

Side by side

3 cameras compared



Canon EOS 5D Mark IV



Nikon D850



Sony Alpha 7R III

Basic Information

Review / Preview



87%

Gold Award

Sep 14, 2016



89%

Gold Award

Oct 16, 2017

Announced

Aug 25, 2016

Jul 25, 2017

Oct 25, 2017

Price

MSRP

\$3499 (body only),
\$4399 (w/24-70 F4L
lens), \$4599 (w/24-105
F4L IS USM lens)

\$3299

\$3199 (body only)

Body type

Body type

Mid-size SLR

Mid-size SLR

SLR-style mirrorless

Body material

Magnesium alloy

Magnesium alloy

Magnesium alloy

Sensor

Max resolution

6720 x 4480

8256 x 5504

7952 x 5304

Image ratio w:h

1:1, 4:3, 3:2, 16:9

1:1, 5:4, 3:2, 16:9

3:2, 16:9

Effective pixels

30 megapixels

46 megapixels

42 megapixels

Sensor photo detectors

32 megapixels

47 megapixels

44 megapixels

Sensor size

Full frame (36 x 24
mm)Full frame (35.9 x 23.9
mm)Full frame (35.9 x 24
mm)

Sensor size notes

sRaw supported in all
aspect ratio. Size
between 5 and 7.5
megapixel.

BSI-CMOS full-frame
sensor. No optical low-
pass filter

Sensor type

CMOS

BSI-CMOS

BSI-CMOS

Processor

Digic 6+

Expeed 5

Bionz X

Color space

sRGB, AdobeRGB

sRGB, Adobe RGB

sRGB, AdobeRGB

Color filter array

Primary color filter

Primary color filter

Primary color filter

Image

ISO

Auto, 100-32000
(expands to 50-
102400)

Auto, 64-25600
(expands to 32-
102400)

Auto, 100-32000
(expands to 50-
102400)

Boosted ISO (minimum)

50

32

50

Boosted ISO (maximum)	102400	102400	102400
White balance presets	6	14	10
Custom white balance	Yes	Yes (6 slots)	Yes
Image stabilization	No	No	Sensor-shift
Image stabilization notes			5-axis
CIPA image stabilization			5.5 stop(s)
Uncompressed format	RAW	RAW + TIFF	RAW
JPEG quality levels	Fine, normal	Fine, normal, basic	Extra fine, fine, standard
File format	<ul style="list-style-type: none"> • JPEG (Exif v.2.3) • Raw (Canon CRW, 14-bit) 	<ul style="list-style-type: none"> • JPEG (Exif v2.3) • TIFF (RGB) • Raw (Nikon NEF, 12 or 14 bit, lossless compressed, compressed or uncompressed) 	<ul style="list-style-type: none"> • JPEG (DCF 2.0, EXIF v2.31) • RAW (Sony 14-bit ARW v2.3)
Optics & Focus			
Autofocus	<ul style="list-style-type: none"> • Contrast Detect (sensor) • Phase Detect • Multi-area • Center • Selective single-point • Tracking • Single • Continuous • Touch • Face Detection • Live View 	<ul style="list-style-type: none"> • Contrast Detect (sensor) • Phase Detect • Multi-area • Center • Selective single-point • Tracking • Single • Continuous • Touch • Face Detection • Live View 	<ul style="list-style-type: none"> • Contrast Detect (sensor) • Phase Detect • Multi-area • Center • Selective single-point • Tracking • Single • Continuous • Touch • Face Detection • Live View
Autofocus assist lamp	Yes	No	Yes
Digital zoom			Yes
Manual focus	Yes	Yes	Yes
Number of focus points	61	151	425
Lens mount	Canon EF	Nikon F	Sony E
Focal length multiplier	1×	1×	1×
Screen / viewfinder			
Articulated LCD	Fixed	Tilting	Tilting
Screen size	3.2"	3.2"	3"
Screen dots	1,620,000	2,359,000	1,440,000
Touch screen	Yes	Yes	Yes
Screen type	TFT LCD	TFT LCD	TFT LCD
Live view	Yes	Yes	Yes

Viewfinder type	Optical (pentaprism)	Optical (pentaprism)	Electronic
Viewfinder coverage	100%	100%	100%
Viewfinder magnification	0.71×	0.75×	0.78×
Viewfinder resolution			3,686,400
Photography features			
Minimum shutter speed	30 sec	30 sec	30 sec
Maximum shutter speed	1/8000 sec	1/8000 sec	1/8000 sec
Aperture priority	Yes	Yes	Yes
Shutter priority	Yes	Yes	Yes
Manual exposure mode	Yes	Yes	Yes
Subject / scene modes	No	No	Yes
Exposure modes	<ul style="list-style-type: none"> • Program • Shutter priority • Aperture priority • Manual • Bulb • Scene Intelligent Auto 	<ul style="list-style-type: none"> • Program • Aperture priority • Shutter priority • Manual 	<ul style="list-style-type: none"> • Auto • Program • Aperture priority • Shutter priority • Manual
Built-in flash	No	No	No
External flash	Yes (via hot shoe or flash sync port)	Yes (via hot shoe or flash sync port)	Yes (via hot shoe or flash sync port)
Flash modes		Front-curtain sync (normal), Rear-curtain sync, Red-eye reduction, Red-eye reduction with slow sync, Slow sync	Off, Auto, Fill-flash, Slow Sync, Rear Sync, Red-eye reduction, Wireless, Hi-speed sync
Flash X sync speed	1/200 sec	1/250 sec	1/250 sec
Drive modes	<ul style="list-style-type: none"> • Single shooting • Continuous hi/lo • Silent single shooting • Silent continuous • 2/10 sec self-timer / remote control 	<ul style="list-style-type: none"> • Single-frame • Self-timer • Quiet shutter • Quiet continuous • Mirror-up • Continuous low • Continuous high 	<ul style="list-style-type: none"> • Single • Continuous • Self-timer (single/continuous) • Bracketing (single/continuous) • WB bracketing • DRO bracketing
Continuous drive	7.0 fps	9.0 fps	10.0 fps
Self-timer	Yes (2 or 10 secs, custom)	Yes (2, 5, 10, 20 secs)	Yes (2 or 10 sec; continuous (3 or 5 exposures))
Metering modes	<ul style="list-style-type: none"> • Multi • Center-weighted • Spot • Partial 	<ul style="list-style-type: none"> • Multi • Center-weighted • Highlight-weighted • Spot 	<ul style="list-style-type: none"> • Multi • Center-weighted • Spot
Exposure compensation	±5 (at 1/3 EV, 1/2 EV steps)	±5 (at 1/3 EV, 1/2 EV, 1 EV steps)	±5 (at 1/3 EV, 1/2 EV steps)

AE Bracketing	±3 (2, 3, 5, 7 frames at 1/3 EV, 1/2 EV steps)	±5 (2, 3, 5, 7 frames at 1/3 EV, 1/2 EV, 2/3 EV, 1 EV steps)	±5 (3, 5 frames at 1/3 EV, 1/2 EV, 2/3 EV, 1 EV, 2 EV steps)
WB Bracketing	Yes	Yes (2-9 exposures in 1, 2, or 3EV increments)	Yes
Videography features			
Resolutions	4096 x 2160 (29.97p, 24p, 23.98p), 1920 x 1080 (59.94p, 29.97p, 24p, 23.98p), 1280 x 720 (119.9p)		
Format	MPEG-4, Motion JPEG	MPEG-4	MPEG-4, AVCHD, XAVC S
Videography notes	8.8MP stills can be grabbed from 4K video; camera supports ALL-I, IPB and IPB Light compression.		
Modes		<ul style="list-style-type: none"> • 3840 x 2160 @ 30p, MOV, H.264, Linear PCM • 3840 x 2160 @ 25p, MOV, H.264, Linear PCM • 3840 x 2160 @ 24p, MOV, H.264, Linear PCM • 1920 x 1080 @ 120p, MOV, H.264, Linear PCM • 1920 x 1080 @ 60p, MOV, H.264, Linear PCM • 1920 x 1080 @ 50p, MOV, H.264, Linear PCM • 1920 x 1080 @ 30p, MOV, H.264, Linear PCM • 1920 x 1080 @ 25p, MOV, H.264, Linear PCM • 1920 x 1080 @ 24p, MOV, H.264, Linear PCM • 1280 x 720 @ 60p, MOV, H.264, Linear PCM • 1280 x 720 @ 50p, MOV, H.264, Linear PCM 	
Microphone	Mono	Stereo	Stereo

Speaker	Mono	Mono	Mono
Storage			
Storage types	CompactFlash + SD/SDHC/SDXC card (UHS-I enabled)	SD/SDHC/SDXC (UHS-II supported) + XQD	Two SD/SDHC/SDXC slots (UHS-II support on one)
Connectivity			
USB	USB 3.0 (5 GBit/sec)	USB 3.0 (5 GBit/sec)	USB 3.1 Gen 1(5 GBit/sec)
USB charging		No	
HDMI	Yes (mini-HDMI)	Yes (mini HDMI)	Yes (micro HDMI)
Microphone port	Yes	Yes	Yes
Headphone port	Yes	Yes	Yes
Wireless	Built-In	Built-In	Built-In
Wireless notes	802.11b/g/n + NFC	802.11b/g + NFC + Bluetooth 4.1 LE	802.11b/g/n + NFC + Bluetooth
Remote control	Yes (wired, wireless, or smartphone)	Yes (wired, wireless, smartphone)	Yes (wired, wireless, smartphone)
Physical			
Environmentally sealed	Yes	Yes	Yes
Battery	Battery Pack	Battery Pack	Battery Pack
Battery description	LP-E6N lithium-ion battery & charger	EN-EL15a lithium-ion battery & charger	NP-FZ100 lithium-ion battery and charger
Battery Life (CIPA)	900	1840	650
Weight (inc. batteries)	890 g (1.96 lb / 31.39 oz)	1005 g (2.22 lb / 35.45 oz)	657 g (1.45 lb / 23.17 oz)
Dimensions	151 x 116 x 76 mm (5.94 x 4.57 x 2.99")	146 x 124 x 79 mm (5.75 x 4.88 x 3.11")	127 x 96 x 74 mm (5 x 3.78 x 2.91")
Other features			
Orientation sensor	Yes	Yes	Yes
Timelapse recording		Yes (4K movies or '8K' stills)	Yes (via downloadable app)
GPS	Built-in	None	None