

Clifton Cameras Product Specification

Canon EOS R5 Camera Body Full Spec

Specifications in detail

ImageSensor

- Sensor

3:2 Full Frame CMOS sensor (36 x 24mm)

- System

RGB primary colour filter (Bayer array)

- Sensor Modes

Full Frame (8K) / Super 35mm (Crop) / Super 16mm (Crop)

- Total Pixels

Approx. 47.10 megapixels

- Effective Pixels

Video Mode:

Approx. 35.40 megapixels (8192 x 4320): When resolution is 8192 x 4320, 4096 x 2160, or 2048 x 1080

Approx. 33.20 megapixels (7680 x 4320): When resolution is 7680 x 4320, 3840 x 2160, or 1920 x 1080

Photo Mode:

Approx. 45 megapixels (8192 x 5464)

- Effective Sensor Screen Size

36.0 x 19.0 mm (40.7 mm on the diagonal): When resolution is 8192 x 4320, 4096 x 2160 or 2048 x 1080

33.8 x 19.0 mm (38.8 mm on the diagonal): When resolution is 7680 x 4320, 3840 x 2160, or 1920 x 1080

- Dynamic Range

Canon Log 3: 1600% / 14 stops (at ISO 800)

Wide DR: 800% (at ISO 400)

Image Processor

- Type

DIGIC X

Lens

- Lens Mount

Canon RF mount

Compatible lenses: All RF lenses and EF lenses
(includes EF-S lenses/EF cinema lenses)

- Lens Magnification Factor

Full Frame:

Actual focal length x approx. 1.0

Super 35mm (Crop):

5952x3140, 4096x2160 or 2048x1080 resolution: Actual focal length x approx. 1.460

3840x2160, 1920x1080 or 1270x720 resolution: Actual focal length x approx. 1.534

Super 16mm (Crop):

In 2976x1570 or 2048x1080 resolution: Actual focal length x approx. 2.920

In 1920x1080 or 1270x720 resolution: Actual focal length x approx. 3.069

- Peripheral Illumination Correction

Yes

- Chromatic Aberration Correction

Yes

- Distortion Correction

Yes, RF Mount lenses only

- Diffraction Correction

Yes

- ND Filter

No

- Focus Control

Via lens, Browser Remote, Camera Connect or EOS Utility

- Iris Control (EF Mount Lenses)

1/2-stop, 1/3-stop or FINE control

- Cooke/I Technology Support

No



- Anamorphic Lens Support

Yes, x2.0 / x1.8 / x1.3

- Image Stabilization System

Yes, 5-axis Electronic IS. Coordinates with supported lenses featuring optical-IS for optimal performance

Recording

- Internal Recording Media

1x CFexpress card (CFexpress 2.0 Type B)

1x SD card (SD/SDHC/SDXC)

(SD Card recording available at bitrates up to 650 Mbps)

- Recording Time¹

Cinema RAW Light LT: 8192 x 4320 1070 Mbps: 63 Mins

Cinema RAW Light ST: 8192 x 4320: 1650 Mbps 41 Mins

Cinema RAW Light HQ: 5952 x 3140: 1770 Mbps 38 Mins

XF-AVC / MXF: 4096x2160: 410 Mbps 156 Mins

MP4 (HEVC): 4096x2160: 225 Mbps 285 Mins

MP4 (H.264): 4096x2160: 150 Mbps 428 Mins

- Recording Formats

Video Mode:

Cinema RAW Light (CRM): 12-bit RAW

XF-AVC (MXF):4:2:2 10-bit (ALL-I or Long GOP)

HEVC (MP4): 4:2:2 10-bit / 4:2:0 10-bit

H.264 (MP4): 4:2:0 8-bit

Photo Mode:

RAW / C-RAW / Dual Pixel RAW² / HEIF³ / JPEG

- Relay Recording

Yes

- Double Slot (Simultaneous) Recording

Yes

- Simultaneous Recording in Multiple Formats

Yes, in Dual Recording Mode

Options Available: [CRL / XF-AVC / MP4] [All-I / Long GOP] [4:2:2 10-bit / 4:2:0 10-bit / 4:2:0 8-bit] [8K / 4K / 2K / FHD]

- System Frequency / Frame Rates



59.94Hz mode (59.94P / 59.94i / 29.97P / 23.98P)

50.00Hz mode (50.00P / 50.00i / 25.00P)

24.00 Hz mode (24.00P)

- Cinema RAW Light Bit Rate/Bit Depth (PAL)

12-bit Cinema RAW Light LT:⁴

8192 x 4320 / 50P / 2140 Mbps: approx. 31 Mins

8192 x 4320 / 25P / 1070 Mbps: approx. 63 Mins

5952 x 3140 / 50P / 1140 Mbps: approx. 59 Mins

5952 x 3140 / 25P / 556 Mbps: approx. 122 Mins

2976 x 1570 / 50P / 287 Mbps: approx. 237 Mins

2976 x 1570 / 25P / 144 Mbps: approx. 474 Mins

12-bit Cinema RAW Light ST:

8192 x 4320 / 25P / 1650 Mbps: approx. 41 Mins

5952 x 3140 / 50P / 1750 Mbps: approx. 39 Mins

5952 x 3140 / 25P / 871 Mbps: approx. 78 Mins

2976 x 1570 / 50P / 441 Mbps: approx. 154 Mins

2976 x 1570 / 25P / 221 Mbps: approx. 308 Mins

12-bit Cinema RAW Light HQ:

5952 x 3140 / 25P / 1770 Mbps: approx. 38 Mins

2976 x 1570 / 50P / 896 Mbps: approx. 76 Mins

2976 x 1570 / 25P / 448 Mbps: approx. 152 Mins

- XF-AVC Recording Bit Rate / Sampling (PAL)

4:2:2 10-bit (Intra-frame):⁵

4096x2160 or 3840x2160 / 50P / 810 Mbps: approx. 79 Mins

4096x2160 or 3840x2160 / 25P / 410 Mbps: approx. 156 Mins

2048x1080 or 1920x1080 / 50P or 50i / 310 Mbps: approx. 207 Mins

2048x1080 or 1920x1080 / 25P / 160 Mbps: approx. 401 Mins

4:2:2 10-bit (Long GOP):

4096x2160 or 3840x2160 / 50P / 260 Mbps: approx. 246 Mins

4096x2160 or 3840x2160 / 25P / 160 Mbps: approx. 401 Mins

2048x1080 or 1920x1080 / 50P or 50i / 50 Mbps: approx. 1284 Mins

2048x1080 or 1920x1080 / 25P / 50 Mbps: approx. 1284 Mins

- MP4 Recording Bit Rate / Sampling (PAL)

HEVC 4:2:2 10-bit (Long GOP):⁶

8192x4320 or 7680x4320 / 25P / 540 Mbps: approx. 118 Mins

4096x2160 or 3840x2160 / 50P / 225 Mbps: approx. 285 Mins

4096x2160 or 3840x2160 / 25P / 135 Mbps: approx. 475 Mins

2048x1080 or 1920x1080 / 50P or 25P / 50 Mbps: approx. 1284 Mins

HEVC 4:2:0 10-bit (Long GOP):

8192x4320 or 7680x4320 / 25P / 400 Mbps: approx. 160 Mins

4096x2160 or 3840x2160 / 50P / 170 Mbps: approx. 377 Mins

4096x2160 or 3840x2160 / 25P / 100 Mbps: approx. 642 Mins

2048x1080 or 1920x1080 / 50P or 25P / 35 Mbps: approx. 1834 Mins



H.264 4:2:0 8-bit (Long GOP):
4096x2160 or 3840x2160 / 50P or 25P / 150 Mbps: approx. 428 Mins
2048x1080 or 1920x1080 / 50P or 25P / 35 Mbps: approx. 1834 Mins

- Proxy Recording Bit Rate / Sampling (PAL)

XF-AVC 4:2:0 8-bit (Long GOP)
2048 X 1080 or 1920 x 1080 / 50P / 35 Mbps
2048 X 1080 or 1920 x 1080 / 25P / 24 Mbps

H.264 MP4 4:2:0 8-bit (Long GOP)
2048 X 1080 or 1920 x 1080 / 50P or 25P / 9 Mbps

- Slow/Fast Motion

8K recording up to 30FPS (60FPS with external power)
4K / FHD recording: up to 120FPS
Audio recording and auto-focus options available.

- Interval Record

Yes

- Frame Record

Yes

- Pre Record (Cache Record)

Yes, 3 seconds (XF-AVC or MP4 recording only)

- Scan Reverse

Yes

- Photo Recording Size

3:2 ratio:
(L, RAW, C-RAW) 8192x5464, (M1) 5808x3872, (S1) 4176x2784, (S2) 2400x1600

1.6x (crop):
(L) 5088x3392, (S2) 2400x1600

4:3 ratio:
(L) 7280x5464, (M1) 5152x3872, (S1) 3712x2784, (S2) 2112x1600

16:9 ratio:
(L) 8192x4608, (M1) 5808x3264, (S1) 4176x2344, (S2) 2400x1344

1:1 ratio:
(L) 5456x5456, (M1) 3872x3872, (S1) 2784x2784, (S2) 1600x1600

System

- Display Type

3.2 inch 3:2 LCD Touch Panel



- Display Resolution

2.1 million dots

- Display Touch Screen Functions

Focus point selection, Shooting setting adjust, Start/Stop recording (activated via Menu)

- OSD for Vertical Shooting

Yes, 90-degree rotation

- Wave Form Monitor

Yes. LCD, EVF or HDMI

- False Colour Display (Exposure Indication)

Yes. LCD, EVF or HDMI (Use of viewing LUT will affect false colour display)

- Colour Bars

SMPTE, EBU and ARIB

- Peaking

Peaking 1, Peaking 2 (Colour, Gain, Frequency customisable)

- Zebra

Level 1; Level 2; Both

Output via HDMI: Yes

- Markers

On/Off selectable: centre, horizontal, grid, aspect, safety zone, rectangular and user marker. Colour selectable, yellow, blue, green, red, black, grey or white.

EVF

- Built-In EVF

0.5-inch OLED colour EVF, 5.76 million dots

- Optional EVF Accessory

N/A

Inputs / Outputs

- Audio In



1x 3.5mm mic input

1x Built-in mono microphone

(XLR input available via TASCAM CA-XLR2d-C accessory)

- Headphone Output

1x 3.5 mm stereo output

- Video Monitor Output

No

- HDMI

1x micro-HDMI (8K RAW output available)^Z

- USB

1x USB-C (3.2 Gen1) for power, charging and communication (UVC Video output / Content Transfer Mobile App)

- SDI Output

No

- Time Code

1x DIN 1.0/2.3 (Input/Output)

- Genlock

No

- Sync

1x Flash Sync

- DC Output

No

- DC Input

Yes, via DR-E6C DC Coupler

- Remote Control Terminal

1x N3-type terminal

- Wireless Control Terminal

Available via WFT-R10 Accessory



- Lens Terminal

No

- Ethernet Terminal

Available via WFT-R10 Accessory

- IP Streaming / FTP

Yes, available via WFT-R10 Accessory

Protocol: UDP, RTP and RTP+FEC

- User LUT Input

Yes, in-built LUTs/View Assist available for LCD/EVF/HDMI Monitoring.

Custom LUTs can be applied directly to internal recordings via Look File function (compatible with 17 or 33 grid .cube files).

- Video Connector

No

- Default Function Button Settings
 1. One-Shot AF
 2. Magnification
 3. DISP
 4. Menu
 5. Push Auto Iris
 6. AF lock
 7. Assignable Button Menu
 8. Display Panel Info
 9. Key Lock
 10. (Unassigned)
 11. FUNC
 12. (Unassigned)
 13. Set White Balance
- User Assignable Buttons

13 Assignable buttons (numbered) on camera body. In excess of 80 options via the menu

Miscellaneous

- Tally Lamp

Yes

- Custom Dial

3x Electronic Dials + Multi-controller

Exposure



- Exposure Metering

Video Mode:

Standard, Backlight, Spotlight

Photo Mode:

Evaluative, Partial, Spot, Centre Spot, AF-point Linked, Centre weighted average

- Exposure Compensation

Yes

- Auto Exposure Mode

Yes (Video mode: Auto Iris / ISO)

- Push Auto Iris

Yes

- Exposure Lock

Yes

- Auto Gain Control Setting

Yes

- ISO Sensitivity

Video Mode:

ISO 100 to ISO 25,600 / 102,400* (increments of 1 or 1/3 stop)

* When the sensitivity is expanded

Photo Mode:

ISO 100 to ISO 51,200 / 102,400* (increments of 1 or 1/3 stop)

* When the sensitivity is expanded

- Auto Focus System

Video Mode:

Dual Pixel CMOS AF with Eye AF and EOS iTR AF X

Photo Mode:

Dual Pixel CMOS AF II

- AF Frame Sizes

Large; size equivalent to approx. 20% (vertical) x 25% (horizontal) of the image display range

Small; size equivalent to approx. 20% (vertical) x 8% (horizontal) of the image display range

Whole Area; size equivalent to approx. 80% of sensor



- Auto Focus Modes

One-Shot AF, Continuous AF, Continuous AF: Only Near Focus

- Face Detection AF

Face Priority, Face Only, Eye AF

- Focus Guide

For manual focus assist with compatible Canon RF mount, EF mount, Cine Servo Lenses

- Gain Setting

-6 dB to 42 dB / 54 dB* (Normal or Fine increments)

* When the sensitivity is expanded

Shutter

- Control Modes

Video Mode:

Off; Speed; Angle; Clear Scan; Slow

Photo Mode:

Mechanical, Elec. 1st-curtain, Electronic

- Shutter Speed

Video Mode:

1 sec to 1/2000 depending on frame rate and Shutter Control Mode, 39 setting options

Photo Mode:

30-1/8000 sec (1/2 or 1/3 stop increments)

Bulb (Total shutter speed range. Available range varies by shooting mode)

- Shutter Angle

11.25° to 360° depending on frame rate

- Slow Shutter (SLS)

1/3, 1/4, 1/6, 1/8, 1/12, 1/15, 1/25, 1/30 depending on frame rate

- Clear Scan

24.00 Hz⁹ to 250.40 Hz

Custom Picture

- Stored Configurations



Video Mode:

- C1: BT.709 Wide DR (BT.709 Gamut)
- C2: Canon Log 3 (Cinema Gamut)
- C3: PQ (BT.2020 Gamut)
- C4: HLG (BT.2020 Gamut)v
- C5: BT.709 Standard (BT.709 Gamut)
- C6: EOS Standard (BT.709 Gamut)
- C7: EOS Neutral (BT.709 Gamut)
- USER8 to USER20 (Wide DR / BT.709 Gamut)

Photo Mode:

Auto / Standard / Portrait / Landscape / Fine Detail / Neutral / Faithful / Monochrome / User Defined (x3)

- Colour Matrix

CUSTOM PICTURE: Colour Matrix Phase, Gain and RGB adjustment, in tandem with Gamma selection

- Master Pedestal

-50 to +50

- Master Black

Adjustable for each channel RGB -50 to +50 plus Master Black -50 to +50

- Black Gamma

Adjustable Level -50 to +50, Range -20 to +50 and Point -20 to +50

- Low Key Saturation

Adjustable: -50 to +50

- Knee

Point -50 to +109, Slope -35 to +50, Saturation -10 to +10

- Sharpness

Adjustment for Level, H Detail Freq., Coring, HV Detail Balance, Limit, Select, Knee Aperture and Level dependent sharpness

- Noise Reduction

Off, On - Three Options: Automatic (ON/OFF) / Spatial Filter (1-12) / Frame Correlation (1-3)

- Skin Detail

Off, Low, Middle, High / Hue, Chroma, Area, Luminance. 32 steps

- Selective Noise Reduction



Off, Low, Middle, High / Hue, Chroma, Area, Luminance.

- Colour Matrix (User Settings)

Phase, Gain and RGB adjustment, in tandem with Gamma selection

- White Balance

AWB, USER setting 01(setting range: 2000K to 15000K/ -20CC to +20CC), daylight, tungsten, settings (A/B)

- Colour Correction

Area selection / area revision of two areas

- Setup Level

-50 to +50 On/Off

Wi-Fi & GPS Specifications

- Wi-Fi (Optional Third Party Accessory)

Video Mode:

Requires WFT-R10 Accessory

Supports Browser Remote / Content Transfer Mobile / IP Streaming

Photo Mode:

Built-in Wireless LAN (IEEE802.11a/b/g/n/ac) (5Ghz /2.4 GHz), with Bluetooth 4.2 support

Supports EOS Utility / Camera Connect / image.canon

- GPS Information (Optional Accessory)

Requires GP-E2 Accessory

Latitude/Longitude/Elevation, Coordinated Universal Time (UTC)

White Balance

- Auto

Yes

- Preset

Video Mode:

Daylight (5400K), Tungsten (3200K), Kelvin (2000K-15000K, 100K intervals), Set A, Set B

Photo Mode:

AWB, Daylight, Shade, Cloudy, Tungsten, Fluorescent, Flash, Kelvin, Custom

- White Balance Shift



Video Mode:

-9 to +9 (Daylight and Tungsten only)

Photo Mode:

-9 to +9 (Blue/Amber)

-9 to +9 (Magenta/Green)

Black Balance

- Black Balance Adjustment

Yes

Time Code

- Count Up System

Regen, RecRun, Free Run, External, Hold (Drop frame available for some frame rates)

- Start Value Setting

“00:00:00:00”, Set/Reset selectable

Audio

- Recording Format

Cinema RAW Light or XF-AVC: Linear PCM (24-bit / 48 kHz, 4 channels)

MP4: MPEG-2 AAC LC (16-bit, 48 kHz, 2-channel) / Linear PCM (16-bit, 48 kHz, 4-channel)

Accessories

- Supplied

Battery Pack LP-E6NH

Battery Charger LC-E6

Shoulder Strap

USB-C Cable

Cable Protector

AC Cable

- Optional

Canon Battery Pack LP-E6NH/LP-E6N//LP-E6

Canon Battery Charger LC-E6

Canon Battery Grip BG-R10

Canon DC Coupler DR-E6C

Canon AC Adapter CA-946

Canon USB Power Adapter PD-E1

Canon Wireless File Transmitter WFT-R10

Canon Interface Cable IFC-100U/IFC-400U

Canon Shoulder Strap SS-1200

Canon GPS Receiver GP-E2



Canon RF lenses, EF lenses, EF cinema lenses,
and accessories designed for these lenses
Canon Mount Adapter EF-EOS R
Canon Control Ring Mount Adapter EF-EOS R
Canon Drop-In Filter Mount Adapter EF-EOS R
(w/ drop-in variable ND filter A and circular polarizing filter A)
Canon Mount Adapter EF-EOS R 0.71x
Canon Extender RF1.4x
Canon Extender RF2x
Canon Remote Controller RC-6
Canon Wireless Remote Controller BR-E1
Canon Remote Switch RS-80N3
Canon Timer Remote Controller TC-80N3
Canon Directional Stereo Microphone DM-E1 / DM-E1D
Canon Stereo Microphone DM-E100

- Third Party Accessories

TASCAM CA-XLR2d-C XLR Adapter

Power Source

- Power Supply (Battery)

LP-E6NH Battery Pack (Supplied) / LP-E6N and LP-E6 (Compatible)

- Power supply (Mains)

USB-C Power Adapter PD-E1
DC Coupler DR-E6C
AC Adapter CA-946

- Power Consumption (Approx.)

8K RAW 25P (10.5W)
8K MP4 25P (11.2W)
4K HEVC 50P (12.9W)
4K XF-AVC 50P (13.3W)

- Recording Time (Approx.)

With supplied LP-E6NH battery pack:

8K RAW 25P: 50 Mins
8K MP4 25P: 45 Mins
4K HEVC 50P: 40 Mins
4K XF-AVC 50P: 35 Mins

Physical Specifications

- Dimensions (Main Body Only)

approx. 142 x 101 x 111 mm



- Weight (Body Only)

approx. 680g

- Weight (Accessories)

approx. 770g (LP-E6NH, CFexpress Card, SD Card)

- Operating Temperature Range

approx. 0 to 40°C, (85% relative humidity)

approx. -5 to 45°C, (60% relative humidity)

1. Based on 25P recording on a 512GB card
2. RAW / C-RAW / Dual Pixel RAW files are 14-bit with Mechanical shutter / Electronic 1st Curtain, 13-bit A/D conversion with H+ mode and 12-bit A/D conversion with Electronic shutter
3. 10-bit HEIF images in PQ HDR mode
4. Recording time based on 512GB card
5. Recording time based on 512GB card
6. Recording time based on 512GB card
7. ProRes RAW Recording with Atomos Ninja V+ external recorder
8. The frequency will differ depending on the frame rate setting.