

# Blackmagic Cinema Camera FAQ

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## What is the suggested workflow for the CinemaDNG RAW files?

In order to get the most from the Camera, we would suggest recording in 2.5K RAW.

- a. Capture in CinemaDNG with the camera.
- b. Copy the files from the SSD to your system. A RAID drive configuration is recommended.
- c. Launch DaVinci Resolve and on the media page select the clips and drag them to the Media Pool. (The Camera ships with a full license of DaVinci Resolve 9).
- d. You may need to make a basic grade for the editor and often that's to Rec 709 colour space. In the deliver page select 'source' as render mode and render files to the format that your NLE uses; Apple ProRes, DNxHD or other formats.
- e. Edit in an NLE such as Apple FCP, Avid Media Composer or Adobe Premiere Pro, using the clips created in Resolve.
- f. Once your edit is complete and you are ready for colour grading, export the project as XML or AAF from your NLE.
- g. Import the XML or AAF into DaVinci Resolve for grading. When importing select the option to use the original source clips. Resolve will conform to the original 2.5K RAW files.
- h. Grade the edited timeline in Resolve
- i. Render out for final distribution.

## Which SSDs have been approved for use with the Camera?

The following SSDs are recommended for RAW CinemaDNG video capture.

- Crucial M4 512GB (with 009 or above firmware) (CT512M4SSD2)
- OCZ 240GB Vertex 3 (VTX3-25SAT3-240G) (end of life)
- OCZ 480GB Vertex 3 (VTX3-25SAT3-480G) (end of life)
- Crucial 256GB C300 (CTFDDAC256MAG-1G1) (end of life)
- Kingston 64GB SSDNow V+100 (SVP100S2/64G) (end of life)
- Kingston 128GB SSDNow V+100 (SVP100S2/128G) (end of life)
- Kingston 240GB SSDNow V+200 (SVP200S3/240G)
- Kingston HyperX 240GB (SH100S3/240G)
- Samsung SSD 830 512GB (MZ-7PC512N/AM)
- Sandisk Extreme 480GB (SDSSDX-480G-G25)

The following SSD's are recommended for compressed video capture:

- Crucial 25GB M4 (firmware 000F) (CT256M4SSD2)
- OCZ Agility 3 240GB (AGT3-25SAT3-240G)
- Sandisk Extreme 120GB (SDSSDX-120G-G25)

## **What are the recording format/compression options?**

CinemaDNG @ 2.5K, Apple ProRes Log 4:2:2 HQ @ 1080. Avid DNxHD 220x @ 1080 will be added in a later update.

## **Can the camera format the drives or do they have to be formatted on a Mac?**

No, the camera cannot format the SSD drive. It has to be formatted (via an external 2.5" compatible dock) as HFS+ on a Mac or using [Macdrive](#) on a Windows machine.

## **Is there a recording time limitation?**

Due to the HFS+ format requirement, the Camera does not have a recording time limit, aside from the space limitations of your SSD drive. The larger the drive, then the longer the recording limit.

## **How much footage can I store on a Hard Disk?**

This will depend on the size of the SSD but the following will give you a guide.

Each frame in RAW 2.5K is approximately 5 MB in 24p. So, you are going to be able to fit about 30 minutes of 24p video on a 256 GB solid state disk.

If working in Compressed HD formats you can fit more than 5 times the amount of RAW video. Apple ProRes 422 (HQ) on the camera and a 480GB SSD will give you about 5 hours of recording time.

## **Will it be possible to delete clips off the SSD when in the Camera?**

No, this will not be possible. This can be done when the SSD is connected to the computer.

## **Can you output raw footage through the thunderbolt connection to a Mac laptop straight off the block without compression or codecs?**

Not in the initial release. The Thunderbolt will output 10 bit 4:2:2 1920x1080 video. The Camera should be able to capture RAW from Thunderbolt in a future firmware update.

## **Can you do a simultaneous record to SSD and a connected Thunderbolt computer?**

Yes. That is possible. The Thunderbolt output provides an uncompressed 1920x1080 feed to the host computer and you can just use the Media Express software, which is included, to capture ProRes.

## **Will CinemaDNG be in mxf or Sequence?**

Sequence.

## **What type of sensor is in the camera? CMOS or CCD?**

CMOS.

## What is the sensor size?

The sensor size of the Blackmagic Cinema Camera is slightly larger than traditional Super 16mm. For reference, major motion pictures such as THE WRESTLER and BLACK SWAN were shot on Super 16mm Film.

By using wider lenses (ex. Sigma 20/1.8) you can achieve a similar angle of view to larger sensor cameras such as the GH2, 7D, or 5D.

Example: A 45mm on the 5D would exhibit a similar angle of view to the Blackmagic Cinema Camera with a 20mm attached. The DOF characteristics may or may not be different, depending on F-stop.



## How do I clean the sensor?

The sensor is sealed behind a glass IR filter so you will not be able to get to it. So you only need to limit your cleaning to the glass filter.

## What lenses should I consider?

If you're coming from a Canon production workflow, you may already have a set of Canon EF mounted lenses to utilize. If you're coming from a Nikon-centric production workflow, as of now, you'll need to purchase adapters that mount AI-S to EF.

On the wide end, you may want to take a look at offerings from several manufacturers.

## What is the maximum/minimum operating temperature?

Do not run the camera below 0 degrees Celsius and or at more than 45 degrees Celsius ambient temperature.

## What about autofocus and image stabilization?

Auto focus and Image Stabilization will not be in the initial release but these are features which will be adding with software updates.

### **Are we going to see higher frame rates being added via firmware?**

There are technical implications when increasing the frame rates. While it will definitely be a nice feature addition, there is no guarantee that this will happen. The camera has a maximum frame of 30 fps and that is what it is shipping with.

### **How do I view RAW footage on the LCD properly?**

You can playback the RAW footage directly from the SSD and view it on the LCD in proper REC709 colour space.

### **Can you power the camera with the DC port as well as having the battery so if DC power fails you have the internal battery as backup?**

Yes.

### **Can you do emergency charging via the USB port?**

Yes, you can charge the camera via USB. It's slow but if you really need to, it's there.

### **What do I get when I buy the camera?**

You will receive the Blackmagic Cinema Camera body, carry strap, detachable sun hood, dust cap, 12V international AC power adapter, full version of DaVinci Resolve 9.0 and Ultrascope software.

### **Is the camera for Film specifically or will it also take still shots?**

The Camera has been designed primarily for moving images. However, each RAW sequence is made up of individual DNG files.

### **Can you set the colour matrix in the camera to a specific colour gamma?**

No.

### **Will there be an adapter to handle Nikon Lenses with Electronic Iris control?**

No

### **Can you get two cameras and record stereoscopic or 3D with the ability to link both cameras together as a option in the menu?**

No.

### **Does the LANC Control allow for Zoom?**

No.

## What external LANC controllers are supported by the Blackmagic Cinema Camera?

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The Blackmagic Cinema Camera currently supports the following LANC controllers with record start/stop triggers, Iris control and focus control.

Manfrotto MVR901EPLA and Bebob ZOE-DVXL

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## How is timecode handled on the camera?

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The Blackmagic Cinema Camera records 'time of day' timecode based on the time and date settings in the camera. This can be accessed via the touch screen menu.

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## What ISO settings are available on the camera?

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The camera currently has ISO 200, 400, 800 and 1600.

## What is Film/Video mode when recording in ProRes?

FILM mode is a LOG mode. It's BMD's version of LOG.

It's not really to make it look more like film, BUT a way of capturing the most dynamic range possible (16bit linear) and recording it into the 10 bit container that ProRes recording offers. When shooting in FILM mode, you almost get the same Dynamic Range as shooting in RAW, but with slight compression.

You can also use FILM when shooting DNxHD.

In RAW when shooting CinemaDNG, you get everything anyway and FILM or VIDEO isn't relevant.

VIDEO mode is intended for those that want to go straight to edit and not have to grade their shots. You might choose to do this if you're in a hurry, or don't want the hassle of going through Resolve before the edit.

When shooting VIDEO you do sacrifice some of the dynamic range.

Detailed specs can be found here:

<http://www.blackmagic-design.com/products/blackmagiccinemacamera/techspecs/>

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