

Nikon Digital SLR Camera D610 Specifications

Type of camera	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts)
Effective pixels	24.3 million
Image sensor	35.9 × 24.0 mm CMOS sensor (Nikon FX format)
Total pixels	24.7 million
Dust-reduction system	Image sensor cleaning, Image Dust Off reference data (optional Capture NX 2 software required)
Image size (pixels)	<ul style="list-style-type: none"> FX format (36×24): 6,016 × 4,016 (L), 4,512 × 3,008 (M), 3,008 × 2,008 (S) • DX format (24×16): 3,936 × 2,624 (L), 2,944 × 1,968 (M), 1,968 × 1,312 (S) • FX-format photographs taken in movie live view: 6,016 × 3,376 (L), 4,512 × 2,528 (M), 3,008 × 1,688 (S) • DX-format photographs taken in movie live view: 3,936 × 2,224 (L), 2,944 × 1,664 (M), 1,968 × 1,112 (S)
File format	<ul style="list-style-type: none"> NEF (RAW): 12 or 14 bit, lossless compressed or compressed • JPEG: JPEG-Baseline compliant with fine (approx. 1:4), normal (approx. 1:8) or basic (approx. 1:16) compression (Size priority); Optimal quality compression available • NEF (RAW)+JPEG: Single photograph recorded in both NEF (RAW) and JPEG formats
Picture Control System	Standard, Neutral, Vivid, Monochrome, Portrait, Landscape; selected Picture Control can be modified; storage for custom Picture Controls
Storage media	SD (Secure Digital) and UHS-I compliant SDHC and SDXC memory cards
Double card slots	Slot 2 can be used for overflow or backup storage or for separate storage of copies created using NEF+JPEG; pictures can be copied between cards
File system	DCF (Design Rule for Camera File System) 2.0, DPOF (Digital Print Order Format), Exif (Exchangeable Image File Format for Digital Still Cameras) 2.3, PictBridge
Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame coverage	<ul style="list-style-type: none"> FX (36×24): Approx. 100% horizontal and 100% vertical • DX (24×16): Approx. 97% horizontal and 97% vertical
Magnification	Approx. 0.7x (50 mm f/1.4 lens at infinity, -1.0 m ⁻¹)
Eye point	21 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	Pressing depth-of-field preview button stops lens aperture down to value selected by user (A and M modes) or by camera (other 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), DX lenses (using DX (24×16) image area), AI-P NIKKOR lenses, and non-CPU AI lenses (A and M modes 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 the center 7 focus points with lenses that have a maximum aperture of f/8 or faster and the center 33 focus points with lenses that have a maximum aperture of f/6.8 or faster)
Shutter type	Electronically controlled vertical-travel focal-plane shutter
Shutter speed	1/4,000 to 30 s in steps of 1/3 or 1/2 EV, bulb, time (requires optional ML-L3 Remote Control), X200
Flash sync speed	X=1/200 s; synchronizes with shutter at 1/250 s or slower (flash range drops at speeds between 1/200 and 1/250 s)
Release modes	S (single frame), C _i (continuous low speed), C _h (continuous high speed), Q (quiet shutter-release), Q _c (quiet continuous shutter-release), Ⓢ (self-timer), Ⓜ (remote control), MUP (mirror up)
Frame advance rate	Approx. 1 to 5 fps (C _i), approx. 6 fps (C _h) or 3 fps (Q _c)
Self-timer	2 s, 5 s, 10 s, 20 s; 1 to 9 exposures at intervals of 0.5, 1, 2 or 3 s
Remote release modes	Delayed remote, quick-response remote, remote mirror-up
Exposure metering	TTL exposure metering using 2,016-pixel RGB sensor
Metering method	<ul style="list-style-type: none"> Matrix: 3D color matrix metering II (type G, E and D lenses); color matrix metering II (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 lenses use 12-mm circle or average of entire frame) • Spot: Meters 4-mm circle (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU lens is used)
Metering range	<ul style="list-style-type: none"> Matrix or center-weighted metering: 0 to 20 EV Spot metering: 2 to 20 EV
Exposure meter coupling	Combined CPU and AI
Exposure modes	Auto (A), auto (S), auto (flash off), scene (S), portrait (P), landscape (L), child, Ⓢ sports, Ⓢ close up, Ⓢ night portrait, Ⓢ night landscape, Ⓢ party/indoor, Ⓢ beach/snow, Ⓢ sunset, Ⓢ dusk/dawn, Ⓢ pet portrait, Ⓢ candlelight, Ⓢ blossom, Ⓢ autumn colors, Ⓢ food, Ⓢ silhouette, Ⓢ high key, Ⓢ low key), programmed auto with flexible program (P), shutter-priority auto (S), aperture-priority auto (A), manual (M), U1 (user settings 1), U2 (user settings 2)
Exposure compensation	Can be adjusted by -5 to +5 EV in increments of 1/3 or 1/2 EV in P, S, A and M modes
Exposure bracketing	2 to 3 frames in steps of 1/3, 1/2, 2/3, 1, 2 or 3 EV
Exposure lock	Luminosity locked at detected value with AE-L/AF-L button
ISO sensitivity	ISO 100 to 6400 in steps of 1/3 or 1/2 EV; can also be set to approx. 0.3, 0.5, 0.7 or 1 EV (ISO 50 equivalent) below ISO 100 or to approx. 0.3, 0.5, 0.7, 1 or 2 EV (ISO 25600 equivalent) above ISO 6400; auto ISO sensitivity control available
Active D-Lighting	Auto, Extra high, High, Normal, Low, Off
ADL bracketing	2 frames using selected value for one frame or 3 frames using preset values for all frames
Autofocus	Nikon Multi-CAM 4800 autofocus sensor module with TTL phase detection, fine-tuning, 39 focus points (including 9 cross-type sensors); the center 33 points are available at apertures slower than f/5.6 and faster than f/8, while the center 7 points are available at f/8, and AF-assist illuminator (range approx. 0.5 to 3 m/1 ft 8 in. to 9 ft 10 in.)
Detection range	-1 to +19 EV (ISO 100, 20°C/68°F)
Lens servo	<ul style="list-style-type: none"> Autofocus (AF): Single-servo AF (AF-S); continuous-servo AF (AF-C); auto AF-S/AF-C selection (AF-A); predictive focus tracking activated automatically according to subject status • Manual focus (M): Electronic rangefinder can be used

Focus point	Can be selected from 39 or 11 focus points
AF-area modes	Single-point AF, 9-, 21- or 39-point dynamic-area AF, 3D-tracking, auto-area AF
Focus lock	Focus can be locked by pressing shutter-release button halfway (single-servo AF) or by pressing AE-L/AF-L button
Built-in flash	<ul style="list-style-type: none"> Auto flash with auto pop-up P, S, A, M, 11: Manual pop-up with button release
Guide number	Approx. 12/39, 12/39 with manual flash (m/ft, ISO 100, 20°C/68°F)
Flash control	TTL: i-TTL flash control using 2,016-pixel RGB sensor is available with built-in flash and SB-910, SB-900, SB-800, SB-700, SB-600, SB-400 or SB-300; i-TTL balanced fill-flash for digital SLR is used with matrix and center-weighted metering, standard i-TTL flash for digital SLR with spot metering
Flash modes	Auto, auto with red-eye reduction, auto slow sync, auto slow sync with red-eye reduction, fill-flash, red-eye reduction, slow sync, slow sync with red-eye reduction, rear-curtain with slow sync, rear-curtain sync, off; auto FP high-speed sync supported
Flash compensation	-3 to +1 EV in increments of 1/3 or 1/2 EV
Flash bracketing	2 to 3 frames in steps of 1/3, 1/2, 2/3, 1, 2 or 3 EV
Flash-ready indicator	Lights when built-in flash or 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)	Advanced Wireless Lighting supported with built-in flash, SB-910, SB-900, SB-800 or SB-700 as a master flash and SB-600 or SB-R200 as remotes, or SU-800 as commander; built-in flash can serve as master flash in commander mode; auto FP high-speed sync and modeling illumination supported with all CLS-compatible flash units except SB-400; Flash Color Information Communication and FV lock supported with all CLS-compatible flash units
Sync terminal	AS-15 Sync Terminal Adapter (available separately)
White balance	Auto (2 types), incandescent, fluorescent (7 types), direct sunlight, flash, cloudy, shade, preset manual (up to 4 values can be stored), choose color temperature (2,500 K to 10,000 K); all with fine-tuning
White balance bracketing	2 to 3 frames in steps of 1, 2 or 3
Live view modes	Live view photography (still images), movie live view (movies)
Live view lens servo	<ul style="list-style-type: none"> Autofocus (AF): Single-servo AF (AF-S); full-time servo AF (AF-F) • Manual focus (M)
AF-area modes	Face-priority AF, wide-area AF, normal-area 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)
Movie metering	TTL exposure metering using main image sensor
Movie metering method	Matrix
Frame size (pixels) and frame rate	<ul style="list-style-type: none"> 1,920 × 1,080; 30p (progressive), 25p, 24p • 1,280 × 720; 60p, 50p, 30p, 25p Actual frame rates for 60p, 50p, 30p, 25p, and 24p are 59.94, 50, 29.97, 25, and 23.976 fps respectively; options support both ★ high and normal image quality
File format	MOV
Video compression	H.264/MPEG-4 Advanced Video Coding
Audio recording format	Linear PCM
Audio recording device	Built-in monaural or external stereo microphone; sensitivity adjustable
Maximum length	Approx. 29 min. 59 s (20 min. depending on frame size/rate and movie quality settings)
Other movie options	Index marking, time-lapse photography
Monitor	8-cm (3.2-in.), approx. 921k-dot (VGA), low-temperature polysilicon TFT LCD with approx. 170° viewing angle, approx. 100% frame coverage, and automatic monitor brightness control using ambient brightness sensor
Playback	Full-frame and thumbnail (4, 9, 72 images or calendar) playback with playback zoom, movie playback, photo and/or movie slide shows, histogram display, highlights, photo information, GPS data display and auto image rotation
USB	Hi-Speed USB
HDMI output	Type C mini-pin HDMI connector
Accessory terminal	Remote cord: MC-DC2 (available separately), GPS unit: GP-1/GP-1A (available separately)
Audio input	Stereo mini-pin jack (3.5-mm diameter; plug-in power supported)
Audio output	Stereo mini-pin jack (3.5-mm diameter)
Supported languages	Arabic, Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Portugal and Brazil), Romanian, Russian, Spanish, Swedish, Thai, Turkish, Ukrainian
Battery	One EN-EL15 Rechargeable Li-ion Battery
Battery pack	Optional MB-D14 Multi-Power Battery Pack with one EN-EL15 Rechargeable Li-ion Battery or six AA alkaline, Ni-MH, or lithium batteries
AC adapter	EH-5b AC Adapter; requires EP-5B Power Connector (available separately)
Tripod socket	1/4 in. (ISO 1222)
Dimensions (W × H × D)	Approx. 141 × 113 × 82 mm/ 5.6 × 4.4 × 3.2 in.
Weight	Approx. 850 g/1 lb 14.0 oz with battery and memory card but without body cap; approx. 760 g/ 1 lb 10.8 oz (camera body only)
Operating environment	Temperature: 0 to 40°C/32 to 104°F; humidity: 85% or less (no condensation)
Supplied accessories	EN-EL15 Rechargeable Li-ion Battery, MH-25 Battery Charger, DK-5 Eyepiece Cap, DK-21 Rubber Eyecup, UC-E15 USB Cable, AN-DC10 Camera Strap, BM-14 LCD Monitor Cover, BF-1B Body Cap, BS-1 Accessory Shoe Cover, ViewNX 2 CD-ROM

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At the heart of the image

D610



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WARNING

TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT. SOME DOCUMENTATION IS SUPPLIED ON CD-ROM ONLY.

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EXPERIENCE PHOTOGRAPHY AT ITS FULLEST

SMALL LIGHT FX
 24.3 EFFECTIVE MEGAPIXELS



WELCOME TO THE FULL-SCALE DIFFERENCE OF FX FORMAT

Get ready for a new level of photography. With the D610, you've arrived at the gateway to FX-format shooting. You'll be amazed at the image quality that the large size of an FX-format sensor can offer. An abundant 24.3-megapixel count can be further enhanced by the use of fast NIKKOR lenses, delivering smooth and natural tonality, incredibly sharp detail with low noise when shooting at high ISOs. All this in a remarkably compact and lightweight body, with an improved 6-fps speed to help you capture the shots you want. It's a camera to take with you wherever you need it most, and to take your creativity even further.

D610



“ The D610 achieves a more subtle expression of the subject, capturing rich tones to create more pronounced highlights and shadows. ”

• Lens: AF-S NIKKOR 16-35mm f/4G ED VR • Image quality: 14-bit RAW (NEF) • Exposure: [M] mode, 1/63.9 second, f/8
• White balance: Direct sunlight • Sensitivity: ISO 100
• Picture Control: Standard © Takashi Yamaguchi



“ With 6-fps continuous shooting and a superior AF system, the D610 lets you capture even the most elusive subjects. ”

• Lens: AF-S NIKKOR 600mm f/4G ED VR + AF-S TELECONVERTER TC-14E II • Image quality: 12-bit RAW (NEF)
• Exposure: [M] mode, 1/2000 second, f/5.6 • White balance: Color Temp. (5000 K) • Sensitivity: ISO 800
• Picture Control: Standard © Junichi Noguchi



“ The subject is sharply portrayed in a shallow depth of field, with a feather-soft foreground and spectacular bokeh in the background. ”

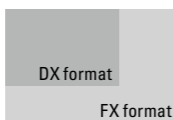
• Lens: AF-S NIKKOR 85mm f/1.8G • Image quality: 14-bit RAW (NEF)
• Exposure: [M] mode, 1/250 second, f/2.8 • White balance: Color Temp. (5000 K)
• Sensitivity: ISO 100 • Picture Control: Standard © Hideki Kono

See how FX format impacts your photography

FX
format
24.3
megapixels

FX format makes a difference – here's how

The D610's FX-format CMOS image sensor will transport your photography to new heights. Boasting a larger pixel than you'll get in other formats with the same pixel count, it's able to capture more light. This technical advantage has a huge impact on dynamic range and image quality at high ISOs, resulting in richer gradation and reduced noise. Having 24.3 megapixels at your disposal means more flexibility when printing at large sizes and in cropping during post-production. FX format also offers shallow depth of field with beautiful bokeh, creating portraits with a new sense of depth – especially when used with fast FX NIKKOR prime lenses. With its FX-format sensor housed in a compact body, the D610 is a portable powerhouse. If you haven't experienced the difference of FX format, here's your chance.



4 key
assets

Vital elements for a formidable machine: FX-format sensor, EXPEED 3, Picture Control and NIKKOR

The D610's innovative FX-format CMOS sensor, image-processing engine and lenses work together to deliver the exceptional quality you demand in your stills and videos. NIKKOR lenses realize the sensor's full potential, achieving exquisite sharpness with minimized aberration, while rendering spectacular bokeh for a three-dimensional look that's true-to-life. The D610 takes full advantage of Nikon's EXPEED 3, the same image-processing engine found in



CMOS sensor

80
million
NIKKOR



EXPEED 3



PICTURE
CONTROL

6 fps

6-fps continuous shooting: FX-format quality at full- throttle speed

It's easier than ever to nail key moments with the D610. The camera boasts even faster continuous shooting than its predecessor, at up to approx. 6 fps* in FX and DX formats – amazing when you consider that the former is recording 24.3 megapixels with each shot. That's thanks to the speed of the EXPEED 3 image-processing engine, and a stand-alone driving mechanism that drives the mirror independently.

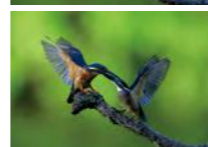
* Based on CIPA Guidelines.



Qc shutter-release mode for quiet operation [NEW]

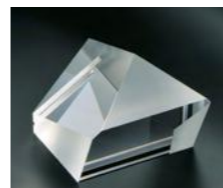
The D610's new Qc (quiet continuous) shutter-release mode reduces mirror noise while still offering up to 3 fps, for maximum discretion in situations such as ceremonies and school plays, or when taking pictures of wildlife and insects.

the D4 and D800 series, meaning it can swiftly manage the large data files that an FX-format sensor produces. During image processing, Nikon's original Picture Control technology makes it simple to tailor the look and feel of your stills and videos by fine-tuning their parameters using preset options. And with enhanced auto white balance accuracy for common shooting scenarios, the D610 reproduces colors naturally and precisely. These exclusive technologies produce a quick, complete finish for your images that'll satisfy your photographic impulses.



Indispensable features for FX-format imaging – and no compromises

Approx. 100% frame coverage

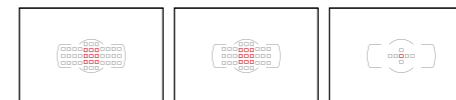


The bright, clear glass prism of the D610's optical viewfinder covers approx. 100% of the image area, an invaluable asset for accurate framing. The approx. 0.7x* magnification – the same as the D4 and D800/D800E – means it's easy to see all the visual elements in the viewfinder, while the optional grid line display enhances composition for landscape and architecture photography.

* With a 50mm f/1.4 lens at infinity, -1.0 m⁻¹.

39 focus points and f/8 compatibility

The D610's AF system gives you absolute confidence when capturing moving subjects by using 39 strategically placed focus points, with nine powerful cross-type sensors in the center to maintain accuracy even when light and contrast are low. Most impressively, you can still use seven active focus points when the effective aperture is as slow as f/8, with the telephoto lens attached via a teleconverter.



Compatible with f/5.6 Compatible with aperture slower than f/5.6 and faster than f/8 Compatible with f/8

(Perform as cross-type sensors)

Double SD card slots



The D610's double SD card slots provide multiple options for recording and storing large files: you can write RAW and JPEG data to separate cards, copy from one card to another, or select a slot according to the remaining capacity during video shooting. The slots are UHS-I compatible, and can transfer data faster thanks to the camera's EXPEED 3 image-processing engine.

Dependable body and shutter



The D610's rugged body utilizes a durable magnesium alloy for the top and rear frames, and its weather-sealing gives it the same dust- and moisture-proof reliability as the D800 series. The shutter unit has been rigorously tested for 150,000 cycles on the body with the driving mechanism, so you can keep shooting for as long – or as hard – as your creativity demands.

Built-in flash to trigger remote Speedlights

The D610's built-in flash makes Advanced Wireless Lighting with Nikon Speedlights even easier and more portable. Turn the flash to commander mode and you can wirelessly trigger your remote Speedlights (SB-700 or SB-910) with ease, producing creative and comprehensive lighting that'll go wherever your imagination takes you.

Full HD D-Movie and time-lapse feature

The D610 can record 1080p Full HD video at 30p in H.264/MPEG-4 AVC, with a choice of both FX- and DX-based movie formats, plus comprehensive audio control including a dedicated stereo headphone connector. It enables you to watch simultaneous live view output on external monitors and record uncompressed video via HDMI. You can also create time-lapse photography through simple menu operations, with no need for elaborate calculations and editing.



State-of-the-art NIKKOR lenses: maximizing the potential of FX format



AF-S NIKKOR 50mm f/1.8G

A compact, lightweight standard prime lens, with aspherical elements to correct aberration, yielding stunning sharpness and bokeh. The lens handles low-light situation especially well. Lends itself to virtually any subject matter – from portraits and still lifes to landscapes.



AF-S NIKKOR 85mm f/1.8G

A fast mid-range prime lens, delivering crisply sharp images from a surprisingly light and compact body. Take advantage of the impressive bokeh for creative portrait work.



AF-S NIKKOR 18-35mm f/3.5-4.5G ED

A compact, lightweight zoom lens that complements the D610's agility. Incorporates multiple ED glass and aspherical lens elements for clear images with minimal aberration at a 0.28 m minimum focus distance, perfect for close-up nature photography.



AF-S NIKKOR 24-85mm f/3.5-4.5G ED VR

A compact and versatile lens that covers the most frequently used zoom range. The Vibration Reduction (VR) enhancement of up to 4.0 stops* improves your handheld capability, opening up a wide range of subject matter – from portraits and still lifes to landscapes.



AF-S NIKKOR 28-300mm f/3.5-5.6G ED VR

A versatile, high-powered 11x zoom lens with VR enhancement of up to 3.5 stops*. Delivers outstanding image integrity throughout the broad zoom range. Best suited for travel photography.



AF-S NIKKOR 70-200mm f/4G ED VR

A telephoto zoom with impressive VR enhancement of up to 4.0 stops*, offering increased opportunities for handheld shooting. Its 1.0 m minimum focus distance produces beautiful bokeh, while the Nano Crystal Coat minimizes flare and ghost. Most importantly, it produces convincing autofocus results even when used handheld with a 2x teleconverter at 400 mm and f/8. (See above for details.) Useful in a broad range of shooting scenarios, from action sports to candid portraits.



AF-S TELECONVERTER TC-20E III



AF-S NIKKOR 80-400mm f/4.5-5.6G ED VR

An agile 5x super-telephoto zoom lens with VR enhancement of up to 4.0 stops*. Boasts superior optical performance thanks to its one Super ED and four ED glass elements, and Nano Crystal Coat to reduce flare and ghost. Offers unparalleled image quality, especially for sports, wildlife and travel.

* Based on CIPA Standard. The value is achieved when attached to an FX-format digital SLR camera, with zoom set at the maximum telephoto position.