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!

$2,995

Connections

**SDI Video Inputs**

**SDI Video Outputs**

**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**

**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**
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.

Powered By
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. 120-240V, 50-60Hz.

Supported Codecs
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:**

*HDR and REC 2020 playback and capture is application dependent, 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 DCI, 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

### 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, 2160p47.95, 2160p48, 2160p50, 2160p59.94, 2160p60

#### 4K Video Standards
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### 3D Video Standards
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- 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

### 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

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 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 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 10.14 Mojave, Mac 10.15 Catalina or later.

Windows 8.1 and 10, both 64-bit.

Linux

Power Requirements

2 x Internal 120 - 240V AC

EMC Certifications

FCC, CE and C-Tick.

Physical Specifications

![Physical Specifications Image]

Environmental Specifications

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>Storage Temperature</th>
<th>Relative Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5° to 40° C (41° to 104° F)</td>
<td>-20° to 45° C (-4° to 113° F)</td>
<td>0% to 90% non-condensing</td>
</tr>
</tbody>
</table>

What's Included

UltraStudio 4K Extreme 3
SD card with software and manual
Warranty

3 Year Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller