

Canon EOS R50 V Specification

[Canon EOS R50 V](#)

IMAGE SENSOR Type	Approx. 22.3 ×14.9 mm (APS-C) CMOS
Effective Pixels	24.2MP
Total pixels	25.5MP
Aspect Ratio	3:2
Low-Pass Filter	Built-in/Fixed
Colour Filter Type	RGB Primary Colour
Sensor Shift-IS	No
IMAGE PROCESSOR Type	DIGIC X
LENS Lens Mount	RF (natively supporting RF and RF-S lenses) EF and EF-S lenses can be attached using Mount Adapter EF-EOS R, EF-EOS R Control Ring Mount Adapter, Drop-in Filter Mount Adapter EF-EOS R EF-M lenses are not compatible
Focal Length	Equivalent to 1.6x the focal length of the lens with RF/RF-S and EF/EF-S lenses
Image Stabilisation	Lens / Digital only
FOCUSING Type	Dual Pixel CMOS AF I
AF1System/Points	100% horizontal and 100% vertical (Auto selection) 90% horizontal and 100% vertical (Manual selection) Max. 651 zones / 4503 positions for stills Max. 527 zones / 3713 positions for movies
AF working range	EV -5 –20 (at 23°C & ISO100) ²
AF Modes	One Shot Servo AF Auto Switch (only in A+ mode)
AF Methods AF Point Selection	Automatic selection: 651 Available AF areas when automatically selected Manual selection: 1-point AF (AF frame size can be changed) 4503 AF positions available stills (3713 Movies) Manual selection: AF point Expansion 4 points (up, down, left, right) Manual selection: AF point Expansion surrounding Manual selection: Flexible Zone AF 1-3 (all AF points divided into minimum 9 to 513 maximum focusing zones) Manual selection: Whole Area AF (Entire focusing area with 651 maximum focusing zones)

AF Tracking	Humans (Eyes/Face/Head/Body), Animals (Dogs, Cats, Birds and Horses) or Vehicles (Racing cars, Motor bikes, aircraft and trains)
AF Lock	Locked when: -shutter button is pressed halfway-customised button set to Metering and AF start is pressed in One Shot AF mode. -Using customised button set to AF stop in AI servo
AF Assist Beam	Emitted by built in LED or optional dedicated Speedlite (flash)
Manual Focus	Selected on lens / in camera menu for lenses without AF / MF switch
Focus Bracketing	Provided
EXPOSURE CONTROL Metering modes	Real-time with image sensor, 384-zone metering. (1) Evaluative metering (linked to All AF points) (2) Partial metering (Approx. 5.8% of viewfinder at centre) (3) Spot metering: Centre spot metering (Approx. 2.9% viewfinder at centre) AF point-linked spot metering not provided (4) Centre weighted average metering
Metering Brightness Range	Stills: EV -2 to 20 (at 23°C, ISO100, with evaluative metering) Movies: EV 0 to 20 (at 23°C, ISO100, with evaluative metering)
AE Lock	Auto: AE lock takes effect when focus is achieved Manual: By AE lock button in P, Av, Fv, Tv and M modes. Press again to cancel and once more to refresh. Enabled in all metering modes
Exposure Compensation	+/-3 EV in 1/3 stop increments (can be combined with AEB)
AEB	Not supported
Anti-Flicker Shooting	Yes. Flicker detected at a frequency of 100 Hz or 120 Hz High frequency anti-flicker shooting not provided
ISO Sensitivity ³	Auto 100-32000 (in 1/3-stop or whole stop increments) ISO can be expanded to H: 51200
SHUTTER Type	Electronically controlled focal-plane shutter and Electronic rolling shutter function using the image sensor
Electronic Shutter Type	Rolling Shutter
Speed	Mechanical: 30-1/4000 sec (1/3 stop increments), Bulb Electronic: 30-1/8000 (1/3 stop increments), Bulb
Shutter Release	Soft-touch electromagnetic release
WHITE BALANCE Type	Auto white balance with the imaging sensor AWB (Ambience priority/White priority), Daylight, Shade, Cloudy, Tungsten light, White Fluorescent light, Flash, Manual, Colour Temperature Setting
Settings	Shoot to set white balance

Shift	1. Blue/Amber +/-9 2. Magenta/Green +/-9
Custom White Balance	Yes, 4 settings can be registered by selecting an image on card
WB Bracketing	Not supported
LCD MONITOR Type	Approx. 7.5 cm (3") TFT colour LCD monitor, Approx. 1.04 million dots
Coverage ⁴	Approx. 100%
Viewing Angle Horizontally/Vertically	Approx. 150°vertically and horizontally
Coating	None
Brightness Adjustment	Manual: Adjustable to one of seven levels ColourTone Adjustment: Not supported
Touch-Screen Operations	Capacitive method with menu functions, Quick Control settings, playback operations, and magnified display. AF point selection in still and Movies, touch shutter is possible in still photo shooting.
FLASH Modes	E-TTL II Auto Flash, Manual, MULTI flash
Red-Eye Reduction	Not supported
X-Sync	1/250 sec. electronic 1st curtain Flash photography is not available with Electronic shutter.
Flash Exposure Compensation	+/-3EV in 1/3 increments with EX series Speedlite flashes
Flash Exposure Bracketing	Yes (+/-3EV in 1/3-or 1/2-stop increments with EX/EL series Speedliteflashes)
Flash Exposure Lock	Not supported
Second Curtain Synchronisation	Yes
Hot Shoe/PC Terminals	Hot shoe: 21-pin multi-function shoe only
External Flash Compatibility	E-TTL II with EX/EL series Speedlite, wireless multi-flash support
External Flash Control	via camera menu screen
SHOOTING Modes	Scene IntelligentAuto movies SCN Movie: Smooth skin movie, movie for close-up demos, movie IS mode Custom Movie Shooting Modes: C1 / C2 / C3 Movie: Movie auto exposure, movie shutter priority AE, movie aperture priority AE, movie manual exposure S&F: S&F movie auto exposure, S&F movie shutter-priority, S&F movie aperture-priority, S&F movie manual exposure Still photo shooting: Program AE, Shutter-priority AE, Aperture-priority AE, Manual exposure, Bulb exposure, Scene intelligentauto, self portrait, portrait, smooth skin, panoramic shot ⁶ , food ⁷ , handheld night scene ⁸
Special Scene Modes	Movies: Smooth skin movie, movie for close-up demos, movie IS mode Stills: Self portrait, portrait, smooth skin, panoramic shot, food, handheld night scene

Creative Filters	Not supported
Picture Styles	Auto, standard, Portrait, Landscape, Fine Detail, Neutral, Faithful, Monochrome, User Def. 1, User Def. 2, User Def. 3
Colour Space	sRGB, BT.709, BT.2020, Cinema Gamu
Image Processing	HEIF to JPEG conversion: supported Cropping: Magnify/reduce, move, tilt correction up to 10°, aspect ratio Resizing: Supported (M / S1 / S2) for JPEG and HEIF images Creative Assist: Auto1, Auto2, Auto3, Vivid, Soft, Warm, Cool, Green, Shine, Lime, Peach, B&W, Blue, Purple, Normal Movie editing: Cut beginning, cut end, play, save, save compressed version Frame grab9from 4K movies: Supported
Drive Modes	Single, Continuous High+, Continuous High, Continuous Low, Self-timer (2s+remote, 10s+remote, continous)
Continuous Shooting ¹⁰	Max. Approx. 12 FPS with /1st curtain electronic shutter the speed maintained for 140 JPEG or 59 RAW images Max. Approx. 15 FPS with Electronic shutter the speed maintained for 95 JPEG or 36 RAW images
Maximum Burst ¹¹	95
Interval Timer	Supported: Shooting interval 1 sec. - 99 hr. 59 min. 59 sec., 01-9999 or unlimited
FILE TYPE - STILLS Still Image Type ¹²	RAW 14 bit: RAW and C-RAW (Canon original RAW 3rd edition) JPEG 8 bit: 4 compression options HEIF 10 bit: 4 compression options Complies with Exif 2.31 and Design rule for Camera File system 2.0 Complies with Digital Print Order Format [DPOF] Version 1.1
RAW+JPEG/HEIF	Yes, any combination of RAW + JPEG or RAW +
Simultaneous Recording	HEIF possible
Image Size	RAW/ C-RAW: 6000x4000 (3:2 aspect ratio) JPEG/ HEIF: 3:2 ratio (L) 6000x4000, (M) 3984x2656, (S1) 2976x1984, (S2) 2400x1600 4:3 ratio (L) 5328x4000, (M) 3552x2664, (S1) 2656x1992, (S2) 2112x1600 16:9 ratio (L) 6000x3368, (M) 3984x2240, (S1) 2976x1680, (S2) 2400x1344 1:1 ratio (L) 4000x4000, (M) 2656x2656, (S1) 1984x1984, (S2) 1600x1600
Folders	New folders can be manually created and selected
File Numbering	(1) Continuous numbering (2) Auto reset

	(3) Manual reset
File Naming	Preset Code User setting 1 User setting 2
EOS MOVIE Movie Type	XF-HEVC S YCC422 10 bit, H.265 / HEVC, YCbCr 4:2:2, MP4 XF-HEVC S YCC420 10 bit, H.265 / HEVC, YCbCr 4:2:0, MP4 XF-AVC S YCC 422 10 bit, H.264 / MPEG-4 AVC, YCbCr4:2:0, MP4 XF-AVC S YCC 420 8 bit, H.264 / MPEG-4 AVC, YCbCr4:2:0, MP4
Movie Size	4K UHD 13 (3840 x 2160): 59.94, 50.00, 29.97, 25.00, 23.98 fps Full HD (1920 x 1080): 119.88, 100.00, 59.94, 50.00, 29.97, 25.00, 23.98 fps
Colour Sampling (Internal recording)	YCbCr4:2:2 / YCbCr4:2:0
Canon Log	Canon Log 3
Movie Length ¹⁴	Max duration 2 hours (excluding High Frame Rate movies)
High Frame Rate Movie	Full HD 1920 x 1080 at 100 fps or 119.88 fps Recorded as 1/4-speed slow motion movie
Frame Grab ¹⁵	8.3-megapixel JPEG still image frame grab from 4K UHD movie possible (HEIF only possible when HDR PQ is set)
Bitrate ¹⁶ /Mbps	4K UHD XF-HEVC S YCC 4:2:2 10 bit (29.97p/25.00p/23.98p): Approx. 135 Mbps 4K UHD XF-HEVC S YCC 4:2:0 8 bit (29.97p/25.00p/23.98p): Approx. 100 Mbps 4K UHD XF-AVC S YCC 4:2:2 10 bit (29.97p/25.00p/23.98p): Approx. 150 Mbps 4K UHD XF-AVC S YCC 4:2:0 8 bit (29.97p/25.00p/23.98p): Approx. 100 Mbps 4K UHD (Crop) XF-HEVC S YCC 4:2:2 10 bit (59.94p/50.00p): Approx. 225 Mbps 4K UHD (Crop) XF-HEVC S YCC 4:2:0 8 bit (59.94p/50.00p): Approx. 150 Mbps 4K UHD (Crop) XF-AVC S YCC 4:2:2 10 bit (59.94p/50.00p): Approx. 250 Mbps 4K UHD (Crop) XF-AVC S YCC 4:2:0 8 bit (59.94p/50.00p): Approx. 150 Mbps Full HD XF-HEVC S YCC 4:2:2 10 bit (119.88p / 100p): Approx. 100 Mbps Full HD XF-HEVC S YCC 4:2:2 10 bit (59.94p/50.00p/29.97p/25.00p/23.98p): Approx. 50 Mbps Full HD XF-HEVC S YCC 4:2:0 10 bit (119.88p / 100p): Approx. 70 Mbps Full HD XF-HEVC S YCC 4:2:0 10 bit (59.94p/50.00p/29.97p/25.00p/23.98p):

	<p>Approx. 35 Mbps Full HD XF-AVC S YCC 4:2:2 10 bit (119.88p / 100p): Approx. 100 Mbps Full HD XF-AVC S YCC 4:2:2 10 bit (59.94p/50.00p/29.97p/25.00p/23.98p): Approx. 50 Mbps Full HD XF-AVC S YCC 4:2:0 8 bit (119.88p / 100p): Approx. 70 Mbps Full HD XF-AVC S YCC 4:2:0 8 bit (59.94p/50.00p/29.97p/25.00p/23.98p): Approx. 35 Mbps</p>
Dual Card Recording	Not supported
Microphone	Built-in stereo microphone (48 KHz, 24/16-bit x 2 channels)
HDMI Display	Output to external monitor only (output of images and shooting information, images/video are recorded to the card) Camera screen and External Monitor output (Recording to camera is not possible, use with external recorder, camera screen shows images with shooting information)
HDMI Output	HDMI Micro OUT terminal (Type D) Auto:- 4K (UHD): NTSC (59.94p / 29.97p / 25.00p), PAL (50.00p / 23.98p)- 1080 NTSC (59.94p / 59.94i), PAL (50.00p / 50.00i)- 480 NTSC (59.94p)- 576 PAL (50.00p) 1080p:- 1080 NTSC (59.94p), PAL (50.00p)- 480 NTSC (59.94p)- 576 PAL (50p) HDR Specification: Rec. ITU-R BT.2100 Bit depth: 10 bits Colour sampling method: Uncompressed YCbCr 4:2:2 Colour space: BT.709 / BT.2020
Focusing	Colour space: BT.709 / BT.2020 Dual Pixel CMOS AF II with Eye/Face Detection and Tracking AF (people, animals and vehicles) , Movie Servo AF, Manual Focus
ISO	Custom Picture [OFF]: 100-12800, H: 16000-25600 Custom Picture [Canon 709 / PQ / HLG / Canon Log 3]: 400-12800, L: 100-320, H: 16000-25600 Custom Picture [BT.709 Standard]: 160-1200, L: 100-125, H: 16000-25600
OTHER FEATURES Metadata Tag	User copyright information (can be set in camera)
Intelligent Orientation Sensor	Yes
Playback Zoom	1.5x - 10x in 15 steps
Display Formats	(1) Single image (2) Single image with information (basic / detailed) (3) 4 image index (4) 9 image index

	<p>(5) 36 image index</p> <p>(6) 100 image index</p> <p>(7) Jump Display (1, 10 or Custom (1-100) images, Date, Folder, Movies, Stills, Protected images, Rating, Jump to first image of scene)</p> <p>(8) Rating</p>
Slide Show	<p>Image selection: All images</p> <p>Playback time: 1/2/3/5/10 or 20 seconds</p> <p>Repeat: On/Off</p>
Histogram	<p>Brightness: Yes</p> <p>RGB: Yes</p>
Highlight Alert	Yes
Image Erase	Single image, select range, Selected images, Folder, Card, All
Image Erase Protection	Protect / Unprotect: Single image, Selected, Folder, Card, All found images
Menu Categories	<p>(1) Shooting menu</p> <p>(2) AF Menu</p> <p>(3) Playback menu</p> <p>(4) Network</p> <p>(5) Setup menu</p> <p>(6) Custom Controls</p> <p>(7) Custom Functions menu</p> <p>(8) My Menu</p>
Menu Languages	<p>29 Languages</p> <p>English, German, French, Dutch, Danish, Portuguese, Finnish, Italian, Norwegian, Swedish, Spanish, Greek, Russian, Polish, Czech, Hungarian, Vietnamese, Hindi, Romanian, Ukrainian, Turkish, Arabic, Thai, Simplified Chinese, Traditional Chinese, Korean, Malay, Indonesian and Japanese</p>
Firmware Update	<p>Update possible by the user</p> <p>(Camera, Lens, External Speedlite, BLE remote control, Lens adapter, power zoom adapter, multi function shoe accessories)</p>
INTERFACE Computer	<p>Hi-Speed USB 3.2 USB Type-C connector</p> <p>For computer communication / smartphone communication / battery charging / camera power supply</p>
Wi-Fi ¹⁷	<p>Wireless LAN (IEEE802.11ac/a/b/g/n)</p> <p>(5 GHz/2.4 GHz), with Bluetooth 5.1 support</p> <p>Features supported - EOS Utility, Smartphone, Upload to image.canon, Wireless printing</p>
Other	<p>HDMI Micro out (Type D, HDMI-CEC not supported)</p> <p>External Microphone In (3.5mm Stereo mini jack)</p> <p>Headphone OUT (3.5mm Stereo mini jack)</p>
DIRECT PRINT Canon Printers	Not supported
PictBridge	Not supported
STORAGE Type	SD/SDHC/SDXC and UHS-II ¹⁸

SUPPORTED OPERATING SYSTEM PC Macintosh	Windows ¹⁹ macOS ¹⁹
SOFTWARE Image Processing	Digital Photo Professional 4.17.20. or later, Digital Photo Professional Express mobile app (iOS only v1.8.10. or later) (RAW Image Processing not DUAL PIXEL RAW on DPP Express mobile)
Other	EOS Utility ²⁰ 3.16.10 or later (incl. Remote Capture), Picture Style Editor 1.28.10 or later, EOS Lens Registration Tool, Canon Camera connect app 3.0.10 or later (iOS/Android)
POWER SOURCE	
Batteries ²¹	Rechargeable Li-ion Battery LP-E17 (supplied)
Battery Life ²²	With LCD Approx. TBC shots (at 23°C)
Battery Indicator	4 level indicator
Power Saving ²³	Screen dimmer: 5 sec. / 10 sec. / 15 sec. / 20 sec. / 25 sec. / 30 sec. / Disable Screen off: 5 sec. / 15 sec. / 30 sec. / 1 min. / 3 min. / 5 min. / 10 min. / 30 min. / Disable Auto power off: 15 sec. / 30 sec. / 1 min. / 3 min. / 5 min. / 10 min. / 30 min. / Disable
Power Supply & Battery Chargers	Battery charger LC-E17E (supplied), AC Adapter AC-E6N and DC Coupler DR-E18, PD-E2 / PD-E1 USB power adapter
ACCESSORIES	
Wireless File Transmitter	None
Cases / Straps	Strap provided Hand Strap E2 Protecting Cloth PC-E1 / PC-E2 Rain cover ERC-R5L / ERC-R5S
Lenses	All RF24 and RF-S lenses (EF & EF-S via Lens adapters)
Lens Adapters	Mount Adapter EF-EOS R, EF-EOS R Control Ring Mount Adapter, Drop-in Filter Mount Adapter EF-EOS R
Flash ²⁵	Canon Speedlite EL-5, Speedlite EL-10, Speedlite Transmitter ST-E10 With AD-E1 adapter: Canon Speedlite (EL-1, EL-100, 90EX, 220EX, 270EX, 270EX II, 320EX, 380EX, 420EX, 430EX, 430EX II, 430EX III 470EX-AI, 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, Macro Twin Lite MT-26EX-RT, Speedlite Transmitter ST-E2, Speedlite Transmitter ST-E3-RT,

	Speedlite Transmitter ST-E3-RT V2, Off-Camera Shoe Cord OC-E3)
Remote Controller/Switch	Remote Switch RS-60E3 Timer Remote Controller TC-80N326
Other	Shoe cover ER-SC2 (Included), Multi-Function Shoe Adapter AD-E1, Multi-Function Shoe Directional Stereo Microphone DM-E1D, Multi-Function Shoe Adapter for Smartphone Link AD-P1 for Android, off-camera shoe cord OC-E4A Tripod grip HG-100TBR27, Interface Cable IFC-100U, Interface Cable IFC-400U, with AD-E1 adapter: Stereo Microphone DM-E1 / DM-E100
PHYSICAL SPECIFICATIONS	
Body Materials	Primarily consists of magnesium alloy, partially aluminium alloy
Operating Environment	0 – 40 °C, 85% or less humidity
Dimensions (WxHxD)	Approx. 119.3 x 73.7 x 45.2 mm
Weight (body only)	Approx. 323 g (370g with card and battery, Based on CIPA guidelines.)
	<p>[1] The AF area available varies depending on the lens used.</p> <p>[2] The lowest light AF is available with an f/1.2 lens, center AF point, One-Shot AF, at 23°C / 73°F, ISO 100) Except RF lenses with a Defocus Smoothing (DS) coating</p> <p>[3] Recommended Exposure Index. Expanded ISO speeds are not available when [HDR shooting (PQ): HDR PQ] is set.</p> <p>[4] At L image size and an aspect ratio of 3:2</p> <p>[5] A 5-pin contact for previous accessories is not equipped. Use of previous accessories requires multi-function shoe adapter AD-E1</p> <p>[6] Panoramic shot: Users can set their preferred direction to rotate the camera (right/left/up/down). Automatically set to [Large / Fine] and [Low speed continuous].</p> <p>[Still img aspect ratio] cannot be set. [Color mode] cannot be set. All RF and EF lenses can be used, but some lenses can also reduce subject blur that is more likely to occur due to panning.</p> <p>[7] Food: [Color tone: cool tone-warm tone (five levels)] can be set</p> <p>[8] Handheld night scene: Flash photography not available</p> <p>[9] Frame grab from 4K movies: Still photos are saved as JPEGs from normal movies, and as HEIF images from HDR shooting. In-camera resizing, cropping and creative assist is not</p>

supported for extracted still photos. The camera cannot frame grab still photos from movies recorded when [Custom Picture: ON] is set.

[10]Under Canon testing standards with 32GB UHS-I card (during One-Shot AF, ISO 100, Standard Picture Style) Number of images depends on various settings and lens used. For details on supported lenses, refer to “cam.start.canon”

[11]Under Canon testing standards with 128GB UHS-II cards, L JPEG in High Speed Continuous +

[12]Using electronic shutter or High-speed continuous shooting + in Electronic 1st-curtain shutter, RAW files will have a 12-bit A/D conversion.

[13]4K UHD generated from 6K oversampling available at 29.97, 25.00 and 23.98 fps

[14]Max. movie continuous recording time available:
Normal: 2 hr. High Frame Rate movie (Full HD 120/100fps): 1 hr.
If the camera's internal temperature becomes too high the recording time may reduce.

[15]Extracted still photos cannot be resized or cropped within the camera.

[16]Bit rate indicates video only, audio and metadata are not included

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

[18]UHS-II high speed cards are recommended for 4K video recording and high speed continuous shooting

[19]Please check support site for latest software compatibility

[20]EOS Utility doesn't support Apple Silicon-powered Macs with macOS13 installed.

[21]Charging over USB is supported. With unauthenticated batteries, charging over USB is not supported. Batteries may not be charged unless the remaining battery level is low.

[22]Based on the CIPA Standard and using the battery supplied with the camera, except where indicated. In power saving mode

[23]If the camera remains idle until the specified time elapses, the screen is dimmed and lower video frame rates are used.

[24]RF 5.2mm F2.8L DUAL FISHEYE is not supported

[25]Must use Multi-Function Shoe Adapter AD- E1 to retain weather sealing

[26]Timer Remote Controller TC-80N3 requires Remote Controller Adapter RA-E3.

[27]Note that total camera mount load capacity for camera, lens, microphone, and other accessories should not exceed 1 kg /35.3 oz.

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