

Clifton Cameras Product Specification

Sony a7r V Digital Camera Body

Specifications

General

Camera type	Interchangeable lens digital camera
Lens mount	E-mount
Lens compatibility	

Image Sensor

Type	35mm full frame (35.7 x 23.8 mm), Exmor R CMOS sensor
Number of pixels (effective)	Approx. 61.0 megapixels
Number of pixels (total)	Approx. 62.5 megapixels
Image sensor aspect ratio	3:2
Color filter	R, G, B primary color
Anti-Dust function	Yes (Charge protection coating on Optical Filter and ultrasonic vibration mechanism)

Recording System (still image)

Recording format	JPEG (DCF Ver. 2.0, Exif Ver. 2.32, MPF Baseline compliant), HEIF (MPEG-A MIAF compliant), RAW (Sony ARW 4.0 format compliant)
Image size (pixels) [3:2]	35mm full frame L: 9504 x 6336 (60 M), M: 6240 x 4160 (26 M), S: 4752 x 3168 (15 M), APS-C M: 6240 x 4160 (26 M), S: 4752 x 3168 (15 M)
Image size (pixels) [4:3]	35mm full frame L: 8448 x 6336 (54 M), M: 5552 x 4160 (23 M), S: 4224 x 3168 (13 M), APS-C M: 5552 x 4160 (23 M), S: 4224 x 3168 (13 M)
Image size (pixels) [16:9]	35mm full frame L: 9504 x 5344 (51 M), M: 6240 x 3512 (22 M), S: 4752 x 2672 (13 M), APS-C M: 6240 x 3512 (22 M), S: 4752 x 2672 (13 M)

Image size (pixels) [1:1]	35mm full frame L: 6336 x 6336 (40 M), M: 4160 x 4160 (17 M), S: 3168 x 3168 (10 M), APS-C M: 4160 x 4160 (17 M), S: 3168 x 3168 (10 M)
Image size (pixels) [Sweep Panorama]	-
Image size (pixels) [3D Sweep Panorama]	-
Image quality modes	RAW (Compressed / Lossless Compressed (L / M / S) / Uncompressed)
Image quality modes	JPEG (Extra fine / Fine / Standard / Light)
Image quality modes	HEIF (4:2:0 / 4:2:2) (Extra fine / Fine / Standard / Light)
Image quality modes	RAW & JPEG
Image quality modes	RAW & HEIF
14bit RAW	Yes
Uncompressed RAW	
Picture Effect	-
Creative Style	-
Creative Look	ST, PT, NT, VV, VV2, FL, IN, SH, BW, SE, Custom Look (1-6)
Picture Profile	Yes (Off / PP1-PP11) Parameters: Black level, Gamma (Movie, Still, S-Cinetone, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset
Soft Skin Effect	Yes
Dynamic Range functions	Off, Dynamic Range Optimizer
Color space	sRGB standard (with sYCC gamut), Adobe RGB standard and Rec. ITU-R BT.2100 standard (BT.2020 gamut).[[F_DIO179]]

Recording System (movie)

Recording format	XAVC S
Recording format	XAVC HS
Video compression	XAVC S: MPEG-4 AVC/H.264
Video compression	XAVC HS: MPEG-H HEVC/H.265
Audio recording format	LPCM 2ch (48 kHz 16 bit), LPCM 2ch (48 kHz 24 bit)[[F_DI0176]], LPCM 4ch (48 kHz 24 bit)[[F_DI0176]], MPEG-4 AAC-LC 2ch[[F_DI0177]]
Image size (pixels) [XAVC S]	
Image size (pixels) [AVCHD]	
Image size (pixels) [MP4]	
Picture Effect	-
Creative Style	-
Creative Look	ST, PT, NT, VV, VV2, FL, IN, SH, BW, SE, Custom Look (1-6)
Picture Profile	Yes (Off / PP1-PP11) Parameters: Black level, Gamma (Movie, Still, S-Cinetone, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset
Soft Skin Effect	Yes
Color space	Rec. ITU-R BT.2100 standard compatible (BT.2020 gamut)[[F_DI0189]]

Movie Recording System (XAVC HS 8K)

7680 x 4320 (4:2:0, 10bit, NTSC) (Approx.)	24p (400 Mbps / 200 Mbps)[[F_DI0200]][[F_DI0203]]
7680 x 4320 (4:2:0, 10bit, NTSC) (Approx.)	
7680 x 4320 (4:2:0, 10bit, PAL) (Approx.)	25p (400 Mbps / 200 Mbps)[[F_DI0203]]
7680 x 4320 (4:2:2, 10bit, NTSC) (Approx.)	
7680 x 4320 (4:2:2, 10bit, NTSC) (Approx.)	
7680 x 4320 (4:2:2, 10bit, PAL) (Approx.)	

Movie Recording System (XAVC HS 4K)

3840 x 2160 (4:2:0, 10bit, NTSC) (Approx.)	60p (150 Mbps / 75 Mbps / 45 Mbps)[[F_DI0200]][[F_DI0204]]
3840 x 2160 (4:2:0, 10bit, NTSC) (Approx.)	24p (100 Mbps / 50 Mbps / 30 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:0, 10bit, NTSC) (Approx.)	
3840 x 2160 (4:2:0, 10bit, PAL) (Approx.)	50p (150 Mbps / 75 Mbps / 45 Mbps)[[F_DI0204]]
3840 x 2160 (4:2:0, 10bit, PAL) (Approx.)	
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	60p (200 Mbps / 100 Mbps)[[F_DI0200]][[F_DI0204]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	24p (100 Mbps / 50 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	
3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	50p (200 Mbps / 100 Mbps)[[F_DI0204]]
3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	

Movie Recording System (XAVC S 4K)

3840 x 2160 (4:2:0, 8bit, NTSC) (Approx.)	60p (150 Mbps)[[F_DI0200]][[F_DI0204]]
3840 x 2160 (4:2:0, 8bit, NTSC) (Approx.)	30p (100 Mbps / 60 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:0, 8bit, NTSC) (Approx.)	24p (100 Mbps / 60 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:0, 8bit, NTSC) (Approx.)	
3840 x 2160 (4:2:0, 8bit, PAL) (Approx.)	50p (150 Mbps)[[F_DI0204]]
3840 x 2160 (4:2:0, 8bit, PAL) (Approx.)	25p (100 Mbps / 60 Mbps)
3840 x 2160 (4:2:0, 8bit, PAL) (Approx.)	

3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	60p (200 Mbps)[[F_DI0200]][[F_DI0204]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	30p (140 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	24p (100 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	
3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	50p (200 Mbps)[[F_DI0204]]
3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	25p (140 Mbps)

Movie Recording System (XAVC S HD)

1920 x 1080 (4:2:0, 8bit, NTSC) (Approx.)	120p (100 Mbps / 60 Mbps)[[F_DI0200]][[F_DI0205]]
1920 x 1080 (4:2:0, 8bit, NTSC) (Approx.)	60p (50 Mbps / 25 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:0, 8bit, NTSC) (Approx.)	30p (50 Mbps / 16 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:0, 8bit, NTSC) (Approx.)	24p (50 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:0, 8bit, PAL) (Approx.)	100p (100 Mbps / 60 Mbps)[[F_DI0205]]
1920 x 1080 (4:2:0, 8bit, PAL) (Approx.)	50p (50 Mbps / 25 Mbps)
1920 x 1080 (4:2:0, 8bit, PAL) (Approx.)	25p (50 Mbps / 16 Mbps)
1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	60p (50 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	30p (50 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	24p (50 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:2, 10bit, PAL) (Approx.)	50p (50 Mbps)
1920 x 1080 (4:2:2, 10bit, PAL) (Approx.)	25p (50 Mbps)

Movie Recording System (XAVC S-I 4K)

3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	60p (600 Mbps)[[F_DI0200]][[F_DI0204]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	30p (300 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	24p (240 Mbps)[[F_DI0200]]
3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	50p (500 Mbps)[[F_DI0204]]
3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	25p (250 Mbps)

Movie Recording System (XAVC S-I HD)

1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	60p (222 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	30p (111 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	24p (89 Mbps)[[F_DI0200]]
1920 x 1080 (4:2:2, 10bit, PAL) (Approx.)	50p (185 Mbps)
1920 x 1080 (4:2:2, 10bit, PAL) (Approx.)	25p (93 Mbps)

Slow & Quick Motion

Image frame rate	NTSC mode: 1fps,2fps,4fps,8fps,15fps,30fps,60fps,120fps[[F_DI0191]][[F_DI0196]][[F_DI0205]] PAL mode: 1fps,2fps,3fps,6fps,12fps,25fps,50fps,100fps[[F_DI0191]][[F_DI0196]][[F_DI0205]]
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Movie Function

Audio Level Display	Yes
Audio Rec Level	Yes
PAL/NTSC Selector	Yes
Dual Video REC	
Proxy Recording	Yes (1280 x 720 (Approx. 6 Mbps), 1920 x 1080(Approx. 9 Mbps), 1920 x 1080(Approx. 16 Mbps))

TC/UB	Yes
AF Tracking Duration	
AF Drive Speed	
Auto Slow Shutter	Yes
REC Control	
Clean HDMI Info.	
HDMI Output	
Gamma Disp. Assist	Yes
RAW Output	Yes (HDMI)

Recording System

Location information Link from smartphone	Yes
GPS	
GPS assist	
GPS auto offset	
GPS heading	
GPS direction calibration	
On / Off selection	
Media	SD memory card
Media	SDHC memory card (UHS-I/II compliant)
Media	SDXC memory card (UHS-I/II compliant)
Media	CFexpress Type A memory card
Memory card slot	SLOT1: Multi slot for SD (UHS-I/II compliant) memory card / CFexpress Type A card, SLOT2: Multi slot for SD (UHS-I/II compliant) memory card / CFexpress Type A card
Recording mode on 2 memory cards	Simult. Rec, Sort, Auto Switch Media, Copy
File system	FAT12, 16, 32, exFAT
Noise reduction	Long exposure NR: On/Off, available at shutter speeds longer than 1 s
Noise reduction	High ISO NR: Normal / Low / Off
Multi Frame NR	

White Balance

Modes	Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Flash / Underwater / Color Temperature (2500 to 9900 K) & color filter / Custom
AWB micro adjustment	
Priority Set in AWB	
Shutter AWB Lock	Yes (Shut. Halfway Down / Cont. Shooting / Off)
Bracketing	

Focus System

Type	Fast Hybrid AF (phase-detection AF / contrast-detection AF)
Focus sensor	Exmor R CMOS sensor
Focus point	35mm full frame: 693 points (phase-detection AF), APS-C mode with FF lens: 693 points (phase-detection AF), with APS-C lens: 567 points (phase-detection AF) / 25 points (contrast-detection AF)
Sensitivity range	EV-4 to EV20 (ISO100 equivalent with F2.0 lens attached)
Focus mode	
AF mode	AF-A (Automatic AF), AF-S (Single-shot AF), AF-C (Continuous AF), DMF (Direct Manual Focus), Manual Focus
Focus area	Wide / Zone / Center Fix / Spot / Expand Spot / Tracking
Eye-start AF	-
Lock-on AF	
Tracking Focus	
Object Tracking	
Eye AF	Human (Right/Left Eye Select) / Animal (Right/Left Eye Select) / Bird / Insect / Car / Train / Airplane
_Eye AF	
Other features	Predictive control
Other features	Focus lock

Other features	AF Track Sens. (Still)
Other features	AF Subj. Shift Sensitivity (Movie)
Other features	AF Transition Speed (Movie)
Other features	Switch V/H AF Area
Other features	AF Area Regist.
Other features	Circ. of Focus Point
Other features	Focus Map (Movie)
Other features	AF Assist (Movie)
AF illuminator	Yes (with Built-in LED type)
AF illuminator range	Approx. 0.3 m - approx. 3.0 m (with FE 28-70mm F3.5-5.6 OSS lens attached)
AF Range Control	
Focus Type with LA-EA1 or LA-EA3 (Sold separately)	
AF micro adjustment	-

Exposure Control

Metering type	1200-zone evaluative metering
Metering sensor	Exmor R CMOS sensor
Metering sensitivity	EV-3 to EV20 (ISO100 equivalent with F2.0 lens attached)
Modes	Multi-segment
Modes	Center-weighted
Modes	Spot (Standard / Large)
Modes	Entire Screen Avg.
Modes	Highlight
Modes	
Exposure modes	AUTO (iAuto)
Exposure modes	Programmed AE (P)
Exposure modes	Aperture priority (A)
Exposure modes	Shutter-speed priority (S)
Exposure modes	Manual (M)
Exposure modes	Movie (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) / Flexible Exp. Mode)

Exposure modes	Slow & Quick Motion (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) / Flexible Exp. Mode)
Scene Selection	-
Exposure compensation	+/- 5.0 EV (1/3 EV, 1/2 EV steps selectable)
Bracketing	Bracket: Cont., Bracket: Single, 2/3/5/7/9 frames selectable. (Ambient light, Flash light)
AE Lock	Locked when shutter button is pressed halfway. Available with AE lock button. (On/Off/Auto)
ISO sensitivity (Recommended Exposure Index)	Still images: ISO 100-32000 (ISO numbers up from ISO 50 to ISO 102400 can be set as expanded ISO range.), AUTO (ISO 100-12800, selectable lower limit and upper limit), Movies: ISO 100-32000 equivalent, AUTO (ISO 100-12800, selectable lower limit and upper limit).
Anti-flicker Shoot.	Yes[[F_DI0180]]

Viewfinder

Type	1.6 cm (0.64 type) electronic viewfinder (Quad-XGA OLED)
Number of dots	9 437 184 dots
Number of pixels (effective)	
Number of pixels (total)	
UXGA OLED	
Quad-VGA OLED	
XGA OLED	
OLED	
Xtra Fine	
Brightness control	
Color temperature control	
Control function	Brightness, Color temperature, Magnifi.
Field coverage	100%
Magnification	Approx. 0.90x (with 50 mm lens at infinity, -1 m ^{<sup>-1</sup>}
Diopter adjustment	-4.0 to +3.0 m ^{<sup>-1</sup>}

Eye point	Approx. 25 mm from the eyepiece lens, 21 mm from the eyepiece frame at -1 m ⁻¹ (CIPA standard)
Display function	Histogram, Real-time image-adjustment display, Digital level gauge, Grid line, Focus check, Peaking MF, Zebra, Movie marker, Emphasized display during REC
Display Contents	
Real-time image-adjustment	
Finder Frame Rate selection	NTSC mode: STD 60fps / HI 120fps, PAL mode: STD 50fps / HI 100fps

LCD Screen

Type	8.0 cm (3.2-type) type TFT
Touch panel	Yes
Number of dots (total)	2 095 104 dots
Brightness control	Manual (5 steps between -2 and +2), Sunny Weather mode
Display function	Histogram, Real-time image-adjustment display, Digital level gauge, Grid line, Focus check, Peaking MF, Zebra, Movie marker, For viewfinder, Monitor Off, Emphasized display during REC
Field coverage	
Adjustable angle	Opening Angles (approx.): Up 98 °, down 40 °, side 180 °, rotation 270 °
Xtra Fine LCD	
Clear Photo LCD	
Clear Photo LCD plus	
WhiteMagic	
TruBlack	
Display Selector (FINDER/LCD)	
Display Contents	
Real-time image-adjustment display	

Quick Navi

Focus Check

Yes, Focus Magnifier (35mm full frame: 4.7x / 9.3x, APS-C: 3.1x / 6.1x)

Zebra

Peaking MF

Movie Marker

Grid Line

Face Detection

Modes

Face/Eye Priority in AF, Face Priority in Multi Metering, Regist. Faces Priority

Face registration

Face selection

Max. number of detectable

Other Features

Interval recording

Yes

Smile Shutter

-

Touch Shutter

Touch Focus

Self-portrait Self-timer

-

Product Showcase Set

Background Defocus

ISO AUTO Min. SS

Yes

Bright Monitoring

Yes

Copyright Info

Yes

Set File Name

Yes

Save/Import Settings

Yes

FTP Transfer Func.

PlayMemories Camera Apps

-

Shooting Tips

-

Help guide

Yes

Clock Function,Setting	
Area Setting	
Shop Front Mode	
Video Light Mode	Yes
Zoom Ring Rotate	Yes
Eye-Fi ready[[F_DI0006]]	

Clear Image Zoom

Still images	Approx. 2x
Movies	Approx. 1.5x (4K/8K), Approx. 2x (HD)

Digital Zoom

Smart zoom (Still images)	35mm full frame: M: approx. 1.5x, S: approx. 2x / APS-C: S: approx. 1.3x
Digital zoom (Still images)	35mm full frame: L: approx. 4x, M: approx. 6.1x, S: approx. 8x APS-C: M: approx. 4x, S: approx. 5.3x
Digital zoom (Movie)	35mm full frame: approx. 4x APS-C: approx. 4x

Shutter

Type	Electronically-controlled, vertical-traverse, focal-plane type
Shutter Type	Mechanical shutter / Electronic shutter
Shutter speed	Still images: 1/8000 to 30 s, Bulb, Movies: 1/8000 to 1/4 (1/3 steps), up to 1/50 in AUTO mode (up to 1/25 in Auto slow shutter mode)
Flash sync. speed[[F_DI0015]]	1/250 s (35mm full frame), 1/320 s (APS-C)
Electronic Front Shutter Curtain	Yes (ON/OFF)
Silent Shooting	Yes (ON/OFF)

SteadyShot INSIDE (image stabilization)

Type	Image Sensor-Shift mechanism with 5-axis compensation (Compensation depends on lens specifications)
Indication	
Compensation effect (Still images)	8.0 stops (based on CIPA standard. Pitch/yaw shake only. With FE 50mm F1.2 GM lens mounted. Long exposure NR off.)
Mode	[Still images] On / Off, [Movie] Active / Standard / Off

Flash

Type	
Guide No.	
Flash coverage	
Control	Pre-flash TTL[[F_DI0181]]
Flash compensation	+/- 3.0 EV (switchable between 1/3 and 1/2 EV steps)
Flash bracketing	
Flash modes	Flash off
Flash modes	Autoflash
Flash modes	Fill-flash
Flash modes	Slow Sync.
Flash modes	Rear Sync.
Flash modes	Red-eye reduction (on/off selectable)
Flash modes	Wireless[[F_DI0001]]
Flash modes	Hi-speed sync. [[F_DI0001]]
Recycling time	-
External flash	Sony α System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for flash compatible with Auto-lock accessory shoe
FE level lock	Yes

Wireless control

Yes (Light signal: Available with Fill-flash, Slow Sync., Hi-speed sync. / Radio signal: Available with Fill-flash, Rear Sync., Slow Sync., Hi-speed sync.)

Drive

Drive modes	Single Shooting
Drive modes	Continuous shooting (Hi+/Hi/Mid/Lo selectable)
Drive modes	Self-timer
Drive modes	Self-timer (Cont.)
Drive modes	Bracket: Single
Drive modes	Bracket: Cont.
Drive modes	Focus Bracket
Drive modes	White Balance bracket
Drive modes	DRO bracket
Self-timer	10 s delay / 5 s delay / 2 s delay / Continuous self-time / Bracketing self-timer / Self-timer (Movie)
Interval recording	
Multiple exposure	
Pixel Shift Multi Shooting	Yes (4 shots / 16 shots)[[F_DI0159]][[F_DI0170]]
Speed (approx., max.)[[F_DI0002]]	Continuous shooting: Hi+: 10 fps, Hi: 8 fps, Mid: 6 fps, Lo: 3 fps
No. of frame recordable* (approx.)[[F_DI0002]]	JPEG Extra fine L: over 1000 frames
No. of frame recordable* (approx.)[[F_DI0002]]	JPEG Fine L: over 1000 frames
No. of frame recordable* (approx.)[[F_DI0002]]	JPEG Standard L: over 1000 frames
No. of frame recordable* (approx.)[[F_DI0002]]	RAW: 583 frames
No. of frame recordable* (approx.)[[F_DI0002]]	RAW & JPEG: 184 frames
No. of frame recordable* (approx.)[[F_DI0002]]	RAW (Lossless Compressed): 547 frames

No. of frame recordable* (approx.)[[F_DI0002]]	RAW (Lossless Compressed) & JPEG: 159 frames
No. of frame recordable* (approx.)[[F_DI0002]]	RAW (Uncompressed): 135 frames
No. of frame recordable* (approx.)[[F_DI0002]]	RAW (Uncompressed) & JPEG: 88 frames

Playback

Modes	Single (with or without shooting information Y RGB histogram & highlight / shadow warning)
Modes	Index view
Modes	Enlarged display mode (L: 18.6x, M: 12.2x, S: 9.3x)
Modes	Auto Review
Modes	Image orientation
Modes	Folder selection (Date / Still / Movie)
Modes	Protect
Modes	Rating
Modes	Display as Group
Modes	Shot Mark (Movie)
Modes	Divider Frame
Modes	Crop
Photo Capture	Yes

Interface

PC interface	Mass-storage / MTP
Multi / Micro USB Terminal[[F_DI0083]]	Yes
USB Type-C® Terminal	Yes (SuperSpeed USB 10 Gbps (USB 3.2) compatible)
NFC	-
Sync. Terminal	Yes
Wireless LAN(built-in)	Yes (Wi-Fi Compatible, IEEE 802.11a/b/g/n/ac (2.4 GHz band/5 GHz band))[[F_DI0068]][[F_DI0171]]

Bluetooth	Yes (Bluetooth Standard Ver. 5.0 (2.4 GHz band))
PC interface	Mass-storage / MTP
Multi / Micro USB Terminal[[F_DI0083]]	Yes
USB Type-C® Terminal	Yes (SuperSpeed USB 10 Gbps (USB 3.2) compatible)
NFC	-
Sync. Terminal	Yes
Wireless LAN(built-in)	Yes (Wi-Fi Compatible, IEEE 802.11a/b/g/n/ac (2.4 GHz band/5 GHz band))[[F_DI0068]][[F_DI0171]]
Bluetooth	Yes (Bluetooth Standard Ver. 5.0 (2.4 GHz band))
HDMI connector	HDMI connector (Type-A)
HDMI connector	3840 x 2160 (60p / 50p / 30p / 25p / 24p) / 1920 x 1080 (60p / 50p / 24p) / 1920 x 1080 (60i / 50i), YCbCr 4:2:2 10bit / RGB 8bit[[F_DI0200]] 7860 x 4320 (24p / 25p), YCbCr 4:2:0 8bit[[F_DI0200]]
HDMI connector	3848 x 2168 (60p / 50p / 30p / 25p / 24p), Raw 16bit[[F_DI0200]]
Multi Interface Shoe[[F_DI0010]]	Yes (with Digital Audio Interface)
Auto-lock Accessory Shoe	
Smart Accessory Terminal	
Smart Accessory Terminal 2	
Mic Terminal	Yes (3.5 mm Stereo minijack)
Headphone Terminal	Yes (3.5 mm Stereo minijack)
DC IN Terminal	
Wired	-
Remote Control	
Remote Control (Wireless)	Yes (Bluetooth remote control)
Vertical Grip Connector	Yes
PC Remote	

LAN terminal	-
Compatible OS (USB connection)	
Functions	FTP Transfer Func.(Wired LAN(USB-LAN), USB Tethering, Wi-Fi)
Functions	View on Smartphone
Functions	Remote control via Smartphone
Functions	PC Remote
Functions	BRAVIA Sync (Control for HDMI)
Functions	PhotoTV HD
Functions	
Functions	

USB Streaming

Video data format	MJPEG
Video data format	YUV420[[F_D10198]]
Video resolution	3840 x 2160 (15p / 12.5p) / 1920 x 1080 (60p / 50p / 30p / 25p) / 1280 x 720 (30p / 25p)
Audio data format	LPCM 2ch (16 bit 48 kHz)
Simultaneous internal recording	Yes

Audio

Microphone	Built-in, stereo
Speaker	Built-in, monaural

Print

Compatible standards	Exif Print, Print Image Matching III
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Custom Function

Custom key settings	Yes
My Menu	Yes
My Dial Settings	Yes
Reg Cust Shoot Set	Yes
Programmable Setting	Yes (Body 9 sets /memory card 12 sets)

Lens Compensation

Lens compensation

Peripheral Shading, Chromatic Aberration, Distortion, Breathing (Movie)

Power

Battery

One rechargeable battery pack NP-FZ100

Still images[[F_DI0011]]

Approx. 440 shots (Viewfinder) / Approx. 530 shots (LCD monitor) (CIPA standard)

Movies (actual recording)[[F_DI0013]]

Approx. 90 min (Viewfinder) / Approx. 100 min (LCD monitor) (CIPA standard)

Movies (continuous recording)

Approx. 145 min (Viewfinder) / Approx. 150 min (LCD monitor) (CIPA standard)

Internal battery charge

Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)

USB power supply

Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)

External power

External power (AC Adaptor)

-

Power Consumption

With Viewfinder

Still images: Approx. 4.5 W (with FE 28-70mm F3.5-5.6 OSS lens attached), Movies: Approx. 6.8 W (with FE 28-70mm F3.5-5.6 OSS lens attached)

With LCD screen

Still images: Approx. 3.7 W (with FE 28-70mm F3.5-5.6 OSS lens attached), Movies: Approx. 6.6 W (with FE 28-70mm F3.5-5.6 OSS lens attached)

Weight

With battery and memory Card included

Approx. 723 g

oz. With battery and memory card included

Approx. 1 lb 9.6 oz



Body only	Approx. 638 g
oz Body only	Approx. 1 lb 6.6 oz

Dimensions

DIMENSIONS (W x H x D)	Approx. 131.3 x 96.9 x 82.4 mm, Approx. 131.3 x 96.9 x 72.3 mm (FROM GRIP TO MONITOR)
inches. DIMENSIONS (W x H x D)	Approx. 5 1/4 x 3 7/8 x 3 1/4 inches, Approx. 5 1/4 x 3 7/8 x 2 7/8 inches (FROM GRIP TO MONITOR)

Operating Temperature

Operating temperature	0 - 40 °C / 32 - 104 °F
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Supplied Accessory

Supplied Accessory	Rechargeable Battery NP-FZ100
Supplied Accessory	Battery Charger BC-QZ1
Supplied Accessory	Power cord
Supplied Accessory	Cable Protector
Supplied Accessory	Shoulder strap
Supplied Accessory	Body cap
Supplied Accessory	Accessory shoe cap
Supplied Accessory	Eyepiece cup
Supplied Accessory	USB-A to USB-C cable (USB 3.2)