Image Sensor

Type
22.3 x 14.9mm CMOS

Effective Pixels
Approx. 24.1 megapixels

Total Pixels
Approx 25.8 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 8

Lens

Lens Mount
EF-M (EF and EF-S lenses compatible via Mount adapter EF-EOS M)

Focal Length
Equivalent to 1.6x the focal length of the lens

Image Stabilisation

Optical Image Stabilizer on compatible lens
Movie: In-camera Digital IS available. Further stabilisation enhancements from lenses compatible with Dynamic IS

Focusing

Type

Dual Pixel CMOS AF System. Phase detection pixels built onto imaging sensor[1]
Contrast detection method is used during 4K Movie and 4K Timelapse Movie

AF System / Points

Maximum 143 points depending on lens.
Max 25 frames in Zone AF[2]
Freely position 1 AF point/ 1 AF Zone via manual selection (area available lens dependent)

AF working range

EV -4 - 18 (room temperature, f/1.4, ISO 100, One-Shot AF), Movie: EV -2 - 18 (room temperature, f/1.4, ISO 100, One-Shot AF, 29.97fps/25fps)

AF Modes

One-Shot AF and Servo AF

AF Point Selection

Face + Tracking (Eye Detection AF available)
Zone AF
1-point AF
Spot AF

Selected AF point display

Indicated on LCD monitor

AF Lock

Locked when shutter button is pressed half way or AE Lock Button

AF Assist Beam

via LED assist beam

Manual Focus

With EF & EF-S lenses - Select via AF/MF switch on lens
With EF-M lenses - Select via menu
MF Peaking available
AF+MF available (Manual focus adjustment after One-Shot AF)
Magnify image available during MF (5x or 10x)

Exposure Control

Metering modes

Real-time metering from the image sensor
(1) Evaluative metering (384 zones)
(2) Partial metering at center (approx. 5.8% of Live View Screen)
(3) Center weighted average metering
(4) Spot metering (approx. 2.9% of Live View Screen)

Metering Range

Still image: EV -1 - 20 (at 23 °C, ISO 100)
Movie: EV 0 - 20 (at 23 °C, ISO 100)

AE Lock

Auto: In One-shot AF mode with evaluative metering exposure is locked when
focus is achieved.
Manual: By AE lock Button in creative zone modes.

Exposure Compensation

+/-3 EV in 1/3 stop increments

ISO Sensitivity

100 - 25600 in 1/3 stop increments. Max in Auto can be set from 400 - 25600
4K Movie: 100 - 6400 in 1/3-stop increments. Full HD and HD Movie: ISO 100 -
12800 in 1/3-stop increments. ISO can be expanded to 25600

Shutter

Type

Vertical-travel mechanical focal-plane shutter, electronically controlled at all
speeds

Speed

30 - 1/4000 sec (1/3 stop increments), Bulb (Total shutter speed range.
Available range varies by shooting mode)

White Balance

Type
Auto white balance with the imaging sensor

Settings
Auto (Ambience Priority), Auto (White Priority), Daylight, Shade, Cloudy, Tungsten light, White
Fluorescent light, Flash, Custom, Colour Temperature (100 Kelvin increments)

White balance compensation:
1. Blue/Amber +/-9 levels
2. Magenta/ Green +/-9 levels

Custom White Balance
Yes, 1 setting can be registered

LCD Monitor

Type
7.5 cm (3.0") Touchscreen LCD (TFT). 3:2 aspect ratio. Approx. 1,040,000 dots.
Electrostatic capacitive type. Tilting approx 180° upward

Coverage
Approx 100%

Viewing Angle (horizontally/vertically)
Approx 170° horizontally and vertically

Brightness Adjustment
Adjustable to one of seven levels

Display Options
Customisable and toggle via INFO. Button
(1) Liveview image with exposure info
(2) Liveview image with basic info
(3) Liveview image with full info

Customisable settings:
Grid overlay (x3 formats), Histogram (Brightness/ RGB), Multi aspect ratios, Hints and Tips

Flash

Built-in Flash GN (ISO 100, meters)
5

Built-in Flash Coverage
Maximum coverage at approx. 15mm (35mm equivalent: approx. 24mm)

Built-in Flash recycle time
Approx. 4 seconds3

Modes
Auto (E-TTL II)

Red-Eye Reduction
Provided

X-sync
1/200 sec

Flash Exposure Compensation
+/- 2 EV in 1/3 increments

Flash Exposure Lock
Yes

Second Curtain Synchronisation
Yes

HotShoe / PC terminal
No/No

External Flash Compatibility
none

Shooting

Modes
Scene Intelligent Auto, Hybrid Auto, Creative Assist, SCN(Self-Portrait, Portrait, Smooth Skin, Landscape, Sports, Close-up, Food, 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, vivid, bold, embossed), Program AE , Shutter priority AE, Aperture priority AE, Manual exposure, Movie (Movie auto exposure, Movie manual exposure, Time-lapse movie)

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 (standard and enhanced)
Auto Lighting Optimizer (4 settings)
Long exposure noise reduction
High ISO speed noise reduction (4 settings + Multi Shot NR)
Lens peripheral illumination correction
Chromatic aberration correction
Diffraction correction
Digital Lens Optimizer

Creative Assist:
Presets
Background Blur (5 settings)
Brightness (19 levels)
Contrast (9 levels)
Saturation (9 levels)
Color Tone 1 & 2 (19 levels)
Monochrome (Off/Black and white/Sepia/Blue/Purple/Green)

Drive modes
Single, Continuous, Self timer (2s, 10s, Continuous)

Continuous Shooting
One shot AF: Approx. 6.1 shots/sec4
With Servo AF: Approx. 4 shots/sec5

Live View Mode

Coverage
Approx. 100% (horizontally and vertically)

File Type

Still Image Type
JPEG: Fine, Normal (Exif 2.31 compliant) / Design rule for Camera File system (2.0)

RAW: RAW (CR3 14-bit),
Digital Print Order Format [DPOF] Version 1.1 compliant

RAW+JPEG simultaneous recording
Yes, RAW + various JPEG compression possible

Image Size
RAW: (3:2) 6000 x 4000, (4:3) 5328 x 4000, (16:9) 6000 x 3368, (1:1) 4000 x 4000

JPEG 3:2: (L) 6000 x 4000, (M) 3984 x 2656, (S1) 2976 x 1984, (S2) 2400 x 1600
JPEG 4:3: (L) 5328 x 4000, (M) 3552 x 2664, (S1) 2656 x 1992, (S2) 2112 x 1600
JPEG 16:9: (L) 6000 x 3368, (M) 3984 x 2240, (S1) 2976 x 1680 (S2) 2400 x 1344
JPEG 1:1: (L) 4000 x 4000, (M) 2656 x 2656, (S1) 1984 x 1984, (S2) 1600 x 1600

In-camera RAW processing & Image Resize available in playback

Movie Type
MP4 [Video: MPEG-4 AVC/H.264, Audio: MPEG-4 AAC]

Movie Size
4K - 3840 x 2160 (23.98, 25 fps)
Full HD - 1920 x 1080 (59.94, 50, 29.97, 25fps)
HD - 1280 x 720 (119.9, 100, 59.94, 50 fps)

Movie Length
Max duration 29min 59sec, Max file size 4GB

Folders
New folders can be created and selected

File Numbering
(1) Continuous, Auto Reset
(2) Manual Reset

Other Features

Custom Functions
6 custom functions

Metadata Tag
User copyright information (Author's Name, Copyright Details)
Image rating (0-5 stars)

Playback zoom
15 steps plus smooth pinch-to-zoom

Display Formats

(1) Single image with information (toggle options)
(2) Single image
(3) Index display (4/9/36/100 images)
(4) Jump Display (1/10/custom number image, by shot date, by rating, by folder, by movies only, protected only)

Slide Show

Playback time: 1/2/3/5/10/30 seconds
Repeat: On/Off
Transition Effects: Off, Slide in 1-2, Fade 1-3

Histogram

Brightness/ RGB

Highlight Alert

Yes

Image Erase/Protection

Erase: Single image, Selected images, Selected range, All images
Protection: Selected images, Selected range, All images. Unprotect all images

Menu Categories

(1) Shooting menu (x8)
(2) Playback menu (x4)
(3) Connectivity menu (x2)
(4) Setup menu (x5)
(5) Display menu
(6) My Menu

Menu Languages

29 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, Malay, Vietnamese, Indonesian, Hindi, Japanese

Firmware Update

Firmware update possible by the user.

Interface

Computer

Hi-Speed USB (Micro USB)

Other

Wireless LAN (IEEE802.11b/g/n), (2.4 GHz only, 1-11 ch),6
Bluetooth® (Specification version 4.1, Bluetooth low energy technology)7 8
HDMI (Micro - Type-D connector)

Direct Print

Canon Printers

Canon Compact Photo Printers and PIXMA Printers supporting PictBridge

PictBridge

Canon Compact Photo Printers and PIXMA Printers supporting PictBridge

Storage

Type
SD, SDHC, SDXC (UHS-I compatible)

Supported Operating System

PC & Macintosh
For individual software see service and support sections

Software

Image Processing
Digital Photo Professional, DPP Express for iPad

Other
Picture Style Editor, EOS Utility, Image Transfer Utility 2
Camera Connect app available on iOS and Android devices8

Power Source

Batteries
1 x Rechargeable Li-ion Battery LP-E12

Battery life
Approx. 315 shots (conforms to CIPA)9
Eco Mode: Approx. 485 shots
Movie Recording: Approx. 90 mins
Playback time when playing back a slideshow of still images: Approx. 4 hrs 55mins

Battery Indicator
4 levels

Power saving
Display off (15, 30 sec or 1, 3, 5, 10, 30 mins)
Auto Power Down (30 sec or 1, 3, 5, 10 mins, Disable)
ECO mode

Power Supply & Battery Chargers
Battery charger LC-E12
Compact Power Adapter CA-PS700 DC Coupler DR-E12

Accessories

Cases / Straps
EM-200DB
EM-E2

Lenses
EF-M lenses
All EF and EF-S lenses compatible via Mount adapter EF-EOS M

Remote Controller / Switch
Bluetooth Remote BR-E1

Other
Interface cable IFC-600PCU
Mount Adapter EF-EOSM