Canon

EOS 90D

Supplemental Information

CT2-D042-B
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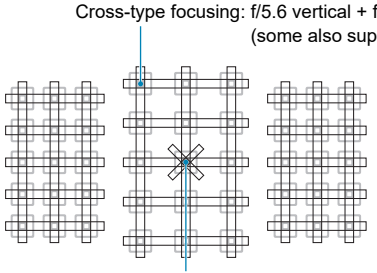
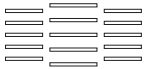
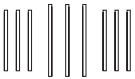
E

AF Sensor

45 AF points are available in viewfinder shooting.

Diagram



	This focusing sensor is geared to obtain higher-precision focusing for lenses with a maximum aperture value as low as f/2.8. A diagonal cross pattern makes it easier to focus on the subjects that may be difficult to focus. It is provided at the center AF point.
	These focusing sensors are geared for lenses with a maximum aperture value as low as f/5.6 (and some supporting f/8). Since they have a horizontal pattern, they can detect vertical lines. They cover all 45 AF points.
	These focusing sensors are geared for lenses with a maximum aperture value as low as f/5.6 (and some supporting f/8). Since they have a vertical pattern, they can detect horizontal lines. They cover all 45 AF points.

Lenses and Usable AF Points

The number of available AF points and the focusing patterns used vary by lens group (A–H). Fewer AF points are available for lenses in groups E–H.

- AF points in [□] blink when the <⊡> or <⊡> button is pressed (while [■/■] points remain lit.)
- The number of AF points varies depending on your specified still image aspect ratio.

Group A

Autofocusing with 45 points is possible. All the AF area selection modes are selectable.

■ : Dual cross-type AF point. Subject tracking performance is superior and the focusing precision is higher than with other AF points.

■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.

Group B

Autofocusing with 45 points is possible. All the AF area selection modes are selectable.

■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.

Group C

Autofocusing with 45 points is possible. All the AF area selection modes are selectable.

■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.
□ : AF points sensitive to horizontal lines.

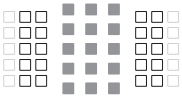
Group D

Autofocusing with 45 points is possible. All the AF area selection modes are selectable.

■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.
□ : AF points sensitive to horizontal lines.

Group E

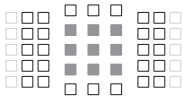
Autofocusing with 35 points is possible. (Not possible with all 45 AF points.) All the AF area selection modes are selectable. During automatic AF point selection, the outer frame marking the AF area (Area AF frame) will be different from 45-point Automatic selection AF.



■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.
□ : AF points sensitive to horizontal lines.
: Disabled AF points (not displayed).

Group F

Autofocusing with 35 points is possible. (Not possible with all 45 AF points.) All the AF area selection modes are selectable. During automatic AF point selection, the outer frame marking the AF area (Area AF frame) will be different from 45-point Automatic selection AF.



■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.
□ : AF points sensitive to vertical lines (AF points in the horizontal array at the top and bottom) or horizontal lines (AF points in a vertical array on the left and right).
□ : Disabled AF points (not displayed).

Group G

Autofocusing with 27 points is possible. (Not possible with all 45 AF points.) Large Zone AF (manual selection of zone) cannot be selected in AF area selection mode. During automatic AF point selection, the outer frame marking the AF area (Area AF frame) will be different from 45-point Automatic selection AF.

■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.
□ : AF points sensitive to horizontal lines.
□ : Disabled AF points (not displayed).

Group H

Autofocusing is possible only with the center AF point.

■ : Cross-type AF point. Subject tracking performance is superior and high-precision focusing is achieved.
□ : Disabled AF points (not displayed).

- If the maximum aperture value is slower than f/5.6 (greater than f/5.6 but not exceeding f/8), focus may not be achieved with AF when shooting low-contrast or low-light subjects.
- If the maximum aperture value is slower than f/8 (greater than f/8), AF is not possible during viewfinder shooting.

- For updates on “Group Classification of Lenses,” visit the Canon website or others.

Group Classification of Lenses

EF-S24mm f/2.8 STM	A
EF-S35mm f/2.8 Macro IS STM	B
EF-S60mm f/2.8 Macro USM	B
EF-S10-18mm f/4.5-5.6 IS STM	D
EF-S10-22mm f/3.5-4.5 USM	B
EF-S15-85mm f/3.5-5.6 IS USM	B
EF-S17-55mm f/2.8 IS USM	A
EF-S17-85mm f/4-5.6 IS USM	B
EF-S18-55mm f/3.5-5.6	C
EF-S18-55mm f/3.5-5.6 USM	C
EF-S18-55mm f/3.5-5.6 II	C
EF-S18-55mm f/3.5-5.6 II USM	C
EF-S18-55mm f/3.5-5.6 III	B
EF-S18-55mm f/3.5-5.6 IS	C
EF-S18-55mm f/3.5-5.6 IS II	B
EF-S18-55mm f/3.5-5.6 IS STM	B
EF-S18-55mm f/4-5.6 IS STM	D
EF-S18-135mm f/3.5-5.6 IS	B
EF-S18-135mm f/3.5-5.6 IS USM	B
EF-S18-135mm f/3.5-5.6 IS STM	B
EF-S18-200mm f/3.5-5.6 IS	B
EF-S55-250mm f/4-5.6 IS	B
EF-S55-250mm f/4-5.6 IS II	B
EF-S55-250mm f/4-5.6 IS STM	B
EF14mm f/2.8L USM	A
EF14mm f/2.8L II USM	A
EF15mm f/2.8 Fisheye	A
EF20mm f/2.8 USM	A
EF24mm f/1.4L USM	A
EF24mm f/1.4L II USM	A
EF24mm f/2.8	A
EF24mm f/2.8 IS USM	A
EF28mm f/1.8 USM	A
EF28mm f/2.8	A
EF28mm f/2.8 IS USM	A
EF35mm f/1.4L USM	A
EF35mm f/1.4L II USM	A
EF35mm f/2	A
EF35mm f/2 IS USM	A
EF40mm f/2.8 STM	A
EF50mm f/1.0L USM	A
EF50mm f/1.2L USM	A
EF50mm f/1.4 USM	A
EF50mm f/1.8	A
EF50mm f/1.8 II	A
EF50mm f/1.8 STM	A
EF50mm f/2.5 Compact Macro	B
EF50mm f/2.5 Compact Macro + LIFE SIZE Converter	B
EF85mm f/1.2L USM	A
EF85mm f/1.2L II USM	A
EF85mm f/1.4L IS USM	A
EF85mm f/1.8 USM	A
EF100mm f/2 USM	A
EF100mm f/2.8 Macro	B
EF100mm f/2.8 Macro USM	E
EF100mm f/2.8L Macro IS USM	B
EF135mm f/2L USM	A
EF135mm f/2L USM + Extender EF1.4x I/II/III	A
EF135mm f/2L USM + Extender EF2x I/II/III	B
EF135mm f/2.8 (Softfocus)	A
EF180mm f/3.5L Macro USM	B
EF180mm f/3.5L Macro USM + Extender EF1.4x I/II/III	F
EF200mm f/1.8L USM	A
EF200mm f/1.8L USM + Extender EF1.4x I/II/III	A*
EF200mm f/1.8L USM + Extender EF2x I/II/III	B*
EF200mm f/2L IS USM	A
EF200mm f/2L IS USM + Extender EF1.4x I/II/III	A
EF200mm f/2L IS USM + Extender EF2x I/II/III	B

EF200mm f/2.8L USM	A
EF200mm f/2.8L USM + Extender EF1.4x I/II/III	B
EF200mm f/2.8L USM + Extender EF2x I/II/III	B
EF200mm f/2.8L II USM	A
EF200mm f/2.8L II USM + Extender EF1.4x I/II/III	B
EF200mm f/2.8L II USM + Extender EF2x I/II/III	B
EF300mm f/2.8L USM	A
EF300mm f/2.8L USM + Extender EF1.4x I/II/III	B*
EF300mm f/2.8L USM + Extender EF2x I/II/III	B*
EF300mm f/2.8L IS USM	A
EF300mm f/2.8L IS USM + Extender EF1.4x I/II/III	B
EF300mm f/2.8L IS USM + Extender EF2x I/II/III	B
EF300mm f/2.8L IS II USM	A
EF300mm f/2.8L IS II USM + Extender EF1.4x I/II/III	B
EF300mm f/2.8L IS II USM + Extender EF2x I/II/III	B
EF300mm f/4L USM	B
EF300mm f/4L USM + Extender EF1.4x I/II/III	B
EF300mm f/4L USM + Extender EF2x I/II/III	H (f/8)
EF300mm f/4L IS USM	B
EF300mm f/4L IS USM + Extender EF1.4x I/II/III	B
EF300mm f/4L IS USM + Extender EF2x I/II/III	H (f/8)
EF400mm f/2.8L USM	A
EF400mm f/2.8L USM + Extender EF1.4x I/II/III	B*
EF400mm f/2.8L USM + Extender EF2x I/II/III	B*
EF400mm f/2.8L II USM	A
EF400mm f/2.8L II USM + Extender EF1.4x I/II/III	B*
EF400mm f/2.8L II USM + Extender EF2x I/II/III	B*
EF400mm f/2.8L IS USM	A
EF400mm f/2.8L IS USM + Extender EF1.4x I/II/III	B
EF400mm f/2.8L IS USM + Extender EF2x I/II/III	B
EF400mm f/2.8L IS II USM	A
EF400mm f/2.8L IS II USM + Extender EF1.4x I/II/III	B
EF400mm f/2.8L IS II USM + Extender EF2x I/II/III	B
EF400mm f/2.8L IS III USM	A
EF400mm f/2.8L IS III USM + Extender EF1.4x I/II/III	B
EF400mm f/2.8L IS III USM + Extender EF2x I/II/III	B
EF400mm f/4 DO IS USM	B
EF400mm f/4 DO IS USM + Extender EF1.4x I/II/III	B
EF400mm f/4 DO IS USM + Extender EF2x I/II/III	H (f/8)
EF400mm f/4 DO IS II USM	B
EF400mm f/4 DO IS II USM + Extender EF1.4x I/II/III	B
EF400mm f/4 DO IS II USM + Extender EF2x I/II/III	H (f/8)
EF400mm f/5.6L USM	B
EF400mm f/5.6L USM + Extender EF1.4x I/II/III	H (f/8)
EF500mm f/4L IS USM	B
EF500mm f/4L IS USM + Extender EF1.4x I/II/III	B
EF500mm f/4L IS USM + Extender EF2x I/II/III	H (f/8)
EF500mm f/4L IS II USM	B
EF500mm f/4L IS II USM + Extender EF1.4x I/II/III	B
EF500mm f/4L IS II USM + Extender EF2x I/II/III	H (f/8)
EF500mm f/4.5L USM	B
EF500mm f/4.5L USM + Extender EF1.4x I/II/III	H (f/8)*

EF600mm f/4L USM	B
EF600mm f/4L USM + Extender EF1.4x I/II/III	B*
EF600mm f/4L USM + Extender EF2x I/II/III	H (f/8)*
EF600mm f/4L IS USM	B
EF600mm f/4L IS USM + Extender EF1.4x I/II/III	B
EF600mm f/4L IS USM + Extender EF2x I/II/III	H (f/8)
EF600mm f/4L IS II USM	B
EF600mm f/4L IS II USM + Extender EF1.4x I/II/III	B
EF600mm f/4L IS II USM + Extender EF2x I/II/III	H (f/8)
EF600mm f/4L IS III USM	B
EF600mm f/4L IS III USM + Extender EF1.4x I/II/III	B
EF600mm f/4L IS III USM + Extender EF2x I/II/III	H
EF800mm f/5.6L IS USM	E
EF800mm f/5.6L IS USM + Extender EF1.4x I/II/III	H (f/8)
EF1200mm f/5.6L USM	E
EF1200mm f/5.6L USM + Extender EF1.4x I/II/III	H (f/8)*
EF8-15mm f/4L Fisheye USM	B
EF11-24mm f/4L USM	C
EF16-35mm f/2.8L USM	A
EF16-35mm f/2.8L II USM	A
EF16-35mm f/2.8L III USM	A
EF16-35mm f/4L IS USM	B
EF17-35mm f/2.8L USM	A
EF17-40mm f/4L USM	B
EF20-35mm f/2.8L	A
EF20-35mm f/3.5-4.5 USM	C
EF22-55mm f/4-5.6 USM	F
EF24-70mm f/2.8L USM	A
EF24-70mm f/2.8L II USM	A
EF24-70mm f/4L IS USM	B
EF24-85mm f/3.5-4.5 USM	D
EF24-105mm f/3.5-5.6 IS STM	B
EF24-105mm f/4L IS USM	B
EF24-105mm f/4L IS II USM	B
EF28-70mm f/2.8L USM	A
EF28-70mm f/3.5-4.5	E
EF28-70mm f/3.5-4.5 II	E
EF28-80mm f/2.8-4L USM	B
EF28-80mm f/3.5-5.6	E
EF28-80mm f/3.5-5.6 USM	E
EF28-80mm f/3.5-5.6 II	E
EF28-80mm f/3.5-5.6 II USM	E
EF28-80mm f/3.5-5.6 III USM	E
EF28-80mm f/3.5-5.6 IV USM	E
EF28-80mm f/3.5-5.6 V USM	E
EF28-90mm f/4-5.6	B
EF28-90mm f/4-5.6 USM	B
EF28-90mm f/4-5.6 II	B
EF28-90mm f/4-5.6 II USM	B
EF28-90mm f/4-5.6 III	B
EF28-105mm f/3.5-4.5 USM	B
EF28-105mm f/3.5-4.5 II USM	B
EF28-105mm f/4-5.6	F
EF28-105mm f/4-5.6 USM	F
EF28-135mm f/3.5-5.6 IS USM	B
EF28-200mm f/3.5-5.6	B
EF28-200mm f/3.5-5.6 USM	B
EF28-300mm f/3.5-5.6L IS USM	B
EF35-70mm f/3.5-4.5	E
EF35-70mm f/3.5-4.5A	E
EF35-80mm f/4-5.6	F
EF35-80mm f/4-5.6 PZ	E
EF35-80mm f/4-5.6 USM	F
EF35-80mm f/4-5.6 II	E
EF35-80mm f/4-5.6 III	F
EF35-105mm f/3.5-4.5	B
EF35-105mm f/4.5-5.6	H
EF35-105mm f/4.5-5.6 USM	H
EF35-135mm f/3.5-4.5	B

EF35-135mm f/4-5.6 USM	C
EF35-350mm f/3.5-5.6L USM	D
EF38-76mm f/4.5-5.6	E
EF50-200mm f/3.5-4.5	B
EF50-200mm f/3.5-4.5L	B
EF55-200mm f/4.5-5.6 USM	D
EF55-200mm f/4.5-5.6 II USM	D
EF70-200mm f/2.8L USM	A
EF70-200mm f/2.8L USM + Extender EF1.4x I/II/III	B**
EF70-200mm f/2.8L USM + Extender EF2x I/II/III	B**
EF70-200mm f/2.8L IS USM	A
EF70-200mm f/2.8L IS USM + Extender EF1.4x I/II/III	B
EF70-200mm f/2.8L IS USM + Extender EF2x I/II/III	B
EF70-200mm f/2.8L IS II USM	A
EF70-200mm f/2.8L IS II USM + Extender EF1.4x I/II/III	B
EF70-200mm f/2.8L IS II USM + Extender EF2x I/II/III	B
EF70-200mm f/2.8L IS III USM	A
EF70-200mm f/2.8L IS III USM + Extender EF1.4x I/II/III	B
EF70-200mm f/2.8L IS III USM + Extender EF2x I/II/III	B
EF70-200mm f/4L USM	B
EF70-200mm f/4L USM + Extender EF1.4x I/II/III	B
EF70-200mm f/4L USM + Extender EF2x I/II/III	H (f/8)
EF70-200mm f/4L IS USM	B
EF70-200mm f/4L IS USM + Extender EF1.4x I/II/III	B
EF70-200mm f/4L IS USM + Extender EF2x I/II/III	H (f/8)
EF70-200mm f/4L IS II USM	B
EF70-200mm f/4L IS II USM + Extender EF1.4x I/II/III	B
EF70-200mm f/4L IS II USM + Extender EF2x I/II/III	H

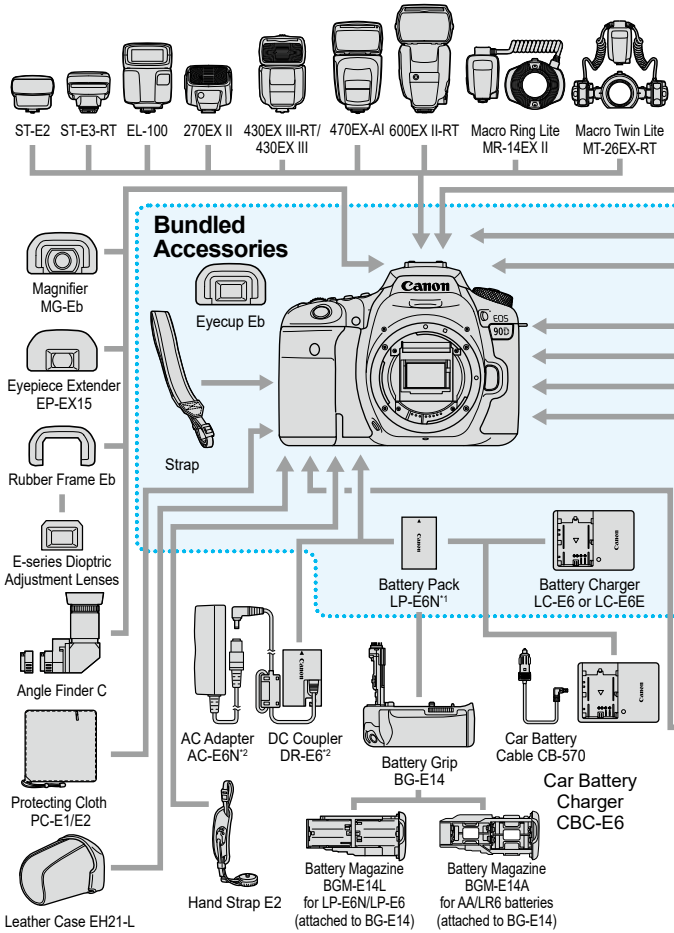
EF70-210mm f/3.5-4.5 USM	B
EF70-210mm f/4	B
EF70-300mm f/4-5.6 IS USM	B
EF70-300mm f/4-5.6 IS II USM	B
EF70-300mm f/4-5.6L IS USM	B
EF70-300mm f/4.5-5.6 DO IS USM	B
EF75-300mm f/4-5.6	B
EF75-300mm f/4-5.6 USM	C
EF75-300mm f/4-5.6 II	B
EF75-300mm f/4-5.6 II USM	B
EF75-300mm f/4-5.6 III	B
EF75-300mm f/4-5.6 III USM	B
EF75-300mm f/4-5.6 IS USM	B
EF80-200mm f/2.8L	A
EF80-200mm f/4.5-5.6	D
EF80-200mm f/4.5-5.6 USM	E
EF80-200mm f/4.5-5.6 II	E
EF90-300mm f/4.5-5.6	D
EF90-300mm f/4.5-5.6 USM	D
EF100-200mm f/4.5A	B
EF100-300mm f/4.5-5.6 USM	C
EF100-300mm f/5.6	B
EF100-300mm f/5.6L	B
EF100-400mm f/4.5-5.6L IS USM	B
EF100-400mm f/4.5-5.6L IS USM + Extender EF1.4x I/II/III	H (f/8)
EF100-400mm f/4.5-5.6L IS II USM	B
EF100-400mm f/4.5-5.6L IS II USM + Extender EF1.4x I/II	H (f/8)
EF100-400mm f/4.5-5.6L IS II USM + Extender EF1.4x III	G (f/8)
EF200-400mm f/4L IS USM Extender 1.4x	B
EF200-400mm f/4L IS USM Extender 1.4x: With built-in Ext. 1.4x	B
EF200-400mm f/4L IS USM Extender 1.4x + Extender EF1.4x I/II/III	B

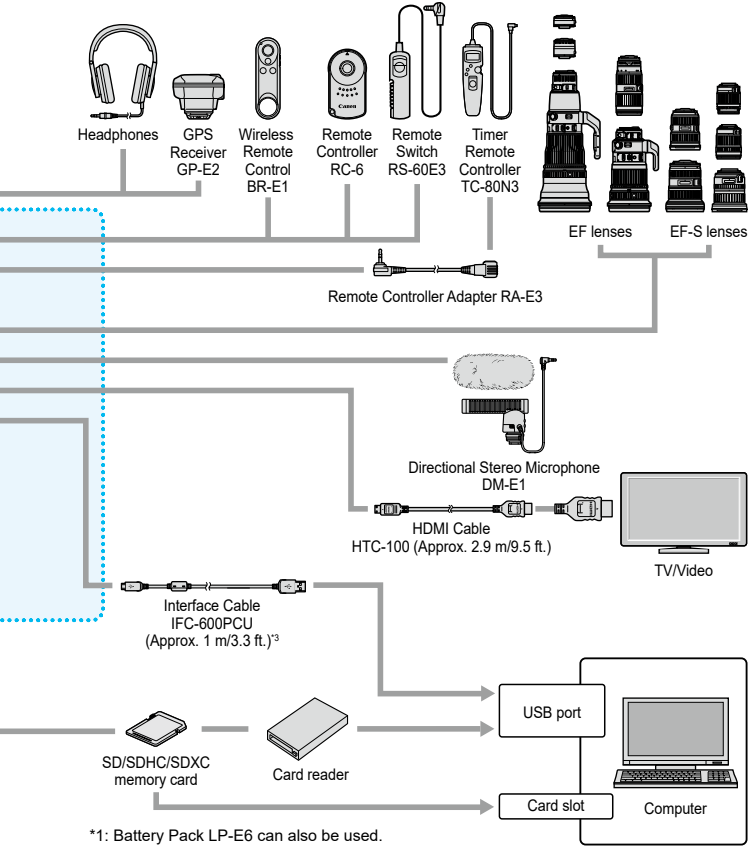
EF200-400mm f/4L IS USM Extender 1.4x: With built-in Ext. 1.4x + Extender EF1.4x I/II/III	H (f/8)
EF200-400mm f/4L IS USM Extender 1.4x + Extender EF2x I/II	H (f/8)
EF200-400mm f/4L IS USM Extender 1.4x + Extender EF2x III	G (f/8)
TS-E17mm f/4L	B
TS-E24mm f/3.5L	B
TS-E24mm f/3.5L II	B
TS-E45mm f/2.8	A
TS-E50mm f/2.8L Macro	B
TS-E90mm f/2.8	A
TS-E90mm f/2.8L Macro	B
TS-E135mm f/4L Macro	B

- If Extender EF2x (I/II/III) is attached to the EF180mm f/3.5L Macro USM lens, AF is not possible.
- When using a lens and Extender EF1.4x III/EF2x III in a combination marked with an asterisk "*" or a lens and extender in a combination marked with two asterisks "**", precise focus may not be achieved with AF. In this case, refer to the Instruction Manual of the lens or extender used.

- If you use a TS-E lens, manual focusing is required. The group classification of TS-E lenses applies only when you do not use the tilt or shift function.
- Some lenses may not be available in certain countries or regions.

System Map


ST-E2
ST-E3-RT
EL-100
270EX II
430EX III-RT/
430EX III
470EX-AI
600EX II-RT
Macro Ring Lite
MR-14EX II
Macro Twin Lite
MT-26EX-RT
Bundled
Accessories
Magnifier
MG-Eb
Eyecup Eb
Eyepiece Extender
EP-EX15
Strap
Rubber Frame Eb
E-series Dioptric
Adjustment Lenses
Battery Pack
LP-E6N*1
Battery Charger
LC-E6 or LC-E6E
Angle Finder C
AC Adapter
AC-E6N*2
DC Coupler
DR-E6*2
Battery Grip
BG-E14
Car Battery
Cable CB-570
Car Battery
Charger
CBC-E6
Protecting Cloth
PC-E1/E2
Hand Strap E2
Battery Magazine
BGM-E14L
for LP-E6N/LP-E6
(attached to BG-E14)
Battery Magazine
BGM-E14A
for AA/LR6 batteries
(attached to BG-E14)
Leather Case EH21-L



*1: Battery Pack LP-E6 can also be used.
*2: AC Adapter Kit ACK-E6 can also be used.
*3: Camera end: USB Micro-B; computer end: USB Type-A.
* Wireless File Transmitter WFT-E7 (Ver.2), WFT-E7 cannot be used.
* All cable lengths given are approximate figures.

Specifications

■ Type

Type:	Digital single-lens reflex AF/AE camera with built-in flash
Recording media:	SD/SDHC*/SDXC* memory cards * UHS-II and UHS-I cards supported.
Image sensor size:	Approx. 22.3×14.8 mm
Compatible lenses:	Canon EF lenses (including EF-S lenses) * Not including EF-M lenses (Effective angle of view is approx. 1.6 times the indicated focal length.)
Lens mount:	Canon EF mount

■ Image Sensor

Type:	CMOS sensor (supports Dual pixel CMOS AF)
Effective pixels:	Approx. 32.5 megapixels * Rounded to the nearest 100,000.
Aspect ratio:	3:2
Dust deletion:	Auto/Manual/Appending Dust Delete Data

■ Recording System

Recording format:	Design rule for Camera File System (DCF) 2.0
Image type:	JPEG, RAW (14-bit Canon original) RAW+JPEG simultaneous recording possible
Pixels recorded:	L (Large) : Approx. 32.3 megapixels (6960×4640) M (Medium) : Approx. 15.4 megapixels (4800×3200) S1 (Small 1) : Approx. 8.1 megapixels (3472×2320) S2 (Small 2) : Approx. 3.8 megapixels (2400×1600) RAW/C-RAW : Approx. 32.3 megapixels (6960×4640) * Rounded to the nearest 100,000.
Aspect ratio:	3:2, 4:3, 16:9, 1:1
Folder creation and selection:	Available
File numbering:	Continuous, Auto reset, Manual reset

■ Image Processing During Shooting

Picture Style:	Auto, Standard, Portrait, Landscape, Fine Detail, Neutral, Faithful, Monochrome, User Defined 1–3
White balance:	Auto (Ambience priority), Auto (White priority), Preset (Daylight, Shade, Cloudy, Tungsten light, White fluorescent light, Flash), Custom, Color temperature setting (approx. 2500–10000 K) White balance correction and white balance bracketing features provided * Flash color temperature information transmission possible
Automatic image brightness correction:	Auto Lighting Optimizer provided
Noise reduction:	Applicable to high ISO speed shots and long exposures
Highlight tone priority:	Available
Lens aberration correction:	Peripheral illumination correction, Distortion correction, Digital Lens Optimizer, Chromatic aberration correction, Diffraction correction

■ Viewfinder

Type:	Eye-level pentaprism
Field of view (coverage):	Vertical/Horizontal approx. 100% (with eyepoint approx. 22 mm and aspect ratio set to 3:2)
Magnification:	Approx. 0.95× (–1 m^{-1} with 50 mm lens at infinity)
Eyepoint:	Approx. 22 mm (from eyepiece lens end/at –1 m^{-1})
Dioptric adjustment range:	Approx. –3.0 to +1.0 m^{-1} (dpt)
Focusing screen:	Fixed
Grid display:	Available
Electronic level:	Available
Function setting display:	Battery level (remaining capacity), Shooting mode, AF operation, Image quality (Image type), Drive mode, Metering mode, Flicker detection, Warning! display
Mirror:	Quick-return type
Depth-of-field preview:	Available

■ Autofocus

[Viewfinder shooting]

Type:	TTL secondary image-registration, phase-difference detection with the dedicated AF sensor
AF points:	Cross-type AF point: Max. 45 points * Number of available AF points, Dual cross-type AF points, and Cross-type AF points vary depending on the lens used. * Dual cross-type focusing at f/2.8 with center AF point when Group A (of the AF groups) lenses are used.
Focusing brightness range:	EV –3 to 18 (with the center AF point supporting f/2.8, One-Shot AF, room temperature, ISO 100)
Focus operation:	One-Shot AF, AI Servo AF, AI Focus AF, Manual focusing (MF)
AF area selection mode:	Single-point Spot AF (manual selection), Single-point AF (manual selection), Zone AF (manual selection of zone), Large zone AF (manual selection of zone), Automatic selection AF
AF point automatic selection conditions:	Automatic AF point selection possible based on color information
AI Servo AF characteristics:	Characteristics can be set with Custom Functions for Tracking sensitivity, Acceleration/deceleration tracking, and AF point auto switching
AF fine adjustment:	AF Microadjustment (All lenses by the same amount, Adjust by lens)
AF-assist beam:	Series of small flashes fired by the built-in flash, in an effective range of approx. 4.0 m (13.1 ft.)

[Live View shooting]

Focus method:	Dual pixel CMOS AF
AF method:	Face+Tracking, Spot AF, 1-point AF, Zone AF
Available AF point positions:	Max. 5,481 * When selected with the Multi-controller
Available AF areas when automatically selected:	Max. 143
Magnified view:	Approx. 5×/10×

AF operation:	One-Shot AF, Servo AF
Auto AF operation switching:	In Scene Intelligent Auto mode
Eye Detection AF:	Available
Continuous AF:	Available
AF area:	Horizontal: Approx. 88%, Vertical: Approx. 100% Horizontal: Approx. 80%, Vertical: Approx. 80% * Varies depending on factors such as the lens and aspect ratio used
Focusing brightness range:	EV –5 to 18 (f/1.2, center AF point, at room temperature, ISO 100, One-Shot AF)
Servo AF characteristics:	Tracking sensitivity, Acceleration/deceleration tracking, and AF point auto switching

[Movie recording]

AF area:	Horizontal: Approx. 88%, Vertical: Approx. 100% Horizontal: Approx. 80%, Vertical: Approx. 80% * Varies depending on the lens used
Focusing brightness range:	4K: EV –2.5 to 18, Full HD: EV –3 to 18 (f/1.2, center AF point, at room temperature, ISO 100, One-Shot AF, 29.97fps)
Movie Servo AF:	Available
Movie Servo AF characteristics:	Tracking sensitivity, AF speed

■ Exposure Control

Metering mode:	Viewfinder shooting: TTL open-aperture metering with an approx. 220,000-pixel RGB+IR metering sensor 216-zone (18×12) metering Live View shooting/movie recording: Real-time metering with image sensor 384-zone (24×16) metering
Metering mode:	Still photo shooting: Evaluative metering (linked to all AF points), Partial metering (approx. 6.5% of viewfinder, at center/4.5% of Live View screen), Spot metering (approx. 2.0% of viewfinder, at center/2.6% of Live View screen), Center-weighted average metering Movie recording: Center-weighted average metering, Evaluative metering * Automatically set by the focus method
Metering brightness range:	Viewfinder shooting: EV 1 to 20 (at room temperature, ISO 100) Live View shooting: EV –2 to 20 (at room temperature, ISO 100) Movie recording: EV 0 to 20 (at room temperature, ISO 100)
Exposure compensation:	Manual: ±5 stops in 1/3- or 1/2-stop increments (viewfinder shooting), or ±3 stops in 1/3- or 1/2-stop increments (Live View shooting, movie recording) AEB: ±3 stops in 1/3- or 1/2-stop increments (can be combined with manual exposure compensation)
AE lock:	Auto: For each metering mode, a Custom Function can be used to enable/disable AE lock after focusing in still photo shooting Manual: With AE lock button in still photo shooting Movie recording: With AE lock button
Flicker reduction:	Available in viewfinder shooting
Mirror lockup:	Available in viewfinder shooting
Bulb timer:	Bulb exposure time settable
Interval timer:	Shooting interval and shot count settable

■ Shooting Mode

Basic Zone:	Scene Intelligent Auto Special Scene (Portrait, Group Photo, Landscape, Sports, Kids, Panning, Close-up, Food, Candlelight, Night Portrait, Handheld Night Scene, HDR Backlight Control), Creative filters (Grainy B/W, Soft focus, Fish-eye effect, Water painting effect, Toy camera effect, Miniature effect, HDR art standard, HDR art vivid, HDR art bold, HDR art embossed)
Creative Zone:	Program AE, Shutter-priority AE, Aperture-priority AE, Manual exposure, Bulb exposure, Custom shooting modes (C1/C2)

■ ISO Speed (Recommended Exposure Index)

Basic Zone:	ISO speed set automatically
Creative Zone:	Still photo shooting: ISO Auto (automatically set within ISO 100–25600), manually set within ISO 100–25600 (in 1/3- or 1-stop increments), and expandable to H (equivalent to ISO 51200) Movie recording: ISO Auto (automatically set within ISO 100–12800), manually set within ISO 100–12800 (in 1/3- or 1-stop increments), and expandable to H (equivalent to ISO 25600) HDR movie: ISO speed set automatically
ISO speed settings:	Still photo shooting: ISO speed range can be set, as well as the speed range and minimum shutter speed for auto Movie recording: ISO speed range can be set, as well as the maximum speed for auto and for time-lapse movies recorded with auto

■ HDR Shooting

Dynamic range adjustment:	Auto, ±1 EV, ±2 EV, ±3 EV
Effects:	Natural, Art standard, Art vivid, Art bold, Art embossed
Auto image alignment:	Available

■ Multiple Exposures

Number of multiple exposures:	2 to 9 exposures
Multiple-exposure control:	Additive, Average

■ Shutter

Type: Electronically-controlled, focal-plane shutter

Shutter speed: Viewfinder shooting: 1/8000 sec. to 30 sec. (full shutter speed range; available range varies by shooting mode), Bulb, X-sync at 1/250 sec.
Live View shooting: 1/16000 sec. to 30 sec. (full shutter speed range; available range varies by shooting mode, with 1/16000–1/10000 sec. for electronic shutter), Bulb, X-sync at 1/250 sec.
* Setting range differs when recording movies

■ Drive System

Drive mode: Single shooting, High-speed continuous shooting, Low-speed continuous shooting, continuous shooting in Panning mode, Silent single shooting, Silent continuous shooting, Self-timer: 10 sec./remote control, Self-timer: 2 sec./remote control, Self-timer: Continuous

Continuous shooting speed: High-speed continuous shooting: Max. approx. 10 shots/sec. in viewfinder shooting and 11 shots/sec. in Live View shooting
* The continuous shooting speed decreases during Anti-flicker shooting, during Live View shooting with Servo AF, or during Live View shooting with an external Speedlite.
* The continuous shooting speed for high-speed continuous shooting may be lower, depending on conditions such as these: temperature, battery level, flicker reduction, shutter speed, aperture value, subject conditions, brightness, AF operation, type of lens, use of flash, and shooting settings.

Low-speed continuous shooting: Max. approx. 3.0 shots/sec.
* The continuous shooting speed decreases during Live View shooting with an external Speedlite.

Continuous shooting in Panning mode:
Max. approx. 5.7 shots/sec. in viewfinder shooting and 4.3 shots/sec. in Live View shooting (at a shutter speed of 1/125 sec. and maximum aperture value)
Silent continuous shooting: Max. approx. 3.0 shots/sec.

Maximum burst:	JPEG Large/Fine: Approx. 57 shots (Approx. 58 shots) RAW: Approx. 24 shots (Approx. 25 shots) C-RAW: Approx. 39 shots (Approx. 39 shots) RAW+JPEG Large/Fine: Approx. 23 shots (Approx. 24 shots) C-RAW+JPEG Large/Fine: Approx. 37 shots (Approx. 36 shots) * Measured with an SD card conforming to Canon testing standards (standard: 32 GB UHS-I card / high-speed: 32 GB UHS-II card) and under conditions following the standards (high-speed continuous shooting at ISO 100 using the Standard Picture Style). * Figures in parentheses are the number of shots when a Canon's standard testing UHS-II SD card is used.

■ Flash

Built-in flash:	Retractable manual pop-up flash
Guide number:	Approx. 12 (ISO 100/m) Flash coverage: Approx. 17 mm lens angle of view Recycling time: Approx. 3 sec.
External Speedlite:	EL/EX series Speedlites supported
Flash metering:	E-TTL II autoflash
Flash exposure compensation:	±3 stops in 1/3- or 1/2-stop increments
FE lock:	Available in viewfinder shooting
Continuous shooting priority mode:	Available (using Speedlites that include this feature)
PC terminal:	Not provided
Flash control:	Built-in flash settings, External flash function settings, External flash Custom Function settings Wireless flash control via optical transmission

■ Live View Shooting

MF peaking:	Available
Focus bracketing:	Available
Electronic shutter:	Available
Touch shutter:	Available
Grid display:	3 types

■ Movie Recording

Recording format:	MP4
Video:	MPEG-4 AVC/H264, variable (average) bit rate
Audio:	AAC (when [C.Fn III-5: Audio compression] is set to [0: Enable]) Linear PCM (when [C.Fn III-5: Audio compression] is set to [1: Disable])
Movie recording quality:	4K (3840×2160), Full HD (1920×1080), HD (1280×720) HDR movies: Full HD Time-lapse movies: 4K/Full HD
Frame rate:	119.88p/59.94p/29.97p/23.98p (with NTSC) 100.00p/50.00p/25.00p (with PAL)
Compression method:	Standard (IPB), Light (IPB) * Time-lapse movies: ALL-I
Bit rate/Card performance requirements: (writing/reading speed)	4K (29.97p/25.00p/23.98p)/Standard (IPB) : Approx. 120 Mbps/UHS-I, UHS Speed Class 3 or higher Full HD High Frame Rate (119.88p/100.00p)/Standard (IPB) : Approx. 120 Mbps/UHS-I, UHS Speed Class 3 or higher Full HD (59.94p/50.00p)/Standard (IPB) : Approx. 60 Mbps/SD Speed Class 10 or higher Full HD (29.97p/25.00p/23.98p)/Standard (IPB) : Approx. 30 Mbps/SD Speed Class 4 or higher Full HD (29.97p/25.00p)/Light (IPB) : Approx. 12 Mbps/SD Speed Class 4 or higher HD (59.94p/50.00p)/Standard (IPB) : Approx. 26 Mbps/SD Speed Class 4 or higher 4K Time-lapse movie (29.97p/25.00p) : Approx. 40 Mbps or faster (reading speed) Time-lapse movie (29.97p/25.00p) : Approx. 20 Mbps or faster (reading speed)
Sound recording:	Built-in stereo microphones, external stereo microphone jack provided Sound-recording level adjustable, wind filter provided, attenuator provided

Headphone:	Headphone terminal provided, volume adjustable
4K movie cropping:	Available
Movie digital IS:	Available (Enable/Enhanced)
HDR movies:	Available (in Special scene mode)
Video snapshot:	Available
Time-lapse movies:	4K or Full HD
HDMI output:	Image output without information display available * 4K output supported; Auto/1080p selectable
Remote control shooting:	Available
Still photo shooting during movie recording:	Not available

■ **Screen**

Type:	TFT color, liquid-crystal monitor
Screen size and dots:	Wide 3.0-in. (3:2) with approx. 1.04 million dots
Field of view (coverage):	Still photo shooting: Approx. 100% vertically/horizontally (when set to JPEG Large) Movie recording: Approx. 100% vertically/horizontally
Angular adjustment:	Opening: Approx. 0–175° Rotation: Approx. 0–90° forward, approx. 0–180° backward
Brightness adjustment:	Manual (7 levels)
Display settings:	Mode guide, Feature guide
Interface languages:	29
Touch-screen panel:	Capacitive sensing

■ Playback

Image display format:	Single-image display (without shooting information), Single-image display (with basic information), Single-image display (Shooting information displayed: Detailed information, Lens/ histogram, White balance, Picture Style 1, Picture Style 2, Color space/noise reduction, Lens aberration correction 1, Lens aberration correction 2, GPS information), Index display (4/9/36/100 images) * Customizable shooting information display
Highlight alert:	Overexposed highlights blink
AF point display:	Available
Grid display:	3 types
Magnified view:	Approx. 1.5×–10×, initial magnification and position settable
Image search:	Search conditions settable (by rating, date, folder, protected, type of file)
Image browsing method:	1 image, 10 images, Specified number, Date, Folder, Movies, Stills, Protect, Rating
Image rotation:	Available
Image protection:	Available
Rating:	Available
Movie playback:	Available
Start/end movie scene editing:	Available
4K movie frame grab:	Extraction of specified movie frames and saving as JPEG images
Slide show:	All images or images matching the search conditions are played back automatically.
In-camera RAW image processing:	Creative Assist, RAW and C-RAW image processing possible Brightness adjustment, White balance, Picture Style, Auto Lighting Optimizer, High ISO speed noise reduction, JPEG image-recording quality, Color space, Lens aberration correction (Peripheral illumination correction, Distortion correction, Digital Lens Optimizer, Chromatic aberration correction, Diffraction correction)
Resizing:	Available
Cropping:	Available
Print ordering:	DPOF version 1.1 compatible

■ Customization Features

Custom Functions:	29 types
Custom shooting modes:	Registered to C1/C2 on the Mode dial
My Menu:	Up to 5 screens
Copyright information:	Text entry and appending possible

■ Interface

Digital terminal:	Hi-Speed USB equivalent; terminal shape: USB Micro-B Computer communication
HDMI mini OUT terminal:	Type C (auto switching of resolution)
External microphone IN terminal:	3.5 mm diameter stereo mini-jack Directional Stereo Microphone DM-E1 or commercially-available external microphone connectable
Remote control terminal:	Compatible with Remote Switch RS-60E3
Wireless remote control:	Compatible with Wireless Remote Control BR-E1 (via Bluetooth)

■ Wireless Features

[Wi-Fi]

Standards compliance:	IEEE 802.11b/g/n
Transmission method:	DS-SS modulation (IEEE 802.11b), OFDM modulation (IEEE 802.11g/n)
Transmission frequency (central frequency):	Frequency: 2412 to 2462 MHz Channels: 1–11
Connection method:	Camera access point mode, infrastructure* * Wi-Fi Protected Setup supported
Security:	Authentication method: Open system, Shared key, or WPA/WPA2-PSK Encryption: WEP, TKIP, AES
Compatible devices/ services:	Smartphones, computers, Wi-Fi printers, Web services

[Bluetooth]

Standards compliance:	Bluetooth Specification Version 4.1 compliant (Bluetooth low energy technology)
Transmission method:	GFSK modulation
Compatible devices:	Smartphones, wireless remote controls

■ Power

Battery:	Battery Pack LP-E6N/LP-E6, quantity 1 * AC power usable with household power outlet accessories
Battery information:	Power source, Battery level, Shutter count, Recharge performance, Battery registration possible
Number of possible shots: (Based on CIPA testing standards, with 50% flash use)	Viewfinder shooting: Approx. 1,300 shots at room temperature (+23°C/73°F), approx. 1,200 shots at low temperatures (0°C/32°F) Live View shooting: Approx. 450 shots at room temperature (+23°C/73°F), approx. 440 shots at low temperatures (0°C/32°F) * With a fully charged Battery Pack LP-E6N
Movie recording time available:	Total approx. 3 hr. 30 min. (set to Full HD 29.97p IPB (NTSC)) or 3 hr. 50 min. (set to Full HD 25.00p IPB (PAL)) * At room temperature (+23°C/73°F) or low temperatures (0°C/32°F) with a fully charged Battery Pack LP-E6N and Movie Servo AF disabled

■ Dimensions and Weight

Dimensions (W×H×D):	Approx. 140.7×104.8×76.8 mm/5.54×4.13×3.03 in.
Weight:	Approx. 701g/24.73 oz. (including battery pack and card)/ Approx. 619g/21.83 oz. (body only)

■ Operating Environment

Working temperature range:	0–40°C (32–104°F)
Working humidity:	85% or less

- All the data above is based on Canon's testing standards and CIPA (Camera & Imaging Products Association) testing standards and guidelines.
- Dimensions and weight listed above are based on CIPA Guidelines (except weight for camera body only).
- Product specifications and the exterior are subject to change without notice.
- If a problem occurs with a non-Canon lens attached to the camera, consult the respective lens manufacturer.