

# 2/3" 4K LENS SERIES

## UHD DIGISUPER Series for 4K System



A masterpiece in optomechanical design in 4K Premium optical quality with a 122x, 8.2-1000mm zoom.

## UHDxs series 4K UHD lenses for portable cameras



A top class UHDxs 2/3" 25x zoom lens with outstanding performance for 4K broadcasts.



# UNRIVALLED IN PERFORMANCE

## 4K BROADCAST LENS SERIES

### 4K PREMIUM



UJ27x6.5B



UJ86x9.3B



UJ111x8.3B



UJ122x8.2B

### 4K



UJ66x9B



UJ90x9B

### UHDxs



CJ12ex4.3B



CJ15ex4.3B



CJ20ex7.8B



CJ25ex7.6B



CJ45ex9.7B



CJ45ex13.6B

### UHDGC



CJ14ex4.3B



CJ15ex8.5B



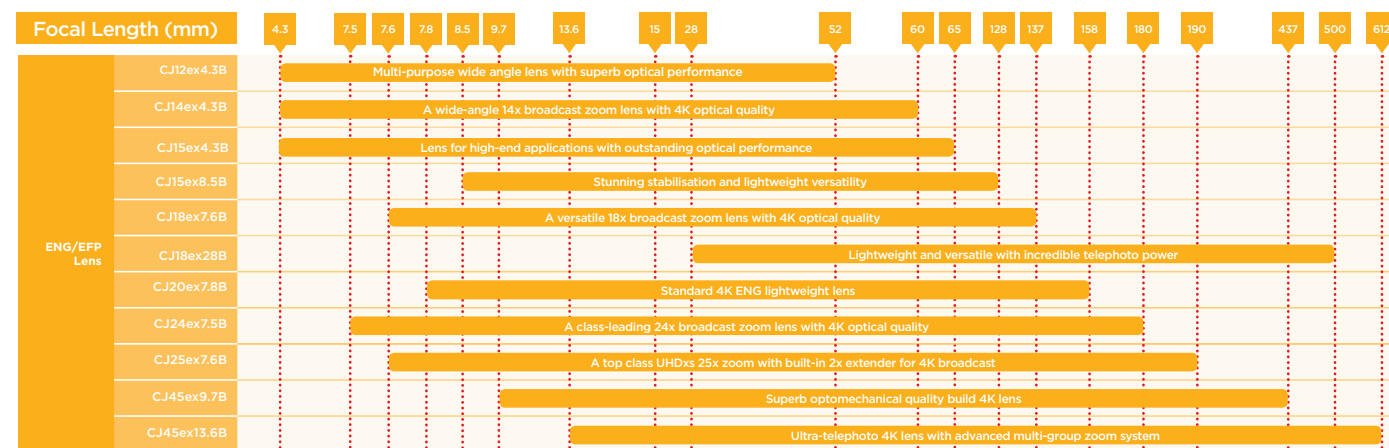
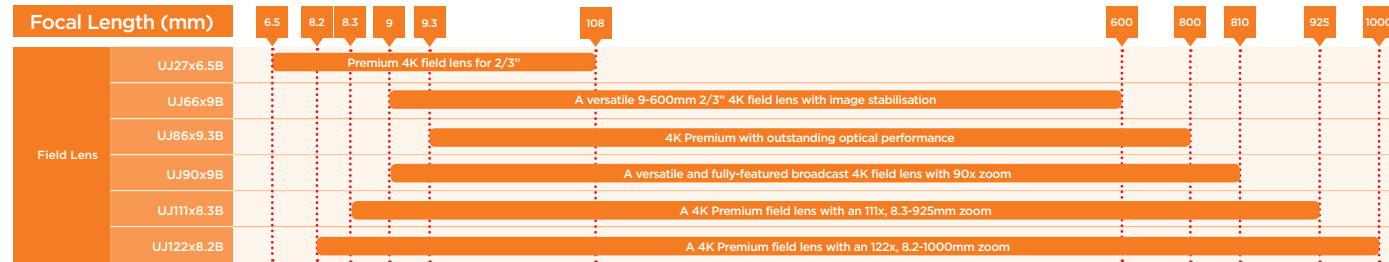
CJ18ex7.6B



CJ18ex28B



CJ24ex7.5B



### What are Canon's UHD lenses?

Canon's UHD lenses not only achieve the outstanding resolution and grayscale characteristics that UHD images require, they also minimize color blur and outline coloration and various other kinds of aberrations to a high degree of accuracy. These lenses are designed to achieve superior balance between the high-grade resolution power and the contrast expected of UHD images from the center to the edges throughout the entire zoom range, besides offering high levels of both operability and applicability.

### What is the "4K Premium"?

"4K Premium" refers to a top-quality Canon lens that features superior optical performance — typified by powers of resolution and contrast that surpass 4K — and that also supports the high-level specifications and operability that are optimally suited to 4K broadcast systems. Featuring high contrast and power of resolution in a wide frequency band from HDTV to 4K and even higher, and over the entire wavelength range of the BGR channels throughout the entire zoom range even with an extender, these lenses offer impressive depiction performance that is unvaryingly consistent to the very edges of the screen and boasts a superior color reproduction. Using these features, the lenses deliver heightened ambiance when displaying images on large screens.

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# UHD 4K 2/3" LENSES



4K PREMIUM

4K

	UHD DigiSuper 122	UHD DigiSuper 111	UHD DIGISUPER 86	UHD DIGISUPER 27	UHD DIGISUPER 90	UHD DIGISUPER 66
<b>Model Number</b>	UJ122x8.2B IESD	UJ111x8.3B IESD	UJ86x9.3B IESD	UJ27x6.5B IESD	UJ90x9B IESD	UJ66x9B IESD
<b>Zoom Ratio</b>	122x	111x	86x	27x	90x	66x
<b>Built-in Extender</b>	2.0x	2.0x	2.0x	2.0x	2.0x	2.0x
<b>Range of Focal Length (with Extender)</b>	8.2 - 1000 mm 16.4 - 2000 mm	8.3-925mm 16.6-1850mm	9.3-800mm 18.6-1600mm	6.5-180mm 13-360mm	9-810mm 18-1620mm	9-600mm 18-1200mm
<b>Maximum Relative Aperture (with Extender)</b>	1:1.7 (8.2 - 340 mm) 1:5.0 (1000 mm) 1:3.4 (16.4 - 680mm) 1:10.0 (2000 mm)	1:1.7(8.3-340 mm) 1:4.65 (925 mm) 1:3.4 (16.6-680 mm) 1:9.3 (1850 mm)	1:1.7 at 9.3-340mm 1:4.0 at 800mm 1:3.4 at 18.6-680mm 1:8.0 at 1600mm	1:1.5 at 6.5-123mm 1:2.2 at 180mm 1:3.0 at 13-246mm 1:4.4 at 360mm	1:2.4 at 9-486mm 1:4.0 at 810mm 1:4.8 at 18-972mm 1:8.0 at 1620mm	1:1.7 at 9.3-340mm 1:3.0 at 600mm 1:3.4 at 18-680mm 1:6.0 at 1200mm
<b>Angular Field of View (with Extender)</b> 16:9 Aspect Ratio (9.6 x 5.4 mm)	60.7° x 36.5° (8.2mm) 0.55° x 0.31° (1000mm) 32.6° x 18.7° (16.4mm) 0.28° x 0.15° (2000mm)	60.1° x 36.0° (8.3mm) 0.59° x 0.33° (925mm) 32.3° x 18.5° (16.6mm) 0.30° x 0.17° (1850mm)	54.6° x 32.4° at 9.3mm 0.69° x 0.39° at 800mm 28.9° x 16.5° at 18.6mm 0.34° x 0.19° at 1600mm	72.9° x 45.1° at 6.5mm 3.1° x 1.7° at 180mm 40.5° x 23.5° at 13mm 1.5° x 0.9° at 360mm	56.1° x 33.4° at 9mm 0.68° x 0.38° at 810mm 29.9° x 17.1° at 18mm 0.34° x 0.19° at 1620mm	56.1° x 33.4° at 9mm 0.92° x 0.52° at 600mm 29.9° x 17.1° at 18mm 0.46° x 0.26° at 1200mm
<b>M.O.D. from Lens Front</b>	3.0 m*	3.0 m*	3.0m	0.6m	3.0m	3.0m
<b>Object Dimensions at M.O.D. (with Extender)</b> 16:9 Aspect Ratio (9.6 x 5.4mm)	314.8x177.1 cm* (8.2 mm) 2.7x1.5 cm (1000 mm) 157.4x88.6 cm* (16.4 mm) 1.4x0.8 cm (2000 mm)	311.6x175.3cm* (8.3 mm) 2.9x1.6cm (925 mm) 155.8x87.7cm* (16.6 mm) 1.5x0.8cm (1850 mm)	271.9 x 152.9cm at 9.3mm 3.3 x 1.9cm at 800mm 136.0 x 76.5cm at 18.6mm 1.7 x 1.0cm at 1600mm	106.1x59.7cm at 6.5mm 3.8x2.1cm at 180mm 53.1x29.9cm at 13mm 1.9x1.1cm at 360mm	287.9 x 161.9cm at 9mm 3.3 x 1.9cm at 810mm 144.0 x 81.0cm at 18mm 1.7 x 1.0cm at 1620mm	287.9 x 161.9cm at 9mm 4.4 x 2.5cm at 600mm 144.0 x 81.0cm at 18mm 2.2 x 1.3cm at 1200mm
<b>Approx. Size (WxHxL)</b>	250.6 x 255.5 x 637.4 mm	250.6 x 255.5 x 637.4 mm	250.6 x 255.5 x 637.4mm	250.6 x 255.5 x 550mm	250.6 x 255.5 x 610mm	250.6 x 255.5 x 610mm
<b>Approx. Mass</b>	26.6kg	26.6 kg	27.0kg	21.5kg	23.2kg	23.2kg
<b>Protection Filter</b>	Optional	Optional	✓	Optional	Optional	✓
<b>Built-in Optical Image Stabilizer</b>	✓	✓	✓	--	✓	✓
<b>Auto Focus System</b>	--	--	--	--	--	--

\*When using macro, the minimum shooting distance and the shooting distance at time of closest proximity will differ. Please see the manual for details.



UHD xS

CJ15ex4.3B	CJ12x4.3B	CJ20ex7.8B	CJ25ex7.6B	CJ45ex9.7B	CJ45ex13.6B
CJ15ex4.3B IASE S	CJ12ex4.3B IASE S	CJ20ex 7.8 IASE S	CJ25ex7.6B IASE S	CJ45ex9.7B IASE-V H	CJ45ex13.6B IASE-V H
15x	12x	20x	25x	45x	45x
2.0x	2.0x	2.0x	2.0x	2.0x	2.0x
4.3 - 65 mm 8.6 - 130 mm	4.3-52mm 8.6-104mm	7.8-156mm 15.6-312mm	7.8-156mm 15.6-312mm	9.7 - 437 mm 19.4 - 874 mm	13.6 - 612 mm 27.2 - 1224 mm
1:1.8 (4.3 - 40 mm) 1:2.9 (65mm) 1:3.6 (8.6 - 80 mm) 1:5.8 (130 mm)	1:1.8 at 4.3-40mm 1:2.4 at 52mm 1:3.6 at 8.6-80mm 1:4.8 at 104mm	1:1.8 at 7.8-108mm 1:2.6 at 156mm 1:3.6 at 15.6-216mm 1:5.2 at 312mm	1:0.2.0 (7.6-118 mm) 1:0.2.9 (190 mm) 1:0.4.0 (15.2-236 mm) 1:0.5.8 (380 mm)	1:2.0 at 9.7-224 mm 1:3.9 at 437mm 1:4.0 at 19.4-448mm 1:7.8 at 874mm	1:2.8 at 13.6-312 mm 1:5.5 at 612 mm 1:5.6 at 27.2-624 mm 1:11.0 at 1224 mm
96.3° x 64.2° (4.3 mm) 8.4° x 4.8° (65mm) 58.3° x 34.9° (8.6 mm) 4.2° x 2.4° (130 mm)	96.3° x 64.2° at 4.3mm 10.5° x 5.9° at 51.6mm 58.3° x 34.9° at 8.6mm 5.3° x 3.0° at 103.2mm	63.2° x 38.2° at 7.8mm 3.5° x 2.0° at 156mm 34.2° x 19.6° at 15.6mm 1.8° x 1.0° at 312mm	64.6° x 39.1° (7.6 mm) 2.89° x 1.63° (190 mm) 1.04° x 0.51° (15.2 mm) 1.45° x 0.81° (380 mm)	52.7° x 31.1° at 9.7mm 1.26° x 0.71° at 437mm 27.8° x 15.8° at 19.4mm 0.63° x 0.35° at 874mm	38.9° x 22.5° at 13.6 mm 0.90° x 0.51° at 612 mm 20.0° x 11.3° at 27.2 mm 0.45° x 0.25° at 1224 mm
0.30 m (10 mm with Macro)	0.30m	0.80m	0.80 m	2.80m	2.80m
76.1 x 42.8 cm (4.3 mm) 4.9 x 2.8 cm (65 mm) 38.1 x 21.4 cm (8.6 mm) 2.5 x 1.4 cm (130 mm)	76.4 x 43.0cm at 4.3mm 6.0 x 3.4cm at 52mm 39.2 x 21.5cm at 8.6mm 3.0 x 1.7cm at 104mm	91.7 x 51.6cm at 7.8mm 4.8 x 2.7cm at 156mm 45.9 x 25.8cm at 15.6mm 2.4 x 1.4cm at 312mm	93.9 x 52.8 cm (7.6 mm) 3.9 x 2.2 cm (190 mm) 48.1 x 27.1 cm (15.2 mm) 2.0 x 1.1 cm (380 mm)	254.3 x 143.0 cm at 9.7mm 5.8 x 3.3 cm at 437mm 127.2 x 71.5 cm at 19.4mm 2.9 x 1.7 cm at 874mm	182.9 x 102.9 cm at 13.6 mm 4.2 x 2.4 cm at 612 mm 91.5 x 51.5 cm at 27.2 mm 2.1 x 1.2 cm at 1224 mm
163.0 x 107.6 x 249.6 mm	163.5 x 108 x 247.8 mm	169.9 x 114.4 x 230.0 mm	169.5 x 114.1 x 223.3 mm	173.2 x 147.5 x 337.0 mm	173.2 x 147.5 x 355.0 mm
2.19 kg	2.1kg	2.18kg	1.99 kg	5.60 kg	5.64 kg
Optional	Optional	Optional	Optional	Optional	Optional
--	--	--	--	✓	✓
--	--	--	--	--	--

✓ Standard — Not Applicable

- Please refer to page 10, regarding the difference between HDTV and SDTV lenses. Please note that HDTV lenses also perform excellently when they are adopted to SDTV cameras.
- M.O.D. = Minimum Object Distance
- Black colour cover lenses are also available as an alternative to the white colour lenses.

# UHD 4K 2/3" LENSES



	CJ14ex4.3B	CJ15ex8.5B	CJ18ex7.6B	CJ18ex28B	CJ24ex7.5B
<b>Model Number</b>	CJ14ex4.3B IRSE S/ IASE S	CJ15ex8.5B KRSE-V	CJ18ex7.6B IRSE S/ IASE S	CJ18ex28B IRSE S/ IASE S	CJ24ex7.5B IRSE S/ IASE S
<b>Zoom Ratio</b>	14x	15x	18x	18x	24x
<b>Built-in Extender</b>	2.0x	--	2.0x	2.0x	2.0x
<b>Range of Focal Length (with Extender)</b>	4.3-60mm 8.6-120 mm	8.5-128 mm	7.6-137 mm 15.2-274 mm	28 - 500 mm 56 - 1000 mm	7.5-180mm 15.0-360mm
<b>Maximum Relative Aperture (with Extender)</b>	1:1.8 (4.3-40 mm) 1:2.7 (60mm) 1:3.6 (8.6-30mm) 1:5.4 (120mm)	1:2.5 (8.5 - 68 mm) 1:4.7 (128 mm)	1:1.8 (7.6-103mm) 1:2.4 (137mm) 1:3.6 (15.2-206mm) 1:4.8 (274mm)	1:2.8 (28 - 286 mm) 1:4.9 (500 mm) 1:5.6 (56 - 572 mm) 1:9.8 (1000 mm)	1:1.8 (7.5-120mm) 1:2.7 (180mm) 1:3.6 (15-240mm) 1:5.4 (360mm)
<b>Angular Field of View (with Extender)</b> 16:9 Aspect Ratio (9.6 x 5.4 mm)	96.3° x 64.2° (4.3mm) 91° x 5.2° (60mm) 58.3° x 34.9° (8.6mm) 4.6° x 2.6° (120mm)	58.9° x 35.2° (8.5 mm) 4.3° x 2.4° (128 mm)	64.6° x 39.1° (7.6mm) 4.0° x 2.3° (137mm) 35.1° x 20.1° (15.2mm) 2.0° x 1.1° (274mm)	19.5° x 11.0° (28 mm) 110° x 0.62° (500 mm) 9.8° x 5.5° (56 mm) 0.55° x 0.31° (1000 mm)	65.2° x 39.6° (7.5mm) 31° x 1.7° (180mm) 1:3.6 (15-240mm) 1:5.4 (360mm)
<b>M.O.D. from Lens Front</b>	0.30m	0.80m	0.56m	2.2m	0.80m
<b>Object Dimensions at M.O.D. (with Extender)</b> 16:9 Aspect Ratio (9.6 x 5.4mm)	76.4 x 43.0 cm at 4.3mm 5.2 x 2.9 cm at 60 mm 33.2 x 21.5 cm at 8.6mm 2.6 x 1.5 cm at 120mm	95.8 x 53.9 cm (8.5 mm) 6.4 x 3.6 cm (128 mm)	65.5 x 36.8 cm at 7.6mm 3.8 x 2.1 cm at 137mm 32.8 x 18.4 cm at 15.2mm 1.9 x 1.1 cm at 274mm	71.0 x 39.9 cm (28 mm) 4.1 x 2.3 cm (500 mm) 35.5 x 20.0 cm (56 mm) 2.1 x 1.2 cm (1000 mm)	96.0 x 54.0 cm at 7.5mm 4.1 x 2.3 cm at 180mm 48.0 x 27.0 cm at 15mm 2.1 x 1.2 cm at 360mm
<b>Approx. Size (WxHxL)</b>	163.5 x 108.0 x 247.8 mm	170.2 x 116.2 x 239.5 mm	160.5 x 105.0 x 206.2 mm	177.8 x 122.5 x 268.3 mm	164.6 x 109.1 x 221.4 mm
<b>Approx. Mass</b>	2.11 kg	2.03 kg	1.65 kg	2.76 kg	1.82 kg
<b>Protection Filter</b>	Optional	Optional	Optional	Optional	Optional
<b>Built-in Optical Image Stabilizer</b>	--	Yes	--	--	--
<b>Auto Focus System</b>	--	--	--	--	--

# UHD DIGISUPER 122

UHD DIGISUPER 122 - our 4K Premium flagship broadcast lens. As our most refined lens designed to support 4K UHD broadcast systems, it boasts extremely high optical performance that surpasses even 4K criteria and, at the same time, embodies the ease of operation that are ideally suited for use in broadcast television production.

**High zoom ratio and long focal length**  
While displaying performance that surpasses 4K, the lens has the high zoom ratio (86x) and long focal length (800 mm) desired by many in television production.

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

**Remotely operable macro function as standard**  
When the focal length is changed with the zoom while shooting in macro, the focus position also changes. This feature can be utilized to support special techniques in which the focus position can be shifted within the same shot just by using the zoom.

**Optical performance that goes beyond 4K even when using the built-in 2x extender and image stabiliser (function that counters lens-camera inadvertent movements and vibrations).**  
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 an optical shift-type image stabilising mechanism of Canon's highest grade, helping to achieve image stabilising performance commensurate with 4K.

**Applicability and ease of operation ideally suited to 4K shooting**  
Since the lens achieves the zoom ratio, long focal length and size as well as the servo speed and stability required for the telecasting of live sports events and other applications, it ensures the applicability and ease of operation ideally suited to 4K shooting.

**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 equipment. It comes with a 20-pin connector compatible with virtual units and that enables high-accuracy position information of the zoom, focus and iris to be read out.

# UHDgc

UHDgc - combines 2/3" 4K camera optical performance with the same practicality and operability found in HD lenses (high specifications, compact size, light weight). And for customers considering a shift to 4K system in the future, this 4K lens series is the popular class at an affordable price that users can truly consider a good up-front investment.

**Minimizes axial and magnification chromatic aberration**  
Optimum arrangement of fluorite and UD glass delivers exceptional color reproduction to every corner of the image.

**Optical performance to support 4K cameras**  
Our exclusive optical design technology ensures optical performance to support 4K cameras.

**Virtual Systems**  
The high-resolution 16-bit encoder makes detailed representation of images possible. The accurate position information detection makes calibration easy during CG synthesis.

**Operability**  
Three Canon-made 20-pin connectors are provided. This ensures integration with virtual terminals even with a full servo setup with focus and zoom controllers connected.

**Quick power-on**  
With its absolute value encoder, it can power on without initialization. Camera-side aberration correction function, position detection, and viewfinder position display are possible at time of start-up.

**Built in 2x extender**  
Delivers 4K camera optical performance even when using 2K.

Control Accessories for Studio/Field Lenses  
Please refer to page 26