4K Broadcast Lens Series

4K Premium UHD-DIGISUPER 86

4K Premium UHD-DIGISUPER 90

4K Premium UHD-DIGISUPER 27

NEW 4K UHDxs CJ45e×9.7B

NEW 4K UHDxs CJ45e×13.6B

NEW 4K UHDxs CJ20e×7.8B

NEW 4K UHDxs CJ12e×4.3B
NEW BCTV LENSES DESIGNED TO ACCELERATE THE PACE OF 4K UHD CONTENT CREATION

As 4K continues its steady integration into mainstream television dramas, documentaries and movies, Canon has worked to be at the technological forefront with our innovative Cinema EOS series and development of 4K Optics. The needs of broadcast television producers to achieve the high image quality of 4K UHD and more powerful ways of expression are now spreading to live telecasts of sports, concerts, and events. The imperative need for 4K lenses that can offer the long focal ranges that are central to contemporary sports coverage while maintaining the usability and ease of operation that the broadcast industry favors, is increasing at a rapid pace. In response to these new marketplace needs, Canon is offering lenses whose performance closely dovetails with the various new 2/3” small-format 4K UHD cameras as part of our onward drive to support this new movement. By offering lenses that fit in with the applications and objectives of users, Canon is taking steps to actively open up new dimensions of potential in video performance. 4K images can convey such a sense of presence and an almost 3-dimensional feeling that viewers sense they are actually involved in the action; through such images, these lenses can impart new values to user content and allow viewers to experience videos in new and fresh ways.

WHAT ARE CANON’S UHD LENSES?

The breakthrough optical designs of Canon’s HD lenses do full justice to UHD imagery, having four times the spatial resolution of HDTV. The associated stunning image sharpness is created by the combination of the remarkable contrast that Canon’s multilayer optical coatings provide, and superb resolution from the central picture region out to the image extremities. Canon’s UHD Series Lenses are the most high performance lenses among Canon’s BCTV lenses, featuring Canon’s latest optical designs that do full justice to 4K imagery with four times the spatial resolution of HD. Canon’s proprietary optical coatings facilitate the vibrant color reproduction expected from the UHD wide color gamut specifications, while simultaneously providing excellent tonal reproduction. A variety of proprietary design techniques help ensure preservation of these performance levels across the entire focal range of these remarkable zoom lenses.

SHARPNESS AND MORE

In all the color channels of red, green and blue, it is a matter of course that the sharpness expressed by the balance between the high resolution and contrast is high while chromatic aberration that tends to cause the image quality to deteriorate is definitely minimized, the ability to reproduce the colors is enhanced, and high-quality images are obtained. This is the approach that Canon takes to deliver a 4K optical performance.

WHAT IS “4K PREMIUM”?

“4K Premium” refers to the flagship line of Canon’s UHD series lenses that exceed standard 4K optical quality expectations. Specifically, the central image sharpness is extremely high and traditional optical aberrations are virtually invisible. The very high contrast ratio helps produce deep rich black levels and superb reproduction of scene detail in shadowed areas. This lens is ideal when used in an HDR (high dynamic range) and WCG (wide color gamut) 4K UHD image acquisition system.

UHD TECHNOLOGIES

BCTV ZOOM LENSES FOR UHD CAMERAS

DESIGNED TO SUPPORT 4K UHD BROADCAST SYSTEMS AND DELIVER SUPERB OPTICAL PERFORMANCE.

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4K BROADCAST LENS SERIES

CANON’S TECHNOLOGIES THAT ACHIEVE 4K

Each 2/3” small-format 4K pixel is equivalent to approximately 2.5μm, which is one-half of the size of the 2/3” HD pixels. These are approximately 1/2.7 smaller than the pixel size of the 4K Super 35mm image sensor. This means that, for these lenses, it is extremely important to establish the high-grade design and production technologies that will help ensure the requisite 4K UHD image sharpness while minimizing optical aberrations. Described below are the latest technologies Canon has developed and is utilizing to achieve these goals.

OPTICAL PERFORMANCE THAT EXCEEDS 4K RESOLUTION

This lens has outstanding optical performance that goes beyond 4K resolution, all the way from screen center to the edges. Image sharpness is maintained over the focal range of the lens and with changes in subject distance from the lens.

APPLELIABILITY AND EASE OF OPERATION IDEALLY SUITTED FOR 4K SHOOTING

While producing full 4K imagery, the lens offers the same highly extended focal range established over the years of HDTV evolution, and preserves the same ease of operation as the latest generation of Canon’s HDTV zoom field lenses.

HIGH ZOOM RATIO AND LONG FOCAL LENGTH

While providing performance that surpasses 4K, the lens has the high zoom ratio [86x] and long focal length [800mm, 1600mm with 2x extender] desired by many in outside broadcast television production.

HDR

The Canon 4K lenses employ internal lens-barrel designs as well as lens coating technologies that prevent reflections to minimize the occurrence of ghosting and flare, enabling the capture of High-Dynamic Range (HDR) video, which has recently been growing in popularity. In particular, the minimization of chromatic aberration in the blue channel and red channel effectively works for a wide color gamut that is another important element required by HDR video.

TECHNOLOGY TO ACHIEVE ULTRA-HIGH-PRECISION PRODUCTION

When it comes to 2/3” 4K, even the slightest dimensional errors or assembly errors in the components used can significantly affect the images obtained. Canon accordingly increased the precision of the key optical components and their individual mountings while simultaneously combining precision assembly tools and measuring equipment to improve the precision levels of assembly and adjustment.

UNIQUE PERFORMANCE BEYOND 4K EVEN WITH THE BUILT-IN 2X EXTENDER AND IMAGE STABILIZER

Thanks to the precision of its high-grade components and assembly, the lens achieves optical performance that goes beyond 4K even when the built-in 2x extender has been engaged. Also featured is Canon’s latest generation optical shift-type image stabilizing mechanism, helping to achieve the degree of image-stabilizing performance commensurate with 4K.

COMPATIBLE WITH HD LENS SYSTEMS

The lens employs the same Canon standard controllers for zoom and focus as well as servo modules currently used by HDTV equipment. It comes with a 25-pin connector that enables high-accuracy digital positional information of the zoom, focus and iris to be interfaced to virtual systems.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>BUILT-IN EXTENDER</th>
<th>1x</th>
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</thead>
<tbody>
<tr>
<td>FOCAL LENGTH</td>
<td>9.3 - 800mm</td>
<td>18.6 - 1600mm</td>
</tr>
<tr>
<td>ZOOM RATIO</td>
<td>86x</td>
<td></td>
</tr>
<tr>
<td>MAXIMUM RELATIVE APERTURE</td>
<td>F1.7 at 9.3 - 340mm</td>
<td>F1.8 at 1600mm</td>
</tr>
<tr>
<td>ANGULAR FIELD OF VIEW</td>
<td>54°.6’’ - 32°.4’’ at 9.3mm</td>
<td>6.9°’’ - 4.3°’’ at 800mm</td>
</tr>
<tr>
<td>28°.9’’ - 16.5’’ at 18.6mm</td>
<td>3.4°’’ - 1.9°’’ at 1600mm</td>
<td></td>
</tr>
<tr>
<td>M.O.D.</td>
<td>3.0m</td>
<td></td>
</tr>
<tr>
<td>OBJECT DIMENSIONS AT M.O.D.</td>
<td>271.9 x 152.9cm at 9.3mm</td>
<td>160.6 x 76.5cm at 18.6mm</td>
</tr>
<tr>
<td>3.3 x 1.9cm at 800mm</td>
<td>1.7 x 0.9cm at 1600mm</td>
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<tr>
<td>APPROX. SIZE (W x H x L)</td>
<td>9.9 x 10.5 x 25.6in (250.6 x 255.5 x 637.4mm)</td>
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<tr>
<td>APPROX. WEIGHT</td>
<td>165.3 lbs (75kg)</td>
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DIMENSIONS

CANON 4K PREMIUM UHD UJ86×9.3B BROADCAST LENS

Our new, premium 4K flagship broadcast lens. As our most refined lens designed to support 4K UHD broadcast systems, it boasts extremely high optical performance that surpasses various 4K criteria and, at the same time, embodies the ease of operation ideally suited for use in outside broadcast (OB) television production.

OPTICAL PERFORMANCE BEYOND 4K EVEN WITH THE BUILT-IN 2X EXTENDER AND IMAGE STABILIZER

UNIQUE PERFORMANCE BEYOND 4K EVEN WITH THE BUILT-IN 2X EXTENDER AND IMAGE STABILIZER

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OPTICAL PERFORMANCE THAT EXCEEDS 4K RESOLUTION

This lens has outstanding optical performance that goes beyond 4K resolution, all the way from screen center to the edges. Image sharpness is maintained over the focal range of the lens and with changes in subject distance from the lens.

APPLELIABILITY AND EASE OF OPERATION IDEALLY SUITTED FOR 4K SHOOTING

While producing full 4K imagery, the lens offers the same highly extended focal range established over the years of HDTV evolution, and preserves the same ease of operation as the latest generation of Canon’s HDTV zoom field lenses.

HIGH ZOOM RATIO AND LONG FOCAL LENGTH

While providing performance that surpasses 4K, the lens has the high zoom ratio [86x] and long focal length [800mm, 1600mm with 2x extender] desired by many in outside broadcast television production.

HDR

The Canon 4K lenses employ internal lens-barrel designs as well as lens coating technologies that prevent reflections to minimize the occurrence of ghosting and flare, enabling the capture of High-Dynamic Range (HDR) video, which has recently been growing in popularity. In particular, the minimization of chromatic aberration in the blue channel and red channel effectively works for a wide color gamut that is another important element required by HDR video.

TECHNOLOGY TO ACHIEVE ULTRA-HIGH-PRECISION PRODUCTION

When it comes to 2/3” 4K, even the slightest dimensional errors or assembly errors in the components used can significantly affect the images obtained. Canon accordingly increased the precision of the key optical components and their individual mountings while simultaneously combining precision assembly tools and measuring equipment to improve the precision levels of assembly and adjustment.

UNIQUE PERFORMANCE BEYOND 4K EVEN WITH THE BUILT-IN 2X EXTENDER AND IMAGE STABILIZER

Thanks to the precision of its high-grade components and assembly, the lens achieves optical performance that goes beyond 4K even when the built-in 2x extender has been engaged. Also featured is Canon’s latest generation optical shift-type image stabilizing mechanism, helping to achieve the degree of image-stabilizing performance commensurate with 4K.

COMPATIBLE WITH HD LENS SYSTEMS

The lens employs the same Canon standard controllers for zoom and focus as well as servo modules currently used by HDTV equipment. It comes with a 25-pin connector that enables high-accuracy digital positional information of the zoom, focus and iris to be interfaced to virtual systems.
This lens, designed for use in 4K outside broadcast television production, combines both an 810mm long focal length and the superb optical performance to support the high 4K UHD imagery anticipated for sporting and other special events.

**Features:**
- **4K Optical Performance:** The lens offers optical performance that supports 4K cameras all the way from screen center to the edges.
- **4K Optical Performance Even with the Built-in 2x Extender and Image Stabilizer:** Thanks to the precision of its high-grade components and assembly, the lens achieves outstanding 4K optical performance, even when the built-in 2x extender has been engaged. Also featured is Canon’s latest generation optical shift-type image stabilizing mechanism, helping to achieve the degree of image-stabilizing performance commensurate with 4K.
- **Achilles 4K Optical Performance Beyond 4K Resolution:** Even when the built-in 2x extender is engaged.
- **Stable Servo Performance:** The most advanced computer simulation design techniques, deployment of new glass materials and optical coatings, and new precision optomechanical design strategies deliver outstanding overall optical performance beyond 4K resolution even when the built-in 2x extender is engaged.
- **High Dynamic Range (HDR) Performance:** The lens has been designed with proprietary coating and anti-reflection materials to precisely manage internal light reflections and to better suppress unintended ghosting and flares, producing superb contrast and color reproduction of nominally exposed images.
- **16 Bit Output to Support Various Virtual Systems:** The lens is equipped with 16-bit optical rotary encoders to output highly precise positional data of zoom, focus, and iris on a 20-pin connector for direct digital interface to robotic and virtual studio systems.
- **Compatible with HD Lens Systems:** The lens utilizes the same standard controllers for zoom and focus operations that have been optimized over decades of Canon HDTV field lens developments. Similar in size and weight to our 2/3” HD lenses, the UHD DIGISUPER 27 allows for the same shooting style.

**Specifications:**
- **Focal Length:** 6.5 - 180mm
- **Max. Relative Aperture:** 1:2.4 at 9 - 486mm
- **Zoom Ratio:** 27x
- **Angular Field of View:** 24° (610mm) at 6.5mm to 18° at 180mm
- **Approx. Size:** (W x H x L) 9.9 x 10.1 x 21.7 in
- **Approx. Weight:** 29.9 lbs

**Dimensions:**
- **Builtin Extender:** 1.0x, 2.0x
- **FOCAL LENGTH:** 6.5 - 180mm
- **ZOOM RATIO:** 27x
- **MAXIMUM RELATIVE APERTURE:** 1:2.4 at 9 - 13mm
- **MAXIMUM RELATIVE APERTURE:** 1:1.5 at 6.5 - 123mm
- **AngULAR FIELD OF VIEW:** 6.0° at 360mm
- **Approx. Size:** (W x H x L) 9.9 x 10.1 x 21.7 in
- **Approx. Weight:** 29.9 lbs
9.7B ZOOM LENS

**SUPERB 4K OPTICAL PERFORMANCE IDEAL FOR 4K OR HDR SHOOTING**

Featuring advanced optical performance to support 4K cameras, the lens was designed to produce high resolution from center to edges of the image with outstanding luminance gradation, making it ideal for HDR shooting. High contrast is achieved by superb control of black reproduction, and a re-design of the lens optics help to reduce ghosting, flare, veiling glare, chromatic distortions and internal reflections.

**HIGH ZOOM RATIO AND IMPROVED IMAGE STABILIZATION**

With its high-grade optical components and precision optomechanical assembly, the lens features a 45x zoom ratio that can extend to 437mm, and as far as 874mm with the built-in 2x extender. The lens is nearly the same size and weight as the HJ40x14B HD lens while offering a 45x zoom ratio and 4K optical performance. A new and improved built-in image stabilization system features high frequency vibration suppression and panning operability, making it ideal for shooting in dynamic environmental situations such as within helicopters, boats and motor vehicles.

**APPLICATIONS**

- Wildlife, sports, documentary, natural history, music stage, helicopter/aerial and other challenging location productions that seek superb image capture over considerable distances.

**COMPATIBILITY WITH HD LENS SYSTEMS**

The standard zoom and focus controller systems currently used with Canon HD lenses are fully compatible with this new 4K lens. The latest digital drive units that have proven to be so popular with users of Canon HD lenses are deployed with this new lens. The drive unit features three 20-pin connectors for zoom control, focus control and access to the virtual terminal, even in full servo setup with focus and zoom controllers connected. When this 4K lens is used with standard HDTV cameras, there is higher image sharpness and minimized optical aberrations.

**SPECIFICATIONS**

- **Focal Length**: 13.6 - 612mm
- **Zoom Ratio**: 45x
- **BUILT-IN EXTENDER**: 1.0x 2.0x
- **MAXIMUM RELATIVE APERTURE**: 1:2.0 at 9.7 - 224mm, 1:2.8 at 13.6 - 312mm, 1:5.6 at 27.2 - 624mm, 1:11.0 at 1224mm
- **FOCAL LENGTH**: 13.6 - 612mm 27.2 - 1224mm
- **ANGULAR FIELD OF VIEW**: 38.9°× 22.5° at 13.6mm, 20.0°× 11.3° at 27.2mm, 4.2°× 2.4° at 612mm
- **M.O.D.**: 2.8mm (10mm with Micro)
- **OBJECT DIMENSIONS AT M.O.D.**: 254.8 x 143.0mm at 9.7mm, 122.7 x 71.5mm at 19.4mm, 5.6 x 2.6cm at 612mm
- **APPROX. SIZE (W x H x D)**: 6.8 x 5.5 x 13.3 in (173.2 x 147.5 x 337.0mm)
- **APPROX. WEIGHT**: 12.3 lbs (5.5kg)

**DIMENSIONS**

- **NEW 4K UHDxs CJ45eX9.7B ZOOM LENS**

4.2 x 2.4cm at 612mm

- **APPROX. SIZE (W x H x D)**: 2.2” x 2.8” x 5.5” (56mm x 70.9mm x 147.5mm)
- **APPROX. WEIGHT**: 4.2 lbs (1.9kg)

**NEW 4K UHDxs CJ45eX13.6B ZOOM LENS**

**SUPERB 4K OPTICAL PERFORMANCE IDEAL FOR 4K OR HDR SHOOTING**

Featuring advanced optical performance to support 4K cameras, the lens was designed to produce high resolution from center to edges of the image with outstanding luminance gradation, making it ideal for HDR shooting. High contrast is achieved by superb control of black reproduction, and a re-design of the lens optics help to reduce ghosting, flare, veiling glare, chromatic distortions and internal reflections.

**HIGH ZOOM RATIO AND IMPROVED IMAGE STABILIZATION**

With its high-grade optical components and precision optomechanical assembly, the lens features a 45x zoom ratio that can extend to 612mm, and as far as 1224mm with the built-in 2x extender. The lens is nearly the same size and weight as the HJ40x14B HD lens while offering a 45x zoom ratio and 4K optical performance. A new and improved built-in image stabilization system features higher frequency vibration suppression and panning operability, making it ideal for shooting in dynamic environmental situations such as within helicopters, boats and motor vehicles.

**COMPATIBILITY WITH HD LENS SYSTEMS**

The standard zoom and focus controller systems currently used with Canon HD lenses are fully compatible with this new 4K lens. The latest digital drive units that have proven to be so popular with users of Canon HD lenses are deployed with this new lens. The drive unit features three 20-pin connectors for zoom control, focus control and access to the virtual terminal, even in full servo setup with focus and zoom controllers connected. When this 4K lens is used with standard HDTV cameras, there is higher image sharpness and minimized optical aberrations.

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- **BUILT-IN EXTENDER**: 1.0x 2.0x
- **MAXIMUM RELATIVE APERTURE**: 1:2.0 at 13.6 - 312mm, 1:3.7 at 612mm, 1:11.0 at 1224mm
- **FOCAL LENGTH**: 13.6 - 612mm 27.2 - 1224mm
- **ANGULAR FIELD OF VIEW**: 6.8°× 3.9° at 13.6mm, 2.8°× 1.5° at 612mm, 0.5°× 0.3° at 1224mm
- **M.O.D.**: 2.8mm (10mm with Micro)
- **OBJECT DIMENSIONS AT M.O.D.**: 254.8 x 143.0mm at 9.7mm, 122.7 x 71.5mm at 19.4mm, 5.6 x 2.6cm at 612mm
- **APPROX. SIZE (W x H x D)**: 6.8 x 5.5 x 13.3 in (173.2 x 147.5 x 337.0mm)
- **APPROX. WEIGHT**: 12.4 lbs (5.64kg)
CANON 4K UHDxs CJ20e×7.8B ZOOM LENS
This portable 4K lens offers an overall optical performance that will support a broad spectrum of production genres for UHD broadcast television. Featuring a 20x zoom ratio, the CJ20e×7.8B 4K lens can achieve panoramic visions and finely detailed close-ups that are central to evocative image making and powerful storytelling when captured in 4K UHD.

**SUPERB OPTICAL PERFORMANCE**
The lens optimizes all of the optical parameters that combine to produce amazing overall image performance – namely, sharpness, contrast, color and tonal reproduction. At the same time this optical design significantly minimizes the various monochromatic and chromatic optical aberrations that can mar an image.

**HIGH ZOOM RATIO AND FREQUENTLY USED FOCAL LENGTH**
The lens has a high zoom ratio of 20x that extends from the wide end of 7.8mm to an impressive tele end of 156mm, covering a popular zooming range that meets multiple applications.

**SUPERB 4K OPTICAL PERFORMANCE, EVEN WITH THE BUILT-IN 2X EXTENDER**
With its high-grade optical components and precision optomechanical assembly, the lens maintains 4K optical performance when the built-in 2x extender is switched in.

**SPECIFICATIONS**

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<tbody>
<tr>
<td>FOCAL LENGTH</td>
<td>7.8 - 156mm</td>
<td>15.6 - 312mm</td>
</tr>
<tr>
<td>ZOOM RATIO</td>
<td>20x</td>
<td></td>
</tr>
<tr>
<td>MAXIMUM RELATIVE APERTURE</td>
<td>1:2.6 at 15.6mm</td>
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<tr>
<td>ANGULAR FIELD OF VIEW</td>
<td>3.5°×2.0° at 156mm</td>
<td></td>
</tr>
<tr>
<td>M.O.D.</td>
<td>0.3m</td>
<td></td>
</tr>
<tr>
<td>OBJECT DIMENSIONS AT M.O.D.</td>
<td>45.9×25.9cm at 15.6mm</td>
<td></td>
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<tr>
<td>APPROX. SIZE (W x H x L)</td>
<td>2.4×1.4cm at 312mm</td>
<td></td>
</tr>
<tr>
<td>APPROX. WEIGHT</td>
<td>4.8×2.7cm at 156mm</td>
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**APPLICABILITY AND OPERABILITY IDEALLY SUITED TO 4K SHOOTING**
This lens boasts the world’s shortest focal length of 4.3mm* and the world’s shortest minimum object distance (M.O.D) of 30cm*. This makes it possible to create images having very wide angles of view with the shortest focal length for a 2/3-inch 4K lens: as such, this supports subsequent 3840 x 2160 cropping from the 4K UHD field output providing full HD-quality. Alternatively, the camera output can be downsamped to provide an even higher HDTV image sharpness.

**COMPATIBILITY WITH HD LENS SYSTEMS**
The standard zoom and focus controller systems currently used with Canon HD lenses are fully compatible with this new 4K lens. The latest digital drive units that have proven to be so popular with users of Canon HD lenses are deployed with this new lens. Three high-performance encoders (which read out high-accuracy positional information of zoom, focus and iris) are featured, and Connectors provided on the digital drive unit deliver precise digital information to support virtual systems. When this 4K lens is used with standard HDTV cameras, there is higher image sharpness and minimized optical aberrations.

**World's First! 2/3-Inch 4K Wide-Angle Portable Lens**
This lens features the world's shortest focal length of 4.3mm* and the world's shortest minimum object distance (M.O.D) of 30cm*. This makes it possible to create images having very wide angles of view with the shortest focal length for a 2/3-inch 4K lens: as such, this supports subsequent 3840 x 2160 cropping from the 4K UHD field output providing full HD-quality. Alternatively, the camera output can be downsamped to provide an even higher HDTV image sharpness.

**Achieves 4K Optical Performance Even With The Built-In 2x Extender**
Thanks to the precision of its high-grade components and assembly, the lens achieves high-4K camera performance even when the built-in 2x extender has been engaged.

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<tbody>
<tr>
<td>FOCAL LENGTH</td>
<td>4.3 - 104mm</td>
<td>8.6 - 104mm</td>
</tr>
<tr>
<td>ZOOM RATIO</td>
<td>12x</td>
<td></td>
</tr>
<tr>
<td>MAXIMUM RELATIVE APERTURE</td>
<td>1:2.6 at 15.6mm</td>
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<tr>
<td>ANGULAR FIELD OF VIEW</td>
<td>1.8°×1.0° at 104mm</td>
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<tr>
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<td>OBJECT DIMENSIONS AT M.O.D.</td>
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<tr>
<td>APPROX. SIZE (W x H x L)</td>
<td>2.4×1.4cm at 104mm</td>
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<td>4.8×2.7cm at 104mm</td>
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**4K OPTICAL PERFORMANCE**
This lens achieves optical performance that supports 4K cameras. All the way from screen center to the edges.

**APPlicability and Ease of Operation Ideally Suited for 4K Shooting**
Since the lens achieves the zoom ratio, focal length, servo speed and stability required of wide-angle lenses, it meets the needs of a wide range of shooting conditions and provides the applicability and ease of operation ideally suited to 4K shooting. Shoulder mount lens-camera operation is facilitated by the remarkably low 4.83 lbs. (2.1kg) weight of the lens.

**COMPATIBILITY WITH HD LENS SYSTEMS**
The lens enables the use of the same Canon standard controllers for zoom and focus as well as servo modules currently used by HD portable lenses. It comes with a 20-pin connector that enables high accuracy digital positional information of zoom, focus, and iris to interface with external virtual systems.

**DIMENSIONS**

**4K UHDxs CJ20e×7.8B**

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<tr>
<td>M.O.D.</td>
<td>0.3m</td>
<td></td>
</tr>
<tr>
<td>OBJECT DIMENSIONS AT M.O.D.</td>
<td>45.9×25.9cm at 15.6mm</td>
<td></td>
</tr>
<tr>
<td>APPROX. SIZE (W x H x L)</td>
<td>2.4×1.4cm at 312mm</td>
<td></td>
</tr>
<tr>
<td>APPROX. WEIGHT</td>
<td>4.8×2.7cm at 156mm</td>
<td></td>
</tr>
</tbody>
</table>

**4K UHDxs CJ12e×4.3B**

<table>
<thead>
<tr>
<th>BUILT-IN EXTENDER</th>
<th>1x</th>
<th>2x</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOCAL LENGTH</td>
<td>4.3 - 104mm</td>
<td>8.6 - 104mm</td>
</tr>
<tr>
<td>ZOOM RATIO</td>
<td>12x</td>
<td></td>
</tr>
<tr>
<td>MAXIMUM RELATIVE APERTURE</td>
<td>1:2.6 at 15.6mm</td>
<td></td>
</tr>
<tr>
<td>ANGULAR FIELD OF VIEW</td>
<td>1.8°×1.0° at 104mm</td>
<td></td>
</tr>
<tr>
<td>M.O.D.</td>
<td>0.3m</td>
<td></td>
</tr>
<tr>
<td>OBJECT DIMENSIONS AT M.O.D.</td>
<td>38.2 x 21.5cm at 104mm</td>
<td></td>
</tr>
<tr>
<td>APPROX. SIZE (W x H x L)</td>
<td>2.4×1.4cm at 104mm</td>
<td></td>
</tr>
<tr>
<td>APPROX. WEIGHT</td>
<td>4.8×2.7cm at 104mm</td>
<td></td>
</tr>
</tbody>
</table>

*Among compatible 2/3-inch 4K broadcast lenses available as of August 25th, 2015.
**RECOMMENDED LENS SYSTEM / ACCESSORIES**

**UHD DIGISUPER**

1. Lens Supporter is necessary for portable camera mounting.

2. A protection filter is incorporated as a standard feature of UJ96×9.3B.

**Compatibility of Accessories for UHD DIGISUPER**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Model Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-a</td>
<td>Digital Zoom Demand</td>
<td>ZDJ-P01</td>
</tr>
<tr>
<td>1-b</td>
<td>Digital Zoom Demand</td>
<td>ZDJ-D02</td>
</tr>
<tr>
<td>2-a</td>
<td>Digital Focus Demand</td>
<td>FDJ-P01</td>
</tr>
<tr>
<td>2-b</td>
<td>Digital Focus Demand</td>
<td>FDJ-D02</td>
</tr>
<tr>
<td>3</td>
<td>Digital Servo Module</td>
<td>SMJ-E01</td>
</tr>
<tr>
<td></td>
<td>Protection Filter</td>
<td>PFJ-951(UJ96×9.3B)</td>
</tr>
<tr>
<td></td>
<td>IS Switch</td>
<td>SEJ-IS2</td>
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</tbody>
</table>

**UHDxs**

<table>
<thead>
<tr>
<th>#</th>
<th>Unit</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>FPD-400D</td>
<td>Focus Positional Demand</td>
</tr>
<tr>
<td>2</td>
<td>ZSD-300D</td>
<td>Zoom Servo Demand</td>
</tr>
<tr>
<td>3</td>
<td>FDJ-D02</td>
<td>Digital Focus Demand</td>
</tr>
<tr>
<td>4</td>
<td>FDJ-P01</td>
<td>Digital Focus Demand</td>
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<tr>
<td>5</td>
<td>ZDJ-D02</td>
<td>Digital Zoom Demand</td>
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<tr>
<td>6</td>
<td>ZDJ-P01</td>
<td>Digital Zoom Demand</td>
</tr>
</tbody>
</table>

Specifications subject to change without notice.

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