Blackmagicdesign

Blackmagic Studio Camera 6K Pro

Designed as the ultimate studio camera, Blackmagic Studio Camera 6K Pro adds a larger 6K Super 35 sensor and EF lens mount for true cinematic images in live production. There are built in ND filters that let you reduce the amount of light entering the camera, allowing you to work in a wider range of situations, including in bright sunlight. Plus stream direct to the internet with built in streaming! You also get 12G-SDI, HDMI and 10G Ethernet which allows all connections on a single cable for a SMPTE style workflow that's much lower cost.

$2,495

Camera Features

Effective Sensor Size
23.10mm x 12.99mm (Super 35)

Lens Mount
Active EF mount.

Lens Control
Iris, focus, zoom on supported lenses.

Dynamic Range
13 Stops.

Dual Native ISO
0dB and 18dB gain.

Sensitivity at 0dB Gain
f11 with 2160p59.94.
f12 with 2160p50.
at 2,000 lux with 89.9% reflectance.

Signal to Noise Ratio
64.62dB for 2160p
Ultra HD scaled from 5.3K

Recording Resolutions
6144 x 3456 (6K) up to 50 fps
6144 x 2560 (6K 2.4:1) up to 60 fps
5376 x 3024 (5.3K 16:9) up to 60 fps
3840 x 2160 (Ultra HD) up to 60 fps

Video Output Standards
2160p, 1080p, 1080i

Frame Rates
Project frame rates of 23.98, 24, 25, 29.97, 30, 50, 59.94 and 60 fps supported.
Off-speed frame rates 5 - 50 fps in 6K, and 5 - 60 fps for all other recording resolutions.

Built in ND Filters
Four position ND filter with clear, 2-stop, 4-stop and 6-stop IR ND filters.

Focus
Auto focus available using compatible lenses.

Screen Dimensions
7 inch 1920 x 1200

Screen Type
LCD capacitive touchscreen.

Screen Brightness
2000 nits

Controls
Touchscreen camera settings and menus with rotary settings dial, program button, F1, F2 and F3 assignable function buttons, brightness contrast and peaking dials.

Mounting Options
2 x 1/4 inch tripod mount.
1 x 3/8 inch tripod mount.

Connections

SDI Video Inputs
1

SDI Video Outputs
1

SDI Rates
1.5G, 3G, 6G, 12G.

HDMI 2.0 Video Outputs
1

Analog Audio Input
2 x XLR analog switchable between mic and line levels. Phantom power support.
1 x 3.5mm Stereo Input. Can also be used for Timecode input.

Analog Audio Output
1 x 5-pin XLR for talkback headset.
1 x 3.5mm TRRS mini jack for headphones with mic.

SDI Audio Output
2 channels of program audio embedded in 1.5G/3G/6G/12G-SDI.
2 talkback channels on 15 and 16.

Reference Inputs
Tri-Sync or Black Burst when used with optional
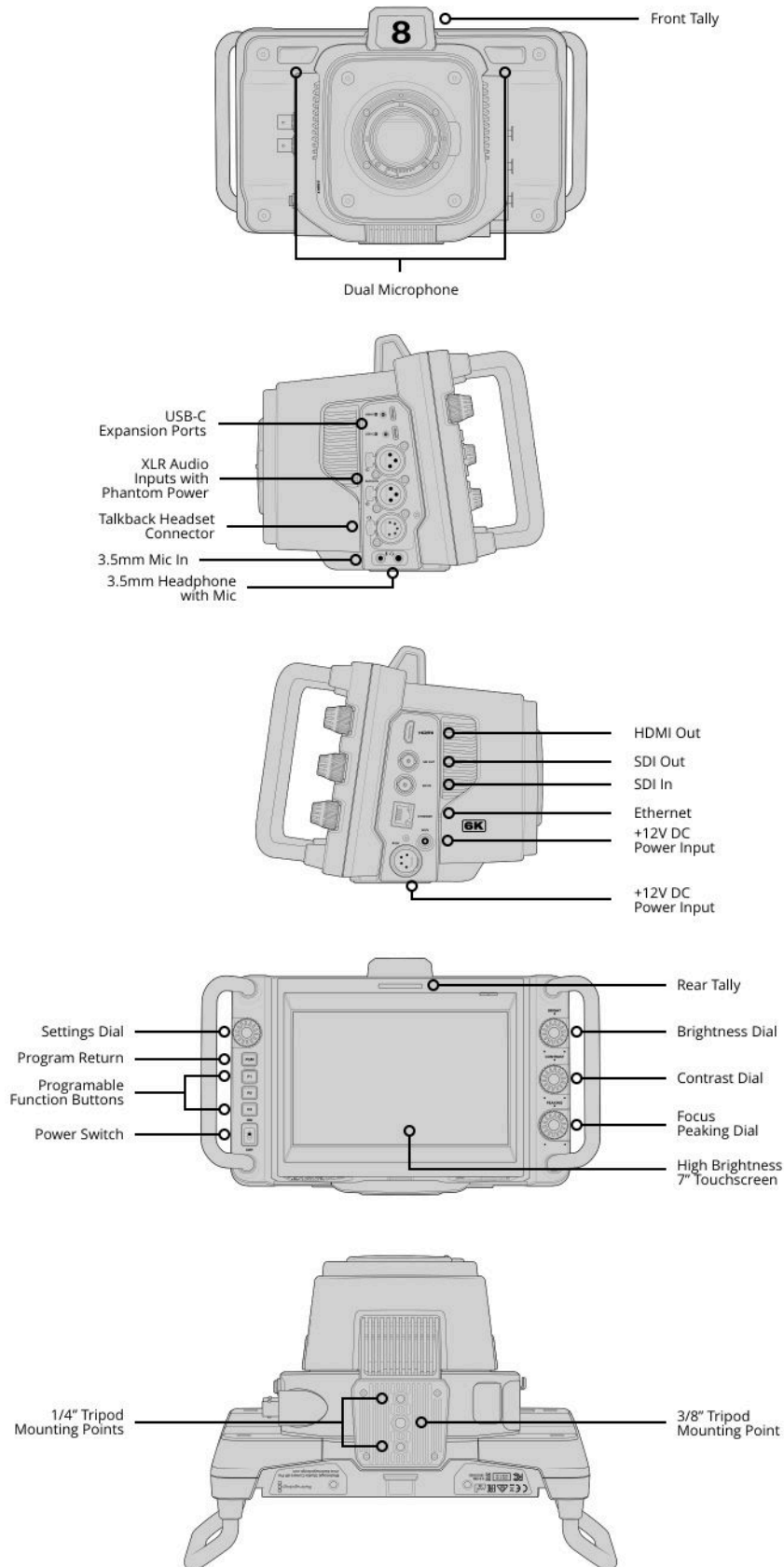Blackmagic Studio Converter.

Remote Control
Remote camera control over SDI, HDMI or Ethernet.

Ethernet
10Gb/s

Computer Interface
2 x USB Type-C 3.1 Gen 1 (up to 5Gb/s) expansion ports for external recording and focus / zoom demand connection. Software updates using USB-C Port A.

Front Tally

Dual Microphone

USB-C
Expansion Ports

XLR Audio
Inputs with
Phantom Power

Talkback Headset
Connector

3.5mm Mic In

3.5mm Headphone
with Mic

HDMI Out

SDI Out

SDI In

Ethernet

+12V DC
Power Input

+12V DC
Power Input

Rear Tally

Settings Dial

Program Return

Programable
Function Buttons

Power Switch

Brightness Dial

Contrast Dial

Focus
Peaking Dial

High Brightness
7" Touchscreen

1/4" Tripod
Mounting Points

3/8" Tripod
Mounting Point

Audio

Microphone
Integrated stereo microphone.

Built in Speaker
1 x mono speaker.

Streaming

Direct Streaming
Blackmagic Studio Camera 6K Pro supports direct live streaming using Real Time Messaging Protocol (RTMP) over ethernet or a shared mobile internet connection over USB-C.

Streaming Platforms
ATEM Television Studio HD8 ISO, ATEM Streaming Bridge, Facebook, Twitch, YouTube, Twitter, Restream.IO, Vimeo, BoxCast, Castr, Afreeca TV, Bilibili, DouYu, Weibo.

Standards

SD Video Standards
None

HD Video Standards
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

SDI Compliance
SMPTE 292M, SMPTE 424M, SMPTE 425M level A and B, SMPTE 2081-1, SMPTE 2081-10, SMPTE 2082-1 and SMPTE 2082-10

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

Media

Media
2 x USB-C 3.1 Gen 1 expansion ports for external media for recording Blackmagic RAW.

Media Format
Can format media to ExFAT (Windows/Mac) or HFS+ (Mac) file systems.

Supported Codecs

Codecs
Blackmagic RAW Constant Bitrate 3:1
Blackmagic RAW Constant Bitrate 5:1
Blackmagic RAW Constant Bitrate 8:1
Blackmagic RAW Constant Bitrate 12:1
Blackmagic RAW Constant Quality Q0
Blackmagic RAW Constant Quality Q1
Blackmagic RAW Constant Quality Q3
Blackmagic RAW Constant Quality Q5

Storage Features

Storage Type
2 x USB-C 3.1 Gen 1 expansion ports for external media.

Recording Formats
Blackmagic RAW 3:1, 5:1, 8:1, 12:1, Q0, Q1, Q3 and Q5 in 6K (6144 x 3456), 6K 2.4:1 (6144 x 2560), 5.3K 16:9 (5376 x 3024), Ultra HD (3840 x 2160) at the selected frame rate.

Storage Rates
Storage rates based on 30 frames per second.

6144 x 3456 (6K)
Blackmagic RAW 3:1 - 323 MB/s
Blackmagic RAW 5:1 - 194 MB/s
Blackmagic RAW 8:1 - 121 MB/s
Blackmagic RAW 12:1 - 81 MB/s
Blackmagic RAW Q0 - 242 to 483 MB/s
Blackmagic RAW Q1 - 162 to 387 MB/s
Blackmagic RAW Q3 - 108 to 277 MB/s
Blackmagic RAW Q5 - 65 to 162 MB/s

6144 x 2560 (6K 2.4:1)
Blackmagic RAW 3:1 - 240 MB/s
Blackmagic RAW 5:1 - 144 MB/s
Blackmagic RAW 8:1 - 90 MB/s
Blackmagic RAW 12:1 - 60 MB/s
Blackmagic RAW Q0 - 180 to 359 MB/s
Blackmagic RAW Q1 - 120 to 287 MB/s
Blackmagic RAW Q3 - 80 to 205 MB/s
Blackmagic RAW Q5 - 49 to 120 MB/s

5376 x 3024 (5.3K 16:9)
Blackmagic RAW 3:1 - 248 MB/s
Blackmagic RAW 5:1 - 149 MB/s
Blackmagic RAW 8:1 - 94 MB/s
Blackmagic RAW 12:1 - 63 MB/s
Blackmagic RAW Q0 - 186 to 371 MB/s
Blackmagic RAW Q1 - 125 to 297 MB/s
Blackmagic RAW Q3 - 84 to 212 MB/s
Blackmagic RAW Q5 - 50 to 125 MB/s

3840 x 2160 (Ultra HD)
Blackmagic RAW 3:1 - 127 MB/s
Blackmagic RAW 5:1 - 77 MB/s
Blackmagic RAW 8:1 - 48 MB/s
Blackmagic RAW 12:1 - 32 MB/s
Blackmagic RAW Q0 - 96 to 190 MB/s
Blackmagic RAW Q1 - 64 to 153 MB/s
Blackmagic RAW Q3 - 43 to 109 MB/s
Blackmagic RAW Q5 - 26 to 64 MB/s

Constant Quality storage rates quoted are indicative only.
Actual storage rates are entirely dependent on image subject matter.

Control

External Control
Blackmagic Zoom Demand and Blackmagic Focus Demand for controlling your camera and lens from tripod handles.

Blackmagic Control Protocol over SDI, RTMP and HDMI for external control when used with a compatible ATEM switcher with ATEM Software Control or ATEM Camera Control Panel. Includes control of some camera settings, focus, iris and zoom with compatible lenses, color corrector, tally and record start and stop to external media via USB expansion port.

Camera Control REST API over Ethernet or USB Ethernet for external control via HTTP when used with REST client applications such as Postman.

Network Management

NTP
Network time protocol support allows you to sync the time on your camera, whenever connected to a network with any NTP server of your choice.

Web Media Manager
Using a browser connected over Ethernet, web media manager allows you to access, browse, download and delete files from any drive connected to the camera.

FTP
Download files from any drive attached to your camera using FTP.

SMB
File sharing using SMB

Color Corrector

DaVinci YRGB

Talkback and Tally

Live Tally Indicator
1 x front facing for talent,
1 x rear facing for operator.

Talkback
SDI Channels 15 and 16.

Software

Software Included
Blackmagic Camera Setup for Mac and Windows.

Operating Systems

Mac 12.0 Monterey,
Mac 13.0 Ventura or later.

Windows 10, 64-bit.
Windows 11.

Power Requirements

Power Supply

1 x External 12V DC 60W power supply.

Power Inputs

1 x 12V DC locking 5.5 mm barrel connector.
1 x 12V DC 4 pin XLR input for external power supply or battery use.
1 x RJ45 Ethernet connector for power from Type 4 PoE power supplies.

Power Usage

32 - 52 W using DC input.
38 - 59 W using Type 4 PoE input.

Optional Accessories

Blackmagic Focus Demand
Blackmagic Zoom Demand
Blackmagic Studio Converter
ATEM Mini switchers
ATEM SDI switchers
ATEM Constellation switchers
ATEM Television Studio switchers
ATEM Streaming Bridge
Blackmagic MultiDock 10G
HyperDeck Studio HD Plus
HyperDeck Studio 4K Pro
SmartView 4K
Blackmagic Cloud Pod
Blackmagic Cloud Store
Blackmagic Cloud Store Mini 8TB
Ultimatte 12 HD Mini
Ultimatte 12 HD
Ultimatte 12 4K
Blackmagic 3G-SDI Shield for Arduino

Physical Specifications

10.77 in

7.83 in

6.59 in

4.48 in

1.4 in

LB
4.28 lb

LB
1.16 lb

Environmental Specifications

Operating Temperature
0° 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

Blackmagic Studio Camera 6K Pro
Blackmagic Studio Camera Sun Shade
Tripod Mount compatible with 15mm lightweight rails
Tripod Mount Plate
Turret Dust Cap
External 12V DC power supply with locking connector and international sockets adapters for most countries.
Welcome wallet with QR code for software download
DaVinci Resolve download card
Blackmagic Design sticker

Warranty

12 Month Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller