

An Executive Overview on the Olympus CAMEDIA E-10 4x Zoom SLR







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Foreword

Its not often that a digital camera is introduced to the market that is distinctive enough that it can be considered a bellwether product, a product apart from all the rest. Every year Olympus users set the expectation bar higher and higher and consumers have grown to expect progressive technology and feature enhancements from Olympus with each new product introduction. Olympus' goal is to meet and exceed this challenge.

In our development of the Olympus CAMEDIA E-10 SLR and 4X ED glass zoom, we set out to provide a trend setting product in form and function. The CAMEDIA E-10 SLR is a camera that provides many of the best professional features available, from the exclusive ED glass Zoom to the all-in-one zoom design. The ease of use and control of the E-10 offers a feature rich solution at a price that is affordable for serious amateurs and pros alike. The price, quality, and functionality are in large part due to the unique design and rethinking of traditional camera design. In-fact at the publication of this overview, the Olympus CAMEDIA E-10 SLR provides the highest sensor resolution (4.0 million pixels) of any digital camera selling for less than \$7,000 and the best 4X zoom lens on a digital camera today.

But the resolution-to-price advantage of the CAMEDIA E-10 4x Zoom SLR only represents a portion of the total professional-quality features provided by this camera. The precision of the lens and all-in-one design, providing a dust free environment for the CCD and optical precision, the E-10 is truly a new step in quality digital photography. When all it's features are taken into account, there is no doubt that this camera is a breakthrough product in the digital camera industry.

This executive overview is provided to give you a better understanding of the technology, features and ultimate benefits that are associated with the CAMEDIA E-10 4x Zoom SLR. We conducted interviews with three well known professional photographers who used the CAMEDIA E-10 4x Zoom SLR for a two-week period. This overview provides their comments and illustrates the benefits to entry-level pros and existing professionals who might use the CAMEDIA E-10 4x Zoom SLR in professional or semi-professional circumstances.

We encourage you to read further to see why we believe the CAMEDIA E-10 all-inone SLR design sets the new standard for digital camera features and performance.

John Knaur Olympus America, Inc.

For More Information about the CAMEDIA E-10 SLR Pro go to: http://e-10.olympus.com or http://www.olympus.com

Digital Camera Market Overview

Recently, digital camera vendors and industry watchers have noticed that consumer adoption of digital cameras, as a replacement for film cameras is progressing at a much faster pace than many suspected just one year ago. In past years, the Japan market has led consumer adoption trends and the U.S. has been approximately one year behind. In many cases, this has allowed the Japan market to become a model of adoption to other regional markets. The primary difference between the U.S. and Japan markets is the extent of Internet adoption and we know that the Internet has been a primary driver of digital camera adoption in the U.S. For the first time since consumer digital cameras were introduced, the U.S. market in 1999 outsold all other regional markets.

This past summer, an online survey conducted in Japan among digital camera users, indicated that in most cases, the use of digital cameras leads to a corresponding reduced use of conventional cameras and film. According to this independent survey, sixty percent of respondents stated that they were using film cameras less since acquiring a digital camera.

Adoption of digital cameras over the past four years has been astounding and dwarfs the adoption growth rate of other ubiquitous devices such as inkjet printers and scanners. By 2002, consumer digital cameras will surpass flatbed scanners in yearly worldwide adoption and this will have taken just seven years in comparison to twelve years for flatbed scanners to reach this equivalent adoption rate. The Imerge Consulting Group worldwide forecast now puts consumer digital camera shipments at over 50 million units by 2005. It took PC's over fourteen years to reach this level of penetration. By comparison, digital cameras will reach this same penetration in nine years.

In 1999 alone, worldwide consumer digital camera shipments, excluding toy cameras exceeded 5.8 million units and represented over \$2.9 billion in street valued revenue. In the U.S., unit shipments exceeded 2.5 million representing over \$1.3 billion in street valued revenue with a projected five-year compound average growth rate, (CAGR) out to 2005 of 39.8%. (All sources: Imerge Consulting Group - 2000)

Plateaus of Adoption

Unit shipments and revenue only tell part of the dynamic story of digital cameras. The adoption of digital cameras has occurred in stages or plateaus, driven entirely upon technical advances. The first plateau occurred with the introduction of a viewable color LCD, providing instant gratification to consumers in 1995.

With the second plateau of adoption in 1996, Olympus set out to move digital cameras away from being just novelty products for viewing images, to products people could actually benefit from, by providing the industry's most regarded "optical path". The optical path is a combination of lens quality, internal optoelectronics, image processing (algorithms), and color science,



Consumer Digital Camera Maximum Resolution History and Forecast

all working in tandem to provide users sharper, more accurate images. Olympus has now taken this a step further by providing digital camera-specific lens assemblies, which direct light in a straight line across the CCD sensor and improves the over-all image quality.

Olympus also led the third plateau of adoption with the introduction of 1.3 mega-pixel resolution in a consumer digital camera. This resolution ceiling would later become the industry benchmark for representing "photo-quality". Photo-quality im-



ages are simply the equivalent in image quality to a consumer film camera when output to a 4" x 6" print on photo-grade paper. But resolution alone cannot provide photo-quality images. It is the resolution provided by the CCD sensor in tandem to the camera's internal opto-electronics and entire optical path.

The upper ceiling of digital camera resolution has increased incrementally over the past three years from 1.3 MP to 2.1 MP, from 2.1 MP to 2.5 MP and has shown an average of 45% growth over the past five years. Olympus has pushed this resolution ceiling for the second year in a row from 2.5 MP as seen in the C-2500L to 4.0 MP as seen in the CAMEDIA E-10 Zoom SLR.

New Era of Purchasing

We are entering into a new era of adoption where many consumers are now purchasing entry level digital cameras instead of film cameras while other more sophisticated users are considering the purchase of their second or third digital camera. Resolution and other advanced features are enhancing digital cameras well beyond film camera capabilities and digital cameras are getting much easier to use. As a result, digital camera vendors are expected to provide an entire spectrum of products to meet the needs of users, from entry-level novices to professionals. Currently, Olympus is one of the few digital camera vendors that provide a full line of digital cameras for every type of user.

The Cost-to-Benefit Decision

Pro-sumers, entry-level pros and professionals shooting weddings, events and portraits in the past have had a difficult costto-benefit decision to make regarding their purchase of a SLR digital camera instead of a film camera SLR. Often the features of a particular digital camera met their needs but the cost of a pro-quality digital camera presented a barrier to their purchase. Olympus has finally solved this problem by providing a camera with the greatest features/lowest cost of any pro-level SLR digital camera currently on the market. From this point forward, there is absolutely no barrier to adoption for entry-level pros and professional digital photographers. Many of these photographers that have been augmenting their equipment arsenal with a digital camera as a novelty item can now provide an all-digital service for weddings, portraits and events and provide quality that is in many cases superior to film.

CAMEDIA E-10 4x Zoom SLR's Value Proposition



Walter Urie - ©2000

High Resolution All-In-One SLR at 4.0 Mega Pixels

The Olympus CAMEDIA E-10 Zoom SLR provides a maximum resolution of 2240 x 1680 pixels with its 2/3" Interlaced CCD and creates 11.7 Mb uncompressed TIFF images. For the prosumer, entry-level pro and professionals photographers, this is a quantum leap for a digital camera to provide this level of resolution. Now photographers can work as large as they want, or as small as they want. The benefit of providing this high of resolution is manifest for those who need to output to photo-reproduction quality at 11" x 14", or a double page spread in a magazine.

The E-10 also has a 32 Mb SD-RAM buffer, which allows a 3fps burst mode for four photos, for sequential shooting.

Joel Meyerowitz a professional location photographer based in New York comments on the resolution and image quality of the CAMEDIA E-10 SLR: "From what I've seen of the E-10, it's brilliant and its images are sharp. Its images are also very balanced. It makes overall exposures, in some ways, better than film exposures. There is plenty information or details in the shadow areas and there's tone in the highlights. Not all film performs this well. I made prints of these images up to 11" x 14" (the format of the camera file), on 13" x 19" photo-grade paper. The output has real photographic quality and looks like film. I can't see any difference between film and digital at this level."

Traditional Film Camera SLR Ergonomics

Olympus designed the CAMEDIA E-10 SLR with the goal of replicating the look and feel of a professional film camera SLR. It has a distinctive all black body that pros enjoy because it's less intrusive. All buttons and dials are an easy motion away from the base holding position and are easily obtainable on-the-fly. The CAMEDIA E-10 Zoom SLR even provides a realistic sounding shutter click from its speaker so you know exactly when the image is captured.



Another New York based professional photographer, Douglas Dubler explains, "the E-10 reminds me somewhat of the Olympus IS-3 film camera that goes back about 10 years ago. It was a transitional camera, and the E-10 has that same great of feel to it. The E-10 has great ergonomics, the buttons are situated in the right place for quick access. The E-10 is very tight and precise and feels really good in your hand."

Photographer Joel Meyerowitz adds, "the E-10 is absolutely in harmony with my hand. What's nice is that this camera has hest. Hest is when you pick something up, you feel the weight of it in your hand and it feels very solid. The E-10 has a good solid feeling in your hand. All the dials are accessible with your thumb and index finger. It balances beautifully. It doesn't have the feeling that if you carried it around all day, it would turn into a brick. For example, I'm running around in the street through traffic, photographing stuff that I see, running up sidewalks, catching things that happen, that look interesting to me. It was amazing that the camera was right there for me. To me it felt like I've worked with it forever. There was no sense that I had an unfamiliar object in my hand."

Meyerowitz adds, "they [Olympus] haven't stuck a conventional film camera lens on a digital body. Something in the lens design allows them to make a lighter barrel and it doesn't have the forward weight on it that makes your wrist ache."

Extraordinary Dispersion Glass, 4x Zoom, 9-36mm f2.0~2.4 Lens

The CAMEDIA E-10 Zoom SLR lens design is one of the most impressive attributes of this camera. It features include all glass, all multicoated elements with extraordinary dispersion (4 elements in 11 groups, with 2 aspherical elements), a seven bladed aperture and is a 4x zoom of 9-36mm (35-140mm equivalent). With inferior lenses there is a noticeable difference in the brightness of the image at the center compared to the outer edges of the frame. The primary benefit of this lens design is that it allows for a "faster" lens, capable of providing greater detail in shadow areas or in low light with less "fall off" of light from the center of the lens to its outer edges.

The CAMEDIA E-10 SLR's 4x zoom lens also features a non-rotating 62mm filter thread for attaching conversion lenses. Focus can be manually controlled or automatically controlled, with a range from 1.97 feet (0.6m) to infinity in normal mode, and from 8.0 to 30.0 inches (0.2 to 0.8m) in macro mode. The zoom can be manually controlled and has a textured-rubber ring around the outside of the lens for better gripping and to absorb shock. A second adjustment ring at the end of the lens controls the manual focus.



Exclusively developed 14 element, 11 group 4 X zoom for the E-10, designed as a very high precision and highly accurate optical system.



Douglas Dubler - ©2000

Olympus extends the focal range of the CAMEDIA E-10 Zoom SLR by providing a several optional high-quality front-element conversion lenses. These matched, add-on lenses deliver the flexibility digital photographers need to maximize creativity. When used in conjunction with the CAMEDIA E-10 Zoom SLR's built-in 4x zoom, they provide impressive focal lengths equivalent to 28mm f2.0 - 420mm f2.8 in a 35mm film camera.

Photographer Douglas Dubler comments on his experiences, "the quality is certainly better than other camera manufacturers in terms of the of the lens design. This is to me, and probably to all other photographers, is the most important part of the camera. That's what gives you the quality and the resolution once you've got a great CCD. The quality in the E-10 lens design speaks for itself. It's something Olympus has always been proud of. I have come to appreciate and expect superior optical performance from any product that Olympus puts out. And I think they sort of one-upped themselves in this product in that regard."

Los Angeles photographer Walter Urie adds, "I was very pleased with the quality of the lens. It's a very high quality lens and if you could have purchased it by itself, it would probably cost more than two-thirds as much as the entire E-10. As a matter of fact, I produced some images in very low light level situation and I was very impressed with the camera and lens' ability to capture very good highlight and shadow detail. It did a very good job, particular in areas of shadow detail."

Manual Focusing Ring

In keeping with the goal to provide an SLR that is similar or better than a professional film SLR camera, the manual focusing ring on the CAMEDIA E-10 Zoom SLR feels like a pro quality lens focusing mechanism. It racks quickly and precisely. There will be occasions when manual capability becomes necessary such as shooting through a wire fence or opaque objects. In those

times, the CAMEDIA E-10 SLR provides a smooth and accurate rack and helps you to capture quickly with less error.

Joel Meyerowitz explains, "recently there have been times when I couldn't use the autofocus, so I used the manual focusing ring. For example I wanted to shoot a storm through a window so I used manual focus. It doesn't feel like it is gear driven and it is very quick to focus, and smooth. You can rack it near to far instantly and accurately without the feeling of having slop or play."

Douglas Dubler adds, "my experiences with most other cameras that have both auto focus and manual capability have shown that in most cases, the manual focusing ring is very loose and sloppy, and doesn't have a nice feel to it. This manual focusing mechanism on the E-10 has a very smooth and controlled feel to it."



Joel Meyerowitz - ©2000

Even Light Dispersion to the Camera's CCD

Another stellar attribute that sets CAMEDIA E-10 SLR's lens apart from nearly all others is the lens' ability to send light (photons) via concave elements frontally to the CCD sensor rather than at an oblique angle as with most lens and CCD designs. This allows the individual sensor pixels to receive light straight on from the lens and the benefit is greater detail in shadow and highlight areas of the image. Cameras without this special lens-to-CCD alignment are subject to a loss in resolution and a greater likelihood of blooming, (where the sensor cannot show detail in spectral highlights, over-saturates and creates artifacts in the highlight areas of the image).



New Optical System Developed for E-10







E-10 Dual AutoFocus System



Dual Autofocus System

The CAMEDIA E-10 SLR has newly developed dual autofocus systems that work in tandem with each other. For moving quickly from near subjects to far or vice versa, Olympus provides a patented IR (infrared) active focus system and for fine-tuning of the subject, the TTL (through the lens) passive focus system is provided. This gives the user state-of-the-art focusing capabilities in almost any condition.

Walter Urie explains, "I found the auto focus on that camera to be more than accurate, and worked great. With some cameras the autofocus works hard to get affirmation, moving back and forth. With the E-10, I didn't feel the lens going back and forth and I didn't have to wait for the focus to occur. It was quick." New Exposure Controls and Dials

The CAMEDIA E-10 SLR offers professional 35mm SLR-like one-touch buttons and dials, which can be used as an alternative means to change program modes rather than navigate through layers of LCD menu commands. The E-10's dedicated buttons control shooting modes such as flash, white balance and media card settings. Aperture and shutter controls are also set by using these ergonomic dials, enabling on-the-fly adjustments for a wide range of commonly used features and settings.

Less Than 100 Millisecond Shutter Release

An inherent problem with most previous digital cameras has been the lag time when the shutter button is pushed to when the image is actually captured. A true photographic instrument should give a photographer instantaneous, mechanical like results. Olympus knows this and has gone to great lengths to hurdle this problem. The CAMEDIA E-10 Zoom SLR now provides a shutter release lag time of less than 100 milliseconds. This means no more having to anticipate the shot and guesswork. Now when the precise moment is there to be captured, the E-10 allows you to get the shot within 100 milliseconds.

New Ground Glass Viewfinder

The construction of the CAMEDIA E-10 Zoom SLR's viewfinder is a fine-grained ground glass design that permits direct focus evaluation, finer than a 35mm SLR. The new viewfinder utilizes a beam-splitter to simultaneously deliver the image from the lens to the optical viewfinder and the CCD simultaneously. The benefit to the user is real-time viewing with a centered 95 percent accuracy of what the CCD captures, which is extremely important when composing to the outer edges of the frame. The new viewfinder is also more color accurate. You can also see through the viewfinder whether the camera is turned off or on. When turned on, the viewfinder becomes brighter.









Three Position Articulating LCD

The CAMEDIA E-10 SLR is one of just a few digital cameras to offer a movable LCD display. The E-10's is an articulating high-resolution TFT LCD display that represents a quantum leap in providing professionals an easy means to compose and capture in difficult positions such as having to shoot hail-marys or ground level shots. The 1.8" LCD provides viewing angles of 20°, 0° and 90° and provides a 100% viewing accuracy to what the CCD captures. The high resolution LCD also allows easy index viewing of 1, 4, or 9 images; as well as a 2x to 4x magnification inspection mode.

Walter Urie comments on using the articulating LCD, "let's say for example you're a news photographer. You're in a crowd of people and there's someone in the middle of that crowd of people you want to photograph. Normally you would have to try and go in shooting with a wide-angle lens and end up cropping quite a bit out. With this camera you can raise it over your head and zoom tighter in on whomever you wanted in the frame. You can actually see what you're doing. And the same thing applies to shooting at ground level. Unless you have a special viewfinder on a 35mm film camera, whenever you try to shoot at this angle, your face will be on the ground. And as most professional photographers will tell you, point of view has everything to do with how interesting your picture will become. The new LCD is a great tool for getting the job done in these types of circumstances."

New Exposure Controls and Dials

The CAMEDIA E-10 Zoom SLR offers professional 35mm SLRlike one-touch buttons and dials, which can be used as an alternative means to change program modes rather than navigate through layers of LCD menu commands. The E-10's dedicated buttons control shooting modes such as flash, white balance and media card settings. Aperture and shutter controls are also set by using these ergonomic dials, enabling on-thefly adjustments for a wide range of commonly used features and settings.



The exposure control on the CAMEDIA E-10 Zoom SLR is very extensive and provides an abundance of modes and options

such as Program, Aperture Priority, Shutter Priority, and Manual exposure modes. Apertures can be manually or automatically controlled in 1/3 steps from f/2.0 to f/11.0, depending on the zoom setting. In Manual mode, shutter speed ranges range from eight to 1/640 seconds, with a Bulb setting for even longer exposures (up to 30 seconds maximum). The shutter speed range changes slightly in Automatic exposure modes, varying from two to 1/640 seconds. The 1/640 second shutter speed is adequate for stopping action in all but the most critical of speed circumstances. In-fact most professional NFL and NBA pro photographers, in most circumstances shoot at 1/500 of a second for stopping action.

The CAMEDIA E-10 Zoom SLR also has an exposure compensation adjustment that offers a wide range of adjustments from -3 to +3 EV in 1/3 EV increments. The CAMEDIA E-10 SLR's metering system can be set to Digital ESP (a matrix-multi-patterned metering system), 1.6 degree Spot, or Center-weighted, depending on the type of subject and the desired exposure effect. The ISO setting is also manually adjustable, with options of Auto, 80, 160, or 320 sensitivity equivalents. An AE Lock button on the back panel allows users to lock the exposure reading for a specific part of the subject independently of the shutter release, providing flexibility with the exposure.



Simulation of TruePic Technology Algorithm ©2000 - Imerge Consulting Group

The Advantages of TruePic™ Technology Now and in the Future

The CAMEDIA E-10 SLR like its predecessor, the C-2500L utilizes a unique feature called TruePic[™] Technology which is an advanced algorithm that is embedded in the CAMEDIA E-10 Zoom SLR's ASICS (Application-Specific Integrated Circuit) chip. It provides two very distinct functions in post image processing using all the pixel information. As camera resolutions move higher, users want the flexibility not to shoot at the camera's maximum resolution for sending, (for example), images via email or for posting images on a web site. A typical digital camera records incrementally smaller sizes, commonly referred to as SQ modes, which include medium resolution, low resolution and lowest resolution. What is seldom mentioned is the fact that choosing these lower resolution options with a camera other than the Olympus CAMEDIA E-10 Zoom SLR or the Olympus C-2500L, at resolutions other than "highest" necessitates throwing away important pixel data in the image. The pixels are actually thrown out to accommodate a smaller image size. Therefore images captured in these lower SQ modes have degraded image quality for the simple reason that there are less pixels in the smaller image.

For example, a high resolution file at 2240 x 1680 pixels must be reduced in order to fit into a smaller resolution image space of 640 x 480. A typical method to achieve this is to "step down" the resolution by identifying surrounding pixels by using an algorithm to identify them and throw them away, deeming them less necessary to the final image.

TruePic[™] Technology Advanced Solution

The CAMEDIA E-10 Zoom SLR with TruePic[™] Technology dramatically improves image quality at lower resolution SQ modes by using a far greater sampling area and an advanced algorithm and does not "throw away" pixels when using SQ modes. Rather, the algorithm learns the pattern of the image and replicates it at lower resolutions.

Fringe-less Images with TruePic™

TruePic[™] Technology also performs another function within the camera's ASICS. It eliminates blue and green artifacts by 70% to 80% (commonly called fringing) and creates smoother edges in color transition areas of the image. The result is superior image quality.



Two Dimensional Section of a Digital Image^x Using Conventional Image Processing



Two Dimensional Section of a Digital Imageⁿ Using TruePic Image Processing



Seven Step White Balance from 3,000 Kelvin to 7,500 Kelvin

There are two modes for setting the white balance on the CAMEDIA E-10 Zoom SLR, an Auto White Balance and a One Touch manual White Balance and seven preset White Balance settings, which range from 3000 Kelvin to 7500 Kelvin. When using the Auto White Balance you can be assured that your images will be accurately color corrected for prevalent ambient light conditions. For those that crave greater control there is the Seven Preset White Balance settings, which allow for more creative process. For example, if you're in a situation where you want to enhance a sunset, simply dial in a lower Kelvin setting than 5500 Kelvin. Or if you want to warm skin tones, dial in a lower number. Or you can change the setting and use cross filtering on the camera's strobe for even more dramatic effects.

Walter Urie adds, "I tend to use the white balance not to bring the color back to normal, but to push the colors, to enhance one or the other. And it works great for that. It's much better to do this process through the camera than to use filters. Just warming skin tones for example or warming up skies. There was one shot where I wanted to have an overly cool shadow, like a moody blue kind of look. I dialed in a cooler color temp and it work perfectly."

Dual Slot Media with Media Transfer Capability

The CAMEDIA E-10 Zoom SLR comes with 32 Mb of SmartMedia but the E-10 also provides media capabilities like no other camera on the market for under \$4,000. It has the capability to accept SmartMedia and CompactFlash Type II cards simultaneously. But Olympus has even gone a step further. Now the user can transfer images from one type of media to the other, in-camera. Let's say for example you have both SmartMedia and CompactFlash but you only have one type of card reader for the PC. You can transfer your images to the PC from the type of media without the card to the type of media with the card and keep on shooting.



Joel Meyerowitz - ©2000

RAW 30 Bits of Color

For those professionals with discriminating requirements in image quality, Adobe Photoshop 5.0 LE comes bundled with the CAMEDIA E-10 Zoom SLR, which allows you to import RAW 30 bit color images produced by the E-10 directly into Photoshop so there is no loss of bit depth. This allows users to output to the highest possible quality level with the maximum amount of data.

All Aluminum body

The CAMEDIA E-10 SLR provides a balanced and nimble light weight all aluminum cast body that has the added feature of a "Mirror Box," which acts with the body as a heat sink. This disperses heat throughout the entire camera's body away from the sensor to cut down on heat related electronic noise and has a direct correlation to the quality of images coming from the E-10.

Joel Meyerowitz talks about the balance and weight, "typically I shoot about 10 hours a day and at the end of the day I usually have problems with indentations in my fingers and my hands are tired. This camera did not have the usual problems of being heavy on the front end of the lens. It was balanced properly and light enough yet solid as well. After shooting all day with the E-10, I didn't have the typical problems I have with other cameras."

On-board Histogram

Often when shooting on-location professional digital photographers use an in-camera tool called a histogram. A histogram represents the all the image data and tonal range that is captured and represents this data in a linear graphic form. Often in critical situations it may be difficult for a professional photographer to tell whether the image is a good image or one that should be re-shot by just looking at the LCD. The CAMEDIA E-10 Zoom SLR provides the ability to view the histogram of an image on the camera's LCD so you can be assured from a visual standpoint and a graphical perspective that you've got a "keeper".



Summation



By now we hope you have a good understanding that the CAMEDIA E-10 SLR is clearly not a "me-too" digital SLR camera but a trend-setting all-in-one product that will become a industry bellwether, as was stated. The CAMEDIA E-10 Zoom SLR's entire system comprises four optional lenses, a wide angle, two telephotos and a macro. The pro system also features a dedicated external flash and a battery pack. The E-10 also has a hot shoe and PC Sync terminal for studio strobes. The entire system is an unbeatable professional solution that provides modularity so you can add to it when you need to.

We've touched on the majority of important aspects this camera has to offer, but there are far too many differentiating features in the CAMEDIA E-10 Zoom SLR to mention in this overview alone.

We suggest that you read the accompanying specification sheet to see how this camera compares with others. One thing you will notice right away is that to get the quality and quantity of features presented in the CAMEDIA E-10 Zoom



(AMEDIA E-10 System Chart

SLR, you would have to make a jump up to \$5,000 or more in price.

The CAMEDIA E-10 Zoom SLR right now is the finest digital photographic instrument for under \$5,000 that money can buy and is well suited for professionals seeking to become full-time digital photographers or existing event, wedding and portrait digital photographers. Or for that matter, its a great camera for those who are amateurs but feel they need a professional quality digital camera.

Ron Tussy Principal Analyst Imerge Consulting Group LLC



P-400 professional-quality dye sublimation printer

Specifications of the E-10 SLR

Model name	Olympus CAMEDIA E-10 Digital Camera
Product Type	Digital SLR Camera with 4.5cm/1.8inch color TFT LCD monitor
Memory	3V (3.3V) SmartMedia (SSFDC) Card (2M,4M,8M,16M 32M and 64MB)
	One 32MB card including Panorama function is supplied with camera
	3V CompactFlash Type II (Flash Memory-Micro Drive not recommended)
Recording system	Still image ; JPEG (DCF: "Design rule for Camera File system"), TIFF (non-compress),
	DPOF support RAW (16 bit per color) –Ships with Photoshop Plug-in for RAW
	10 Bit A>D Converter
Number of storable	2: TIFF 2240 X 1680
pictures with 32MB	7: RAW 2240 X 1680 (Open in Camedia Master 2.5 or with RAW data plug-in)
SmartMedia card	11: SHQ 2240 X 1680 (2.7:1 JPEG)
	30: HQ 2048 X 1536 (8:1 JPEG)
	SQ 1600 X 1200 (2.7:1/4:1/8:1 DCF JPEG)
	SQ 1280 X 960 (2.7:1/4:1/8:1 DCF JPEG)
	SQ 1024 X 768 (2.7:1/4:1/8:1 DCF JPEG)
	SQ 640 X 480 (2.7:1/4:1/8:1 DCF JPEG)
	Total of 15 pixel/compression modes at 1:1, 2.7:1, 4:1 and 8:1 compressions, TruePic TM
	Technology at all resolutions to smooth images.
	[640 X 480; 1024 X 768; 1280 X 960; 1600 X 1200; 2240 X 1680].
Image pickup element	2/3 inch CCD solid-state image pickup 4.0 Million Pixel
	RGB Interlaced Scan
White balance	iESP full-auto TTL
	7 stage Preset Manual (3000; 3500; 4000; 4500; 5500; 6500; and 7500 K)
	"One Touch" Manual
Lens	Olympus lens 9 – 36 mm 2.0-2.4, ED Glass Aspherical Zoom Lens
	Full Multicoated (all elements)
	(Equivalent to 35 - 140 mm lens on 35 mm camera)
	Optional 0.8X (28mm f2.0 equiv. Wide-angle) 1.45X (200mm f2.4 equiv. telephoto)
	3X (420mm f2.8 telephotos)and Macro Lenses (f=35)
Filter Size	62mm
Photometric system	Digital-"ESP" Multi-Pattern metering system, Center-weighted and 1.6° spot metering
Exposure control	Programmed auto exposure, Aperture priority, Shutter priority
	+/- 2Ev by 1/3EV steps exposure compensation
	Auto Bracketing: selectable from 1/3EV, 2/3 EV and 1EV; 3 or 5 images
	Aperture priority: Wide ; F2.0 – 11, Tele ; F2.4 – 11, 1/3EV steps
	Shutter priority: Still image: 2 - 1/640 sec. (used with mechanical shutter), 1/3EV steps
	Manual exposure: shutter speed Bulb, 8 sec. –1/640 sec.
ISO	Auto,or user selectable 80, 160, 320 equivalent ISO

Focusing	Dual AF-Active (IR and Passive TTL) system autofocus (contrast detection system)
	with focusing range: 8"/0.2 m-x (infinity) stepless
	Manual focus (manual focus setting by gauge) with focusing range: 8"/0.2 m- \times (infinity): stepless
Working range	Standard mode: 0.6m-x (infinity); Macro mode: 8"/0.2-30"/0.8 m
Viewfinder	95% V/H accurate Optical SLR viewfinder
	(Full Information/Mode/ Aperture/Shutter Speed/Spot/Center Weighted/digital ESP/+/-/AF/Flash)
	Focusing Screen (Shows Focus)
LCD monitor	1.8inch/4.5cm wide angle color TFT LCD monitor with 114,000 pixels
	(made from Low-temperature poly-silicon), brightness adjustment is possible
	adjustable 20, 0, 90 Degrees (click stops) 100% accurate area-view of subject
Flash modes	Built-in Flash : Auto-Flash (low-& back-light), Read-Eye Reducing Flash, Off, Fill-in
	External terminal: Off, Auto, Forced activation
	Slow Synchronization (First-Curtain Synchronization effect, Second-Curtain Synchronization effect)
	Flash system uses exclusive iESP scene detecting flash
Flash working range	wide; approx. 2.6'- 18'/0.8 - 5.6m, telephoto; approximately .6' - 12.5'/0.2 -3.8m (ISO 100)
Battery charging time	Less than 6 sec. (at normal temperature with new battery) for flash
Sequence mode	3 frames per sec. up to 4 frames
	1.2 second shot to shot or faster at all times (unlimited quantity)
TruePic technology	Avalable at all resolutions froms SHQ-SQ
Image Control	Softness: Soft-Normal-Hard
	Contrast: Low-Normal-High
Selftimer / remote	12 second delay / 2 sec. after optional remote controller operation: Intervelometer
controller	
Setting memorization	Possible
Outer Connector	DC input terminal, Data input/output terminal USB interface (only)
	Video Output terminal (NTSC), external PC socket for studio strobes, hotshoe, 3 pin Olympus
	remote cable release connector
Operating opvironment	$O_{\text{potentian}}$ (22) 104% 20 00% humidity
Operating environment	Storage : 4° 140° E 10 - 90% humidity
Power Supply	Storage $\cdot -4 = 140$ 1 10 = 30 % numbers
r ower ouppry	$4 \times \Delta \Delta$ Ni-MH batteries $/4 \times \Delta \Delta$ Lithium batteries $/4 \times \Delta \Delta$ Ni-Cd batteries (Ontional
	C-7411 AC adapter (Manganese batteries cannot be used)
Date/Time/Calendar	Simultaneous recording onto image data
Adjustable Automatic	Un to year 2030
calendar system	
Dimensions	5 inch/128mm (W) x 4.1 inch/105mm (H) x 7 inch/178mm (D) excluding projections
Weight	37oz/1048 grams (without batteries and SmartMedia Card)
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equiptment are subject to change without any notice or obligation on the part of the manufacturer



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