Canon

EOS C500

4K

CINEMA EOS

LEAVE NO STORY UNTOLD

LEAVE NO STORY UNTOLD – GO WHEREVER THE STORY TAKES YOU

The EOS C500 4K Digital Cinema Camera is a camera with few competitors. It capitalizes on the superb ergonomic design and incorporates the same Canon-developed Super 35mm 4K CMOS image sensor as the EOS C300, retaining identical capabilities in terms of in-camera recording of HD video onto Compact Flash (CF) Cards. But it is there that the similarities end.

The EOS C500 offers significantly more contemporary high-resolution motion imaging choices. The camera supports uncompressed 2K or HD 4:4:4 RGB video components – with an additional choice of 12-bit or 10-bit depth for each – at up to 60 progressive fps, which are externally recorded. By employing the YCbCr component-video set at a 10-bit depth, the EOS C500 can extend that picture capture rate up to 120 fps.

In addition, anticipating the inexorable march of 4K production, this same camera can be switched to a 4K imaging mode that is user-selectable between the cinema-centric 4096x2160 format, or the television-centric 3840x2160 UHDTV format (sometimes called QuadHD). In this imaging mode, the camera delivers a 4K RAW output to the external recorders. But what sharply distinguishes the EOS C500 from all other 4K-capable cameras is that this RAW video output is uniquely configured to precisely comply to the SMPTE 424M and SMPTE ST 425-1 3G-SDI video standards. In terms of systemization, this capability offers very significant workflow advantages.

Canon has collaborated with some of the most respected worldwide manufacturers of solid-state digital recording systems – no less than six, at this juncture – to help ensure that end users have a broad choice in how they record the EOS C500's 2K/HD/4K uncompressed video outputs and manage the associated workflows.

"How much can I push the envelope with the C500? I really had nothing that stopped me in the most dramatic way I could."

Jeff Cronenweth, ASC / Director of Photography for *"Man & Beast"*

Above: Behind the scenes on the set of the 4K short film "Man & Beast."

CANON CINEMA & EF LENSES
– A NEW WORLD OF HIGH RESOLUTION IMAGING

The EOS C500 is intended to be a major production tool for high-end motion imaging – in the globally established 2K motion picture production and HD television production arenas, as well as in the steadily emerging 4K motion imaging sectors. With that in mind, Canon launched a large Cinema EOS project that encompassed a parallel development of four Cinema EOS cameras and a family of Cinema Prime and Zoom lenses. The latter have been carefully designed to meet the full optical performance expectations of 4K imaging. This unique strategy ensures the exceptional creation of HD and 2K images, as well as the production of a flexible 4K lens-camera motion imaging system without peer.
The PL camera mount is recognized as the industry standard for large-format cinematography – for both motion picture film and digital cameras. Cinema Zoom lenses are all available in PL mount and, accordingly, provide the most contemporary optical performance to all Super 35mm digital and film cameras, as well as the Canon Cinema EOS C500 and C300 cameras. But Canon also recognized the existence of a huge global constituency of still-image photographers using the extensive range of Canon EF lenses, with many aspiring to transition to digital motion imaging. Therefore, Canon chose to make the Cinema Zoom lenses available with the alternative EF mount, and has also developed a range of EF mount 4K Cinema Prime lenses. In concert with this strategy, the EOS C500 camera is also available in PL mount or EF mount.

Canon Cinema Lenses

Canon offers a complete line of cinema lenses, including Zooms, Compact Zooms and Primes. All of these lenses fulfill contemporary 4K production standards, further enhancing the performance of any HD imaging system. And each lens features an 11-blade aperture diaphragm to help ensure beautiful bokeh. Markings on both sides of the lens barrel simplify focus reading and aperture setting from behind or on either side of the camera, while torque of the control rings maintains proper resistance. To enable film crews to change optics quickly and without adjusting the rig setup, each category of Cinema Lenses shares a uniform front diameter, rotation angle for operational controls, and gear positions.

Canon Cinema Zoom and Compact Zoom Lenses

Canon Cinema Zoom and Compact Zoom Lenses use new optical glass materials, new optical coatings and powerful new design techniques to offer extraordinary 4K optical performance. All Zoom Lenses feature large aspherical lens elements that help achieve sharp, consistent images, and a geared inner-focusing mechanism helps minimize focus-induced changes in the angle-of-view, greatly reducing focus breathing. All of these lenses are available with industry-standard PL-mount or Canon's EF-mount.

The wide-angle Cinema Zoom CN-E14.5–60mm T2.6 L S/SP represents a masterpiece of contemporary optical design, with a focal range that was chosen to meet a wide range of needs in movie-making and high-end television production, and resolution that exceeds 4K. The Cinema Zoom telephoto CN-E30–300mm T2.95–3.7 L S/SP lens rivals best-in-class zoom lenses, in a surprisingly low-weight, opto-mechanical housing.

Canon Cinema Compact Zoom Lenses offer 4K resolution in form factors that enable more flexible, less intrusive shooting. The CN-E15.5–47mm T2.8 L S/SP delivers a wide to medium range of focal lengths, while the CN-E30–105mm T2.8 L S/SP covers wide to modest telephoto shots. Both zoom lenses are ideal for Steadicam™ and hand-held shooting.

Canon Cinema Prime Lenses

The flexible series of Canon Cinema Prime Lenses offers spectacular 4K-image quality and a full-frame image circle, in lightweight, compact designs. This family of lenses features high optical speed, produces exceptionally sharp images and superb contrast, and maintains tightly controlled focus breathing and geometric distortion. These EF-mount models offer consistent form factors and markings that have been optimized for motion picture production, and represent the beginning of an evolving family of cinema primes.

Canon Cinema Prime Lenses are also compatible – under manual operation – with all Canon EOS DSLR models, including the full-frame EOS-1D X and EOS 5D Mark III, as well as the EOS 7D and EOS 60D models that use APS-C sized image sensors.

Canon EF Series Lenses – A Wide and Varied Selection

Perfected in Canon laboratories and proven in the field, Canon EF Lenses incorporate a rare array of the world's most advanced optical, micro-electronic and manufacturing technologies. Many EF lenses utilize the advanced Canon Peripheral Illumination Correction feature, which helps to ensure beautiful, consistent color and brightness across the entire image plane. In addition to offering full compatibility with existing lenses, the EOS C500's EF mount opens up new, creative possibilities with Canon specialty lenses, including Tilt-Shift, Macro and Canon's exhilarating EF 8–15mm f/4L Fisheye USM zoom lens.

Tilt-Shift Lenses — TS-E lenses incorporate tilt and shift functions to extend the shooting advantages of technical-view cameras to the EOS system. Tilt movements alter the angle of the focal plane between the lens and image sensor, modifying depth-of-field independently of the lens aperture. Shift movements slide the lens' optical axis along the plane of the image sensor, enabling photographers to correct or alter perspective to almost any angle, and help add unimagined drama to a scene.

Macro Lenses — By revealing the finest detail and achieving extraordinary edge-to-edge accuracy at very shallow depth-of-field, macro photography can be an ultimate test of optical performance. Canon EF specialty lenses include six ultra-precise macro lenses and three screw-on, close-up lenses. Accompanied by the Life-Size Converter EF and two Extension Tube accessories, Canon's macro lens array provides valuable imaging options for the EOS C500 camera.

Fisheye Zoom Lens — Super wide-angle and special-effects photography let you capture each subject from a unique perspective. The Canon EF 8–15mm f/4L Fisheye USM is the world's first fisheye zoom lens to create circular images with a 180-degree angle-of-view on full-frame DSLRs.

Canon L-Series Lenses

Canon L-series Lenses are highly regarded by video professionals who demand uncompromising optical performance. These specialty lenses incorporate a number of innovative Canon technologies, including Ultra-low Dispersion (UD) glass, fluorite and aspherical lens elements, plus Super Spectra Multi Coating.

THE KEY TO SUCCESSFUL DIGITAL CINEMA – SUPERB IMAGE QUALITY IN HD/2K AND 4K

The EOS C500's superb imaging abilities start with the highly innovative, 4K image sensor that was developed by Canon specifically for high frame rate motion imaging. The 8.85 Megapixel sensor's performance has been acclaimed in the EOS C300 for its outstanding sensitivity, and that same range of ISO 320 to ISO 20000 – a product of the novel photodiode design and the larger photosite area – is fully maintained in the EOS C500 for 2K/HD and 4K operation. The uniquely organic nature of the image sensor noise (devoid of any fixed pattern noise) at high ISO settings has been widely commented upon as being evocative of motion picture film grain. The 12-stop dynamic range imparts a superb tonal reproduction, as well as an exposure latitude that helps ensure clarity in deeply shadowed areas of a scene while also preserving details in overexposed portions. The rich color reproduction is a product of Canon's mastery of Color Filter Array (CFA) design and image sensor spectral response.

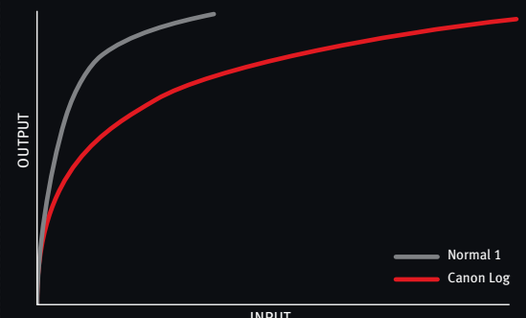
HD and 2K Origination

A central design goal for the EOS C500 was to ensure that this large-format single-sensor camera would produce the highest possible quality HD or 2K over a broad range of frame rates. The EOS C500 originates 1920x1080 HD in the same unique manner as in the EOS C300. This entails direct readout of the 4K image sensor (operating in a 3840x2160 QuadHD sampling mode), not as the traditional singular RAW signal but rather as four parallel 1920x1080 video components. This capability immediately creates an RGrGbB, 4:4:4:4 12-bit component set without any debayering process whatsoever, thus totally avoiding any reconstruction errors associated with that process.

The subsequent summation of the two green video components – Gr and Gb – creates a uniquely enhanced green that has exceptionally high sharpness and virtually zero horizontal and vertical aliasing. This summed green component is also endowed with an increased effective dynamic range. The EOS C500 thus prepares an exceptionally clean 12-bit 1920x1080 RGB 4:4:4 HD component set having unrivalled overall image performance.

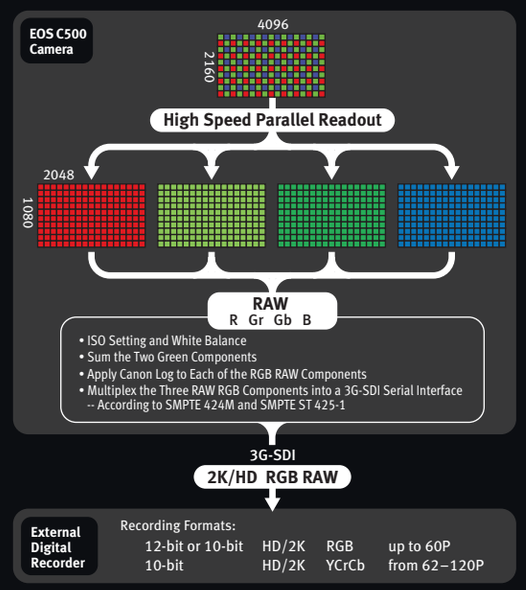
In the alternative cinematic 2K mode, this component set is derived from the 4096x2160 photosite sampling of the image sensor and becomes a 2048x1080 RGB 4:4:4 set, with each component at full 12-bit depth.

Canon Log Gamma



***Canon Log** – Ensures tonal reproduction for both highlight and lowlight regions during post-production.*

2K/HD RAW Data Signal Processing



2K Multiple Output Formats

Mode	Resolution	Frame Rate
2K RGB 4:4:4 12-bit	2048 x 1080 / 1920 x 1080	59.94p / 29.97p / 23.98p / 50.00p / 25.00p / 24.00p
2K RGB 4:4:4 10-bit	2048 x 1080 / 1920 x 1080	59.94p / 29.97p / 23.98p / 50.00p / 25.00p / 24.00p

2K Slow and Fast Motion Recording Chart

Mode	Resolution	Playback Rate	Record Rates
2K RGB 4:4:4	2048 x 1080 / 1920 x 1080	60Hz / 24:00	1–30 in 1 frame increments 32–60 in 2 frame increments
		50Hz	1–25 in 1 frame increments 26–50 in 2 frame increments
2K YCC 4:2:2	2048 x 1080 / 1920 x 1080	60Hz / 24:00	1–60 in 1 frame increments 62–120 in 2 frame increments
		50Hz	1–50 in 1 frame increments 52–100 in 2 frame increments

2K and HD RAW Signal Outputs

It is important to recognize that the RGB video component set that has been originated remains a genuine RAW signal set. The components are directly originated in the image sensor itself, and they fully preserve all of the wide dynamic range and low noise of this unique image sensor, combined with the excellent colorimetry of the special Canon Color Filter Array (CFA). A significant extension to the performance attributes of these 12-bit RGB components is the ability to operate at high frame rates. The only processing baked into these RAW signals are two gain settings: one related to the camera ISO setting, and the second related to white balance.

Canon Raw is stored as file clips, and each frame is in a Raw Media Format file. A specific take within a shooting project is stored in a folder containing multiple file clips. From origination within the image sensor to final playback through the digital recorder, there is no loss in overall picture quality in either HD or 2K modes. Full color space and exposure latitude are preserved, and downstream digital image manipulations are superbly supported.

Canon Log

One of the critical design goals of the EOS C500 was to ensure that the uncompressed 2K or HD component video set could be interfaced with multiple well-known digital recorders via a standard serial digital interface. As such, the total data rate over this interface had to be carefully managed. A key element is that Canon Log is applied to the three RGB component-video signals, as is ensuring that the full 12 stops of dynamic range are protected in that recording process.

It is important to note that this is the only form of video processing applied to these signals and, accordingly, their RAW integrity is ensured. The associated mathematics and coding levels of Canon Log are published on the Cinema EOS website; this information allows restoration in post-production of the RGB components to three linear video components at bit depths of 14 or 16 bits. Traditional RGB video processing is subsequently applied in the grading and finishing processes.

HD and 2K Recording

Because the Canon RAW signals are, in fact, a 4:4:4 RGB component-video set, they are carefully multiplexed in the EOS C500 in strict accordance with the SMPTE 424M and SMPTE ST 425-1 3G-SDI video standards. (This standard lays out how to multiplex four component RGB+A into a single serial stream.) The EOS C500 features two separate 3G-SDI interface connectors. At the internationally standardized progressive picture capture rates of 23.97/24.0/25/29.7/50/60P, only one of the 3G-SDI interfaces is required to transport the 12-bit 4:4:4 RGB video components to the relevant external recorders.

When higher frame rate operation is desired for slow motion effects – up to a limit of 120P – then the two 3G-SDI interfaces are required in order to transport the far higher data rates entailed. And here, the component set will be switched from 12-bit RGB to 10-bit YCbCr. The EOS C500 can also be switched to deliver an alternative 10-bit RGB via the single 3G-SDI output serial interface if either the image recorder or the post-production system operates at this lower bit depth.

Slow and Fast Motion Recording

In addition to the EOS C500's operation over the range of fixed, worldwide picture capture rates listed above, creative flexibilities are dramatically extended when the camera is switched into a mode called Slow/Fast Recording. This allows selection of a range of progressive frame rates – starting as low as 1 fps and increasing in incremental steps up to 120 fps – to support effects shooting that seeks speeding up or slowing down motion capture. From 1 to 30 fps, the selection is in one-frame steps; from 32 to 60 fps it is in two-frame steps; and from 62 to 120 fps the YCbCr component operation is selectable in two-frame steps.

4K Motion Image Origination

When switched to the 4K mode of operation, the EOS C500 originates a 4K RAW file that is output for external recording. Either the cinematography-centric 4096x2160 format standardized by SMPTE as ST 2048-1:2011 or the television-centric UHDTV Production Format standardized by the ITU as ITU-R BT.1769 (3840x2160 format) can be selected. In a unique departure from the traditional single RAW file format created in most 4K single-sensor cameras, the EOS C500 structures its RAW file as a multiplex of four separate 2K components.

The readout of the 4K image sensor is always a direct extraction of a 4:4:4:4 RGrGbB component set – each being a 2K format. Those 12-bit parallel signals fully retain all of the 4K color-coded information from the 4096x2160 photosites (which utilize a classic Bayer CFA).

4K RAW Power

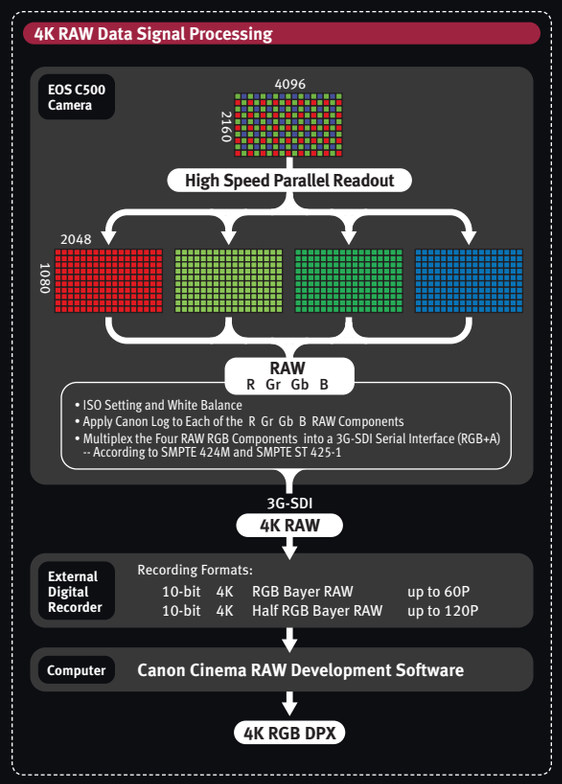
Those four 2K signals form the basis of Canon's RGB Bayer RAW information. The high bit rate components are first transformed by a Canon Log transfer function to 10-bit signals. This step effectively protects the camera's 12-stop dynamic range capability, while also contributing to the bit rate reduction strategy required to create a viable RAW total interface data rate for the external digital 4K recorders. These four components are then multiplexed in the EOS C500 according to the SMPTE 424M and SMPTE ST 425-1 3G-SDI video standards by slotting the four RGrGbB components into the four RGB+A channels stipulated within those standards. The resulting single serial digital file becomes the Canon RAW output file.

This file has embedded audio files, complying with the BWF standard, and an associated management file that contains information about the RAW file, the audio file and Metadata clips, etc. All details of the Canon 4K RAW file have been shared with all collaborating recording manufacturers. This is a RAW signal like no other in the 4K world, and it is endowed with some stellar attributes – not the least of which is that it constitutes a highly robust, uncompressed RAW signal for recording.

4K Recording

The Canon RGB Bayer RAW serial interface is accepted by various image recorders that operate with the EOS C500. Each of these external recorders has its own unique design and associated data-management strategy. Some record uncompressed, some apply mild compression, while others transcode to other industry formats prior to recording. With each recording strategy, there is an associated workflow that carries through to editing and final grading in post-production. This diversity of workflows helps facilitate the various workflow preferences for moviemaking, high-end television origination, and TV commercial production.

The EOS C500 sends the 10-bit 4K RAW (in either format) via one of the 3G-SDI interface connections at picture capture rates of 23.97/24.0/25/29.7P. Because of the high overall data rate necessary for 50P and 60P, two 3G-SDI interfaces are required. Picture capture rates up to 120P are also possible using two interfaces, but here the vertical is decimated to 1080 lines to create a Half-RAW file that stays within the total required 6 Gbps limit. These vertical lines are then restored in post-production.



4K Slow and Fast Motion Recording Chart

Mode	Resolution	Playback Rate	Record Rates
4K RAW	4096 x 2160 / 3840 x 2160	60Hz / 24:00	1–30 in 1 frame increments 32–60 in 2 frame increments
		50Hz	1–25 in 1 frame increments 26–50 in 2 frame increments
4K HRAW	4096 x 1080 / 3840 x 1080	60Hz / 24:00	1–60 in 1 frame increments 62–120 in 2 frame increments
		50Hz	1–50 in 1 frame increments 52–100 in 2 frame increments

4K and Proxy Multiple Output Formats

Mode	Resolution	Frame Rate
4K RAW 10-bit	4096 x 2160 / 3840 x 2160	59.94p / 29.97p / 23.98p / 50.00p / 25.00p / 24.00p
50 Mbps (CBR) 4:2:2 422P@HL	1920 x 1080	59.94i / 29.98p / 23.98p 50i / 25p True 24 (24.00)
	1280 x 720	59.94p / 29.98p / 23.98p 50p / 25p True 24 (24.00)
35 Mbps (VBR) 4:2:0 MP@HL	1920 x 1080	59.94i / 29.98p / 23.98p 50i / 25p
	1280 x 720	59.94p / 29.98p / 23.98p 50p / 25p
25 MBPS (CBR) 4:2:0 MP@H14	1920 x 1080	59.94i / 29.98p / 23.98p 50i / 25p

4K Slow and Fast Motion Recording

Just as in the EOS C500's 2K/HD modes of operation, the 4K mode also facilitates Slow/Fast operation. This allows selection of a range of progressive frame rates – starting as low as 1 fps and increasing in incremental steps up to 120 fps – to support effects shooting that seeks speeding up or slowing down motion capture. From 1 to 30 fps, the selection is in one-frame steps; from 32 to 60 fps it is in two-frame steps; and from 62 to 120 fps the system switches to Half-RAW format and the picture capture rate is select-able in two-frame steps.

Proxy Video Recording In-camera

While the EOS C500 camera is recording 4K, 2K or HD to the external recorder, the internal MPEG-2 codec always records an 8-bit 4:2:2 1920x1080 HD video conversion at 50 Mbps to create a high-quality proxy file. This data is recorded to two Compact Flash (CF) cards using the industry-standard Material Exchange Format (MXF) wrapper format.

4K Interval Recording and Frame Recording

The EOS C500 incorporates an Interval Recording function that facilitates programming the camera to record a specified number of frames at specified intervals for time-lapse capture. For stop-motion animation and other effects, the Frame Recording mode enables the EOS C500 to record a selectable preset number of video frames each time the record button is pressed.

PRODUCING A SEAMLESS AND EFFICIENT 4K/2K WORKFLOW

The EOS C500's workflow is almost entirely determined by the nature of the chosen digital recorder operating with the camera at either 2K/HD or 4K. In the case of the former, there is an essentially seamless transfer of 2K/HD component 4:4:4 RGB into the post-production suite – the primary variable being the choice of 12-bit or 10-bit system operation. Transcoding to other industry file formats may be desired, and some external recorders can handle this function; some deliver DPX files as their output. In the case of 4K shooting, the unique four-component Canon RGB Bayer RAW signal faithfully transports all of the 4K Bayer color encoding via 3G-SDI interfaces to the recorders. Within the various recorders, these Canon files are managed in different ways.

Workflow varies between moviemaking and television production, and is even more dependent upon the innovation and practices of all involved. How file backups are implemented, dailies prepared, whether initial workflow is preferred on set or near set – all of these decisions are based upon technical and creative philosophies. Flexibility is the key, and Canon reached out to the established recording manufacturers. Each has quite different implementations within the recorders themselves. They offer different outputs, and some have ancillary media-management stations.

Innovative Approach to 4K RAW Systemization

The fact that Canon chose to structure the 4K RAW file in complete accordance with the universal 3G-SDI interface standard adds a truly unique systemization strength to the EOS C500 system. The 4K serial RGB Bayer RAW signal can be passed directly though any digital router that embodies a 3G-SDI SMPTE interface, and can be input to any production switcher that also utilizes such an interface.

When mobile hand-held shooting is used, the RAW signal can be connected to a miniature wireless transmitter mounted on the camera and the RAW file can be sent to a recorder elsewhere on the set. In addition, the RAW signal can be sent over a fiber link using 3G-SDI compatible input-output encoders, and also sent to a transmission encoder that accepts 3G-SDI inputs and then sent via satellite, cable, or Telco link, depending upon the nature of that encoder.

For live television production, the ability to pass the 4K RAW file through an existing 3G broadcast infrastructure opens up significant systemization degrees of freedom.

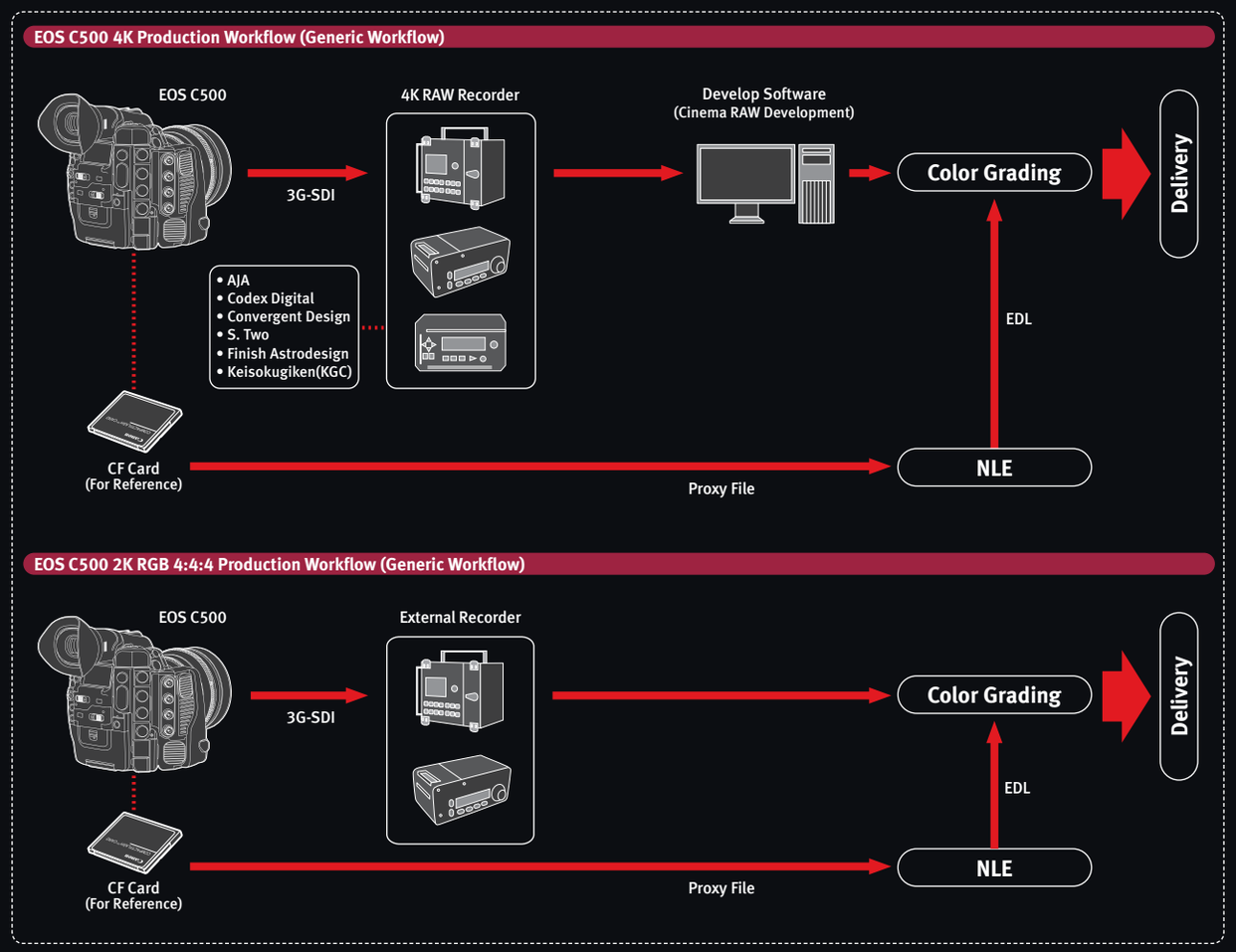
4K RAW Workflow

Again, it is the choice of 4K RAW recorder that will predetermine much of the overall workflow. One recorder will transcode the Canon files to 4K high level ProRes and a lower data rate proxy, with both recorded on an SSD card. The card reader takes these files directly into post-production. Offering an alternative, this recorder will also record and play back the Canon 4K file and output this via a Thunderbolt interface to a Mac or PC workstation loaded with Canon's RMD software. The latter application debayers these 4K files and converts them to RGB DPX files that then can go straight to post-production.

Another recorder records the Canon 4K files to SSD cards that are then loaded into their own media management station. Here the files are cloned and directly output for connection to a computer while being separately converted to 4K DPX files during playback. This workflow offers the choice of creating the 4K DPX files in the computer with Canon Cinema RAW Development (CRD) software, or using the 4K DPX files created in the media station itself. While recording, this recorder simultaneously debayers the 4K and outputs it as a quad 3G-SDI for live monitoring.

"From camera to mobile to DI bank the look is controlled the whole way through and we get to start coloring right away creatively."

John Daro / Senior Colorist for "Man & Beast"



Digital Recorders – The Nerve Center of 2K/HD and 4K Workflows

File-based workflows have become the norm in contemporary digital production, closely emulating Digital Intermediate (DI) workflows developed for motion picture film origination that has been scanned to digital. Canon is presently working closely with six international digital recording manufacturers to optimize 4K/2K/HD acquisition systems. These recorders come in many flavors – some record the files directly uncompressed and output the same upon playback, others transcode the files to other alternatives like ProRes, while still others debayer within the recorder and deliver RGB DPX files.

In the case where the Canon 4K files themselves are delivered, they can be played into a computer with Canon Development Application software that will debayer and output 4K RGB as DPX files.

2K or HD 4:4:4 Recording workflows

Production generally starts with a decision to work with either of the 12-bit or 10-bit depth RGB outputs that can be selected on the EOS C500 camera. Canon Log has been applied to either format to ensure faithful capture of the camera's total 12-stop dynamic range. An external recorder accepts this RGB 4:4:4 2K or HD output via a 3G-SDI input and records it as DPX files onto SSD cards. The cards are subsequently loaded into a reader that transmits these files via fast Thunderbolt, Firewire or USB to a Mac or PC workstation.

Another recorder directly records the RGB 4:4:4 to SSD cards and then loads these into a compact, on-set media management station that can, in turn, perform a variety of transcodes and play back the programming as DPX files, ProRes, and Open EXR, all of which can then go directly into the grading process. Yet another recorder internally transcodes the input to ProRes at a high level and records those files and a secondary lower data rate proxy version. Their associated reader plays these back into the post-production grading system.

The 50 Mbps MPEG-2 proxy files recorded in-camera are sent to a non-linear editing/NLE system. The EOS C500's compatibility with Material Exchange Format (MXF) for MPEG-2 internal recordings to removable CF cards ensures a high level of compatibility with a wide range of profes-sional NLE systems, from such familiar vendors as Apple®, Avid®, Adobe® and Grass Valley®. Final conform is done directly on the DPX files.

FILM-STYLE VERSATILITY AND FAMILIARITY ON THE SET

A pivotal goal in the design of the EOS C500 was to achieve a dramatically superb ergonomic design that, first and foremost, supported both mobility and superb hand-held maneuverability in order to facilitate shooting from fast moving vehicles and in very confined spaces, as well as allow dramatic low shots and flexible Steadicam™ operation.
A conceptual model was the compact 16mm film camera that had been honed after decades of design – but the digital cine camera of today has been given far more powerful 2K/4K digital imaging capabilities. While low weight was a particular priority, it was tempered by the need for an exceedingly rugged design that anticipates multiple shooting modes in challenging environments.
The central camera body is accompanied by accessories that can quickly empower the camera operator to manage a diverse range of shooting modes. A high-resolution EVF, electronic focus aids, a waveform monitor to aid exposure, a vectorscope and wireless remote control all add to that empowerment.

Compact, Modular, Lightweight Design

The EOS C500 features a compact, fully-modular design for enhanced mobility and expandability; the robust, splash-resistant body features a special magnesium alloy for additional rigidity and toughness. In addition to a low-angle Camera-Handle Extension, a removable LCD Monitor and Control Panel with XLR audio inputs help ensure maximum maneuverability.

Compatibility with Third-party Accessories

Canon has collaborated with a number of third-party vendors to help ensure full plug-and-play compatibility with a range of matte boxes, flag shades, support rods and follow-focus systems, including geared control rings, marking discs and adjustment knobs. Geared control rings are a must-have for use with pitchless still-camera lenses; a wind-around gear mounted on the focus ring lets the chosen lens function with familiar follow-focus rigs. A marking disk provides space for pre-measured positions when shifting focus.

EF and PL Mount versions

The EOS C500 is available with the industry-standard PL mount that accepts a wide range of options from the large global inventory of cinematography lenses, especially the new Cinema Zoom lenses developed by Canon as an integral part of the Cinema EOS family. For enhanced versatility, the EOS C500 is also available with an EF mount; Canon's Cinema Zoom and Prime lenses are available with this mount.

In addition, EF version cameras feature full compatibility with over 60 EF and EF-S lenses, including specialty lenses such as fisheye and tilt-shift.

EF and PL Mount

EF Mount Model

PL Mount Model

Wireless File Transmitter WFT-E6A

WFT-E6A

Professional Audio

The EOS C500 includes a pair of audio inputs equipped with professional-grade, XLR-format connectors, coupled with flexible recording controls for the camera's pair of linear PCM channels that operate at 16-bit resolution and a 48kHz sample rate. Automatic and manual level settings accommodate both microphone- and line-level inputs, plus mixing between the two source channels; channel reverse is also provided. Switchable mic-level trim is available at -12dB, -6dB, 0dB or +12dB, plus 48V phantom power for condenser microphones. A built-in limiter controls sudden signal peaks that can cause overload and distortion. A 1kHz test tone switchable to -12, -18 or -20dB levels enables system setup and alignment.

Full Manual Control with Customization

The EOS C500 offers full manual control of all functions, including iris, shutter speed, gain, zoom, focus and audio levels, thereby allowing the camera operators to adapt to both technical and artistic challenges during shooting. For maximum customization, access is provided to Custom Picture Settings, Custom Functions and Custom Display Options to tailor the EOS C500 precisely to specific shooting needs.

Ultra-high Resolution EVF, Focus Aids, Waveform Monitor, Vectorscope and Edge Monitor

The EOS C500 features an ultra-high resolution 0.52-inch/1.55 Megapixel electronic viewfinder/EVF with a widescreen 16:9 aspect ratio. An approximately 100% field-of-view coverage ensures comfortable and accurate image composition, focus and color adjustment. The supplied Monitor Unit's 4.0-inch LCD panel offers a 1.23 Megapixel resolution for enhanced viewing convenience; it rotates forwards and backwards through 270 degrees with an optimal position for shoulder-mounted shoots. Enabling easy checking of scene composition while using the camera at low angles, the LCD panel can also be rotated for monitoring from one side of the camera.

For added flexibility, the LCD panel can also be mounted in various positions to accommodate different viewing positions required by the operator, director or producer. Such flexibility and ease of movement makes the display easier to use than a rigid design, which can be easily bumped or jarred during a shoot.

Two peaking modes and a magnify-focus assist that are available in both standby and record mode make it extremely easy to check and confirm critical focus. An Edge Monitor Focus Assist system, which was first introduced with the Canon XF series camcorders, shows overall focus of the image plus focus status of focus-check boxes.

A versatile waveform monitor provides detailed analyses of both overall image brightness and RGB components, while an on-board vectorscope displays real-time image hue and saturation analysis while checking color balance, and lets you view the effects of white balance adjustments.

Wireless File Transmitter WFT-E6A Unit with Remote Capabilities

To provide unique capabilities, the EOS C500 can be used with an optional Canon Wireless File Transmitter WFT-E6A. Via a web-enabled laptop PC, smartphone, tablet or similar device, users can control and adjust a number of the EOS C500's operational functions, including camera start and stop plus shooting parameters, as well as monitor a remote video feed and input session metadata. A built-in Bluetooth® sensor also communicates automatically with external GPS units to access precise location data that can be embedded within video footage.

FROM START TO FINISH
– ENHANCED DURABILITY AND DEPENDABILITY

The Canon EOS C500 is completely reliable in the world of feature film creation, high-end television production, and television commercial shoots. Built to withstand the most adverse conditions encountered on location during film and video shoots, the EOS C500 delivers pristine-quality images and full-fidelity audio. The camera body is compact and lightweight – yet superbly rugged and durable – and can be taken anywhere and mounted in countless configurations that open up endless creative possibilities. This is the camera intended to meet the most imaginative aspirations of the creative community.
Utterly dependable in capturing the highest possible HD or 2K digital imagery for today's programming needs, the EOS C500 also future-proofs your investment by embodying full 4K capabilities. This is a camera the production team can depend on. With its complete range of 50 and 60Hz based frame rates (and up to 24 fps) for all its formats, it is ready to shoot anywhere in the world. And because it is supported by multiple international recording manufacturers, the EOS C500 is not bound to any recording format or recording media – that choice remains squarely in the hands of the production team.

Rugged, Durable and Quiet

To help ensure reliable operation, the EOS C500 features a dust-resistant, splash-proof design intended to withstand hostile environments when in use in the field, with sealing flaps around edges of access covers, and control dials fitted with a sealing O-ring on the axis of rotation. Button key-tops are also sealed with rubber boots to keep out moisture.

A carefully designed cooling system with fans and vents at three separate positions on the side of the camera draw unwanted heat out of the EOS C500's body.

Behind the scenes on the set of the film "Man & Beast."

Terminals and CF Card Slots

Dual CF Card Slots

Dual-slot CF Cards

To provide proxy video sources for use in off-line NLE editing systems, an HD version of the 2K or 4K origination can be written simultaneously to the EOS C500's pair of on-board Type 1 Compact Flash/CF cards – a versatile, readily available choice of recording media for a wide range of video applications. The use of twin card slots for Relay Recording or continuous recording further extends the time available for continuous shoots. The second CF card takes over automatically after the first becomes full.

To further help reduce your workload during editing, Canon's free Data Import Utility software application – available in both Windows®- and Macintosh®-compatible formats – automatically recognizes divided media as a single, continuous file. A 64GB card offers 160 minutes of recording time at a 50 Mbps record data rate.

Terminals

The EOS C500 comes complete with essential I/O interfaces via professional-grade BNC, XLR and multi-pin connectors. A pair of 3G-SDI connectors output the Canon Log Gamma data and audio signals at resolutions and frame rates established within the EOS C500's 4K/2K priority mode settings. Two additional Monitor BNC connectors can be used to connect a 2K/HD video signal to an external monitor mounted on the camera, as well as possibly to an on-set master monitor, with a choice of either Rec709 or Wide DR color-adjustment look-up tables (LUTs).

A Sync Out connection carries a choice of HD Sync/HD-Y or SD black burst/composite signals, while a Genlock Input allows the EOS C500 to synchronize with external video systems. A dedicated timecode In/Out connector enables the camera to either lock to external timecode or feed its internally generated timecode to an external system.

Designed to be fully Local Application Control Bus/ LANC-compatible, the EOS C500 can be remotely controlled during situations where the operator cannot secure access to user controls and functions, or when using a tripod handle or jib arm that places the camera body beyond convenient reach.

PreREC

Pre-Record/PreRec mode constantly records approximately three seconds of video images to the EOS C500's internal buffer memory, helping ensure that you never miss a unique shooting opportunity on location.

Custom Pictures

In addition to full manual control of all functions, including iris, shutter speed, gain, zoom and focus, the EOS C500 provides access to Custom Picture Settings, Custom Functions and Custom Display Options that let users customize the camera to precisely their specific needs.

Black Balance Adjustment

If RGB black levels incur minor offsets – due perhaps to operation in very high environmental temperatures – they are automatically rebalanced when the lens is capped and the camera powered up.

OUR CONTINUING COMMITMENT TO SERVICE, SUPPORT AND EDUCATION

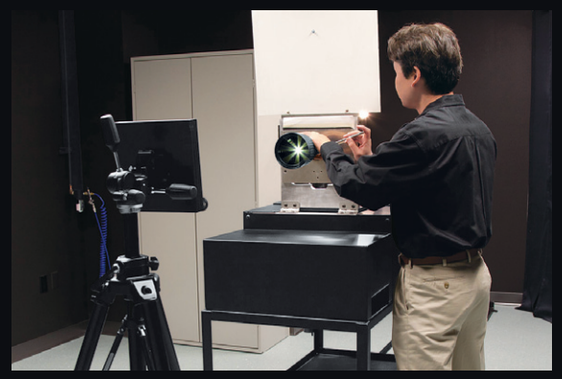
Motion picture and video production is not just an artistic endeavor. It's also a business, with targeted budgets, profit requirements and inevitable deadlines. Professionals want to know they are dealing with professionals; while dealing with Canon, you can count on a proven creative partner. Our service is world-class, with Canon support programs specially customized to meet your needs. And, to help ensure that you remain current with new technologies and techniques, our educational commitment spans the range of live and online resources.

Dedicated Service for Professionals

The Canon Hollywood Professional Technology & Support Center was established to bring our world-class service directly to motion picture studios, the television industry, plus independent producers and videographers. Located in the heart of Hollywood, CA, our facility is staffed with expert technicians who are fully prepared to take care of all your Cinema EOS products. We can accurately adjust cameras and lenses, repair both cinema and still-photography equipment, and meet the needs of professionals like yourself who are working with tight and often inflexible deadlines.

With our industry-leading turnaround times and substantial service-parts inventories, we aim to get you back in action fast. And while working on location, you can count on Canon's nationwide service centers for factory-quality repairs and available 24/7 Call Center support. And this is just part of our two-way relationship with you, the end user. Canon not only makes certain that all of your equipment is functioning perfectly when delivered, but we also use your valuable feedback and suggestions to help develop new and even better products. In fact, the Cinema EOS system was developed as a direct result of such industry feedback.

Professional SERVICE & SUPPORT
Speed. Quality. Excellence.



Support Programs Customized for Your Needs

Cinematographers, production companies, film schools and other industry professionals can take advantage of optional service programs tailored to meet their specialized needs. We offer service partnerships for full-service dealers as well as rental houses, thereby providing additional flexibility to Canon's industry partners. We tailor our custom training packages to the needs of your specific film and TV productions, with expert staff available to deliver training at our Hollywood facility or on location throughout the USA. Whether you require fast repair turnaround times, loaner equipment or equipment maintenance, Canon has a program to keep your business and equipment up and running. We will be expanding these important service offerings as the Cinema EOS production community expands.

You can learn more at: **pro.usa.canon.com/support**

CANON LIVE LEARNING

CANON DIGITAL LEARNING CENTER

Unsurpassed Educational Resources

Education is another important cornerstone of Canon's commitment to professional cinematographers. Whether working online, at a production lot or as part of a remote shoot, we are here to provide you with all the essential resources that you need to remain current and keep your creative passion alive.

Canon Live Learning (CLL) seminars and workshops are conducted nationwide and in our Hollywood Professional Technology and Support Center, with classes taught by both industry experts as well as Canon's renowned and experienced Explorers of Light. Covering a wide range of still and cinematic topics, ranging from techniques through equipment selection to in-depth system configuration, CLL events offer professionals and enthusiasts alike the opportunity to sharpen their skills in a number of immersive hands-on settings.

Schedules are available at: **usa.canon.com/canonlivelearning**

The **Canon Digital Learning Center**, our web-based education and information portal, is targeted at busy, working professionals. It is widely recognized for its depth of available information, which is presented in a friendly, compelling format. The Canon Digital Learning Center's comprehensive online resources include tutorials, interviews, QuickGuides and downloadable White Papers; it continues to grow with the addition of information in support of the new Cinema EOS family of video products. Available assets range from comprehensive system FAQs, technical articles by professional cinematographers, interactive menu and button simulators to tutorials, sample videos, behind the scenes and much more. And because the Canon Digital Learning Center is tablet friendly, our encyclopedic online materials are always accessible 24/7 via the internet, anywhere in the world. Think of it as the "Anytime, Anywhere" resource for professionals, enabling you to hit the set running with the confidence and know-how to make the very most of the Cinema EOS system.

Learn more at: **learn.usa.canon.com**

EOS C500 Specifications

IMAGING SENSOR

Effective Pixels: 4096 x 2160 pixels; Approx. 8.85 megapixels
Total Pixels: 4206 x 2340 pixels; Approx. 9.84 megapixels
Sensor Type: CMOS
Sensor Size: Super 35; 26.2 x 13.8 (29.6mm diagonal); 6.4µm cell pitch
Scanning System: Progressive
Number of Sensors: 1
Filter: RGB Primary Color Filter (Bayer Array)
Imaging Processor: DIGIC DV III

LENS SYSTEM

Interchangeable Lens System: Choice of PL- or EF-mounts for compatibility with a wide variety of lens systems.
Zoom/Focus Preset: Not Available
Shockless Zoom: Not Available
Digital Teleconverter: Not Available
ND Filter: Mechanical ND filter system with option of clear, 2, 4, and 6 stops
Iris: Iris Dial located on camera body for use with EOS EF Lenses with electronic Iris control (EF Camera version only)
Peripheral Illumination Correction: Available on EF-mount Model only

EXPOSURE AND METERING

Exposure Modes: Manual
Metering Modes: Not Available
Gain: Normal Setting -6 dB to 30 dB / Fine Setting 0 dB to 24 dB in 0.5 dB increments
ISO: 320 to 20000
Auto Gain Control (AGC): Not Available
Shockless Gain: Not Available
Exposure Compensation/AE Shift: Not Available
Shutter Modes: 5 Modes: OFF; Speed; Angle; Slow Shutter; Clear Scan
Speed Mode is selected in 1/3- or 1/4-stop increments
Shutter Speed Range:
59.94i/59.94p: 1/60 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/4, 1/8, 1/15, 1/30; CS: 59.94Hz – 250.27Hz
29.97p: 1/30 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/4, 1/8, 1/15; CS: 29.97Hz – 250.27Hz
23.98p/24p: 1/24 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/3, 1/6, 1/12; CS: 23.97Hz – 250.27Hz
50i/50p: 1/50 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/3, 1/6, 1/12 1/25; CS: 50.00Hz – 250.78Hz
25p: 1/25 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/3, 1/6, 1/12; CS: 25.00Hz – 250.78Hz
Shutter Angle Settings:
59.94i/59.94p: 360, 240, 216, 180, 120, 90, 60, 45, 30, 22.5, 15, 11.25
29.97p: 360, 240, 216, 180, 120, 108, 90, 60, 45, 30, 22.5, 15, 11.25
23.98p/24p: 360, 345.6, 288, 240, 180, 172.8, 144, 120, 90, 86.4, 72, 60, 45, 30, 22.5, 15, 11.25
50i/50p: 360, 300, 240, 180, 150, 120, 90, 60, 45, 30, 22.50, 15, 11.25
25p: 360, 300, 240, 180, 150, 120, 90, 75, 60, 45, 30, 22.50, 15, 11.25
Iris (Aperture) Range: EF Lenses only – 1/2, 1/3-stop or fine setting can be selected
Smooth Manual Control on Cinema Lenses

FOCUS

Focus Settings: Manual
Autofocus System: Not Available
AF Modes: None

EXTERNAL RECORDING OUTPUT

Resolution:

Mode	Resolution	Frame Rate
4K RAW 4:4:4 10-bit	4096 x 2160 / 3840 x 2160	59.94p / 29.97p / 23.98p / 50.00p / 25.00p / 24.00p
2K RGB 4:4:4 12-bit	2048 x 1080 / 1920 x 1080	59.94p / 29.97p / 23.98p / 50.00p / 25.00p / 24.00p
2K RGB 4:4:4 10-bit	2048 x 1080 / 1920 x 1080	59.94p / 29.97p / 23.98p / 50.00p / 25.00p / 24.00p

Color Space: 4:2:2 or 4:4:4
Canon Log: Yes

RECORDING/CODEC (INTERNAL)

Signal System: 59.94Hz and 50Hz
Compression: 8-bit MPEG-2 Long GOP
Color Space: 4:2:2
Maximum Bit rate: 50 Mbps (CBR)
Canon Log: Available
Recording Options:

Mode	Resolution	Frame Rate
50 Mbps (CBR) 4:2:2 422P@HL	1920 x 1080	59.94i / 29.98p / 23.98p 50i / 25p True 24 (24.00)
	1280 x 720	59.94i / 29.98p / 23.98p 50p / 25p True 24 (24.00)
35 Mbps (VBR) 4:2:0 MP@HL	1920 x 1080	59.94i / 29.98p / 23.98p 50i / 25p
	1280 x 720	59.94i / 29.98p / 23.98p 50p / 25p
25 Mbps (CBR) 4:2:0 MP@H14	1440 x 1080	59.94i / 29.98p / 23.98p 50p / 25p

Recording Time:

Card Capacity (CF Card)	Bit Rate (VBR) 50 Mbps	35 Mbps	25 Mbps
2GB	5 Minutes	5 Minutes	10 Minutes
4GB	10 Minutes	10 Minutes	20 Minutes
8GB	20 Minutes	25 Minutes	40 Minutes
16GB	40 Minutes	55 Minutes	1 Hour 20 Min.
32GB	1 Hour 20 Min.	1 Hour 50 Min.	2 Hours 35 Min.
64GB	2 Hours 40 Min.	3 Hours 45 Min.	5 Hours 10 Min.

Recording Media:
CF Card (Type 1 Only); 2 Slots (Movie Files); UDMA supported
SD Card (Still Images (JPEG), Custom Picture Data*, Clip Metadata, and menu settings); SD/SDHC/SDXC Supported; MMC Cards are not supported
*Custom Picture Data and Settings are not compatible with data from other Canon models
File Format: MXF (OP-1a)
File System: FAT 32
Maximum Clip Number: 999 (per media)

AUDIO

Recording Format: Linear PCM; 2-Channel; 16-bit; 48kHz
Built-in Microphone: None
External Audio Inputs: 2 – XLR inputs (Auto and Manual level settings)
External Microphone Terminal: (3.5mm diameter)
Recording Chanel Selection: This is used to set the allocation of the audio channels:
CH1/CH2: The CH1 signals are allocated to the L output channel, and the CH2 signals are allocated to the R output channel.
CH1/CH1: The CH1 signals are allocated to the L output channel, and the CH1 signals are allocated to the R output channel.
CH2/CH2: The CH2 signals are allocated to the L output channel, and the CH2 signals are allocated to the R output channel.
ALL CH/ALL CH: Signals obtained by mixing the CH1 and CH2 signals are allocated to the L and R output channels.
XLR Mic Trimming: Available; -12 dB, -6 dB, 0 dB or +12 dB
Limiter: Available
Recording Level Adjustment Range: - Infinity to +18 dB
Phantom Power: Available; +48V
Headphone Adjustment: 16 Settings; Volume is muted at lowest setting
Built-in Speaker: None
1KHz Tone: Available; -12, -18, or -20 dB

FEATURES AND PERFORMANCE

Playback: Clip Display: 3x4 Index Display, Original, "OK Mark," "Check Mark," "Shot Mark," Expand, Photo (SD Card), Clip Metadata
Clip Playback: Forward Search (x5, x15, x60), Reverse Search (x5, x15, x60), Forward Frame Advance, Reverse Frame Advance, Record Review, Skip to Next Clip, Skip to Previous Clip
Clip Information Display: Clip Metadata Display, Custom Picture Settings
Playback Functions: Inter-media Copy (Single Clip, All Clips, Last Clip); Clip Delete (Single Clip, All Clips, Last Clip); Still Image Playback: Index, Single Playback, Erasure, Protect
Slow and Fast Motion Recording:
4K RAW – 4096 x 2160 / 3840 x 2160 (Playback Rate: 60Hz / 24:00) Record Rate: 1–60. 32–60 in 2 frame increments (Playback Rate: 50Hz) Record Rate: 1–50. 26–50 in 2 frame increments
4K HRAW – 4096 x 1080 / 3840 x 1080 (Playback Rate: 60Hz / 24:00) Record Rate: 1–60. 62–120 in 2 frame increments (Playback Rate: 50Hz) Record Rate: 1–50. 52–100 in 2 frame increments
2K RGB 4:4:4 – 2048 x 1080 / 1920 x 1080 (Playback Rate: 60Hz / 24:00) Record Rate: 1–60. 32– 60 in 2 frame increments (Playback Rate: 50Hz) Record Rate: 1–50. 26–50 in 2 frame increments
2K YCC 4:2:2 – 2048 x 1080 / 1920 x 1080 (Playback Rate: 60Hz / 24:00) Record Rate: 1–60. 62– 120 in 2 frame increments (Playback Rate: 50Hz) Record Rate: 1–50. 52–100 in 2 frame increments
50 Mbps – 1920 x 1080 (Playback Rate: 29.97p/23.98p/24.00p) Record Rate: 1–30 (Playback Rate: 50i/25p) Record Rate: 1–25

50 Mbps – 1280 x 720 (Playback Rate: 59.94p/29.97p/23.98p/24.00p) Record Rate: 1–60 (Playback Rate: 50p/25p) Record Rate: 1–50

35 Mbps – 1920 x 1080 (Playback Rate: 29.97p/23.98p/24.00p) Record Rate: 1–30 (Playback Rate: 50i/25p) Record Rate: 1–25

35 Mbps – 1280 x 720 (Playback Rate: 59.94p/29.97p/23.98p/24.00p) Record Rate: 1–60 (Playback Rate: 50p/25p) Record Rate: 1–50

25 Mbps – 1440 x 1080 (Playback Rate: 29.97p/23.98p) Record Rate: 1–30
Special Recording Functions: Relay Recording*; Double-Slot Recording**; Copying between Media
* Not available during Slow Motion 50 Mbps recording
** Not available in combination with Slow and Fast motion recording

NOTE: Special features other than Slow and Fast Motion Recording are not available in 4K and 2K modes
Photo Recording Mode: Available; Images captured to SD Card
Waveform Monitor: Available; 2 Modes (Standard and RGB Component)
Vectorscope: Available
Exposure / Focus Aids: Peaking (2 types), Zebra Pattern*, Magnify, Edge Monitor Focus Assist, Black and White Mode / * Can be output via the SDI or HDMI Jack (HD Only)
Interval Record: Available; ability to set time interval and number of frames to record

Interval can be set in 25 levels ranging from 1 second to 10 minutes. (1s/2s/3s/4s/5s/6s/7s/8s/9s/10s/15s/20s/30s/40s/50s/1m/2m/3m/4m/5m/6m/7m/8m/9m/10m)
59.94i/29.97p/23.98p/24.00p: Selectable between 1, 3, 6, 9 frames
59.94p: Selectable between 2, 6, 12 frames
50i/25p/50p: Selectable between 2, 6, 12 frames
Frame Record: Available; Records a set number of frames each time the record button is pressed
59.94i/23.98p/24.00p: Selectable between 1, 3, 6, 9 frames
59.94p: Selectable between 2, 6, 12 frames
50i/25p/50p: Selectable between 2, 6, 12 frames
Pre-Record: Yes, 3 seconds cache (Audio and Video)
Scan Reverse: When using a Depth-of-Field Converter or other lens adapters it flips or reverses the image automatically so it is recorded correctly.
Timecode: Drop Frame (DF) and Non-Drop Frame (NDF)
Drop Frame works with 59.94Hz mode only and is not available in 24P
Timecode Modes: Regeneration, Record Run, Free Run and External Source
Auto White Balance (AWB): Not Available
White Balance: Kelvin Setting 2,000K to 15,000K in 100K increments
White Balance Presets: Daylight (5,400K); Tungsten (3,200K);
White balance shift is available within Presets (-9 to +9)
Auto Black Balance: Available
Custom Picture Settings: 23 Custom Picture settings
A total of 9 Customized Pictures are available in the camera and up to 20 can be saved to an SD card
Custom pictures can be adjusted using the following settings and saved for later recall: Gamma, Black, Black Gamma, Low Key Saturation, Knee, Sharpness, Noise Reduction, Skin Detail, Selective Noise Reduction, Color Matrix, White Balance, Color Correction, Setup Level
Custom Pictures CP8 and CP9 ship with the following presets:
C8: Cinema – Suited for giving recorded media a film tone
C9: EOS Standard – Used to match the quality of DSLR video shot in EOS standard mode
Custom Functions: Available, 9 total functions
Custom Display: Yes; LCD panel and EVF information display can be customized
Total of 27 display and icons that can be turned on and off
Assign Buttons: 15; Can be assigned functions as desired (37 functions Available)
Color Bars: Color bars compliant with SMPTE, EBU, or ARIB standards can be selected.
Minimum Subject Illumination: 59.94Hz Mode: 0.3 Lux (f/1.2, 24 dB, 29.97p, 1/30 sec.)
50.00Hz Mode: 0.25 Lux (f/1.2, 24 dB, 25p, 1/25 sec.)
Sensitivity: 59.94Hz Mode: F9 (1920 x 1080/59.94i, ISO 640 (0 db), 2000 lux, 89.9% Reflection)
50.00Hz Mode: F10 (1920 x 1080/50i, ISO 640 (0 db), 2000 lux, 89.9% Reflection)
S/N Ratio: 59.94Hz Mode: 54 dB (Typical) (1920 x 1080/29.97p, Canon Log, ISO 850, Dynamic Range 800%)
50.00Hz Mode: 54 dB (Typical) (1920 x 1080/25p, Canon Log, ISO 850, Dynamic Range 800%)
Dynamic Range: During Normal Shooting: 300%
With Canon Log Gamma: 800% ISO 850 or above – gain 2.5 dB or above

EVF

Type: 0.52-inch Color (1,555,000 dots: 960x540)
Aspect Ratio: 16:9
Viewing Angle Adjustment: Available; Viewing Angle can be adjusted up and down 60°
Diopter Adjustment Range: +2.0 to -5.5
Field of View Coverage: 100%
EVF Adjustments: Brightness, Contrast, Color, and Backlight (Normal or Bright)
Special Features: Black and White Display, and setting for viewing concurrent images on display

LCD MONITOR

Type: Rotating 4-inch Wide Screen Color LCD Display (1,230,000 dots: 854x480) on detachable controller
Aspect Ratio: 16:9
Field of View Coverage: 100%
Display Adjustments: Brightness, Contrast, Color, Sharpness, and Backlight (Normal or Bright)
Special Features: Black and White Display, and setting for viewing concurrent images on display

INPUT/OUTPUT

HD/SD SDI: Yes (with embedded audio);
HD 8-bit 4:2:2 (YPbPr) 1920 x 1080: 59.94i/50i/23.98/24.00, 1280 x 720: 59.94p/50p/23.98/24.00
SD 8-bit 4:2:2 (YPbPr) 480: 59.94i, 576: 50i BNC Connector, output only
SD-SDI:
NTSC 480i/PAL 576i: Compliant with SMTPE 259M
Embedded Audio: Compliant with SMTPE 272M
Timecode Standard: (VITC/LTC) SMTPE 12M
HD-SDI: Compliant with SMTPE 292M
1080i/720p: Compliant with SMTPE 292M
Embedded Audio: Compliant with SMTPE 299M
Timecode Standard: (VITC/LTC) SMTPE 12M
3G-SDI: Available; 2x BNC
Output Modes: RAW (10-bit); RGB 4:4:4 (10-bit/12-bit); YCC 4:2:2 (10-bit)
Frame Rates: 23.98p/24.00p/25.00p/29.97p/59.94p/50p
Video Monitor Out: Available; 2x BNC
Resolution: 2048 x 1080 / 1920 x 1080
Frame Rates: 23.98p/24.00p/25.00p/29.97p/30p/59.94p/50p/60p
Color Space: YPbPr: 10-bit
Timecode In/Out: Yes; BNC Connector (Input and Output)
Genlock: Yes; BNC Connector Adjustment range: -1023 to +1023
Synch Out: Yes, BNC Connector
(1) HD tri-level signal (HD Sync) 1920 x 1080: 59.94i/50i/23.98/24.00, 1280 x 720: 59.94p/50p/23.98, 24.00; The HD standard analog component Y signal with the black muted is output.
(2) HD-Y signals (HD-Y) 1920 x 1080: 60i, 59.94i/50i, 1280 x 720: 60p/59.94p/50p; Only the HD standard analog component Y signal is output.
(3) Black burst signal 480: 59.94i, 576: 50i; The SD standard analog composite signal with the black muted is output.
(4) Composite 480: 59.94i, 576: 50i; The SD standard analog composite signals are output.
HDMI: Yes (Type A)
HD 8-bit 4:2:2 (YPbPr) 1920 x 1080: 60i/59.94i/50i, 1280 x 720: 60p/59.94p/50p
SD 8-bit 4:2:2 (YPbPr) 480: 59.94i, 576: 50i
Audio Input Terminal: 2 – Balanced 3-pin XLR on Monitor Unit (Mic Level, Mic Level with phantom power and Line Level) / 3.5mm Microphone terminal
Headphone Jack: Available; 3.5mm stereo mini-jack
Remote Terminal: Available (Fully LANC-compatible) Remote control through WFT-E6A accessory is also possible
USB Connector: Not Available
CCU: Not Available

POWER

Supply: DC 7.4V (Battery Pack) / DC 8.4V (DC-in)
Power Terminal: DC-in on camera (no need for "Dummy Battery")
Battery: BP-9 Series (Excluding BP-925)
Compact Power Adapter: CA-940

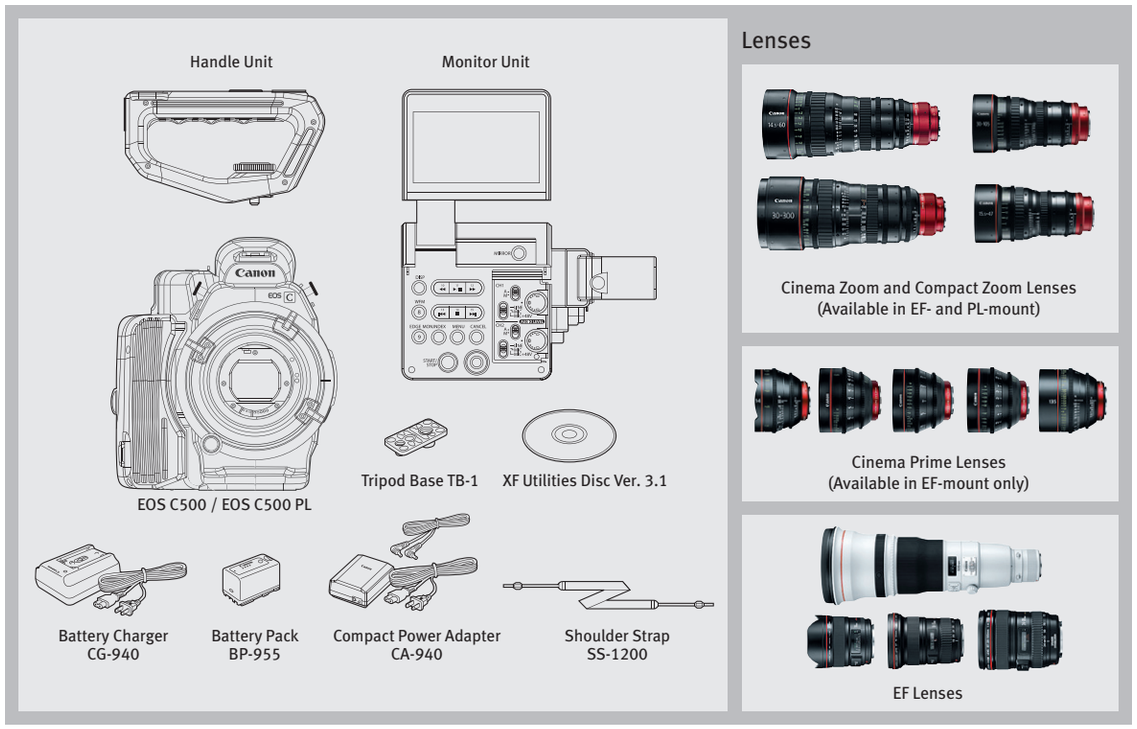
ACCESSORIES

Tripod Adapter: Canon TA-100
Tripod Adapter Base: Canon TB-1
Zoom Remote Controller: Canon ZR2000
Wireless File Transmitter: WFT-E6A

OTHER

Dimensions (W x H x D):
C500 Approx. 6.3 x 7.0 x 6.7 in. (160 x 179 x 171mm)
C500 PL Approx. 6.3 x 7.0 x 7.0 in. (160 x 179 x 177mm)
The following is the same for both models:
C500 + Monitor Unit: Approx. 7.3 x 9.8 x 7.4 in. (185 x 249 x 187mm)
C500 + Handle Unit + Monitor Unit: Approx. 7.3 x 11.2 x 11.9 in. (185 x 284 x 301mm)
Main Unit Weight:
C500 Body: Approx. 4.0 lb. (1820g), C500 PL Body: Approx. 4.3 lb. (1930g)
Monitor Unit: Approx. 1.4 lb. (645g), Handle Unit: Approx. 6.3 oz. (180g)
Total Equipped Weight:
C500: Approx. 6.0 lb. (2705g)*, C500 PL: Approx. 6.2 lb. (2815g)*
C500: Approx. 6.4 lb. (2885g)**, C500 PL: Approx. 6.6 lb. (2995g)**
* Weights for both models include the monitor unit, BP-955, 2x CF cards.
** Weights for both models include the monitor unit, handle unit, BP-955, 2x CF cards.
Temperature and Humidity: Performance requirements: 0°C to 40°C, 85% (relative humidity)
Operating requirements: -5°C to 45°C, 60% (relative humidity)
Language Support: English, Japanese, Chinese, German, Spanish, French, Italian, Polish, Russian
Time and Date: Automatic Calendar Range: January 1st, 2010 through December 31, 2031 selectable in American, Japanese and European Date formats.
World Clock: World Clock support – UTC time setting: Setting range from +14:00 to - 12:00

EOS C500 System



EOS C500 Kit Contents

- EOS C500 Body (with Camera Cover)
- Monitor Unit (with Microphone Holder Unit and Screws for MHU)
- Handle Unit
- Thumb Rest
- WFT Adapter
- Tripod Base
- Eye Cup
- EVF Cap
- SS-1200 Shoulder Strap
- BP-955 Battery Pack† (with Terminal Cover)
- CG-940 Battery Charger†
- CA-940 Compact Power Adapter†
- DC Cable for CA-940
- AC Cable
- XF Utilities Disc Ver.3.1
- Instruction Manual

† Also available as optional accessory

Canon

*image*ANYWARE

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