUV 4:2:2) and v210 (10-bit YUV 4:2:2) in all modes.

Color Precision

8, 10, 12-bit RGB 4:4:4 up to 2160p30 and 8, 10-bit YUV 4:2:2 in all standards.

Computer Capture

2 x Thunderbolt 3 for Mac and Windows plus PCI Express Gen 2 for Mac, Windows and Linux. Includes Blackmagic Desktop Video SDK.

Control

Built in Control Panel
14 buttons for input selection. 5 inch color display.

Device Control
2 x RS-422 deck control.

Processing

Encoding
Hardware based real time H.265 encoder.

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 and HDMI output when connected to an HD-only TV.

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 software up converter from SD to HD on input. Selectable between 16:9 Zoom or anamorphic.

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

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

Colorspace Conversion
Hardware based real time.

3D Processing
Dual stream and frame packed capture & playback.

Physical Installation
Requires a computer with either a Thunderbolt port or available PCI Express slot. Blackmagic PCI Express Cable Kit available separately for high speed PCI Express Gen 3 connection. Please check support pages to see the full system requirement.

Operating Systems

Mac 15.0 Sequoia,
Mac 26.0 Tahoe or later.

Windows 10, 64-bit.
Windows 11.

Linux

Power Requirements

2 x Internal 100 - 240V AC

Physical Specifications



3.46 in



19 in

9.52 in



LB
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

What's Included

UltraStudio 4K Extreme 3

Welcome wallet with QR code for software download

DaVinci Resolve SD card

Warranty

3 Year Limited Manufacturer’s Warranty.

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