Canon

EOS C300

CINEMA EOS

LEAVE NO STORY UNTOLD

LEAVE NO STORY UNTOLD – GO WHEREVER THE STORY TAKES YOU

As Canon's first entry into the digital cinema market, the EOS C300 Digital Cinema Camera was made to not only meet but also set new standards. Starting with the incredible image quality offered by Canon's newly designed Super 35mm imaging system, the EOS C300 comes in two lens mount options, EF (C300) or PL (C300 PL), offering an extensive palette of optics to the user. While the PL-mount allows the use of widely adopted industry-standard cinema lenses, Canon's EF lens mount is fully compatible with Canon's entire lineup of EF, EF-S and Cinema Lenses, offering unique imaging perspectives that weren't common in cinema optics in the past. The camera's 50 Mbps 4:2:2 XF Codec not only holds up to the most rigorous color correction, but it conforms to worldwide broadcast standards. Using Compact Flash cards for media allows for a cross between easy accessibility and robust reliability. Dual CF slots allow the user to choose between dual-slot recording for security or Relay Recording for continuous roll time. Either way, the efficient codec allows for long record times so that you can keep shooting virtually without limitation.

Much like the technical advances that freed French filmmakers in the 1970s to take the camera out of the studio and into the streets of Paris, the EOS C300 is groundbreaking for creative storytelling. With its superb low-light performance and filmic grain structure, scenes that were unable to be captured are now on the table. The camera's thoughtful and unique ergonomics allow the EOS C300 to be small enough to tuck into places that other cameras can't, making it a solution to get shots not previously possible. The EOS C300 is modular and suitable to be stripped down for one-man band operations or built up with accessories for many people working in unison. Finally, the inclusion of Canon Log Gamma elevates the EOS C300 to another level, allowing incredible dynamic range to be recorded without sacrificing its comfortable post-production workflow.

The EOS C300 has found application and deep affection among television crews, documentary filmmakers and narrative filmmakers for being sensible and groundbreaking at the same time. Within a relatively short timeframe, the EOS C300 has established itself as one of the most versatile cameras in the world by offering a combination of features found in very few cameras. It is the camera that can capture almost anything and everything.

"Finally a camera company has done the thing I've been asking for...praying for, which is they have made a camera small enough and durable enough and easy to use enough that you can shoot documentaries with it and at the same time has a picture which will convince an audience it was shot with a camera many times the price."

James Longley / Filmmaker for a documentary based on Afghanistan to be released

Top left: behind the scenes on the set of the short film "Mobius"; top right: behind the scenes on the set of the feature film "Max Is Back"; bottom right: behind the scenes in Afghanistan. All films were shot with the EOS C300 Digital Cinema Camera.

CANON CINEMA & EF LENSES
– WHAT IT TAKES TO CHANGE PERSPECTIVE

Canon's expanding lineup of dedicated Super 35mm Cinema Lenses is designed exclusively for high-end cinematography. All of the lenses conform to Canon's perpetual high standards in accuracy, clarity and optical brilliance to deliver outstanding performance. And with one of the finest and most comprehensive range of EF Lenses – comprising more than 60 prime and zoom models in a variety of user configurations – you'll be able to find exactly the right perspective to capture your creative vision. Never before has functionality been so dexterously blended with versatility.

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, 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 C300'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 C300 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.

OUTSTANDING IMAGE QUALITY — EXCEED EXPECTATIONS

The heart of the Canon EOS C300 is Canon's Super 35mm 16:9 CMOS sensor which has been designed from the ground up to meet and exceed the needs of the cinema and broadcast industries. The large sensor provides the ability to capture cinematic shallow depth-of-field imagery and adds excellent signal-to-noise ratio and low-light sensitivity that is highly desired in the world of cinema. With the addition of Canon Log Gamma, the EOS C300 brings filmic high dynamic range without sacrificing tried and true broadcast workflow. And with a full palette of color adjustments available in Custom Pictures, operators can creatively paint looks that are ready for air right out of the gate, truly making the EOS C300 flexible, sensible and incredible.

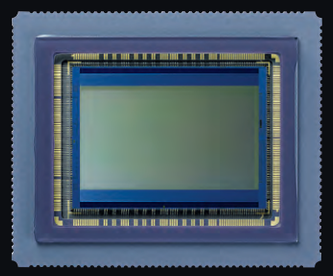
Canon Super 35mm 16:9 CMOS Sensor

Designed specifically to meet the motion imaging needs of the cinema industry, Canon's Super 35mm CMOS image sensor deploys an innovative new approach to sensor design by using an 8.3 megapixel single CMOS sensor to capture individual RGGB channels (4:4:4:4) for each Full HD 1920x1080 frame. No debayering process is needed, avoiding related reconstruction errors. The spatially offset green signal components are added, further enhancing the dynamic range and producing a remarkably sharp and clean Luma component with exceptionally low aliasing. This allows the single CMOS chip of the EOS C300 to originate RGB video components superior to those cameras of three chip designs.

Each photosite in the imaging sensor has a large size of 6.4 x 6.4 micrometers and uses advanced microlens technology to maximize the amount of light that falls on each photodiode, enhancing the EOS C300's light sensitivity while minimizing the appearance of noise in the image.

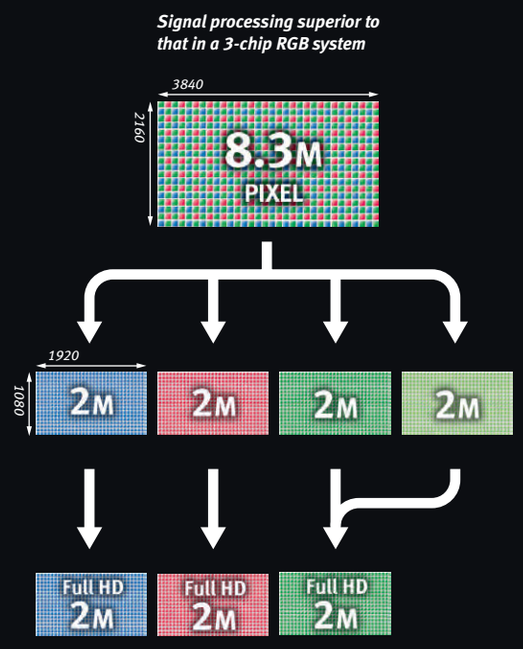
The advanced technology of the Canon Super 35mm sensor allows the EOS C300 to achieve outstanding sensitivity within an ISO range of 320–20000 while also delivering 12 stops of dynamic range.

Canon Super 35mm CMOS Image Sensor



Shown at actual size: 24.6mm x 13.8mm

Canon CMOS Sensor Signal Processing



High Sensitivity, Excellent S/N Ratio

When it comes to digital cinema cameras, Canon's entire line of cine cameras are currently some of the market leaders in low-light sensitivity. If the EOS C300 was only half as sensitive to light as it already is, it would still be on par with many other products currently in the market. Not only is noise remarkably under control, what little noise is in the image has a unique and pleasing "film-like" texture pattern, which differentiates it from the fixed pattern noise that has traditionally been the nemesis of digital cameras. Its excellent signal-to-noise ratio helps ensure that all the ISO settings offered in the EOS C300, which go up to a remarkable 20000 ISO, are perfectly useable and acceptable for digital cinematography.

Canon Log Gamma

The incredible 12-stop dynamic range of the Canon Super 35mm CMOS image sensor in the EOS C300 cannot be contained within typical transfer functions such as Rec 709. To make sure users can make use of the full dynamic range, Canon has developed a Canon Log Gamma Curve that is specifically tailored to the characteristics of the image sensor. This allows the camera to originate and digitally record the maximum exposure latitude of 12 stops. The Log Gamma Curve is implemented at a high bit depth and then down-converted, recording the data internally using the 8-bit 4:2:2 Canon XF Codec. The curve is precisely mathematically specified to facilitate post-production processes that seek to restore the linear light transfer characteristics of the image sensor. (More technical information about the importance of Canon Log Curves is contained within a White Paper that can be downloaded from the Cinema EOS website: cinemaeos.usa.canon.com)

DiG!C DV III Image Processor

Taking full advantage of the enhanced image resolution offered by a Super 35mm CMOS sensor, the EOS C300's purpose-built high-speed **DiG!C DV III** Image Processor helps to ensure that the trio of 2-megapixel HD Video components for Red, Blue and Green converted from the large 8.3 megapixel single-sensor are accurately processed in a manner that produces excellent tonal and color reproduction. This processor's highly sophisticated and proprietary architecture supports flexible operational video control over a wide range of video image parameters that empower creative choices on set – including the special Custom Pictures mode of operation as well as Canon Log Gamma. Image inversion can be invoked if depth-of-field converters or other lens adapters are used. This processor also implements the Peripheral Illumination Correction feature.

Canon MPEG-2 4:2:2 50 Mbps XF Codec

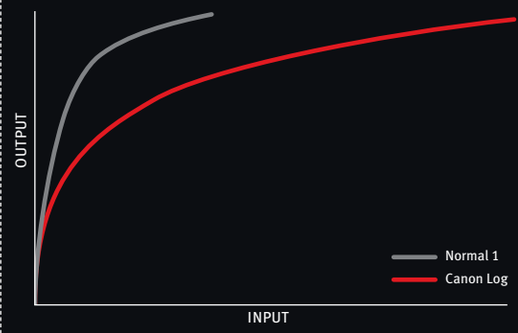
The EOS C300 records in MPEG-2 4:2:2 50 Mbps XF Codec, offering over 80 minutes of footage on a single 32GB CF Card. Not only does the efficient compression allow for long record times, this internally recorded codec retains robust color information for color correction and chroma keying while still working seamlessly with stringent broadcast post-production pipelines as well as ensuring compatibility with major NLEs. If desired, EOS C300 users can also select lower bit rates of 35 Mbps 4:2:0 or 25 Mbps 4:2:0 for even longer record times.

Custom Pictures

With tight deadlines and certain quick-turn applications that don't have time for color correction, there are often circumstances when cinematographers want to create a great preset look in-camera that is ready for air. Custom Pictures allow users to creatively express themselves through a myriad of custom controls. Cinematographers can customize the look of the EOS C300's image by changing the camera's video processing parameters, including Gamma, Black, Black Gamma, Low Key Saturation, Knee, Sharpness, Noise Reduction, Skin Detail, Selective Noise Reduction, Color Matrix, White Balance, Color Correction, and Setup Level. Custom picture settings can be saved in-camera or to an SD media card for sharing between multiple cameras.

Gamma and white balance adjustments can be made intuitively using a series of graphical user-interface/GUI displays that show, for example, gamma curves both before and after making potential changes. Similarly, for white balance adjustment, a color/plane display enables the direction and amount of compensation to be seen at a glance.

Canon Log Gamma

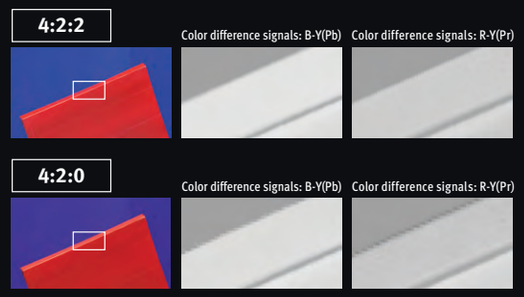


Helps ensure tonal reproduction for both highlight and lowlight regions during post-production.

EOS C300 and EOS C300 PL – ISO and Dynamic Range Specifications (Canon Log, Progressive Scan)

S/N Ratio	GAIN	18% GRAY	ISO
41dB	6.7 Stops 30dB	5.3 Stops	ISO 20000
45dB	6.7 Stops 26dB	5.3 Stops	ISO 12800
50dB	6.7 Stops 20dB	5.3 Stops	ISO 6400
53dB	6.7 Stops 14dB	5.3 Stops	ISO 3200
54dB	6.7 Stops 8dB	5.3 Stops	ISO 1600
Canon Log Base Sensitivity → 54dB	6.7 Stops 2.5dB	5.3 Stops	ISO 850
54dB	6.8 Stops 2dB	5.2 Stops	ISO 800
54dB	7.1 Stops 0dB	4.9 Stops	ISO 640
54dB	7.8 Stops -4dB	4.2 Stops	ISO 400
54dB	8.1 Stops -6dB	3.9 Stops	ISO 320

XF Codec Quality Chart



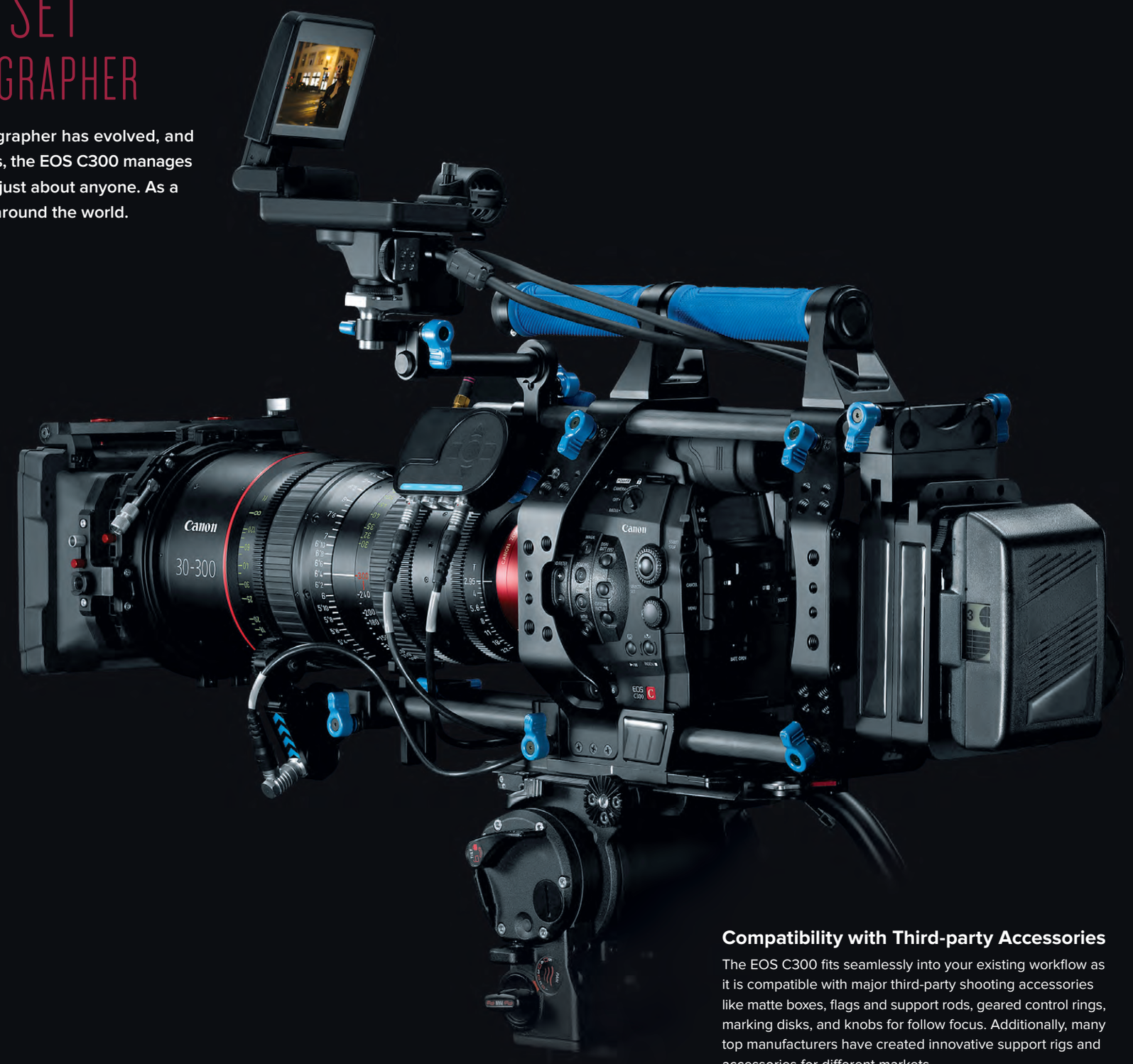
These illustrations represent a color image converted to RGB, after which each component signal is converted to monochrome. Since B-Y and R-Y signals lack a brightness component and only indicate saturation, images produced from them look quite unnatural to the human eye. To avoid confusion, the illustrations are produced by conversion to monochrome and then, for convenience, conversion of saturation to brightness.

Frame grab from the Sam Nicholson, ASC, film "XXIT," shot in Canon Log mode.

Frame grab after color grading.

VERSATILE YET FAMILIAR ON SET — DESIGNED FOR TODAY'S CINEMATOGRAPHER

There are very few cinema cameras quite like the EOS C300. The cinematographer has evolved, and the camera has finally caught up. Radical in some ways and traditional in others, the EOS C300 manages to merge the best of both cinema and video legacies to cater to the needs of just about anyone. As a result, the EOS C300 has found a place on a variety of sets, large and small, around the world.



Compact, Modular, Ergonomic Body

You can always make a camera package bigger, but you can never make the camera body itself smaller. In the past, getting special angles and perspectives with B cameras in small spaces meant that there was a compromise in image quality. By designing the EOS C300 body in a modular way, the core of the body can be stripped down to an incredibly compact size, fitting into the tightest spaces while giving you full functionality of what the camera offers. The camera features four separate start/stop buttons (two on the body, one on the side grip and one on the Monitor Unit attachment) to allow easy camera triggering regardless of how it is rigged. And with the camera built out with all of its included accessories (top handle, side grip and Monitor Unit attachment) it is still light, and more compact than many built-out HD SLR rigs.

The lightweight EOS C300 can comfortably be operated for hours even with the included accessories fully built out. The top handle comes with two hot shoe mounts for accessories and provides perfect mounting points for the Monitor Unit attachment. The side grip is fully adjustable to operator preference and shooting style and provides thoughtful, smart controls that communicate with the camera body.

Rich Audio Controls

The EOS C300 has the ability to record two channels of broadcast-quality audio. The Monitor Unit attachment comes with two professional grade XLR inputs that can provide phantom power as well as switch from mic and line levels. The Monitor Unit attachment also comes with a built-in shockmount for an on-camera shotgun mic and has easy-to-adjust knobs for mic input levels. The body has a headphone jack and buttons for monitoring volume levels. For even lower profile, the EOS C300 includes a mini-jack input for smaller third-party microphones if used without the Monitor Unit.

Full Manual Control, Customization

Catering to the professional cinematographer, the EOS C300 allows for full manual control over all parameters and also allows for 15 customized function buttons that can be set up to the preference of the camera operator.

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

The included Monitor Unit is one of the clearest stock monitors to ship with a cinema camera. The back viewfinder (EVF) is equally as powerful and allows for clearer operation in bright exterior conditions. Focus aids such as peaking (customizable to the color and parameters of your choice) and edge monitor have been adopted from Canon's broadcast legacy to bring tried and true tools to the cinema camera market. A waveform and vectorscope are also built into the camera to accurately judge exposure, alongside traditional broadcast tools such as zebras (in which two sets can be selected).

Wireless File Transmitter WFT-E6A

WFT-E6A

Compatibility with Third-party Accessories

The EOS C300 fits seamlessly into your existing workflow as it is compatible with major third-party shooting accessories like matte boxes, flags and support rods, geared control rings, marking disks, and knobs for follow focus. Additionally, many top manufacturers have created innovative support rigs and accessories for different markets.

EF- and PL-mount Versions

The EOS C300 comes in both EF- and PL-mount versions (EOS C300 and C300 PL), catering to different markets and their needs. Narrative cinematographers sometimes prefer to work with their favorite legacy cinema PL lenses while smaller crews and documentarians may prefer the vast variety and value that the EF mount has to offer. Having a choice between two mounts allows more options for cinematic creativity.

Wireless File Transmitter WFT-E6A Unit with Remote Capabilities

By mounting the Canon Wireless File Transmitter WFT-E6A unit onto the EOS C300, you can wirelessly transmit images from your camera to a computer, tablet or smartphone. The unit also allows remote capabilities such as start/stop and metadata input. A number of camera controls such as ISO and white balance can also be changed remotely using the unit.

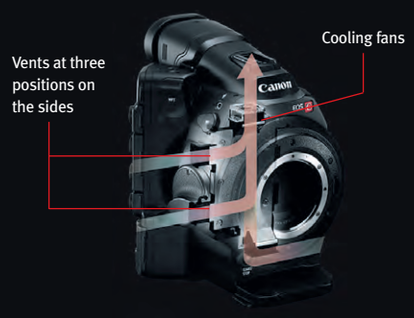
DURABLE & DEPENDABLE — GET THE SHOT NO MATTER WHAT

Throughout the history of cinema, motion picture film cameras evolved to become mechanically robust and reliable. For the past several years, cinematographers could always count on their film cameras to work through varying weather conditions as hundreds of thousands of feet of film would pass through them on each project without a single hiccup. Digital cinematography has been pushing the envelope over the past few years but a common downside to these modern tools is that they have, at times, been unreliable and temperamental. That's why it was important to Canon that the EOS C300 was built to not only be capable of creating impressive imagery, but that it was also able to create that imagery day in and day out in the harshest of conditions, so that you could rely on it to work when it mattered most.

Rugged, Durable and Quiet

The EOS C300 is built for life in the field. The front cover surrounding the lens mount is magnesium alloy, strong enough to hold extremely heavy lenses and accessories. An aluminum alloy structure is used at the base and tripod mounting area and the exterior body panels are polycarbonate resin. It is weather sealed to the level of Canon's 5D series and can reliably operate in wet and cold conditions. For hot summer shoots, the EOS C300's innovative internal cooling system and silent fan allows smooth operation without overheating. And more importantly, it does all this without upsetting any sound recordist.

Cooling System



Dual Slot CF Cards

Dual Slot CF Cards

CF cards were chosen not only for their easy accessibility, but also because of their proven track record of reliability over other over-the-counter storage mediums. Having two slots allows flexibility to operators in how they want to utilize them. Relay Recording allows continuous recording from one slot to the next. You can also safely hot swap one card slot while the other is recording. If you wish, you can also engage dual-slot recording to record simultaneously to both slots at once. This creates an instant backup of unrepeatable moments and can be engaged even with cards of different capacities and brand types. A PreREC function rounds out these features, so that you will never miss an important moment that might have happened a few seconds before you physically engage the record button.

Terminals

Professional inputs and outputs make the EOS C300 suitable for a number of different applications. For the highest quality video feed, an HD/SD SDI connection is available. HDMI is also available for more consumer connections. Timecode IN/OUT allows syncing of timecode between multiple cameras and/or sound recorders. Genlock facilitates synchronization between multiple cameras working in unison.

Black Balance Adjustment

In ambient conditions that cause the black in the video signal to shift out of alignment, the EOS C300 uses an automatic black balance adjustment to easily bring it back. A simple process with the lens cap on the camera, auto black balance adjustment is especially useful the first time you use the EOS C300 after a long period of inactivity, shoot in a wide range of temperatures, or when the ISO sensitivity or gain settings have been elevated.

"We shot with it on sticks (and) we had it mounted on Russian arms and mounted to remote control helicopters. There is one helicopter shaped like a traditional helicopter and one like a spider or mantis with a bunch of propellers in a circle. So not only were we trying to pack the days in with an unusually high number of shots which could kill any production, we were also trying to do it with complex equipment. We were in the Mojave Desert in Soggy Dry Lake expecting 107 degree temperatures and didn't have a single issue with the cameras."

Vincent Laforet / Director for "Mobius"
Justin Hamilton / Co-Writer and Associate Producer
Above: behind the scenes on the set of the short film "Mobius."

FINISH WHAT YOU STARTED — EASE INTO POST-PRODUCTION

The incredibly successful worldwide adoption of Canon's EOS C300 is also attributed to how well it integrates with the post-production workflows of major post-houses in television and film. More often than not, new camera announcements come with new headaches for post-production – which is exactly why Canon made sure that the EOS C300 was different. Compatible with the majority of post-production software, and equipped with superior recording features and modes, it is a singularly flexible tool, and one that will rid cinematographers of headaches now and well into the future. With its ability to operate in all of the globally standardized 50 and 60Hz digital formats, the EOS C300 is a true "WorldCam" that facilitates shooting anywhere around the globe.

NLE Software Compatibility

The EOS C300 is compatible with the majority of major NLE software, including Avid®, Adobe Premiere® and Apple's Final Cut® X (and 7). The camera ships with a bundled software CD, which includes plugins for Avid® and Final Cut®, as well as Canon's own standalone XF Utility, which allows users to back up media, input metadata and view clips without a preinstalled NLE.

File-based Recording with MXF File Wrapper

The EOS C300 encodes footage into Canon's XF Codec at a robust 50 Mbps in 4:2:2 color space. It is an MPEG-2 stream in an MXF (Material Exchange Format) wrapper. Using the MXF format wraps video, audio and metadata into a single file for portability. MXF is an internationally standardized file format and the EOS C300 records it with class-leading image quality at 50 Mbps, passing broadcast specs for worldwide distribution.

Multiple Recording Modes

The EOS C300 is capable of recording in 59.94Hz and 50Hz modes in both progressive and interlaced frame rates at 1080 and 720 resolutions. The frame rates offered in 1920x1080 are 59.94i, 50i, 29.97i, 25p, and 23.98p. The frame rates offered in 1280x720 are 59.94i, 50p, 29.97p, 25p, and 23.98p. In addition to those standards, the EOS C300 introduces a new 24.00 frame rate that is meant to intercut directly with film cameras running at an exact 24.00 frame rate as opposed to the common 24p (which is 23.98).

High-speed, Slo-motion, Time-lapse and Stop-motion

Slow and fast motion are available from 1 fps up to 30 fps in 1080p mode and up to 60 fps in 720p mode. Adjustments to frame rate can be made in one-frame increments, allowing precision similar to a mechanical motion picture film camera. Time-lapse functionality is also included through interval recording, where the user can dictate how many frames are captured over a predetermined interval. Stop-motion can also capture a predetermined set of frames per trigger, with the camera doing the final conform automatically once finished.

Recording Modes

Recording Mode			Frame Rate	Recording Time (64GB)
50 Mbps (CBR) 4:2:2	Highest image quality mode, optimal for shooting scenes that must meet needs in sophisticated editing, such as chroma key compositing and color correction	1920 x 1080	59.94i	Approx. 160 min.
			50i	
			29.97p	
			25p	
			24.00p	
			23.98p	
		1280 x 720	59.94p	Approx. 160 min.
			50p	
			29.97p	
			25p	
			24.00p	
			23.98p	
35 Mbps (VBR) 4:2:0	Ideal for the longest possible Full-HD recording	1920 x 1080	59.94i	Approx. 225 min.
			50i	
			29.97p	
			25p	
			23.98p	
		1280 x 720	59.94p	Approx. 225 min.
			50p	
			29.97p	
			25p	
			23.98p	
25 Mbps (CBR) 4:2:0	Superb compatibility with HDV editing workflows	1440 x 1080	59.94i	Approx. 310 min.
			50i	
			29.97p	
			25p	
			23.98p	

"For visual effects we need very high quality imaging. Because the signal-to-noise ratio of the camera is so quiet and the compression is so good, it works very well for green screen."

Sam Nicholson, ASC / Director for "XXIT"

OUR CONTINUING COMMITMENT TO SERVICE, SUPPORT AND EDUCATION

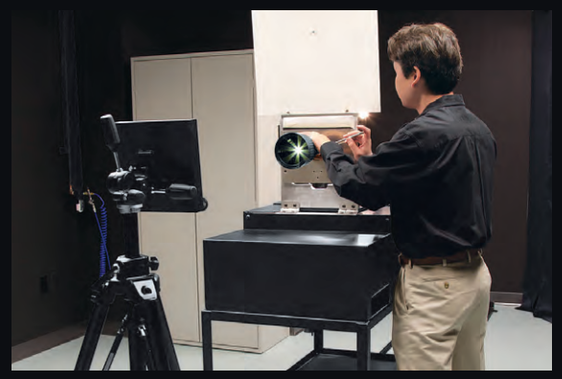
Motion picture and video production is not just an artistic endeavor. It's also a business, with targeted budgets, profit requirements and inevitable deadlines. Professionals want to know they are dealing with professionals; while dealing with Canon, you can count on a proven creative partner. Our service 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 C300 Specifications

IMAGING SENSOR

Effective Pixels: 3840 x 2160 pixels; Approx. 8.29 megapixels
Total Pixels: 4206 x 2340 pixels; Approx. 9.86 megapixels
Sensor Type: CMOS
Sensor Size: Super 35; 24.6 x 13.8 (28.2mm 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, 1/64, 1/16, and 1/4
Iris: Iris Dial located on camera body for use with EOS EF Lenses with electronic Iris control
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: 3 Modes: OFF; Speed; Angle; Slow Shutter; Clear Scan
Speed setting can be set in 1/2 or 1/3 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: 59.94 Hz – 250.27 Hz
29.97p: 1/30 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/4, 1/8, 1/15; CS: 29.97 Hz – 250.70 Hz
23.98p/24p: 1/24 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/3, 1/6, 1/12; CS: 23.97 Hz – 250.70 Hz
50i/50p: 1/50 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/3, 1/6, 1/12 1/25; CS: 50.00 Hz – 250.70 Hz
25p: 1/25 to 1/2000 in 1/4 or 1/3 stops; SLS: 1/3, 1/6, 1/12; CS: 25.00 Hz – 250.70 Hz
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 Lens only and lens dependent

FOCUS

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

RECORDING/CODEC

Signal System: NTSC and PAL
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, 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; 48 kHz
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: Index Displays: Index Display, Normal, "OK Mark" Index, "Check Mark" Index, "Shot Mark" Index, Expand Index, Photo Index
Clip Playback: Forward Search (x5, x15, x60), Reverse Search (x5, x15, x60), Forward Frame Advance, Reverse Frame Advance, Record Review, Clip Jump (Forward and Backward), Skip Playback
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:
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
Interval 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)
NTSC 59.94i/29.97p/23.98p/24.00p: Selectable between 1, 3, 6, 9 frames
NTSC 59.94p: Selectable between 2, 6, 12 frames
PAL 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
NTSC 59.94i/23.98p/24.00p: Selectable between 1, 3, 6, 9 frames
NTSC 59.94p: Selectable between 2, 6, 12 frames
PAL 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 NTSC models only and is not available in 24P
Timecode Modes: Regen, Record Run, Free Run and External Source
Drop Frame and Non Drop Frame available
Auto White Balance (AWB): Not Available
Custom White Balance: Available; 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)
Shockless White Balance: Available through Custom Functions
Black Balance Adjustment: 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 preset:
C8: Cinema – Uses Canon Log Gamma and Canon Log Color Matrix for outstanding range and color suitable for post-production
C9: EOS Standard – Reproduces the image quality and look (high contrast, vibrant colors) of an EOS Digital SLR camera where Picture Style is set to Standard
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 (30 functions available)
Color Bars: Color bars compliant with SMPTE, EBU, or ARIB standards can be selected.
Minimum Subject Illumination:

Subject Illumination		Rating
Gain 24 dB with f/1.2 lens	29.97P	.30 lux (1/30s)
	25.00P	.25 lux (1/25s)

Sensitivity: F9 (ISO 640 (0 db) 2000 lux, 89.9% Reflection, in 1080/59.94i mode)
F10 (ISO 640 (0 db) 2000 lux, 89.9% Reflection, in 1080/50.00i mode)
S/N Ratio: ISO 850 (Using Canon Log Gamma); 54B (Typical, 1920 x 1080)
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)
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) 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 4:2:2 (YCbCr) 1920 x 1080: 60i/50i, 1280 x 720: 60p/50p; SD 4:2:2 (YCbCr) 640 x 480: 60i/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
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); The HD standard analog component Y signal with the black muted is output.
(2) HD-Y signals (HD-Y); Only the HD standard analog component Y signal is output.
(3) Black burst signal; The SD standard analog composite signal with the black muted is output.
(4) Composite; The SD standard analog composite signals are output.
HDMI: Yes (Type A)
Audio Input Terminal: 2 – Balanced 3-pin XLR (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)
USB Connector: Available (Fully LANC Compatible)
CCU: Not Available

POWER

Power Terminal: DC-in on camera (no need for "Dummy Battery")
Battery: BP-9 Series
Compact Power Adapter: CA-940

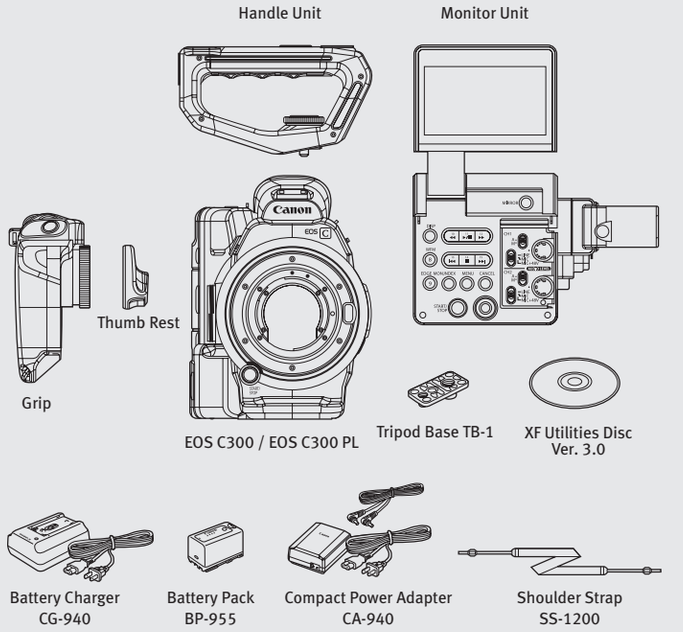
ACCESSORIES

Tripod Adapter: Canon TA-100
Tripod Adapter Base: Canon TB-1
Zoom Remote Controller: Canon ZR2000
Car Battery Adapter: CB-920 (use old battery packs)
Wireless File Transmitter: WFT-E6A

OTHER

Dimensions (W x H x D):
C300 (Body plus Thumb Rest): Approx. 5.2 x 7.0 x 6.7 in. (133 x 179 x 171mm)
C300 (Body plus Grip): Approx. 6.9 x 7.0 x 6.7 in. (174 x 179 x 171mm)
C300 PL (Body plus Thumb Rest): Approx. 5.2 x 7.0 x 7.0 in. (133 x 179 x 177mm)
C300 PL (Body plus Grip): Approx. 6.9 x 7.0 x 7.0 in. (174 x 179 x 177mm)
The following is the same for both models:
C300 + Monitor Unit: Approx. 7.3 x 9.8 x 7.4 in. (185 x 249 x187mm)
C300 + Handle Unit + Monitor Unit: Approx. 7.3 x 11.2 x 11.9 in. (185 x 284 x 301mm)
Main Unit Weight: C300 Body: Approx. 3.2 lb. (1430g)
C300 PL Body: Approx. 3.6 lb. (1630g)
Grip: Approx. 8.1 oz. (230g)
Handle Unit: Approx. 6.3 oz. (180g)
Total Equipped Weight: C300: Approx. 5.6 lb. (2520g)*
C300 PL: Approx 6.0 lb. (2720g)*
C300: Approx. 6.0 lb. (2700g)**
C300 PL: Approx 6.4 lb. (2900 g)**
* Weights for both models include the grip, monitor unit, BP-955, 2x CF cards.
** Weights for both models include the grip, 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 C300 System



Lenses

Cinema Zoom and Compact Zoom Lenses
(Available in EF- and PL-mount)

Cinema Prime Lenses
(Available in EF-mount only)

EF Lenses

EOS C300 Kit Contents

- EOS C300 or EOS C300 PL Body (with Grip/Camera Cover R-F-3)
- Monitor Unit
- Handle Unit
- Battery Pack BP-955†
- Battery Charger CG-940†
- Compact Power Adapter CA-940†
- Eye Cup
- Viewfinder Cap
- Thumb Rest
- Tripod Base TB-1
- WFT Attachment
- Measuring Hook
- AC Cable x2
- DC Cable (for CA-940)
- Shoulder Strap SS-1200
- XF Utilities Disc Ver. 3.0

† Also available as optional accessory

Canon

*image*ANYWARE

Canon U.S.A., Inc.
One Canon Park
Melville, NY 11747 U.S.A.

Canon Hollywood
Professional Technology and Support Center
6060 Sunset Boulevard
Los Angeles, CA 90028 U.S.A.

cinemaeos.usa.canon.com

Professional SERVICE & SUPPORT
Speed. Quality. Excellence.

pro.usa.canon.com/support
855-CINE-EOS

0172W928 01/13

THE NATIONAL ACADEMY OF TELEVISION ARTS & SCIENCES

Emmy® Award for Technology & Engineering for 2012

Improvement to Large Format CMOS Imagers for Use in High Definition Broadcast Video Cameras