Blackmagic Design DeckLink IP 100G

ProdCode: BMDDLKIPHIP100G

8 channels of Ultra HD video, in simultaneous capture and playback to 2110 IP broadcast systems

[Download Images] (.zip file)

Features

- 8 channels of Ultra HD video, in simultaneous capture and playback to 2110 IP broadcast systems
- 10G Ethernet for Multiple SMPTE 2110 IP Channels
- Built in Video Firewall for Total IP Network Security
- High Speed PCIe Connection
- Supports All SD, HD and Ultra HD Standards to 2160p60
- Get True 10-Bit Broadcast Video Quality
- IP10 Codec Supports 2160p59.94 or 2160p60 via 10G Ethernet
- Includes NMOS Protocol for Building a Virtual Router
- Works With All Popular Video Software
- Compatible with DaVinci Resolve
- Use Powerful Broadcast Graphics Tools
- Build Custom Broadcast Automation Servers
- Build Streaming Servers for Global Broadcasting
- Includes Media Express Software
- Develop Custom Solutions with the DeckLink SDK

DeckLink IP cards are the easiest way to capture and play back video directly into 2110 IP based broadcast systems. They have the same DeckLink features so all your existing software will just work. DeckLink IP cards support multiple video channels plus each channel can capture and play back at the same time. This means you can build racks of servers generating broadcast graphics, virtual sets or GPU based AI image processing, all directly integrated into 2110 IP broadcast infrastructure. You can even use DaVinci Resolve for 2110 IP based broadcast editing workstations. DeckLink IP features a high speed PCIe connection so it works on the latest Mac Pro, Windows and Linux computers.

The DeckLink IP 100G features 8 channels of Ultra HD video, in simultaneous capture and playback via 100G Ethernet. It also features 2 100G Ethernet QSFP ports, providing full redundancy.

10G Ethernet for Multiple SMPTE 2110 IP Channels

DeckLink IP cards conform to the SMPTE ST2110 standard for IP video, which specifies the transport, synchronization and description of video, audio and ancillary data over managed IP networks for broadcast. It also keeps video sources in sync using a common PTP clock. DeckLink IP supports SMPTE-2110-20 uncompressed video, SMPTE-2110-21 traffic shaping/timing, SMPTE-2110-30 audio and SMPTE-2110-40 for ancillary data. The big advantage of SMPTE 2110 is all video, audio and ancillary data are transported independently over the network. Plus DeckLink IP supports multicast, which is an extremely efficient way of distributing video, audio and data from a single source to multiple destinations.

Built in Video Firewall for Total IP Network Security

The problem with computers and 2110 IP video networks is the vulnerability to rogue software or even hackers. That’s because anyone can send data to the computer’s Ethernet connection. However DeckLink IP eliminates this problem because all video is transferred using frame buffers. It’s like a video based firewall. This means the DeckLink IP Ethernet port is isolated from anything other than video and audio. Instead, like all DeckLink cards, the video and audio are transferred to on board DeckLink frame buffers where video playback is managed and then converted to 2110 IP video channels. This means it’s totally impossible for rogue software or hackers to access the 2110 IP network directly.

High Speed PCIe Connection

DeckLink IP cards feature a fast connection to the host computer that can handle multiple HD and Ultra HD video channels depending on the model, as well as simultaneous capture and playback on each of the channels. PCI Express offers low latency and highly accurate time synchronization to software capturing or playing video. Only DeckLink IP cards offer such exceptional performance while utilizing a simple and low-cost PCIe card-based design. The HD models are so compact and low-cost that they will fit into the new generation of compact computers. Plus DeckLink IP HD and DeckLink IP HD Optical models are low profile, so they can be installed in rack mount servers.

Supports All SD, HD and Ultra HD Standards to 2160p60

DeckLink IP connections are multi-rate, so they support all SD, HD and Ultra HD formats, depending on the model. Plus the DeckLink IP/SDI model includes both 2110 IP and 3G-SDI, so it can connect to SDI equipment, while simultaneously connecting to new IP based infrastructure. In standard definition, DeckLink IP supports both 525i59.94 and 625i50 standards. In HD, all DeckLink IP cards support 720p, 1080i and 1080p standards up to 1080p60. In Ultra HD you get support for all standards up to 2160p60. Video standard can be set independently for each channel and switches instantly when set using the default video standard setting in the Desktop Video Utility or directly via the DeckLink SDK.

Get True 10-Bit Broadcast Video Quality

DeckLink IP cards are designed to support the highest quality video. You get support for capture and playback to popular video formats such as Apple ProRes, DNxHD or even 10-bit uncompressed, so you’re never locked into a single file format. 10-bit is the most commonly used television standard as colours can be represented with 4 times the precision of 8-bit video. Only working with 10-bit uncompressed video will ensure all images are a perfect pixel for pixel clone of the original source, so you’re always working at the absolute highest quality possible. This means you get the sharpest green screen keying, seamless VFX compositions and superior colour correction.

IP10 Codec Supports 2160p59.94 or 2160p60 via 10G Ethernet

All DeckLink IP models support SMPTE-2110 IP data rates designed to fit within 10G Ethernet per channel so downstream products can be smaller, lower power and more affordable. However, when running in Ultra HD at either 2160p59.94 or 2160p60, then the video cannot fit within the bandwidth limits for uncompressed 10-bit video. The Blackmagic IP10 codec solves this problem. On the DeckLink IP 100G model, the open standard IP10 codec lowers the data rate of the 2160p59.94 and 2160p60 television standards with only 8 samples of latency. Plus it's an extremely small codec

that uses very few FPGA resources, so it ensures SMPTE-2110 IP video products remain affordable.

Includes NMOS Protocol for Building a Virtual Router

DeckLink IP supports the NMOS interface specifications so all 2110 IP video devices can operate together as a large virtual router. Plus Videohub Smart Control can route sources to destinations on 2110 IP networks because it can act as an NMOS controller. The NMOS interface specification describes how SMPTE 2110 devices such as DeckLink IP are discovered and controlled on IP networks. DeckLink IP supports IS-04 for discovery and registration of IP video devices and IS-05 for connection management between IP video devices. This means you can make connections between sources and destinations just like a traditional SDI router, but all within the Ethernet network.

Works With All Popular Video Software

DeckLink IP supports all popular video software, so you're free to work with the tools you already know and love. DeckLink IP is perfect for using DaVinci Resolve as a 2110 IP based broadcast editing and colour correction solution. Because DeckLink IP supports capture and playback at the same time, you can even use the live grading feature in DaVinci Resolve to capture video, apply colour correction and then output it all at the same time. DeckLink IP also works with other editing software including Final Cut Pro, Media Composer, Premiere Pro and more. You can even create stunning visual effects with Fusion, After Effects and Photoshop. Plus a Windows WDM driver is also included.

Compatible with DaVinci Resolve

DeckLink IP is the perfect solution for DaVinci Resolve. Only DaVinci Resolve includes Hollywood level editing, colour correction, VFX and audio post production in the single software tool. Plus DaVinci Resolve is a free download for Mac, Windows and Linux, so there are no monthly license costs. The editing uses a familiar track based layout with lots of trim and edit tools, as well as loads of high quality transitions, effects and title templates. Then you can add professional DaVinci colour correction. DaVinci colour correction supports full 32?bit float YRGB processing with tools including primaries, secondaries, power windows, 3D object tracking, advanced AI tools and more.

Use Powerful Broadcast Graphics Tools

When creating broadcast graphics and titles, you will want to use the same tools graphic designers are already familiar with, so you get the most creativity, with no

retraining required. All DeckLink cards work with Fusion, which is the visual effects software integrated into DaVinci Resolve, as well as Adobe After Effects and Photoshop. Fusion Studio is a powerful node based compositing VFX tool with 2D and 3D environments, hundreds of effects and more. Plus you can download and use Fusion free of charge in DaVinci Resolve. You can use the included Blackmagic Media Express software to capture and play back video into files that can be loaded into Fusion, After Effects or Photoshop.

Build Custom Broadcast Automation Servers

When you need to run your broadcast programming remotely, for either a large broadcast network or local television station, DeckLink IP can be easily combined within your custom broadcast automation systems. There are so many fantastic automation tools and on the Mac platform, you can use Tools On Air just: Broadcast Suite, Softron OnTheAir, MovieRecorder and OnTheAir CG. On the Windows platform, you get compatibility with Vidblaster X, Studio and Broadcast, Uniplay and Playbox AirBox. These powerful software tools work with DeckLink IP to manage all types of broadcast automation tasks, and they are proven solutions that are currently running thousands of television stations worldwide.

Build Streaming Servers for Global Broadcasting

DeckLink IP works the same as other DeckLink cards, so it’s also fully compatible with popular video and audio streaming software. This means you can build streaming workstations that let you live stream to millions of global viewers online. On the Mac, you get fantastic streaming solutions such as Open Broadcaster, Wirecast and more. When streaming on Windows, you get compatibility with Open Broadcaster, Xsplit Broadcaster and Wirecast. With DeckLink IP, you can take any 2110 IP feed and convert into live streams to as many online platforms as you need. Or with the ATEM Streaming Bridge, you can even link up remote broadcast networks.

Includes Media Express Software

If you're using video software that doesn't have direct hardware support for capture and playback, then Blackmagic Media Express is the perfect solution, plus it comes free with every DeckLink. Media Express lets you capture and playback in uncompressed YUV 4:2:2 QuickTime, AVI and DPX, ProRes, DVCPRO and MJPEG file formats. It’s a fantastic solution to capture from old broadcast decks for archiving. Because the speeds of flash based storage media can vary a lot between brands, DeckLink IP also includes Blackmagic Disk Speed Test. This means you can check the speed of media disks, with the results displayed in frames per second at various television standards.

Develop Custom Solutions with the DeckLink SDK

Available free with all DeckLink cards is an advanced developer SDK for Mac, Windows and Linux that you can download free of charge. The developer SDK makes it easy to develop your own custom solutions for in house use, or to sell to other broadcasters. The DeckLink SDK provides low level control of hardware when you need flexibility, as well as high level interfaces which are a lot easier to use when you need to perform more common tasks. Thousands of manufacturers and developers use Blackmagic DeckLink cards in their products, so you get the confidence that the DeckLink SDK will provide a solid foundation for developing commercial quality broadcast solutions.