

Canon

DIGISUPER 60 ***XS***

XJ60×9B IE 9-540mm 1:1.7



*NEXT GENERATION AFFORDABLE
FIELD LENS WITH HDTV
PERFORMANCE*



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Recognizing the rapid pace of advancement of HDTV program origination and the current importance of sports, entertainment, and major events to the continuing growth of HDTV, Canon is broadening its family of long HDTV field lenses.

A new DIGISUPER 60x lens is being added to the to the present diverse lineup of Canon HDTV field lenses --- which include the DIGISUPER 100xs, 86xs, 75xs and the 72xs. This is a new generation design with excellent optical performance within a smaller package (it is 44mm shorter than the current 72x field lens). This particular 60x zoom range will significantly strengthen the total Canon lineup of field lenses by more optimally encompassing an extensive range of applications within smaller venues, ballrooms, and large studios. This more limited zoom range does not require the built-in image stabilization system (which is a hallmark Canon technology in the 75x, 86x, and the 100x Canon lenses) and this contributes to the lower cost of this new lens.

HD Optical Performance with 60x Zoom Ratio and 9mm Wide Angle

The DIGISUPER 60 xs is an extraordinary field lens that utilizes Canon's new optical design concept "POWER OPTICAL SYSTEM" and "X-Element".

By adopting this new technology and concept, the DIGISUPER 60 xs realizes the necessary optical performance for HDTV, with increased zoom ratio of 60x, improved wide angle of 9mm while still maintaining the size equivalent to that of current SDTV lenses.

X-Element & POWER OPTICAL SYSTEM

Canon has developed this breakthrough optical design concept using a newly developed optical element in the most effective way.

We have named this design concept the "Power Optical System" which achieves higher specifications and quality using the optical "X-Element" which virtually eliminates aberrations.

Latest Generation DIGITAL SERVO SYSTEM

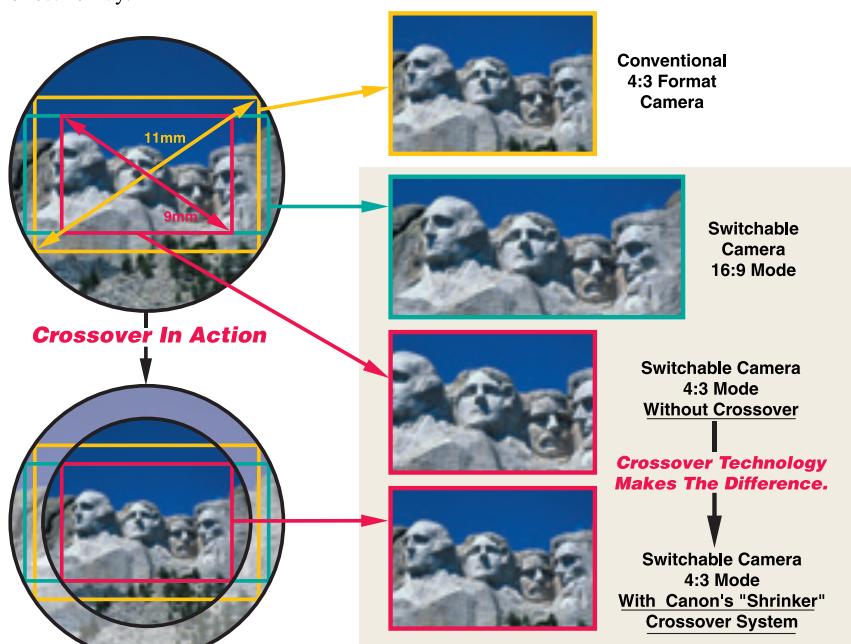
Canon's latest generation digital servo system allows the use of many new functions such as constant angle of view while focusing "CAFS" and the selection of different servo characteristics. These functions are only possible with a digital servo system. In addition to these new functions, the upgrading of software will be possible when new functions become available in the future. This means that the DIGISUPER 60 xs has unlimited possibilities.

"CAFS" Constant Angle Focusing System

The zooming effect of focus is the phenomena where the picture size (angle of view) changes when focusing (breathing). However, CPU calculates and controls the zoom when focusing in order to counteract these phenomena. Thus the DIGI SUPER 60 xs has ZERO zooming effect of focus throughout the whole zoom range.

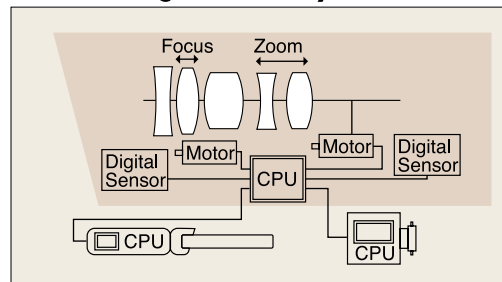
CROSSOVER COMPATIBILITY

Available optionally is the dual aspect ratio switching system, "CROSSOVER", for switchable 16:9/4:3 cameras.

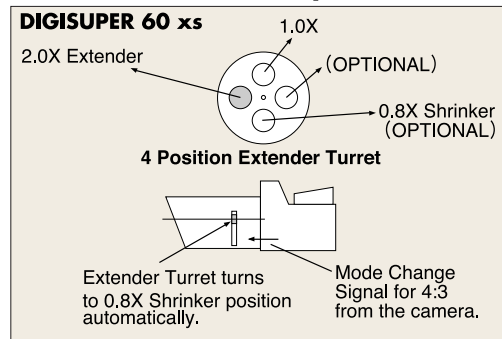


The diagram shows how Canon's exclusive Crossover Technology uses a 0.8X "Shrinker" to restore the loss of diameter and return the 4:3 image of a Switchable Camera to the same as a Standard Camera.

Digital Servo System



CROSSOVER System



INTERNAL FOCUSING SYSTEM

- Realization of wide-angle with reduced distortion.
- Minimized variation of chromatic aberration while focusing.
- Anti-Dust, Anti-Fog, thanks to a perfectly airtight Internal Focusing System.
- Minimized variation of the centre of gravity through focus movement.

"CAES"

- **-Constant Angle Focusing System-**
- When focus is operated, the angle of view is maintained by synchronizing zoom movement.

- ZOOM RATIO:60X

CROSSOVER COMPATIBILITY (Optional)

- For use with 16:9/4:3 switchable cameras.

4 - POSITION TURRET

(built in extender, master lens, crossover unit <OPTIONAL>).

- Micro Computer Controlled Turret.

VERSATILE ZOOM/FOCUS CONTROLLERS

CONTROLLERS
(See figure on the next page)

- New ergonomic design.
- Countermeasures against dust, rain, and radio interference.

HD OPTICAL PERFORMANCE

- Computer aided design in order to meet the higher level demanded by HDTV.

WIDE ANGLE OF 9 mm ———
WITH REDUCED DISTORTION

COUNTERMEASURES AGAINST "GHOSTING" AND "FLARES"

- New coatings and anti-reflection paint achieve the elimination of "ghosting" and "flares".

NEW GENERATION DIGITAL SERVO SYSTEM

SERVO SYSTEM MATCHING ROBOTIC AND VIRTUAL REQUIREMENTS

- 10 BIT IRIS COMPATIBILITY

- High resolution iris control.

- WIDE DYNAMIC RANGE OF ZOOM AND FOCUS SERVO SPEED

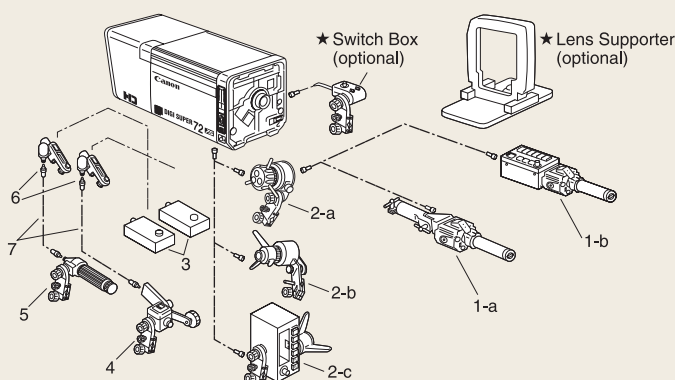
- From ultra slow to high speed. Max. speed: Zoom 0.6 sec, Focus 0.8sec.

COUNTERMEASURES AGAINST RADIO FREQUENCY NOISE(INTERFERENCE)

SPECIFICATIONS

	Normal 4:3		16:9		Switchable 4:3		
Image Format	8.8 x 6.6mm ; ϕ 11.0mm		9.6 × 5.4mm ; ϕ 11.0mm		7.2 x 5.4mm ; ϕ 9.0mm		
Built-in Extender	1.0X	2.0X	1.0X	2.0X	1.0X	1.2X	2.4X
Zoom Ratio	60x						
Range of Focal Length	9 - 540mm	18 - 1080mm	9 - 540mm	18 - 1080mm	7.4 - 444mm	9 - 540mm	18 - 1080mm
Maximum Relative Aperture	1:1.7 at 9~306mm 1:3.0 at 540mm	1:3.4 at 18~612mm 1:6.0 at 1080mm	1:1.7 at 9~306mm 1:3.0 at 540mm	1:3.4 at 18~612mm 1:6.0 at 1080mm	1.7 at 7.4~306mm 1:2.45 at 444mm	1:1.7 at 9~306mm 1:3.0 at 540mm	1:3.4 at 18~612mm 1:6.0 at 1080mm
Angular Field of View	52.1° x 40.3° at 9mm 0.93°x0.70° at 540mm	27.5° x 20.8° at 18mm 0.47° x 0.35° at 1080mm	56.1° x 33.4° at 9mm 1.02° x 0.57° at 540mm	29.9° x 17.1° at 18mm 0.51° x 0.29° at 1080mm	52.1° x 40.3° at 7.4mm 0.93°x0.70° at 444mm	43.6° x 33.4° at 9mm 0.76°x0.57° at 540mm	22.6° x 17.1° at 18mm 0.38° x 0.29° at 1080mm
Minimum object Distance(M.O.D.)	2.8m						
Object Dimenitions at M.O.D.	243.8 x 182.9cm at 9mm 4.1 x 3.1 at 540mm	121.9 x 91.5 at 18mm 2.1 x 1.6 at 1080mm	265.1 x 149.1 at 9mm 4.5 x 2.5 at 540mm	132.6 x 74.6 at 18mm 2.3 x 1.3 at 1080mm	243.8 x 182.9 at 7.4mm 4.1 x 3.1 at 444mm	198.8 x 149.1 at 9mm 3.3 x 2.5 at 540mm	99.5 x 74.6 at 18mm 1.7 x 1.3 at 1080mm
Size	250.6 (W)x 255.5(H) x 547.8(L) mm						
Approx. Mass	19.9kg (43.8lbs)						

RECOMMENDED LENS SYSTEM

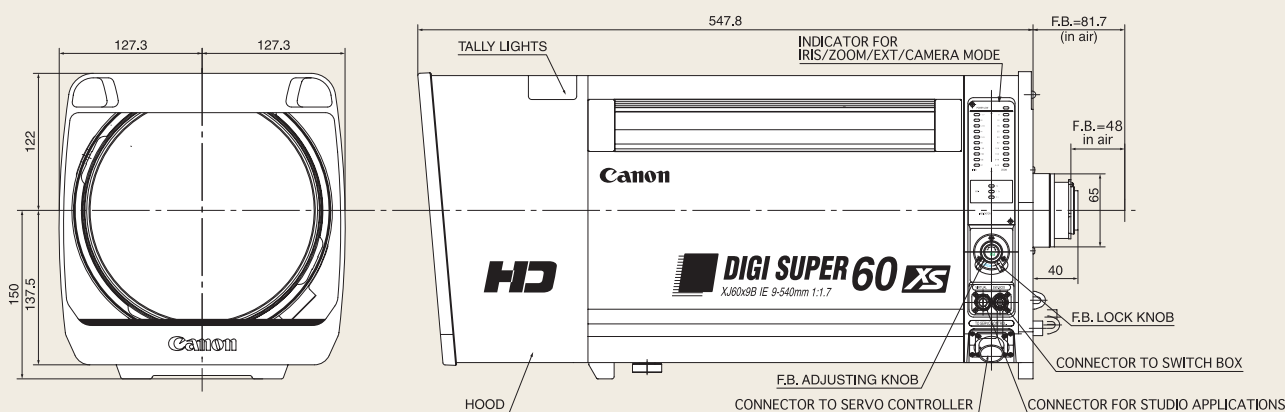


Compatibility of Accessories for DIGISUPER 60xs

No.	DESCRIPTION	
1-a	Digital Zoom Demand	ZDJ-P01
1-b	Digital Zoom Demand W/Pre-set Box	ZPJ-D02
2-a	Digital Focus Demand	FDJ-P01
2-b	Digital Focus Demand Propeller Type	FDJ-D12
2-c	Digital Focus Demand W/Pre-set-Box	FPJ-D12
3	Digital Servo Module	SMJ-E01
4	Flexible Zoom Controller	FZP-T61
5	Flexible Focus Controller	FFP-T61
6	Flexible Module	FMJ-702
7	Flexible Cable 30"	—

In addition to the above listed controllers, our current Digital Servo Demands (ZDJ-D02/FDJ-D02/SMJ-02) would also perform perfectly, as well.

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Specifications subject to change without notice