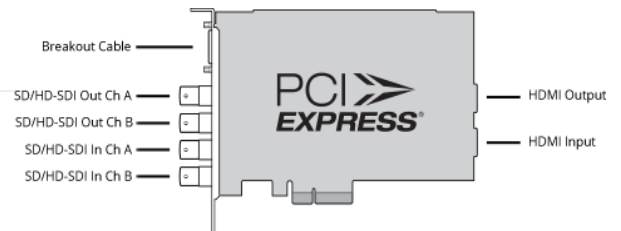


## DeckLink 4K Extreme

### Technical Specifications

#### Description

DeckLink 4K Extreme features a high performance design for working in the highest film quality! Get 4 times the resolution of 1080 HD with full Ultra HD 4K capture and playback using 6G-SDI and HDMI 4K support. DeckLink 4K Extreme includes single and dual channel SDI connections for both regular 2D and 3D stereoscopic workflows as well as full resolution color RGB 4:4:4 capture and playback. Includes dual link 6G-SDI, HDMI 3D/4K and analog component, composite, S-video connections. Work in SD, HD and Ultra HD 4K. Also includes AES and analog balanced audio, 16 channel SDI audio, genlock, deck control, broadcast quality up, down and cross conversion, plus built in SD/HD internal keyer.



#### Connections

##### SDI Video Input

2 x 10-bit SD/HD/2K/4K and 2D/3D switchable. Supports 3 Gb/s and 6 Gb/s single link 4:2:2/4:4:4 and dual link 4:2:2/4:4:4.

##### SDI Video Output

2 x 10-bit SD/HD/2K/4K and 2D/3D switchable. Supports 3 Gb/s and 6Gb/s single link 4:2:2/4:4:4 and dual link 4:2:2/4:4:4.

##### Analog Video Input

1 x Component YUV on 3 BNCs switchable to S-Video or Composite. Component supports HD and SD.

##### Analog Video Output

1 x Component YUV on 3 BNCs switchable to S-Video and Composite. Component supports HD and SD.

##### HDMI Video Input

1 x HDMI type A connector including 3D frame packing support and Ultra HD 4K support.

##### HDMI Video Output

1 x HDMI type A connector including 3D frame packing and 4K monitoring support.

##### Analog Audio Input

2 Channels of professional balanced analog audio via XLR connectors.

##### Analog Audio Output

2 Channels of professional balanced analog audio via XLR connectors.

##### AES/EBU Audio Input

2 Channels unbalanced with sample rate converter.

##### AES/EBU Audio Output

2 Channels unbalanced.

##### SDI Audio Input

16 Channels embedded in HD/2K/4K. 8 Channels embedded in SD.

##### SDI Audio Output

16 Channels embedded in HD/2K/4K.  
8 Channels embedded in SD.

##### HDMI Audio Input

8 Channels embedded in SD and HD.

##### HDMI Audio Output

8 Channels embedded in SD and HD.

##### Sync Input

Blackburst in SD, 720p50, 720p59.94, 1080i50 and 1080i59.94 formats or Tri-Sync in any HD or 2K format.

##### Device Control

Sony™ compatible RS422 deck control ports. Serial ports TxRx direction reversible under software control.

##### Computer Interface

PCI Express 4 lane generation 2, compatible with 4, 8 and 16 lane PCIe

## Codecs

Supports: AVC-Intra, AVCHD, Canon XF MPEG2, Digital SLR, DV-NTSC, DV-PAL, DVCPRO50, DVCPROHD, DPX, HDV, XDCAM EX, XDCAM HD, XDCAM HD422, Apple ProRes 4444, Apple ProRes 422 (HQ), Apple ProRes 422, Apple ProRes (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

Media Express, Disk Speed Test, LiveKey, Blackmagic System Preferences and Blackmagic driver on Mac OS X. Media Express, Disk Speed Test, LiveKey, Blackmagic Control Panel and Blackmagic driver on Windows 7 and Windows 8. Media Express, Blackmagic Control Panel and Blackmagic driver on Linux.

### Internal Software Upgrade

Firmware built into software driver. Loaded at system start or via updater software.

### Physical Installation

PCI Express 4 lane generation 2, compatible with 4, 8, 16 lane PCI Express slots on Mac OS X, Windows and Linux. Mac OS X systems require a Mac Pro computer. Please check the Support pages to see the full system requirements.

## Software Applications



Apple Final Cut Pro X



Adobe Premiere Pro



Avid Media Composer



Adobe After Effects



Nuke - The Foundry



DaVinci Resolve



Avid Pro Tools



Steinberg Cubase



Steinberg Nuendo



Adobe Photoshop

**Other supported applications include:** Avid Symphony, Avid News Cutter, Tools On Air just:in & live:cut & just:play & just:live, Softron OnTheAir, MovieRecorder and OnTheAir CG, Flash Media Encoder, Wirecast, Livestream Procaster, Resolume Avenue 4, Sony Vegas Pro, Corel VideoStudio Pro X4, CyberLink Power Director, MAGIX Video Pro X4, Vidcaster Pro & Studio & Broadcast, Uniplay, Playboy AirBox, CasparCG, Magicsoft CG, Xsplit Broadcaster, Harris Infocaster.

## Video Standards

### SD Format Support

625/25 PAL, 525/29.97 NTSC and 525/23.98 NTSC.

### HD Format Support

720p50, 720p59.94, 720p60, 1080PsF23.98, 1080p23.98, 1080PsF24, 1080p24, 1080PsF25, 1080p25, 1080PsF29.97, 1080p29.97, 1080PsF30, 1080p30, 1080i50, 1080p50, 1080i59.94, 1080p59.94, 1080i60, and 1080p60.

### 2K Format Support

2048 x 1556PsF23.98, 2048 x 1556PsF24, 2048 x 1556PsF25, 2048 x 1556p23.98, 2048 x 1556p24 and 2048 x 1556p25.

### 4K Format Support

3840x2160p23.98, 3840x2160p24, 3840x2160p25, 3840x2160p29.97, 3840x2160p30.

### SDI Compliance

SMPTE 259M, SMPTE 292M, SMPTE 372M, ITU-R BT.656 and ITU-R BT.601.

### SDI Metadata Support

VITC read for 3:2 pulldown removal. VANC capture and playback using up to 3 lines of video in file. HD RP188. Closed captioning.

### Audio Sampling

Television standard sample rate of 48 kHz at 24 bit.

### Video Sampling

4:2:2 and 4:4:4 (4K is 4:2:2)

### Color Precision

10-bit

### Color Space

REC 601, REC 709

### HDMI Configuration

HDMI automatically configures to connected display.

### HDMI Resolution

Pixel for pixel up to 4K resolutions.

### HDMI Color Precision

10-bit

### 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.

### Copy Protection

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

## Processing

### Colorspace Conversion

Hardware based real time.

### 3D Processing

Dual stream and frame packed capture & playback.

### HD Down Conversion

Built in, high quality hardware down converter outputs HD-SDI on SDI A output, SD-SDI on SDI B output and Composite and S-Video when working in HD video formats on playback. Switch analog video to Component and choose HD or SD output. Selectable between letterbox, anamorphic 16:9 and center cut 4:3 styles.

### 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 pillarbox and 16:9 zoom. HD outputs via HD-SDI, HDMI and component analog.

### Cross Conversion

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

### Real Time Effects

Apple Final Cut Pro™ internal effects. Adobe® Premiere Pro® Mercury Playback Engine effects. Avid Media Composer 6™ internal effects. DaVinci Resolve.

## Operating Systems



Mac OS X 10.7 Lion or later, and Mac OS X 10.8 Mountain Lion or later.

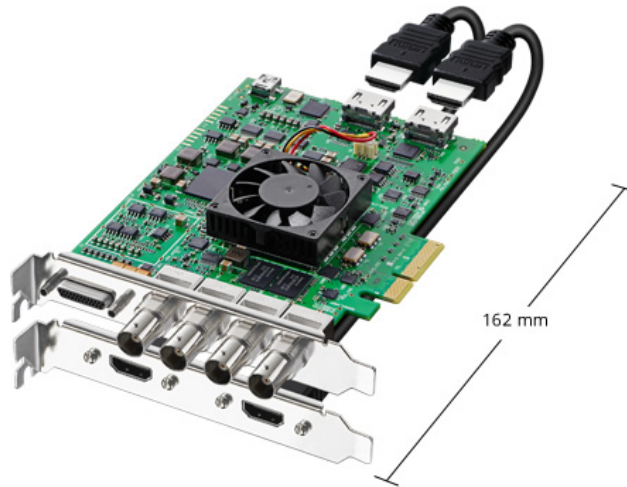


Windows 7 or Windows 8.



Linux

## Physical Specifications



190 g

## Environmental Specifications

**Operating Temperature**  
5° 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

DeckLink 4K Extreme  
Software CD  
Breakout cable for analog and RS-422 control.  
HDMI bracket

## Warranty

3 Year Limited Manufacturer's Warranty.

Excluding connectors, cables, cooling fans, fiber optic modules, fuses, keyboards and batteries which will be free from defects in materials and workmanship for a period of 12 months from the date of purchase.

2. Deck Control
3. R-Y In
4. Y In
5. B-Y In
6. Ref In
7. R-Y Out
8. Y Out
9. B-Y Out
10. AES/EBU Out
11. AES/EBU In
12. Audio Out Left
13. Audio Out Right
14. Audio In Left
15. Audio In Right

