

Tech Specs

Type	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts)
Effective angle of view	Nikon FX format
Image sensor format	FX
Image sensor type	CMOS
Sensor size	35.9 mm x 23.9 mm
Total pixels	46.89 million
Dust-reduction system	Image sensor cleaning, Image Dust Off reference data (Capture NX-D software required)
Effective pixels	45.7 million
Image size (pixels)	FX (36x24) image area (L) 8256 x 5504 (45.4 million) (M) 6192 x 4128 (25.6 million) (S) 4128 x 2752 (11.4 million) 1.2x (30x20) image area (L) 6880 x 4584 (31.5 million) (M) 5152 x 3432 (17.6 million) (S) 3440 x 2288 (7.8 million) DX (24x16) image area (L) 5408 x 3600 (19.4 million) (M) 4048 x 2696 (10.9 million) (S) 2704 x 1800 (4.8 million) 5 : 4 (30x24) image area (L) 6880 x 5504 (37.8 million) (M) 5152 x 4120 (21.2 million) (S) 3440 x 2752 (9.4 million) 1 : 1 (24x24) image area (L) 5504 x 5504 (30.2 million) (M) 4128 x 4128 (17.0 million) (S) 2752 x 2752 (7.5 million) FX-format photographs taken during movie recording (L) 8256 x 4640 (38.3 million) (M) 6192 x 3480 (21.5 million) (S) 4128 x 2320 (9.5 million) DX-format photographs taken during movie recording (L) 5408 x 3040 (16.4 million) (M) 4048 x 2272 (9.1 million) (S) 2704 x 1520 (4.1 million)
File format	NEF (RAW): 12 or 14 bit (lossless compressed, compressed, or uncompressed); large, medium, and small available (medium and small images are recorded at a bit depth of 12 bits using lossless compression) TIFF (RGB) JPEG: JPEG-Baseline compliant with fine (approx. 1 : 4), normal (approx. 1 : 8), or basic (approx. 1 : 16) compression; optimal quality compression available NEF (RAW)+JPEG: Single photograph recorded in both NEF (RAW) and JPEG formats
Picture Control system	Auto, Standard, Neutral, Vivid, Monochrome, Portrait, Landscape, Flat ; selected Picture Control can be modified; storage for custom Picture Controls

Media	XQD, SD, SDHC (UHS-II compliant), SDXC (UHS-II compliant)
Card slot	1 XQD card and 1 Secure Digital (SD) card Either card can be used for primary or backup storage or for separate storage of NEF (RAW) and JPEG images; pictures can be copied between cards.
File system	DCF 2.0, Exif 2.31, PictBridge
Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame coverage	FX (36x24): Approx. 100% horizontal and 100% vertical 1.2x (30x20): Approx. 97% horizontal and 97% vertical DX (24x16): Approx. 97% horizontal and 97% vertical 5:4 (30x24): Approx. 97% horizontal and 100% vertical 1:1 (24x24): Approx. 97% horizontal and 100% vertical
Magnification	Approx. 0.75 x (50 mm f/1.4 lens at infinity, -1.0 m(*1))
Eyepoint	17 mm (-1.0 m(*1); from center surface of viewfinder eyepiece lens)
Dioptric adjustment	-3 to +1 m(*1)
Focusing screen	Type B BriteView Clear Matte Mark VIII screen with AF area brackets (framing grid can be displayed)
Reflex mirror	Quick return
Depth-of-field preview	Yes Pressing Pv button stops lens aperture down to value selected by user (A and M modes) or by camera (P and S modes)
Lens aperture	Instant return, electronically controlled
Compatible lenses	Compatible with AF NIKKOR lenses, including type G, E, and D lenses (some restrictions apply to PC lenses), and DX lenses (using DX 24 x 16 image area), AI-P NIKKOR lenses, and non-CPU AI lenses (exposure modes A and M only). IX NIKKOR lenses, lenses for the F3AF, and non-AI lenses cannot be used. The electronic rangefinder can be used with lenses that have a maximum aperture of f/5.6 or faster (the electronic rangefinder supports 15 focus points with lenses that have a maximum aperture of f/8 or faster, of which 9 points are available for selection).
Type	Electronically-controlled vertical-travel focal-plane mechanical shutter; electronic front-curtain shutter available in quiet shutter-release, quiet continuous shutter-release, and mirror up release modes
Speed	1/8000 to 30 s in steps of 1/3, 1/2, or 1 EV, bulb, time, X250

Flash sync speed	X= 1/250 s; synchronizes with shutter at 1/250 s or slower; Auto FP High-Speed sync supported
Modes	S (single frame), CL (continuous low speed), CH (continuous high speed), Q (quiet shutter-release), QC (quiet continuous shutter-release), Self-timer, MUP (mirror up)
Approximate frame advance rate	Up to 9 fps With an EN-EL18b battery inserted in an MB-D18 battery pack CL: 1 to 8 fps CH: 9 fps QC: 3 fps Other power sources CL: 1 to 6 fps CH: 7 fps QC: 3 fps
Self-timer	2 s, 5 s, 10 s, 20 s; 1 to 9 exposures at intervals of 0.5, 1, 2, or 3 s
Metering system	TTL exposure metering using RGB sensor with approximately 180K (180,000) pixels
Metering mode	Matrix: 3D color matrix metering III (type G, E, and D lenses); color matrix metering III (other CPU lenses); color matrix metering available with non-CPU lenses if user provides lens data Center-weighted: Weight of 75% given to 12 mm circle in center of frame. Diameter of circle can be changed to 8, 15, or 20 mm, or weighting can be based on average of entire frame (non-CPU and AF-S Fisheye NIKKOR 8-15mm f/3.5-4.5E ED lenses use 12-mm circle) Spot: Meters 4 mm circle (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU or AF-S Fisheye NIKKOR 8-15mm f/3.5-4.5E ED lens is used) Highlight-weighted: Available with type G, E, and D lenses
Range	(ISO 100, f/1.4 lens, 20 °C/68 °F) Matrix or center-weighted metering: -3 to +20 EV Spot metering: 2 to 20 EV Highlight-weighted metering: 0 to 20 EV
Exposure meter coupling	CPU, AI
Mode	Programmed auto with flexible program (P); shutter-priority auto (S); aperture-priority auto (A); manual (M)
Exposure compensation	-5 to +5 EV in increments of 1/3, 1/2, or 1 EV
Exposure lock	Luminosity locked at detected value
ISO sensitivity (Recommended Exposure Index)	ISO 64 to 25600 in steps of 1/3, 1/2, or 1 EV Can also be set to approx. 0.3, 0.5, 0.7, or 1 EV (ISO 32 equivalent) below ISO 64 or to approx. 0.3, 0.5, 0.7, 1, or 2 EV (ISO 102400 equivalent) above ISO 25600; auto ISO sensitivity control available
Active D-Lighting	Can be selected from Auto, Extra high, High, Normal, Low, or Off

Autofocus system	Multi-CAM 20K autofocus sensor module with TTL phase detection, fine-tuning, and 153 focus points (including 99 cross-type sensors and 15 sensors that support f/8), of which 55 (35 cross-type sensors and 9 f/8 sensors) are available for selection
Detection range	-4 to +20 EV (ISO 100, 20 °C/68 °F)
Lens servo	Single-servo AF (AF-S), Continuous-servo AF (AF-C) ; predictive focus tracking automatically activated according to subject status Manual focus (M): Electronic rangefinder can be used
Focus point	153 153 focus points, of which 55 or 15 are available for selection
AF-area mode	Single-point AF, 9-, 25-, 72-, or 153- point dynamic-area AF, 3D-tracking, group-area AF, auto-area AF
Focus lock	Focus can be locked by pressing shutter-release button halfway (single-servo AF) or by pressing the center of the sub-selector
Control	TTL: i-TTL flash control using RGB sensor with approximately 180K (180,000) pixels; i-TTL balanced fill-flash for digital SLR is used with matrix, center-weighted, and highlight-weighted metering, standard i-TTL fill-flash for digital SLR with spot metering
Mode	Front-curtain sync, slow sync, rear-curtain sync, red-eye reduction, red-eye reduction with slow sync, slow rear-curtain sync, off
Flash compensation	-3 to +1 EV in increments of 1/3, 1/2, or 1 EV
Flash-ready indicator	Lights when optional flash unit is fully charged; flashes after flash is fired at full output
Accessory shoe	ISO 518 hot-shoe with sync and data contacts and safety lock
Nikon Creative Lighting System (CLS)	i-TTL flash control, radio-controlled Advanced Wireless Lighting, optical Advanced Wireless Lighting, modeling illumination, FV lock, Color Information Communication, Auto FP High-Speed Sync, AF-assist for multi-area AF, unified flash control
Sync terminal	ISO 519 sync terminal with locking thread
White balance	Auto (3 types), natural light auto, incandescent, fluorescent (7 types), direct sunlight, flash, cloudy, shade, preset manual (up to 6 values can be stored, spot white balance measurement available during live view), choose color temperature (2500 K to 10,000 K), all with fine-tuning.

Bracketing types	Exposure, Flash, White balance, ADL
Modes	Photo live view, Movie live view
Lens servo	Autofocus (AF): Single-servo AF (AF-S); full-time-servo AF (AF-F) Manual focus (M)
AF-area mode	Face-priority AF, Wide-area AF, Normal-area AF, pinpoint AF, Subject-tracking AF
Autofocus	Contrast-detect AF anywhere in frame (camera selects focus point automatically when face-priority AF or subject-tracking AF is selected)
Metering system	TTL exposure metering using main image sensor
Metering mode	Matrix, center-weighted, or highlight-weighted
Frame size (pixels) and frame rate	3840 x 2160 (4K UHD); 30p (progressive), 25p, 24p 1920 x 1080; 60p, 50p, 30p, 25p, 24p 1280 x 720; 60p, 50p 1920 x 1080 (slow-mo); 30p x4, 25p x4, 24p x5 Actual frame rates for 60p, 50p, 30p, 25p, and 24p are 59.94, 50, 29.97, 25, and 23.976 fps respectively; quality selection available at all sizes except 3840 x 2160 (when quality is fixed at "high") and 1920 x 1080 slow-mo (when quality is fixed at "normal")
File format	MOV, MP4
Video compression	H.264/MPEG-4 Advanced Video Coding
Audio recording format	Linear PCM, AAC
Audio recording device	Built-in stereo or external microphone; sensitivity adjustable
ISO sensitivity (Recommended Exposure Index)	Exposure modes P, S, and A: Auto ISO sensitivity control (ISO 64 to Hi 2) with selectable upper limit Exposure mode M: Auto ISO sensitivity control (ISO 64 to Hi 2) available with selectable upper limit; manual selection (ISO 64 to 25600 in steps of 1/3, 1/2, or 1 EV) with additional options available equivalent to approximately 0.3, 0.5, 0.7, 1, or 2 EV (ISO 102400 equivalent) above ISO 25600
Active D-Lighting	Can be selected from Same as photo settings, Extra high, High, Normal, Low, or Off

Other options	Index marking, time-lapse movies, electronic vibration reduction
Monitor size	8 -cm (3.2 -in.) diagonal
Monitor type	tilting TFT touch-sensitive LCD with 170° viewing angle, approximately 100% frame coverage, and manual monitor brightness control
Monitor resolution	Approx. 2359 k-dot (XGA)
Playback	Full-frame and thumbnail (4, 9, or 72 images) playback with playback zoom, playback zoom cropping, movie playback, photo and/or movie slide shows, histogram display, highlights, photo information, location data display, picture rating, and auto image rotation
USB connector	SuperSpeed USB (USB 3.0 Micro-B connector); connection to built-in USB port is recommended
HDMI output connector	Type C HDMI connector
Audio input	Stereo mini-pin jack (3.5 mm diameter; plug-in power supported)
Audio output	Stereo mini-pin jack (3.5 mm diameter)
Ten-pin remote terminal	Can be used to connect optional MC-30A/MC-36A remote cords, ML-3 modulite remote control sets, WR-R10 (requires WR-A10 adapter) or WR-1 wireless remote controllers, or GP-1/GP-1A GPS units
Wi-Fi	Standards: IEEE 802.11b, IEEE 802.11g Operating frequency: 2412 to 2462 MHz (channels 1 to 11) Maximum output power: 8.5 dBm (EIRP) Authentication: Open system, WPA2-PSK
Bluetooth	Communication protocols: Bluetooth Specification Version 4.1 Operating frequency: Bluetooth: 2402 to 2480 MHz Bluetooth Low Energy: 2402 to 2480 MHz
Range (line of sight)	Approximately 10 m (32 ft) without interference; range may vary with signal strength and presence or absence of obstacles
Supported languages	Arabic, Bengali, Bulgarian, Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Marathi, Norwegian, Persian, Polish, Portuguese (Portugal and Brazil), Romanian, Russian, Serbian, Spanish, Swedish, Tamil, Telugu, Thai, Turkish, Ukrainian, Vietnamese
Battery	One EN-EL15a/EN-EL15* rechargeable Li-ion battery

Battery pack	Optional MB-D18 multi-power battery pack with one rechargeable Nikon EN-EL18b/EN-EL18a/EN-EL18* Li-ion battery (available separately), one rechargeable Nikon EN-EL15a/EN-EL15* Li-ion battery, or eight AA alkaline, Ni-MH, or lithium batteries. An MH-26a/MH-26 battery charger and BL-5 battery-chamber cover (both available separately) is required when using EN-EL18b/EN-EL18a/EN-EL18* batteries.
AC adapter	EH-5c/EH-5b AC adapter; requires EP-5B power connector (available separately)
Tripod socket	1/4-in. (ISO 1222)
Dimensions (W x H x D)	Approx. 146 x 124 x 78.5 mm (5.8 x 4.9 x 3.1 in.)
Weight	Approx. 1005 g (2 lb. 3.5 oz.) with battery and XQD memory card but without body cap; approx. 915 g/2 lb. 0.3 oz. (camera body only)
Operating environment	Temperature: 0 °C to 40 °C (+32 °F to 104 °F) Humidity: 85% or less (no condensation)
Supplied accessories	BF-1B body cap, EN-EL15a rechargeable Li-ion battery with terminal cover, MH-25a battery charger (comes with either an AC wall adapter or power cable of a type and shape that varies with the country or region of sale), HDMI/USB cable clip, UC-E22 USB cable, AN-DC18 strap