

EOS 77D

IMAGE SENSOR

Type	22.3mm x 14.9 mm CMOS
Effective Pixels	Approx. 24.20 megapixels
Total Pixels	Approx. 25.80 megapixels
Aspect Ratio	3:2
Low-Pass Filter	Built-in/Fixed
Sensor Cleaning	EOS integrated cleaning system
Colour Filter Type	Primary Colour

IMAGE PROCESSOR

Type	DIGIC 7
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LENS

Lens Mount	EF/EF-S
Focal Length	Equivalent to 1.6x the focal length of the lens
Image Stabilisation	Optical Image Stabilizer on compatible lens
	Movie: In-camera 5-axis Digital IS available. Further stabilisation enhancements from lenses compatible with Dynamic IS

FOCUSING

Type	<p>Via optical viewfinder:</p> <p>TTL-CT-SIR with a CMOS sensor</p> <p>Via liveview on LCD screen:</p> <p>Dual Pixel CMOS AF System. Phase detection pixels built onto imaging sensor [20]</p>
AF System/ Points	<p>Via optical viewfinder:</p> <p>45 cross-type AF points (45 f/5.6 cross-type AF points, 27 f/8 points (9 cross-type), centre point is f/2.8 and f/5.6 dual cross-type) [11]</p> <p>Via liveview on LCD screen:</p> <p>Maximum 49 AF points (Fixed location on 7x7 grid) via camera automatic selection [15]</p> <p>Freely position 1 AF point/ 1 AF Zone (9 points, 3x3 grid) via manual selection [20]</p>
AF working range	<p>Via optical viewfinder:</p> <p>EV -3 - 18 (at 23 °C & ISO 100) with centre AF point & f/2.8 or brighter lenses</p> <p>Via liveview on LCD screen:</p> <p>EV -2 - 18 (at 23 °C & ISO 100) with One-Shot AF</p>
AF Modes	<p>AI Focus</p> <p>One Shot</p> <p>AI Servo (AI Servo II algorithm)</p>
AF Point Selection	<p>Via optical viewfinder:</p> <p>Automatic selection: 45 point AF</p> <p>Manual selection: Single point AF</p> <p>Manual selection: Zone AF</p> <p>Manual selection: Large Zone AF</p>
Selected AF point display	Indicated by a transmissive LCD in viewfinder and Quick Control screen
Predictive AF (7)	Yes
AF Lock	Locked when shutter button is pressed half way in One Shot AF mode or AF-ON Button is pressed.
AF Assist Beam	Intermittent firing of built-in flash (effective range up to 4.0 m) or emitted by optional dedicated Speedlite
Manual Focus	Selected on lens

EXPOSURE CONTROL		
	Metering modes	<p>Via optical viewfinder:</p> <p>7560-pixel RGB+IR metering sensor Metering with the area divided into 63 segments (9 × 7) (1) Evaluative metering (linked to all AF points) (2) Partial metering (approx. 6.0 % of viewfinder) (3) Spot metering (approx. 3.5 % of viewfinder) (4) Center-weighted average metering</p> <p>Via liveview on LCD screen:</p> <p>(1) Evaluative metering (315 zones) (2) Partial metering (approx. 6.0 % of LCD screen) (3) Spot metering (approx. 2.6 % of LCD screen) (4) Center-weighted average metering</p>
	Metering Range	<p>Via optical viewfinder:</p> <p>EV 1-20 (at 23 °C with 50mm f/1.4 lens ISO 100)</p> <p>Via liveview on LCD screen:</p> <p>EV 1-20 (at 23 °C, ISO 100, evaluative metering)</p>
	AE Lock	<p>Auto: In One-shot AF mode with evaluative metering exposure is locked when focus is achieved.</p> <p>Manual: By AE Lock Button in creative zone modes.</p>
	Exposure Compensation AEB ISO Sensitivity [8]	<p>+/-5 EV in 1/3 or 1/2 stop increments (can be combined with AEB). 2, 3, 5 or 7 Shots +/-3 EV 1/3 or 1/2 stop increments Auto (100-25600), 100-25600 (in 1/3-stop or whole stop increments) ISO can be expanded to H: 51200</p> <p>During Movie shooting: Auto (100-12800), 100-12800 (in 1/3-stop or whole stop increments) ISO can be expanded to H: 25600</p>
SHUTTER		
	Type Speed	<p>Electronically-controlled focal-plane shutter</p> <p>30-1/4000 sec (1/2 or 1/3 stop increments), Bulb (Total shutter speed range. Available range varies by shooting mode)</p>
WHITE BALANCE		
	Type Settings	<p>Automatic white balance with the imaging sensor AWB (Ambience priority, White priority), Daylight, Shade, Cloudy, Tungsten light, White Fluorescent light, Flash, Custom, Colour Temperature Setting.</p> <p>White balance compensation: 1. Blue/Amber bias +/-9 levels 2. Magenta/ Green bias +/-9 levels</p>
	Custom White Balance WB Bracketing	<p>Yes, 1 setting can be registered +/-3 levels in single level increments 3 bracketed images per shutter release. Selectable Blue/Amber bias or Magenta/ Green bias.</p>

VIEWFINDER		
Type	Pentamirror	
Coverage (Vertical/Horizontal)	Approx. 95 %	
Magnification	Approx. 0.82x [4]	
Eye point	Approx. 19 mm (from eyepiece lens centre)	
Dioptre Correction	-3 to +1 m ⁻¹ (diopetre)	
Focusing Screen	Fixed (Translucent LCD screen for information overlay)	
Mirror	Quick-return half mirror (Transmission: reflection ratio of 40:60, no mirror cut-off with EF 600mm f/4 IS USM or shorter)	
Viewfinder Information	AF information: AF points, focus confirmation, AF area selection mode Exposure information: Shutter speed, aperture value, ISO speed (always displayed), AE lock, exposure level/compensation, spot metering circle, exposure warning, AEB. Flash information: Flash ready, high-speed sync, FE lock, flash exposure compensation, red-eye reduction light. Image information: Card information, maximum burst (1 digit display), Highlight tone priority (D+). Composition information: Grid, Electronic level, Aspect Ratio Other information: Warning icon, Flicker Detection	
Depth of field preview	Yes, with Depth of Field preview button.	
Eye piece shutter	On strap	
LCD MONITOR		
Type	Vari angle touchscreen 7.7 cm (3.0") 3:2 Clear View II TFT, approx. 1040 K sRGB dots	
Coverage	Approx. 100%	
Viewing Angle (horizontally/vertically)	Approx 170°	
Coating	Anti-reflection, Solid Structure and Anti smudge	
Brightness Adjustment	Adjustable to one of seven levels	
Display Options	(1) Quick Control Screen (2) Camera settings (3) Electronic Level	
FLASH		
Built-in Flash GN (ISO 100, meters)	12	
Built-in Flash Coverage	up to 17mm focal length (35mm equivalent: approx. 28mm)	
Built-in Flash recycle time	Approx. 3 seconds	
Modes	Auto, Manual flash, Integrated Speedlite Transmitter	
Red-Eye Reduction	Yes - with red-eye reduction lamp	
X-sync	1/200 sec	
Flash Exposure Compensation	+/- 3 EV in 1/2 or 1/3 increments	
Flash Exposure Bracketing	Yes, with compatible External Flash	
Flash Exposure Lock	Yes	
Second Curtain	Yes	
Synchronisation		
HotShoe/ PC terminal	Yes/ No	
External Flash Compatibility	E-TTL II with EX series Speedlites, wireless optical multi-flash support	
External Flash Control	via camera menu screen	

SHOOTING		
Modes	Scene Intelligent Auto (Stills and Movie), No Flash, Creative Auto, SCN(Portrait, Landscape, Close-up, Sports, Night Portrait, Handheld Night Scene, HDR Backlight Control, Food, Kids, Candlelight), Creative filters, Program AE, Shutter priority AE, Aperture priority AE, Manual (Stills and Movie), Bulb, Custom	
Picture Styles	Auto, Standard, Portrait, Landscape, Fine Detail, Neutral, Faithful, Monochrome, User Defined (x3)	
Colour Space	sRGB and Adobe RGB	
Image Processing	Highlight Tone Priority Auto Lighting Optimizer (4 settings) Long exposure noise reduction High ISO speed noise reduction (4 settings) Multi Shot Noise Reduction Auto Correction of Lens Peripheral illumination, Chromatic aberration correction, Distortion correction, Diffraction correction Creative filters (Grainy B/W, Soft focus, Fish-eye effect, Art bold effect, Water painting effect, Toy camera effect, Miniature effect, HDR) Multi-exposure	
Drive modes	RAW image processing - during image Playback only Resize to M or S1, S2, S3 Single, Continuous L, Continuous H, Self timer (2s+remote, 10s +remote), Silent single shooting, Silent continuous shooting	
Continuous Shooting	Max. Approx. 6 fps. (Speed maintained for up to 110 images (JPEG) [1], 25 images (RAW)) [2] [10] [28]	
Intervalometer	Built-in, number of shots selectable from 1-99 or unlimited	
LIVE VIEW MODE		
Type	Electronic viewfinder with image sensor	
Coverage	Approx. 100% (horizontally and vertically)	
Frame Rate	29.97 fps	
Focusing	Manual Focus (Magnify the image 5x or 10x at any point on screen) Autofocus: Dual Pixel CMOS AF (Face detection and Tracking AF, FlexiZone-Multi, FlexiZone-Single)	
Metering	One-shot AF and Servo AF selectable for Stills and Movie Real-time evaluative metering with image sensor. Evaluative metering, partial metering, spot metering, center-weighted average metering.	
Display Options	Grid overlay (x3), Histogram, Electronic level,	
FILE TYPE		
Still Image Type	JPEG: Fine, Normal (Exif 2.30 [Exif Print] compliant) / Design rule for Camera File system (2.0) RAW: RAW, M-RAW, S-RAW (14bit, Canon original RAW 2nd edition), Digital Print Order Format [DPOF] Version 1.1 compliant	
RAW+JPEG simultaneous recording	Yes, any combination of RAW + JPEG, M-RAW + JPEG, S-RAW + JPEG possible.	
Image Size	JPEG 3:2: (L) 6000 x 4000, (M) 3984 x 2656, (S1) 2976 x 1984, (S2) 1920x1280, (S3) 720x480 JPEG 4:3: (L) 5328x4000, (M) 3552x2664, (S1) 2656x1992, (S2) 1696x1280, (S3) 640x480 JPEG 16:9: (L) 6000x3368, (M) 3984x2240, (S1) 2976x1680, (S2) 1920x1080, (S3) 720x408 JPEG 1:1: (L) 4000x4000, (M) 2656x2656, (S1) 1984x1984, (S2) 1280x1280, (S3) 480x480 RAW: (RAW) 6000x4000, (M-RAW) 4500x3000, (S-RAW) 3000x2000	
Movie Type	MP4 (Video: H.264 Intra frame / inter frame, Sound: Linear PCM / AAC, recording level can be manually adjusted by user)	
Movie Size	1920 x 1080 (59.94, 50 fps) inter-frame 1920 x 1080 (29.97, 25, 23.98 fps) inter frame 1920 x 1080 (29.97, 25) lite inter-frame 1280 x 720 (59.94, 50 fps) inter-frame 1280 x 720 (29.97, 25) lite inter-frame 640 x 480 (29.97, 25) inter-frame 640 x 480 (29.97, 25) lite interframe	
Movie Length	Max duration 29min 59sec, Max file size 4GB (If file size exceeds 4GB a new file will be created automatically)	
Folders	New folders can be manually created and selected	
File Numbering	(1) Consecutive numbering (2) Auto reset (3) Manual reset	

OTHER FEATURES		
	Custom Functions	14 Custom Functions
	Metadata Tag	User copyright information (can be set in camera) Image rating (0-5 stars)
	LCD Panel / Illumination	Yes / Yes
	Intelligent Orientation Sensor	Yes
	Playback zoom	1.5x - 10x
	Display Formats	(1) Single image with information (2 levels) (2) Single image (3) 4 image index (4) 9 image index (5) 36 image index (6) 100 image index (7) Jump Display
	Slide Show	Image selection: All images, by Date, Folder, Movies, Stills Playback time: 1/2/3/5/10/20 seconds Repeat: On/Off Background music: On/Off Transition effect: Off, Slide in 1, Slide in 2, Fade 1, Fade 2, Fade 3
	Histogram	Brightness: Yes RGB: Yes
	Highlight Alert	Yes
	Image Erase/Protection	Erase: Select image, select range, all images in folder, all images on a card, all found images (during image search) Protection: Single image, select range, all images in folder, all images on a card, all found images (during image search)
	Menu Categories	(1) Shooting menu (x6) (2) Playback menu (x3) (3) Setup menu (x4) (4) Custom Functions menu (5) My Menu
	Menu Languages	25 Languages English, German, French, Dutch, Danish, Portuguese, Finnish, Italian, Norwegian, Swedish, Spanish, Greek, Russian, Polish, Czech, Hungarian, Romanian, Ukrainian, Turkish, Arabic, Thai, Simplified Chinese, Traditional Chinese, Korean and Japanese
	Firmware Update	Update possible by the user.
INTERFACE		
	Computer	Hi-Speed USB
	Other	Video output (PAL/ NTSC) (integrated with USB terminal), HDMI mini output (HDMI-CEC compatible), External microphone (3.5mm Stereo mini jack), Headphone socket (Stereo mini jack)
DIRECT PRINT		
	Canon Printers	Canon Compact Photo Printers and PIXMA Printers supporting PictBridge
	PictBridge	Yes
STORAGE		
	Type	SD, SDHC, SDXC (UHS Speed Class 1 compatible)
SUPPORTED OPERATING SYSTEM		
	PC & Macintosh	Windows 10 / 8.1 / 8 / 7 (With Microsoft .NET Framework 4.5 is installed) [24] Mac OS X 10.9 / 10.10 / 10.11 / 10.12
SOFTWARE		
	Image Processing	Digital Photo Professional 4 for RAW image processing
	Other	EOS Utility EOS Lens Registration Tool EOS Web Service Registration Tool EOS Sample Music Picture Style Editor Camera Connect app available on iOS and Android devices

POWER SOURCE		
Batteries	Battery life	1 x Rechargeable Li-ion Battery LP-E17 Viewfinder: Approx. 600 (at 23°C, AE 50%, FE 50%) [5] Viewfinder: Approx. 550 (at 0°C, AE 50%, FE 50%) Live View: Approve 270 (at 23°C, AE 50%, FE 50%) Live View: Approve 230 (at 0°C, AE 50%, FE 50%)
Battery Indicator	Power saving	5 levels Power turns off after 10/30 (10 sec when using viewfinder/30 sec when using live view or functions such as image playback etc) sec, 30 sec, 1, 2, 4, 8, or 15 mins.
Power Supply & Battery Chargers		AC Adapter AC-E6(N), DC coupler: DR-E18, Battery charger LC-E17E
PHYSICAL SPECIFICATIONS		
Body Materials		Chassis: Aluminum alloy and polycarbonate resin with glass fiber Exterior: Polycarbonate resin with glass fiber and special conductive fiber
Operating Environment		0 – 40 °C, 85 % or less humidity
Dimensions (WxHxD)		131.0 x 99.9 x 76.2 mm
Weight (body only)		Approx. 540 g (CIPA testing standard, including battery and memory card)
ACCESSORIES		
Viewfinder		Eyecup Ef Rubber Frame Ef E-series Dioptic Adjustment Lenses Eyepiece Extender EP-EX15II Magnifier MG-Ef Angle Finder C
Case		Semi Hard case EH26-L / EH27-L
Wireless File Transmitter		Built in Wi-Fi transmission: Wi-Fi (IEEE802.11b/g/n), (2.4 GHz only), with Dynamic NFC support [17] (NFC connectivity is possible only with compatible Android devices) Bluetooth® (Specification version 4.1, Bluetooth low energy technology) [23] [25]
Lenses		All EF and EF-S lenses
Flash		Canon Speedlites (90EX, 220EX, 270EX, 270EX II, 320EX, 420EX, 430EX, 430EX II, 430EX III-RT, 550EX, 580EX, 580EX II, 600EX, 600EX-RT, 600EX II-RT, Macro-Ring-Lite, MR-14EX, Macro-Ring-Lite, MR-14EX II, Macro Twin Lite MT-24EX, Speedlite Transmitter ST-E2, Speedlite Transmitter ST-E3-RT)
Remote Controller/ Switch		Remote Switch RS-60E3, Remote Controller RC-6, Remote Controller BR-E1, Timer Remote Controller TC-80N3 [26]
Other		Directional Stereo Microphone DM-E1 GPS Reciever GP-E2 Hand Strap E2, GP-E2

All data is based on Canon standard testing methods except where indicated.

Subject to change without notice.

1 Large/Fine(Quality 8) resolution

2 Based on Canon's testing conditions, JPEG, ISO 100, Standard Picture Style.

Varies depending on the subject, memory card brand and capacity, image recording quality, ISO speed, drive mode, Picture Style, Custom functions etc.

4 with 50mm lens at infinity, -1m^{-1} dpt

5 Based on the CIPA Standard and using the batteries and memory card format supplied with the camera, except where indicated

8 Recommended Exposure Index

10 Sustained continuous shooting speed is tested based on Canon's testing standard. Function requires compatible SDHC/SDXC UHS Speed Class 1 memory card, total number of frames captured varies depending on shooting subject, settings and brand of memory card

15 Maximum number of AF frame is dependent on selected image aspect ratio

17 Wi-Fi use may be restricted in certain countries or regions.

20 Dual Pixel CMOS AF - AF is possible over an area of approx. 80% Vertical x 80% Horizontal of the frame

23 Equipped with Bluetooth® low energy technology. The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Canon Europe Ltd. is under license. Other trademarks and trade names are those of their respective owners

24 Software applications compatible with Windows 10 in Windows 10 Desktop Mode only

25 Bluetooth connection requires smart device to be equipped with Bluetooth version 4.0 (or later). Also requires smart device to be using operating system iOS 8.4 (or later) or Android 5.0 (or later) as well as latest version of Camera Connect app installed

26 Require Remote Controller Adapter RA-E3

28 Maximum continuous shooting speed with 1/500 sec. or faster shutter speed, maximum aperture (varies depending on the lens), Anti-flicker shooting set to Disable, with a fully-charged Battery Pack LP-E17, and at room temperature (23°C/73°F).