



Clifton Cameras Product Specification

BLACKMAGIC Design UltraStudio 4K Mini Full Spec

Connections

SDI Video Inputs

1

SDI Video Outputs

2 x program out, 1 x loop out.

SDI Rates

270Mb, 1.5G, 3G, 6G, 12G.

Analog Video Inputs

Component YUV or Composite NTSC/PAL. Component is switchable between SD and HD.

Analog Audio Inputs

2 channels of professional balanced analog audio with 1/4 inch Jack connectors.

Analog Audio Outputs

2 channels of professional balanced analog audio with 1/4 inch Jack connectors.

SDI Audio Inputs

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

SDI Audio Outputs

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

HDMI 2.0b Video Inputs

1

HDMI 2.0b Video Outputs

1

HDMI Audio Inputs



8 Channels embedded in SD/HD/UHD/4K.

HDMI Audio Outputs

8 Channels embedded in SD/HD/UHD/4K.

Mic Input

1 x XLR microphone input. 48V Phantom Power switchable via software control.

Sync Input

Tri-Sync or Black Burst.

Device Control

Sony™ compatible RS-422 deck control port. Serial ports TxRx direction reversible under software control.

USB

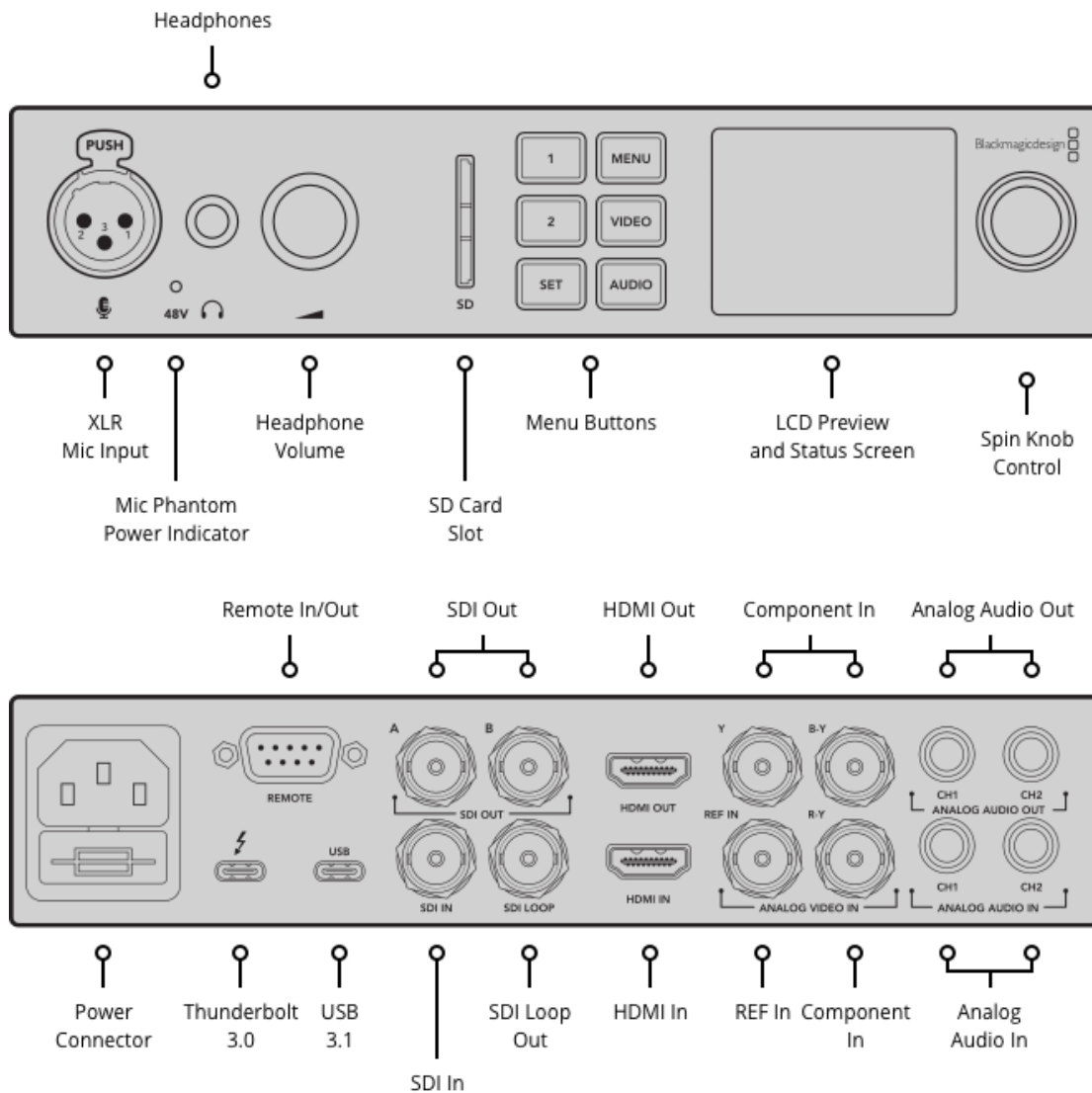
1 x USB-C 3.1 Gen 1 (up to 5 Gb/s).

SD Card Reader

UHS-I and UHS-II compatible.

Computer Interface

Thunderbolt™ 3 (Mac OS, Windows and Linux) with 45W host charging capability.



Supported Codecs

AVC-Intra, AVCHD, Canon XF MPEG2, Digital SLR, DV-NTSC, DV-PAL, DVCPRO50, DVCPROHD, DPX, HDV, HEVC, XDCAM EX, XDCAM HD, XDCAM HD422, DNxHR & DNxHD, 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

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:

The Foundry Nuke, Grass Valley Edius, Sony Catalyst Production Suite, Tools On Air Just: Play & Live & In, Softron MovieRecorder & MReplay, Adobe Flash Media Live Encoder, Telestream Wirecast, Livestream Producer, Resolume Arena, Magix Vegas Pro & Movie Edit Pro Premium, Corel VideoStudio Pro, CyberLink PowerDirector, Vidblaster X & Studio & Broadcast, Uniplay One & CG, CasparCG Server, Magicsoft CG, Xsplit Broadcaster, Imagine Communications Velocity & InfoCaster, DevTek Easy Media Suite, Metus Ingest, Boinx Software MimoLive, Cinegy Capture Pro, vMix Live, Renewed Vision ProPresenter, Ventuz Director, Class X Liveboard & Coral CG, Glookast Capturer, Open Broadcaster Software Studio, Nautilus NEMO3D, Derivative TouchDesigner, Assimilate Scratch, Burst Video Webclip2Go & [REC]Marker, Autodesk Flame, Zoom.

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, 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, 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, 2160p50, 2160p59.94, 2160p60

4K Video Standards

4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 DCI, 4Kp50 DCI, 4Kp59.94 DCI, 4Kp60 DCI

3D Video Standards*

720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60
1080PsF23.98, 1080PsF24, 1080PsF25, 1080PsF29.97, 1080PsF30
1080i50, 1080i59.94, 1080i60
2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI, 2Kp29.97 DCI, 2Kp30 DCI, 2Kp50 DCI, 2Kp59.94 DCI, 2Kp60 DCI
2KPsF23.98 DCI, 2KPsF24 DCI, 2KPsF25 DCI, 2KPsF29.97 DCI, 2KPsF30 DCI
2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 DCI

* Playback only

SDI Compliance

SMPTE 259M, SMPTE 274M, SMPTE 296M, SMPTE 424M, SMPTE 425M Level A and B, SMPTE 2036-1, SMPTE 2048-1, SMPTE 2081-10, SMPTE 2082-10 and SMPTE ST2108-1.

SDI Metadata Support

RP 188/SMPTE 12M-2 and closed captioning.

Multiple Rate Support

SDI video connections are switchable between SD/HD/2K/UHD and 4K.

SDI Audio Sampling

Television standard sample rate of 48 kHz and 24-bit.



SDI Video Sampling

4:2:2, 4:4:4

SDI Color Precision

8, 10, 12-bit RGB 4:4:4 in 2D modes up to 4Kp30 DCI and 8, 10-bit YUV 4:2:2 in all 2D modes.
8, 10, 12-bit RGB 4:4:4 in 3D modes up to 2Kp60 DCI and 8, 10-bit YUV 4:2:2 in all 3D modes.

SDI Color Space

REC 601, REC 709 and REC 2020

HDR Support

HDR static metadata packing, HLG and PQ transfer characteristics.

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, 2160p50, 2160p59.94, 2160p60

4K Video Standards

4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 DCI, 4Kp50 DCI, 4Kp59.94 DCI, 4Kp60 DCI

3D Video Standards

720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60
1080i50, 1080i59.94, 1080i60
2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 DCI.

HDMI Audio Sampling

Television standard sample rate of 48 kHz and 24-bit.

HDMI Video Sampling

4:4:4, 4:2:2 and 4:2:0



HDMI Color Precision

8, 10 and 12-bit

HDMI Color Space

REC 601, REC 709 and 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 video connections are switchable between SD/HD/UHD and 4K.

Copy Protection

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

Processing

Real Time Effects

DaVinci Resolve, Final Cut Pro X internal effects. 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 and playback. 3D capture supported via HDMI input only.

Physical Installation

Requires a computer with a Thunderbolt™ 3 port. Please check support pages to see the full system requirements.

Physical Specifications



210 mm



177 mm

46.1 mm



1.2 kg

Operating Systems



Mac 11.1 Big Sur,
Mac 12.0 Monterey or later.



Windows 8.1, 10 and 11, all 64-bit.



Linux

Power Requirements

Power Supply

1 x Internal 100 - 240V AC

Power Usage

75.3W max

Environmental Specifications

Operating Temperature

5° to 40° C (41° to 104° F)

Storage Temperature

-20° to 45° C (-4° to 113° F)

Relative Humidity

0% to 90% non-condensing

What's Included

UltraStudio 4K Mini

Welcome wallet with QR code for software download



Warranty

3 Year Limited Manufacturer's Warranty.