

# Blackmagic Design BMD-CINEURSAMUPRO12K URSA Mini Pro 12K

## Camera Features

### Effective Sensor Size

- 27.03mm x 14.25mm (Super35)

### Lens Mount

- PL mount included. Interchangeable with optional EF and F lens mounts.

### Lens Control

- 12pin broadcast connector for compatible lenses and electronic control via EF mount pins on optional EF lens mount.

### Dynamic Range

- 14 Stops

### Shooting Resolutions

- 12,288 x 6480 (12K DCI)
- 11,520 x 6480 (12K 16:9)
- 12,288 x 5112 (12K 2.4:1)
- 7680 x 6408 (12K anamorphic)
- 8192 x 4320 (8K DCI)
- 7680 x 4320 (8K 16:9)
- 8192 x 3408 (8K 2.4:1)
- 5120 x 4272 (8K anamorphic)
- 6144 x 3240 (6K Super16)
- 4096 x 2160 (4K Super16)
- 4096 x 2160 (4K DCI)
- 3840 x 2160 (4K 16:9)
- 4096 x 1704 (4K 2.4:1)
- 2560 x 2136 (4K anamorphic)

### Frame Rates

- Maximum sensor frame rate dependent on resolution selected. Project frame rates of 23.98, 24, 25, 29.97, 30, 50, 59.94 and 60 fps supported.

### High Speed Frame Rates

- 12K 17:9 full sensor up to 60 fps
- 12K 2.4:1 up to 75 fps
- 8K DCI full sensor up to 120 fps
- 4K DCI full sensor up to 120 fps
- 8K 2.4:1 and 4K 2.4:1 up to 160 fps
- 6K Super 16 up to 120 fps
- 4K Super 16 up to 240 fps

### Built in ND Filters

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

### Focus

Focus button triggers auto focus when using compatible lenses with focus servo. Touch and hold on LCD determines focus region and triggers auto focus.

### Iris Control

Iris wheel and touchscreen slider for manual iris adjustment on electronically controllable lenses, iris button for instant auto iris settings on compatible lenses so no pixel is clipped in film mode. Scene average auto exposure in video mode.

### Screen Dimensions

- 4 inch

### Screen Type

- LCD capacitive touchscreen.

### Metadata Support

Automatically populated lens data from i/Technology with compatible PL lenses and electronic EF lenses when using optional EF lens mount. Automatic recording of camera settings and slate data such as project, scene number, take and special notes.

## Controls

Touchscreen menus on 4 inch screen. Push buttons for other controls. 3 assignable shortcut keys.

## Timecode Clock

Highly accurate timecode clock. Less than 1 frame drift every 8 hours.

## Connections

### Total Video Inputs

- 1 x 12G-SDI

### Total Video Outputs

- 1 x 12G-SDI, 1 x 3G-SDI Monitoring.

## SDI Rates

- 1.5G, 3G, 6G, 12G.

## Analog Audio Inputs

- 2 x XLR analog switchable between mic, line and AES audio. Phantom power support.

## Analog Audio Outputs

- 1 x 3.5mm headphone jack, supports iPhone microphone for talkback.

## Reference Inputs

- Tri-Sync/Black Burst/Timecode.

## Remote Control

- 1 x 2.5mm LANC input for Rec Start/Stop, plus Iris and Focus control using compatible lenses.

## Computer Interface

- 1 x USB Type-C 3.1 Gen 2 with power delivery for external drive recording.
- 1 x USB Type-C for software updates.

## Audio

### Microphone

- Integrated stereo microphone.

### Built in Speaker

- 1 x mono speaker.

## 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 424 Level B, SMPTE 2081-1, SMPTE 2082-1

## SDI Audio Sampling

- 48 kHz and 24 bit

## Media

## Media

- 2 x CFast 2.0 card slots, 2 x SD UHS-II card slots, 1 x USB-C 3.1 Gen 2 expansion port with power delivery for recording to external media.

## Alternative Media

- 1 x 2.5" drive slot for 7mm and 9.5mm U.2 NVMe SSD or SATA SSD with optional URSA Mini Recorder.

## Media Format

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

## Supported Codecs

### Codecs

- Blackmagic RAW Constant Bitrate 5:1,
- Blackmagic RAW Constant Bitrate 8:1,
- Blackmagic RAW Constant Bitrate 12:1,
- Blackmagic RAW Constant Bitrate 18:1,
- Blackmagic RAW Constant Quality Q0,
- Blackmagic RAW Constant Quality Q1,
- Blackmagic RAW Constant Quality Q3,
- Blackmagic RAW Constant Quality Q5.

## Control

### External Control

- Blackmagic SDI Camera Control Protocol, iPad control, Bluetooth control, 1 x 2.5mm LANC for lens and record control.

## Talkback and Tally

### Talkback

- SDI Channels 15/16 and iPhone headset.

### Live Tally Indicator

- Tally on LCD, URSA Viewfinder and URSA Studio Viewfinder.

## Storage Features

### Storage Type

- 2 x CFast 2.0
- 2 x SD UHS-II cards
- 1 x high speed USB-C expansion port for external media.

### Storage Rates

12K Full Sensor - 12,288 x 6480 at 24 frames per second.

- Blackmagic RAW 5:1 - 578 MB/s
- Blackmagic RAW 8:1 - 361 MB/s
- Blackmagic RAW 12:1 - 241 MB/s
- Blackmagic RAW 18:1 - 160 MB/s
- Blackmagic RAW Q0 - 289 to 1,156 MB/s
- Blackmagic RAW Q1 - 241 to 963 MB/s
- Blackmagic RAW Q3 - 145 to 722 MB/s
- Blackmagic RAW Q5 - 97 to 413 MB/s

8K Full Sensor - 8192 x 4320 at 24 frames per second.

- Blackmagic RAW 5:1 - 257 MB/s
- Blackmagic RAW 8:1 - 161 MB/s
- Blackmagic RAW 12:1 - 107 MB/s
- Blackmagic RAW 18:1 - 71 MB/s
- Blackmagic RAW Q0 - 257 to 642 MB/s
- Blackmagic RAW Q1 - 214 to 428 MB/s
- Blackmagic RAW Q3 - 107 to 321 MB/s
- Blackmagic RAW Q5 - 81 to 257 MB/s

6K Super 16 - 6144 x 3240 at 24 frames per second.

- Blackmagic RAW 5:1 - 146 MB/s
- Blackmagic RAW 8:1 - 91 MB/s
- Blackmagic RAW 12:1 - 61 MB/s
- Blackmagic RAW 18:1 - 40 MB/s
- Blackmagic RAW Q0 - 73 to 291 MB/s
- Blackmagic RAW Q1 - 61 to 242 MB/s
- Blackmagic RAW Q3 - 37 to 182 MB/s
- Blackmagic RAW Q5 - 25 to 104 MB/s

4K Full Sensor - 4096 x 2160 at 24 frames per second.

- Blackmagic RAW 5:1 - 161 MB/s
- Blackmagic RAW 8:1 - 107 MB/s
- Blackmagic RAW 12:1 - 80 MB/s
- Blackmagic RAW 18:1 - 53 MB/s
- Blackmagic RAW Q0 - 161 to 268 MB/s
- Blackmagic RAW Q1 - 107 to 214 MB/s
- Blackmagic RAW Q3 - 81 to 179 MB/s
- Blackmagic RAW Q5 - 54 to 161 MB/s

4K Super 16 - 4096 x 2160 at 240 frames per second.

- Blackmagic RAW 5:1 - 648 MB/s
- Blackmagic RAW 8:1 - 405 MB/s
- Blackmagic RAW 12:1 - 271 MB/s
- Blackmagic RAW 18:1 - 180 MB/s
- Blackmagic RAW Q0 - 648 to 1,618 MB/s
- Blackmagic RAW Q1 - 540 to 1,079 MB/s
- Blackmagic RAW Q3 - 271 to 810 MB/s
- Blackmagic RAW Q5 - 203 to 648 MB/s

## Recording Formats

Blackmagic RAW Q0, Q1, Q3, Q5, 5:1, 8:1, 12:1 and 18:1 at 12,288 x 6480, 11,520 x 6480, 12,288 x 5112, 7680 x 6408, 8192 x 4320, 7680 x 4320, 8192 x 3408, 5120 x 4272, 6144 x 3240, 4096 x 2160, 3840 x 2160, 4096 x 1704 and 2560 x 2136 stored as 12 bit non-linear with film, extended video, video or custom 3D LUT embedded in metadata.

Actual storage rates are dependent on image subject matter.

## Software

### Software Included

- Blackmagic OS
- DaVinci Resolve Studio for Mac and Windows including activation key
- Blackmagic Camera Setup
- Blackmagic RAW Player
- Blackmagic RAW QuickLook Plugin
- Blackmagic RAW SDK
- Blackmagic RAW Speed Test

## Operating Systems

- Mac 10.15 Catalina,
- Mac 11.1 Big Sur or later.
- Windows 10.

## Power Requirements

### Power Supply

- 1 x External 12V power supply. 12 pin Molex connector for rear battery plate.

### External Power Input

- 1 x 4 pin XLR port for external power or battery use.
- 1 x 12 pin Molex connector on rear battery plate.
- Custom V-mount battery plate with D-tap +12V regulated output from camera.

## Power

- Rear camera mount compatible with industry standard V-mount or gold mount battery plates.

## 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