



## Broadcast, Video, Film & AV Solutions from Blackmagic Design

# Welcome to the Blackmagic Design world of 4K production

## ■ Hyperdeck Studio Pro

Playback 4K footage from ultra-high speed SSD



## ■ Production Camera 4K

Capture stunning high-resolution images: 2.5K 12-bit RAW video with 13 stops of dynamic range



## ■ Optical Fibre 4K

Convert 6G-SDI 4K signals to optical fibre



## ■ DeckLink 4K

Play 4K titles & live graphics



## ■ ATEM 1 M/E Production Studio 4K

10 6G-SDI input, fully creative switcher with 4K DVE & multiple keys.

3 independent AUX 6G-SDI outputs □

- ◀ 4K HDMI out
- ◀ SDI Preview out
- ◀ Multiviewer
- ◀ SD (down-converted), HD / 4K out



## ■ SDI Multiplex 4K

4 x 4K 6G-SDI out

## ■ SmartScope Duo 4K

4K monitoring with waveform, vectorscope, RGB parade, YUV parade, histogram and audio phase level displays

UltraHD

# HD and ULTRAHD Live Production Workflows

## Affordable live switchers with creative effects

With the ATEM 1M/E Production Studio 4K live switcher with DVE, stingers and 6G-SDI which supports SD, HD and UltraHD. It features 10 inputs, chroma keys, transitions, 4 upstream keys,

downstream keys, audio mixer, multi view, full motion DVE, stinger transitions, large media pool with full motion clips and 3 auxiliary outputs.



ATEM switchers can be controlled by software or a dedicated panel.



The ATEM 2M/E Production Studio 4K is an incredibly well specified and creative vision mixer which features 20 6G-SDI inputs, DVE

and SuperSource. Its 13 outputs mean that users will never be short of ports, including all-important SDI down-conversion.

### Software Control

Control ATEM from a Mac or PC laptop. Up-grade to the hardware panel at any point.



### AUX Out

ATEM systems feature an unusually large number of clean AUX outputs.

This allows users to connect recorders, encoders, monitors, large format screens and more - with-out ever running short of outputs.

### 6G-SDI

Working with the highest quality RGB 1080 50p video? 3G-SDI is up to the task.

ATEM 1M/E 4K supports 6G-SDI, a single cable which supports 4K workflows - even RAW signals.

## ■ Cinema Camera



Breathtaking 2.5K 12-bit RAW video with 13 stops of dynamic range. Recording options include ProRes and DNxHD for a fast workflow into post. Buy with EF or MFT lens mount.

## ■ Pocket Cinema Camera

Shoot detailed and rich video, recording ProRes or CinemaDNG HD files. Use high speed SD cards to capture hours of quality footage. The camera is happy as a discreet second unit or fully rigged with monitor, matte box, follow

focus and tripod plate. Its active MFT mount can be adapted to PL or other mounts.



## ■ DaVinci Resolve 11



DaVinci is an incredibly powerful grading tool. Now it also offers huge, intuitive editing functionality. As such, it's the perfect companion to Blackmagic cameras: users have full control of every image characteristic, enabling them to create the precise look required by the director.

Taking advantage of GPU processing, Resolve is a high performance tool which supports dozens of primaries, secondaries, power windows, multi point tracking and blurs, in real time.

The software runs on Windows and MacOS. We recommend HP workstations.

## ■ Production Camera 4K

Early large sensor UltraHD cameras have been extremely popular in the marketplace.

Whether the producer expects to publish in UltraHD or to crop from the full frame, UltraHD acquisition is taking off.



Blackmagic Design's next-generation camera delivers stunning results at a scarcely believable price. Despite the cost, this is a very well featured system:

- 4K Super 35 sensor
- Global shutter
- CinemaDNG RAW
- ProRes 422 (HQ)
- Record to SSD disk
- 6G-SDI output

The Active EF lens mount supports leading optics such as Canon's Cinema Zooms, Zeiss Compact Primes & Planars and Schneider models.



As with all Blackmagic cameras, control is via a touch screen. Users rave about the simplicity of setting up and using the system.

UltraHD



## ■ URSA B4, EF and PL

### Welcome to URSA

URSA re-defines camera ergonomics with multiple touch screens giving the camera operator, assistant and sound engineer dedicated working areas. This level of innovation - from a modular 4K camera at an astonishingly low price - will be very welcome on film, drama and other high end sets.

### Ergonomics & Features

Built to handle the ergonomics of large film crews as well as single person use, URSA has everything built in, including a massive 10" fold out on-set monitor and a separate 5" screen for settings, camera status and scopes. It features a user upgradeable Super 35 global shutter 4K

image sensor and 12G-SDI connectivity.

### Workflow

Ursa records high resolution Ultra HD 12 bit lossless Cinema DNG RAW, plus UltraHD or HD in Apple ProRes for an easy post production workflow with minimum storage requirements.

## Camera Workflow

### Metadata

Keep track of every shot by logging metadata into the camera. Enter information including shot number, search tags, scene number, timecode and more.

### Image Settings

Use **UltraScope** test and measurement software to set up and match cameras for each shoot. Assess pictures and sound via any USB-connected PC or Mac.



### Transfer Files

With **MultiDock**, SSD drives can be mounted to any workstation. Either work on the files directly or else copy the data to shared or local drives for post production.



### Grade & Edit

**DaVinci Resolve** (full or lite) is included with the cameras. Correct, grade and cut pictures: apply curves, styles, colour spaces and much more. Export to Final Cut Pro 7/X, Premiere Pro, Avid or Edius Pro.

### Finish

Return to DaVinci Resolve for final grading and export at the preferred bit depth and resolution.

## Production Technology

Blackmagic's rack modules are not just for studio managers. Engineered to be tough and robust, typically they are low profile and lightweight - perfect for integration into portable production units.

### ■ Audio Monitor

Audio monitoring for all SDI, AES/EBU and analogue audio sources - 4K compatible.



### ■ Video Monitors

The low-cost 17" SmartView and 8" Smartview Duo have 3G-SDI for accurate SD, HD and 2K monitoring. Slim, easy to connect and add to your workflow, they have proven very popular.



### ■ Test & Measurement Monitors

SmartScope Duo adds dual source waveform, vectorscope, RGB parade, YUV parade, histogram and audio phase monitoring with audio level displays. Also available is SmartScope Duo 4K with 6G-SDI.



### ■ Video Recorders

Very fast SSD drives have the speed - and capacity - to record very high bit rate video. Blackmagic's HyperDeck Studio SDI / HDMI recorders capture un-compressed QuickTime, DNxHD, ProRes (422, 422 LT and 422 Proxy). A Pro version adds XLR inputs, 6G-SDI, Thunderbolt connectivity and 4K playback.



### ■ Live Switchers

In addition to the M/E vision mixers, ATEM Television Studio is a 6-input HD switcher with chromakey, downstream keyer & creative effects. Extremely cost-effective, the studio even includes an H.264 recorder.



### ■ Studio Converters

ATEM Camera Converters are mounted to cameras. Up-to 4 connect with the ATEM Studio Converter to add significant functionality, including 28 mile optical cable runs, return video signals and talkback & tally indicators.



## ■ Teranex Video Processors

Teranex is a world-class video capture and processor solution. Used in post production houses, film studios and by leading broadcasters, it performs critical conversions between 100s of formats in real-time, such as:

- HD-SD Standards / Cross Conversion
- Cadence Detect and Remove
- Noise Reduction
- Scaling & Aspect Ratio Conversion
- Multi-channel audio conversion



2D Version



4:4:4 / 3D Version



## ■ Teranex Express

Teranex Express, the world's first real time SD, HD and Ultra HD broadcast up and down converter. Equipped with 12G-SDI technology, The Express model includes 178 different SD, HD and Ultra HD up and down conversions in full 10-bit quality complete with audio, closed captions and timecode.



## ■ Studio Camera PL & M4/3

Housed in a lightweight alloy body, the camera features a 10" viewfinder, 4 hour battery, talkback, tally indicators, phantom powered microphone connections and built-in optical fibre and SDI connections. This connects the camera to the switcher with a single cable.

The Studio Camera is available in HD and Ultra HD models, and is packed with advanced features for multi camera production and broadcast.



Blackmagic develops a huge range of HD and 4K capture cards and external interface units, many of which also allow full raster, full motion external monitoring on a dedicated video display. Choose a PCI card, Thunderbolt attached device or USB3-connected unit.



### ■ Intensity Pro

HDMI & Analogue I/O

### ■ DeckLink SDI 4K

SDI I/O, reference & RS422 control

### ■ DeckLink 4K Extreme

RGB 444 for UltraHD workflows

### ■ DeckLink Studio 4K

HDMI, SDI, analogue & audio I/O

### ■ DeckLink Mini Recorder / Monitor

SDI & HDMI in or out



### ■ Intensity Extreme

HDMI & Analogue I/O

### ■ UltraStudio Mini Recorder or Monitor

SDI & HDMI in or out

### ■ UltraStudio Express

SDI, HDMI & Analogue I/O

### ■ Intensity Shuttle for Thunderbolt

HDMI & Analogue I/O



### ■ Intensity Shuttle for USB 3.0

HDMI & Analogue I/O



### ■ UltraStudio SDI / Pro

SDI, HDMI & Analogue I/O

# To-disk, To-screen

Blackmagic technology is leading the revolution in media ingest. It started with the single channel capture devices (highlighted opposite) but has exploded with the arrival of multi-channel DeckLink cards.

Now, workstations can be used in studios and machine rooms to ISO record numerous live video feeds, simultaneously archive video from multiple sources or compliance- record a number of TV channels.

## ■ DeckLink Duo

Dual independent capture and playback in and out. Features 2 SDI inputs & 2 SDI outputs plus a common tri-sync/black burst reference



## ■ DeckLink Quad

4 SDI inputs & 4 SDI outputs, plus a common black burst/tri-sync input for all channels



## DeckLink PCI cards - in a laptop!

Thunderbolt (1 & 2) technology delivers phenomenal speed (up-to 20Gb/s). Sonnet Technology harnesses this power in its Echo expansion chassis which enable users to add PCI cards to Thunderbolt compact workstations (such as the Mac Pro) or laptops (HP Z notebooks or the Mac Book Pro).



## Live Graphics & Media Payout

DeckLink can drive video walls, payout servers and live motion graphics systems. With Datavideo's cost-effective CG-500 software, DeckLink 4K Extreme can be used to embed live titling and graphics into live TV, video streams or AV presentations.



## Multi-channel Recorder

DeckLink Duo and Quad rely on 3rd party software to capture and encode video streams.

### Capture, stream or transcode

Metus Ingest enables users to record 6 HD channels into a variety of codecs, including MPEG-2, AVC-Intra, H.264 and XDCAM. The software also features transcoding, auto-transcoding and streaming functionality, making it a true all-rounder.



### Avid MXF or MOV Capture

Quadrus Ingest Machine: capture up-to 8 HD streams directly to Avid Unity ISIS and check-in to Avid Interplay.

The tool supports scheduled capture, optional fallback storage and multi-camera control.



# 3G-SDI Routers

www.holdan.co.uk

- Connect, control and monitor all the equipment in your facility via a single hub
- Easily change connections in software, or by using a simple hardware controller
- No need to manually patch or keep a collection of different length cables
- Send a SDI video connection to as many outputs as you like
- SDI re-clocking ensures clean signals with support for simultaneous SD, HD and 3 Gb/s
- Broadcast and Studio models include RS-422 ports for remote deck control

■ **Smart Videohub**: 12 x 12 SDI routing with control panel 

■ **Micro VideoHub**: 16 x 16 SDI routing 

■ **Compact Videohub**: 40 x 40 SDI routing 



■ **Broadcast Videohub**: 72 inputs, 144 outputs and 72 deck control ports all packed into a compact 8 rack unit size

■ **Studio Videohub**: 16 inputs, 32 outputs and 16 deck control ports in a 2 rack unit size



## Router Control

■ Programmable **Videohub Smart Control** 

■ **Videohub Master Control**  
with control knob and LCD - perfect for larger routers 

■ Control the router via **PC software** or an **iPad app**.





Universal Videohub: build your own broadcast quality 3 Gb/s SDI and optical fibre SDI router for SD, HD, 4:4:4 and 2K video formats.

Frames are available in 72 x 72 or 288 x 288 crosspoint size. Each interface card features 4 inputs and 4 outputs. Mix and match SDI / fibre interfaces to build your ideal router, with total redundancy for 24/7 reliability. remote deck control

## ■ Universal VideoHub 288

## ■ Universal VideoHub 72

- SDI Interface
- Fibre Interface



## Open Gear

### Rack-based Conversion Unit

A centralized modular converter system is highly cost-effective and efficient.

- Based on 3G-SDI technology
  - Software controlled & monitored
  - Use any mix of OpenGear cards
  - All cards are hot swappable
  - Auto-switch between SD & HD
  - Support 2/4 channel 24-bit audio
- SDI to HDMI
  - HDMI to SDI
  - SDI to Audio
  - Audio to SDI
  - SDI-Optical Fibre
  - UpDownCross
  - Sync Generator
  - SDI Distribution
  - SDI to Analogue with down-converter



## Mini Converters

SD, HD and 4K mini converters with low jitter 3G-SDI with SDI re-clocking.

- SDI to Analogue 4K
- SDI to Audio
- Optical Fibre 4K
- SDI Multiplex 4K
- SDI to HDMI 4K
- Audio to SDI
- UpDownCross
- Sync Generator
- HDMI to SDI 4K
- Optical Fibre
- SDI to HDMI 4K
- SDI Distribution 4K



## Battery Converters

Tough mini converters with 3G-SDI technology. Features an integrated rechargeable lithium-ion polymer battery.

- SDI to HDMI
- HDMI to SDI



## Mini Converters Heavy Duty

Precision-engineered, virtually indestructible, weather-resistant converters.

- SDI to Analogue
- SDI to HDMI
- HDMI to SDI
- SDI to Audio



## About Holdan

Holdan represents Blackmagic Design in UK & Ireland, distributing products via a network of qualified resellers. Please visit our website [www.holdan.co.uk](http://www.holdan.co.uk) to locate your local Blackmagic authorised reseller. Contact us on 01457 851000 for technical advice or assistance.

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