Blackmagic Design DeckLink 4K Extreme 12G Capture & Playback Card

The **Blackmagic Design DeckLink 4K Extreme 12G** is an 8-lane PCIe Gen2 digital cinema capture and playback card with two multi-rate 12G-SDI inputs and outputs that accept resolutions from SD up to DCI 4K (4096 x 2160) at 60 fps.
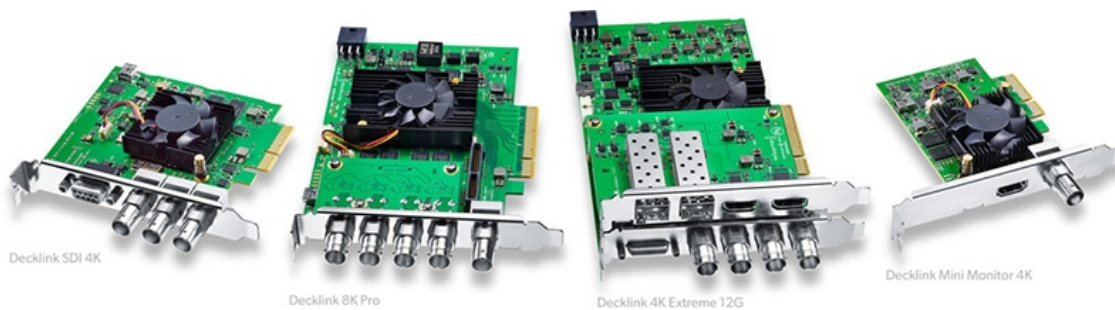
Description

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The Blackmagic Design DeckLink 4K Extreme 12G is an 8-lane PCIe Gen2 digital cinema capture and playback card with two multi-rate 12G-SDI inputs and outputs that accept resolutions from SD up to DCI 4K (4096 x 2160) at 60 fps. The card supports 10-bit YUV and 8-, 10-, and 12-bit RGB color, as well as up/down/cross conversions and 3D stereoscopic output

at full bandwidth 4:4:4:4 RGB. The DeckLink 4K Extreme 12G features a mezzanine card design that has 4K HDMI input and output connectors on a second daughter card, along with connections for adding two optional optical fiber modules for Dual Link optical fiber SDI input and output. The card also supports AES/EBU balanced XLR and unbalanced RCA inputs/outputs, analog video I/O, reference input, and RS-422 control via an included breakout cable.

The card offers flexible format and system support, letting you work with compressed video formats such as ProRes and DNxHD, as well as 12-bit 4:4:4 uncompressed video. When working with uncompressed video, all images are pixel-for-pixel identical to the source, without any generational loss. This lets you get sharper keying with green screens, cleaner compositions, superior color correction, and more. Support for common file formats provides ready-to-edit files for use in popular editing, effects, and design software applications. DeckLink Studio 4K is compatible with Mac-, Windows-, and Linux-based workstations.

Two optical fiber connections on the daughter card support optional optical fiber modules for Dual Link optical fiber SDI input and output. SMPTE compatible optical modules can be added for up to 12G-SDI speeds, allowing you to choose to connect equipment using optical fiber connections instead of regular BNC copper cables for much longer cable runs, even at 12 Gb/s speeds.

Decklink SDI 4K
Decklink 8K Pro
Decklink 4K Extreme 12G
Decklink Mini Monitor 4K

KEY FEATURES

- 8-Lane PCIe Gen2 I/O card compatible with Mac-, Windows-, and Linux-based workstations and servers

- Multi-rate 12G-SDI and HDMI connections accept SD, HD, 2K, and 4K resolutions

- Supports UHD 4K (3840 x 2160) and DCI 4K (4096 x 2160) up to 60 fps

- Single- and dual-link 4:4:4:4/4:2:2 signals

- 3D stereoscopic SDI output at full bandwidth 4:4:4:4

- Up/down/cross conversions

- Four channels of balanced analog audio I/O, 2 channels of AES/EBU balanced audio I/O, genlock/tri-sync input, and Sony

- RS-422 deck control port via included breakout cable

- Optional optical fiber modules for Dual Link optical fiber SDI input and output

- Breakout cable adds S-Video, composite, and component in/out and RS-422 control connectors

- SD card with Media Express capture and playback software, and developer SDK for Windows, Mac, and Linux

- 3D Stereoscopic SDI Output at 4:4:4:4

- Genlock & Deck Control

- Compatible with Mac, Windows & Linux

SPECIFICATIONS BLACKMAGIC DESIGN EXTREME

Model	BDLKHDEXTR4K12G
Host Connection	PCIe x8
Video Input Connectors	2 x BNC (12G-SDI) 1 x HDMI (HDMI 2.0b) 1 x 3BNC (Component / Composite / S-Video)
Input Video Format	SDI / Component / Composite (8/10/12-Bit 4:4:4/4:2:2) DCI 4K: 23.98/24 fps UHD 4K: 23.98/24/25/29.97/30/50/59.94/60 fps DCI 2K: 23.98/24/25 fps DCI 2KPsF: 23.98/24/25 fps 1080p: 25/29.97/30/50/59.94/60 fps 1080PsF: 23.98/24/25/29.97/30 fps 1080i: 50/59.94/60 fps 720p: 50/59.94/60 fps 576i / 625 lines: 50 fps 480i / 525 lines: 59.94 fps HDMI (8/10/12-Bit 4:4:4/4:2:2/4:2:0) DCI 4K: 23.98/24 fps UHD 4K: 23.98/24/25/29.97/30/50/59.94/60 fps 1080p: 23.98/24/25/29.97/30/59.94/60 fps 1080PsF: 23.98/24/25/29.97/30 fps 1080i: 50/59.94/60 fps 720p: 50/59.94/60 fps 576i / 625 lines: 50 fps 480i / 525 lines: 59.94 fps Component 1080p: 23.98/24/25/29.97/30/50/59.94/60 fps 1080PsF: 23.98/24/25/29.97/30 fps 1080i: 50/59.94/60 fps 576i / 625 lines: 50 fps 480i / 525 lines: 59.94 fps Composite PAL NTSC
Simultaneous Multi-Input Support	Yes: 2 Simultaneous Inputs
Input Audio Format	AES/EBU
Embedded Audio Input	SDI: 16-Channel HDMI: 8-Channel
Video Output Connectors	2 x BNC (12G-SDI) 1 x HDMI (HDMI 2.0b) 1 x 3BNC (Component / Composite / S-Video)
Output Video Format	SDI (8/10/12-Bit 4:4:4/4:2:2) DCI 4K: 23.98/24/25 fps UHD 4K: 23.98/24/25/29.97/30/50/59.94/60 fps DCI 2K: 23.98/24/25 fps DCI 2KPsF: 23.98/24/25 fps 1080p: 23.98/24/25/29.97/30/50/59.94/60 fps 1080PsF: 23.98/24/25/29.97/30 fps 1080i: 50/59.94/60 fps 720p: 50/59.94/60 fps 576i / 625 lines: 50 fps 480i / 525 lines: 59.94 fps HDMI (8/10/12-Bit 4:4:4/4:2:2/4:2:0) DCI 4K: 23.98/24/25 fps UHD 4K: 23.98/24/25/29.97/30/50/59.94/60 fps 1080p: 23.98/24/25/29.97/30/50/59.94/60 fps 1080PsF: 23.98/24/25/29.97/30 fps 1080i: 50/59.94/60 fps 720p: 50/59.94/60 fps 576i / 625 lines: 50 fps 480i / 525 lines: 59.94 fps Component / Composite NTSC: 59.94 fps PAL (768 x 576): 50 fps
Output Audio Format	AES/EBU
Embedded Audio Output	SDI: 16-Channel HDMI: 8-Channel
Video Standard Compliance	SMPTE 259M/292M/296M/372M/425M/435/2108-1/ST-2081/ST-2082/ST-2082-10

	ITU -R BT.601/BT.656
HDR Compatibility	Hybrid Log Gamma
OS Compatibility	macOS 10.15 macOS 11.1 or Later Linux Windows 8.1 Windows 10
Power Consumption	30 W
Operating Temperature	5 to 40°C
Dimensions/Weight	169.93 mm, 299 g

INCLUDED BY DEFAULT

✔ Blackmagic Design DeckLink 4K Extreme 12G Capture & Playback Card

✔ HDMI Mezzanine Card

✔ Breakout Cable for Analog I/O and RS-422 Control

✔ SD Card with Software