



VERSATILITY MEETS AGILITY



CAPTURE TOMORROW



D780™

24.5 MP | ISO 100-51200 | 51-POINT AF | 273-POINT LIVE VIEW HYBRID AF | 4K UHD, HDR (HLG) VIDEO





Full-fledged features and two powerful AF systems: unlimited possibilities

From capturing fast-moving action to jaw-dropping time-lapse sequences and rich 4K videos, Nikon's new D780 FX-format D-SLR lets your vision take flight. The long-awaited successor to the D750 has the same robust yet agile body, while packing even more heavyweight performance. Its 51-point AF system detects and tracks subjects more tenaciously, thanks to innovations including a new AF algorithm adapted from the flagship D5. It is the first Nikon D-SLR to incorporate focal-plane phase-detection AF, bringing huge enhancements in live view shooting, with wide 273-point coverage and eye-detection AF. And the possibilities don't end there: it offers a rich array of advanced image-making options, from improved time-lapse movies to shutter speeds of 1/8000 to 900 s, and diverse movie functions including 4K UHD/30p with HDR (HLG) support. Combined with the effortless handling of a touch-operable LCD, the D780 lets you stay nimble, and seize every imaging opportunity.

D780™





AF EVOLUTION





More powerful detection and tracking of moving subjects – 51-point AF system with optical viewfinder

The D780's 51-point AF system with 15 cross-type sensors may look familiar to D750 users, but its performance has been noticeably enhanced. That's because of the camera's powerful EXPEED 6 image-processing engine and the detailed subject information acquired by the Advanced Scene Recognition System and upgraded 180K-pixel RGB sensor. This enables more tenacious tracking in 3D-tracking mode and, in combination with a new AF algorithm adapted from the flagship D5, delivers improved subject detection in auto-area AF. And you can enjoy the real-time confirmation of an optical viewfinder with approx. 0.7× magnification*

and 100% frame coverage, now with increased viewing comfort thanks to improved optics. Even when capturing fast, erratically moving subjects in challenging lighting conditions, the D780 gives you the tools – and confidence – to get the shot.

* 50mm f/1.4 lens at infinity, -1.0m

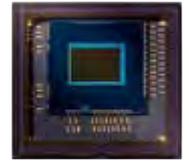
AF area modes in viewfinder photography
Single-point AF / Dynamic-area AF (9, 21 or 51 points) / 3D-tracking / Auto-area AF / Group-area AF



Enhanced accuracy for auto controls —
180K-pixel RGB sensor for Advanced Scene Recognition System

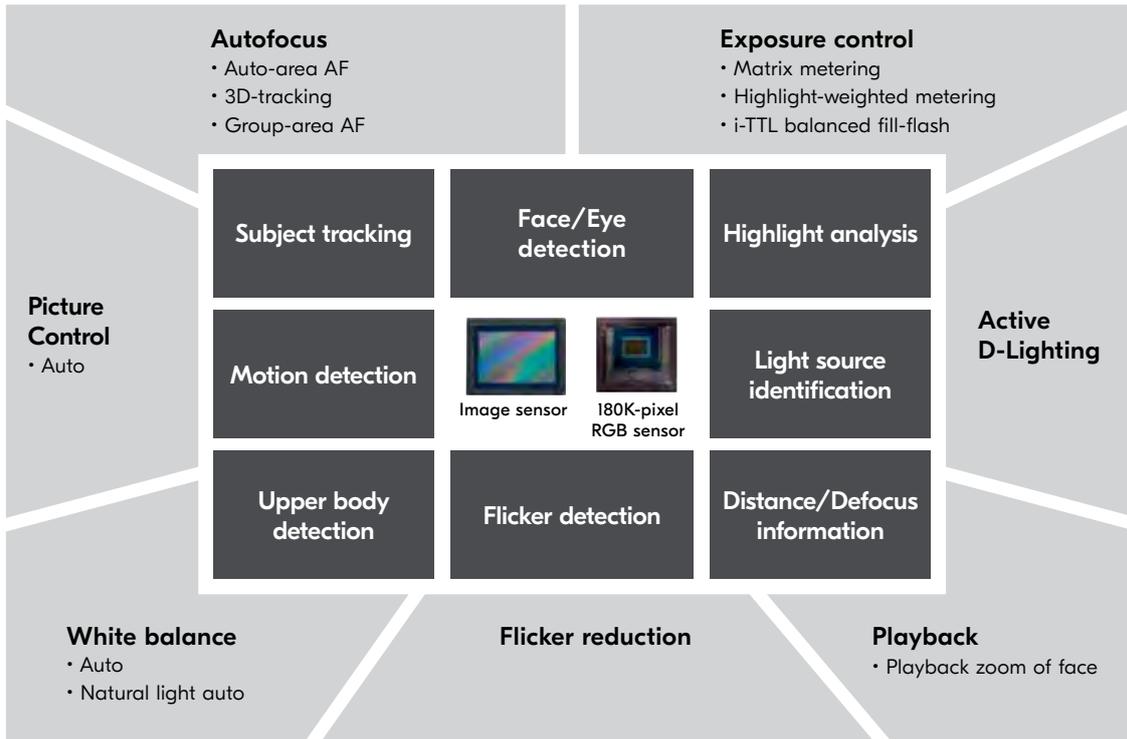
The D780 incorporates a range of auto controls to help you obtain optimum results, using the Advanced Scene Recognition System and the increased pixel count of the camera's 180K-pixel RGB sensor to enhance their accuracy. Furthermore, metering is available down to -3 EV* thanks to the sensor's superb sensitivity, which is effective when shooting low-light scenes.

The system also makes it possible to achieve effective flicker reduction, which is now available in live view shooting, as well as movie recording and viewfinder photography.



* ISO 100, f/1.4, 20°C/68°F, using matrix or center-weighted metering

Advanced Scene Recognition System





Radically improved AF in live view shooting and movie recording — 273-point hybrid AF system with focal-plane phase-detection AF

The D780 doesn't just offer impressive AF in viewfinder shooting. Thanks to the incorporation of focal-plane phase-detection AF technology, its new hybrid AF system delivers an evolutionary leap in focusing performance during live view shooting and movie recording. The coverage is extremely wide — approx. 90% of the frame both horizontally and vertically with 273 focus points* — allowing the camera to focus even on subjects in the periphery. What's more, eye-detection AF is available when capturing stills in live view shooting, bringing a whole new level of creative freedom for portrait photography. Combined with the tilting LCD monitor, this AF capability lets even experienced D-SLR users discover a range of fresh approaches, transforming the way they create stills and movies.

* In live-view still photography in FX format with all points selected in single-point AF.

AF-area modes in live-view shooting

Pinpoint AF¹ / Single-point AF / Dynamic-area AF² / Wide-area AF (S/L) / Auto-area AF

¹ Only available when AF-S is selected for still photography. Contrast-detect AF is activated when this mode is set.

² Available when AF-A or AF-C is selected for still photography.

Effortless candid portraits — Eye-detection AF

Eye-detection AF is available when shooting stills in live view, using auto-area AF. In AF-C mode, half-pressing the shutter release button allows you to track the eye of a moving subject, for capturing truly candid portraits. When multiple eyes are detected, you can select which one to focus on using the multi selector.



More customizable AF control –
Adjustable AF speed and tracking sensitivity
during movie recording

Focusing speed and the smoothness of focus transitions when switching between subjects can make a huge difference in movies. Taking advantage of its newly introduced focal-plane phase-detection AF, the D780 lets you customize the speed* and tracking sensitivity of AF when filming videos. AF speed is adjustable in 11 steps, and at lower levels, focus is achieved slowly, making scenes look more cinematic. AF tracking sensitivity can be adjusted in 7 steps. Select a lower sensitivity if you want to prevent the camera from switching focus when the current subject is temporarily obscured, for instance by an obstacle such as a tree or vehicle.

* Not available with certain NIKKOR F lenses.



Separately adjust wide and telephoto ends of
zoom lenses – AF fine-tune

AF fine-tune allows you to make subtle adjustments for each type of lens you use to ensure focusing accuracy in stills and movies. In viewfinder photography, you can use auto AF fine-tuning feature to let the camera automatically acquire and store the AF tuning value. With the D780, it's now also possible to store these values for both the wide and telephoto ends of zoom lenses, improving AF accuracy across the entire zoom range.



Extend your vision – Reliable low-light AF
in both viewfinder and live view shooting

The D780 offers AF down to -3 EV¹ during viewfinder photography, making it possible to capture sharp images of moving subjects even under low light. And with the low-light AF function activated, AF is available down to an incredible -7 EV² when shooting stills in live view.

¹ ISO 100, 20°C/68°F.

² In still photography at f/1.4, ISO 100, 20°C/68°F using AF-S.



• Lens: AF-S NIKKOR 24mm f/1.4G ED • Exposure: [M] mode, 13 s, f/2
• White balance: Color temperature (3570K) • Sensitivity: ISO 3200
• Picture Control: Landscape © Simone Cmoon



SUPERB IMAGE QUALITY





• Lens: AF-S NIKKOR 24-120mm f/4G ED VR • Exposure: [M] mode, 1/60 s, f/5.6 • White balance: Auto 1 • Sensitivity: ISO 10000
 • Picture Control: Standard

© Ryan Taylor

Exceptional image quality, especially under low light –
 Backside illumination CMOS sensor featuring 24.5 effective megapixels and ISO 100-51200

At the heart of the D780 is an FX-format backside illumination CMOS sensor featuring 24.5 effective megapixels, which strikes an optimal balance between image quality and low-light performance. Its design allows incoming light to reach photodiodes more efficiently, meaning the D780 can achieve a standard sensitivity range of ISO 100-51200 (expandable to ISO 50-204800 equivalent) with advanced image processing

by EXPEED 6. The D780 is also the first Nikon D-SLR to incorporate focal-plane phase-detection AF, delivering faster, more accurate AF during live view shooting and movie recording.



© Ryan Taylor



© Simone Cmoon

Crisper definition in stills and movies — EXPEED 6

The D780's EXPEED 6 image-processing engine is designed to bring more sharpness to your images while effectively reducing noise, allowing the camera to achieve a maximum standard sensitivity of ISO 51200. Its extraordinary calculating power also permits high-speed continuous shooting at approx. 7 fps with AF/AE tracking, as well as full-frame, 4K UHD/30p movie recording. The engine now supports a mid-range sharpening parameter* for Picture Control, Nikon's unique image creation system. EXPEED 6 also offers diffraction compensation, which helps capture landscapes and cityscapes crisply, even at slow apertures.



More effective sharpness adjustments — Mid-range sharpening and “quick sharp” for Picture Controls

Nikon's Picture Control system helps you craft images that match your creative intentions and purposes. The D780 incorporates a mid-range sharpening parameter* alongside the existing clarity parameter (which adjusts overall sharpness) and sharpening (which adjusts the appearance of details and patterns). Used together, they give you finer control over the various textures within the frame to make them look sharper or softer. And if you want a simpler way to control all three parameters, “quick sharp” lets you adjust them with a single slider.

* High image quality mode only for video.

Quickly create a more artistic look for stills and movies — Creative Picture Control

The D780 features 20 Creative Picture Controls that can be used to give an artistic look to your stills and movies instantly, encouraging you to explore your creativity further. The effect level for each option is adjustable from 0 to 100 in increments of 11 steps. It is also possible to create custom Picture Controls by altering each preset's parameters, such as sharpening, saturation and contrast.

Creative Picture Controls

Dream / Morning / Pop / Sunday / Somber / Dramatic / Silence / Bleached / Melancholic / Pure / Denim / Toy / Sepia / Blue / Red / Pink / Charcoal / Graphite / Binary / Carbon

* High image quality mode only for video.

Greater white balance precision — Preset manual and spot white balance

When shooting under mixed lighting, you may prefer to set a custom white balance using preset manual. The D780 now lets you measure an even smaller area when doing so in viewfinder shooting (equivalent to 3 × 3 focus points at the center of AF coverage), for greater accuracy. This eliminates the need to prepare a reference object or to switch to live view mode. Meanwhile, in live view shooting, you can measure white balance from any white or gray area in the frame using the spot white balance function.



© Simone Cmoon



More faithful color reproduction under natural light — Natural light auto white balance option

The D780 incorporates a “natural light auto” white balance mode, taking advantage of the Advanced Scene Recognition System's improved light source identification function. This option delivers optimal white balance results under natural light, making it possible to respond quickly to changes in the weather conditions without switching to the “direct sunlight” or “cloudy” options. When shooting a scene such as an autumnal landscape awash with red leaves or a spectacular orange sunset, it also enhances the warm colors, helping create even more impressive pictures.



EXPANDED IMAGE-MAKING POTENTIAL





• Lens: AF-S Fisheye NIKKOR 8-15mm f/3.5-4.5E ED • Exposure: [M] mode, 1/8000 s, f/8
• White balance: Natural light auto • Sensitivity: ISO 1000 • Picture Control: Auto

© Ryan Taylor

Greater control over exposure times — Shutter speeds from 1/8000 to 900 s

In both dazzlingly bright and extremely dark scenes, the D780 gives you greater creative control. With a fastest shutter speed of 1/8000, you can shoot at wide apertures even in bright sunlight, in order to create more impressive portraits.

At the other end of the scale, shutter speeds longer than 30 s can be selected all the way up to 900 s via the custom settings menu, which is particularly useful for extended exposures in astrophotography.



Capture fleeting moments – 7 fps continuous shooting

When the action gets intense, the D780's high-speed capabilities enable you to keep pace. The camera captures 24-megapixel images at up to approx. 7 fps^{*1}, while providing a clear, real-time view of your subject through the optical viewfinder. The newly employed mirror-down balancer minimizes mechanical vibration and stabilizes the viewfinder image. Data from the image sensor is handled rapidly by the powerful EXPEED 6 image-processing engine, allowing continuous shooting for up to approx. 68 frames^{*2} in 14-bit lossless compressed RAW— almost four times

the buffer size of the D750. And while 7-fps continuous shooting is available in live view still photography as well, this mode also allows silent continuous shooting^{*3} in 12-bit RAW at up to approx. 12 fps.

^{*1} In AF-C, S or M mode, shutter speed 1/250 or over, and all other settings at original default settings.

^{*2} ISO 100, when using a Sandisk Extreme Pro UHS-II SD memory card and EN-EL15b Rechargeable Li-ion battery.

^{*3} Aperture drive and VR sounds may occur. Rolling shutter distortion may occur during silent photography of moving subjects.

Freeze split-second motion – 120-fps High-speed Frame Capture

When you want to discover even more in a fast-moving scene, the D780's High-speed Frame Capture – available during movie live view mode – allows you to take 2-megapixel^{*1} images at up to an incredible 120 fps with AE/AF, as well as 8-megapixel^{*2} images at up to 30 fps. Now you can see the movements between the movement during action sequences, like the moment a runner leaves the starting blocks or a diver hits the water. It brings split-second action that even a flagship camera would struggle to capture within your reach.

^{*1} With Full-HD selected for image quality.

^{*2} With 4K UHD selected for image quality.





• Lens: AF-S NIKKOR 24-70mm f/2.8E ED VR • Exposure: [M] mode, 1/1600 s, f/4.5 • White balance: Auto I • Sensitivity: ISO 500
• Picture Control: Auto

© Ryan Taylor

Nail a shot without any mechanical vibration or shutter click — Silent photography

There are times when the sound of a shutter might ruin the atmosphere. The D780's silent photography function* in live view mode lets you capture every last detail discreetly. It does this by utilizing an electronic shutter instead of triggering any mirror or shutter movement, meaning it doesn't cause any mechanical vibration. It is also helpful when you want to minimize vibrations while using a telephoto lens, as well as to prevent mechanical

wear to the shutter during interval timer shooting. Silent continuous shooting in 12-bit RAW at up to approx. 12 fps with AE/AF tracking is also available.

* Aperture drive and VR sounds may occur. Rolling shutter distortion may occur during silent photography of moving subjects.

More convenient focus stacking — Focus shift photography

When shooting a scene containing various subjects at different focal distances, or creating specimen pictures of insects and flowers, photographers may want to bring everything into sharp focus. The D780's focus shift photography function enables you to shoot sequences of up to 300 frames, which can be combined in post-production focus stacking* to create an image with everything in brilliantly sharp focus. The camera automatically shifts focus position from the start point to infinity, with the focus step width selectable from 10 levels. Silent focus shift photography is also available, if you want to minimize the risk of mechanical blur.

* Requires third-party editing software.

Transform the look and feel of images — Special Effects mode

Special Effects are a way to make your stills or videos more eye-catching. The D780 offers 10 exciting special effect options, and for 6 of them (super vivid, pop, photo illustration, toy camera effect, miniature effect and selective color), the camera saves the RAW image at the same time as creating a JPEG with the effect applied, letting you retain complete flexibility in post-processing.



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Quick in-camera editing — Retouch menu

The D780's extensive in-camera retouch menu offers more flexible resizing and trimming options. It is now possible to trim images from horizontal to vertical and to resize images in 1:1 and 16:9 aspect ratios. What's more, the lighten and darken overlay modes are now part of the menu, allowing you to combine any shots — and not just images that were taken consecutively.



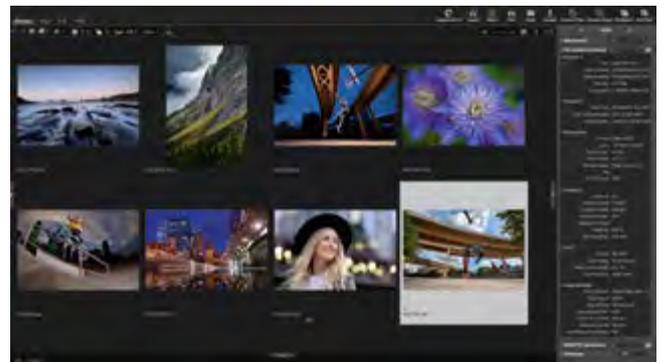
RAW file processing and optimal management of still images and movies — Capture NX-D and ViewNX-i (free download)

Nikon's Capture NX-D software is the best way to process original RAW (NEF/NRW) files without losing any of their extremely rich data. You can adjust options such as exposure compensation, white balance, Picture Control, Active D-Lighting and noise reduction using a slider. It also incorporates color control points that let you edit the hue, brightness, saturation,

contrast, etc. of a selected area, and supports JPEG and TIFF. Meanwhile, ViewNX-i allows browsing and simple editing of JPEG, RAW and movie files, including 4K UHD footage. It also lets users save a frame from a movie as a still image.



Capture NX-D



ViewNX-i

OPERABILITY AND RELIABILITY





Clearly confirm your view in real time —
Optical viewfinder

The D780 is equipped with an optical viewfinder, which has the unique advantage of offering a natural, real-time view of your subject. With approx. 0.7x magnification* and 100% coverage, it provides even clearer, more comfortable viewing of the entire frame thanks to improved optics. What's more, a new mirror-down balancer minimizes mechanical vibration, stabilizing the viewfinder image during continuous shooting.



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

Up to 2,260 shots per charge — Long battery life

The D780's EN-EL15b Rechargeable Li-ion Battery allows you to shoot up to approx. 2,260 shots* or approx. 95 minutes* of movies per single charge. As a result, you can concentrate on shooting without having to worry about remaining battery charge, even when recording several thousand images in interval timer photography.



* CIPA Standards.

Reliable performance even in challenging conditions — Durable body with dust and drip resistance

The D780's body ensures comfortable handling, with a secure, easy-to-hold grip and optimized button layout for smooth operation. By employing a monocoque structure with magnesium alloy for the rear and top covers, it achieves a rugged frame while reducing overall size and weight. Comprehensive sealing is also applied to keep the camera protected against dust and water. Improving on the D750, a newly introduced AF-ON button and a dedicated ISO button bring even greater

usability. Combining sturdiness with an agility that's unusual for an FX-format D-SLR camera, the D780 enables you to shoot in a wide range of demanding environments, expanding the field of your creative potential.



Instant setting changes — Flexible P menu operation with new GUI

The D780 features a new Graphical User Interface (GUI) that incorporates a more flexible and easy-to-navigate P menu. Users can select all 12 functions assigned to the P menu, and customize the layout differently for still image shooting and video recording, according to their needs. Setting changes can be made via touch operation, as well as by using the main/sub-command dial and OK button.



Intuitive live view operation — Touch-operable, tilting 8-cm/3.2-in., 2359k-dot monitor

The D780's touch-operable, tilting LCD monitor takes the live view experience to a new level, combining touch AF and fast hybrid AF to enable more intuitive, effective shooting for both stills and movies. Checking focus on the 3.2-in., 2359k-dot XGA monitor is easier, as the image enlarges when you pinch out. And being able to change and scroll quickly through menu settings by touch speeds up workflow.



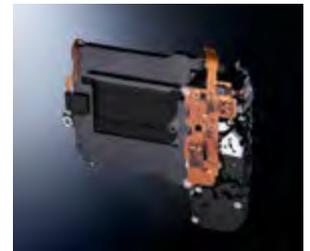
Options for improved workflow efficiency — Double SD card slots

The D780 features double UHS-II compatible SD card slots, bringing greater flexibility and peace of mind. It offers various storage options, including the ability to save the same data onto two cards for instant backup or record RAW and JPEG simultaneously onto separate cards. It also now lets you delete both copies of an image stored on two cards in a single operation, for improved workflow efficiency.



Tested for 150,000 cycles — Highly accurate and durable shutter

The D780's shutter has been tested for 150,000 cycles with the unit and driving mechanism actually loaded in the camera. Even during interval timer and high-speed continuous shooting, it delivers high precision and durability.



RAW image transfers to smart devices & new filtering settings — SnapBridge ver. 2.6

The SnapBridge ver. 2.6 allows transfers of RAW images to smart devices connected directly to the camera via Wi-Fi, while introducing filtering settings that make it easier to find images.



Remote control via Bluetooth connection now offers expanded features. Using your smart device as a remote controller, you can shoot/playback* stills and movies, and half-press the camera's shutter release button to perform operations such as achieving focus. It is also possible to start/stop interval timer photography, time-lapse movie recording and focus shift shooting.

* Playback operation is only available via Bluetooth connection.

Note: SnapBridge is compatible with iPhone®, iPad®, iPod touch® or smart devices running on the Android™ operating system. Available free from Apple App Store® and Google Play™. Please check Nikon's website for further information.





COMPREHENSIVE MOVIE FUNCTION





Clear and sharp video footage –
Full-frame 4K UHD and Full HD 120p/100p

The D780 lets you film breathtaking 4K UHD/30p videos with a wide angle of view and large bokeh, making full use of the FX-based movie image area, without any crop. The camera offers Full HD 120p/100p^{*1} recording, including audio capture, providing more options in post-production. Instant dramatic expression is also possible, with the ability to process Full HD ×4 and ×5 slow motion in-camera. Moreover, the D780's hybrid AF system allows you to shoot videos with confidence. It has 231 AF points^{*2} that cover a wide area of the frame, while a choice of four AF-area modes for video – single-point AF, wide-area AF (S/L) and auto-area AF – brings added flexibility.

*1 Fixed at FX-based movie format. Face detection is not available in auto-area AF.
*2 In FX-based movie format with single-point AF.

Stunning colors in 4K UHD with HDR –
Hybrid Log Gamma (HLG) support

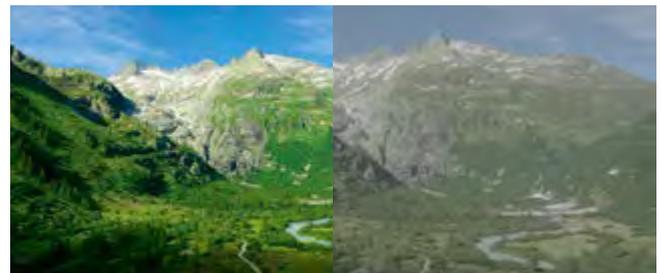
The D780 lets you produce 4K UHD videos with more realistic, beautiful colors and rich details in shadows and highlights, thanks to Hybrid Log Gamma (HLG) support, available during 10-bit HDMI output recording. This HDR video format supports ITU-R BT.2100, which features the wide color gamut of the BT.2020 standard. It is particularly convenient when you quickly need to deliver video with rich tonal gradation for HLG-compatible TV and monitors, as it eliminates the need for converting the log recorded file to the HDR format. The camera also has a “view assist” function that applies simple gradation compensation to the footage being recorded, and displays it in approximate colors on the LCD monitor – which is convenient if you don't have a compatible monitor to check it on.

Note: Simultaneous recording to memory card is not available.

Richer tonality for professional
post-production – 10-bit N-Log

If you're looking to produce professional-quality video pieces, N-Log is your ideal partner, letting you take advantage of an extensive color depth range in 4:2:2 10-bit HDMI output. It captures up to approx. 1.07 billion colors and a wide dynamic range at 12 stops and 1300%, recording richer gradation information in highlights and shadows to allow for more effective color grading. The camera's “view assist” function offers a useful way of confirming the approximate look of the footage while recording with N-Log.

Note: Simultaneous recording to memory card is not available.



After color grading

N-Log

Accurate manual focus confirmation –
Focus peaking display in 4K UHD

Many professional videographers use manual focus to give their movies a unique look. The D780's focus peaking display – available in 4K UHD, as well as Full HD – allows precise confirmation of focus when doing so, by detecting the scene's highest-contrast edges and highlighting them in a designated color. You can choose to display highlights in red, yellow, blue or white, according to your subject's own coloration, and adjust between three levels of detection sensitivity. For added convenience, this peaking information will not be recorded on external devices connected via HDMI.



Enhanced image quality in 4K UHD –
Active D-Lighting and eVR

Active D-Lighting is now available in 4K UHD recording, preserving details in highlights and shadows even when shooting under harsh sunlight. Electronic vibration reduction is also supported in 4K UHD, providing a sharp image with minimum blur.

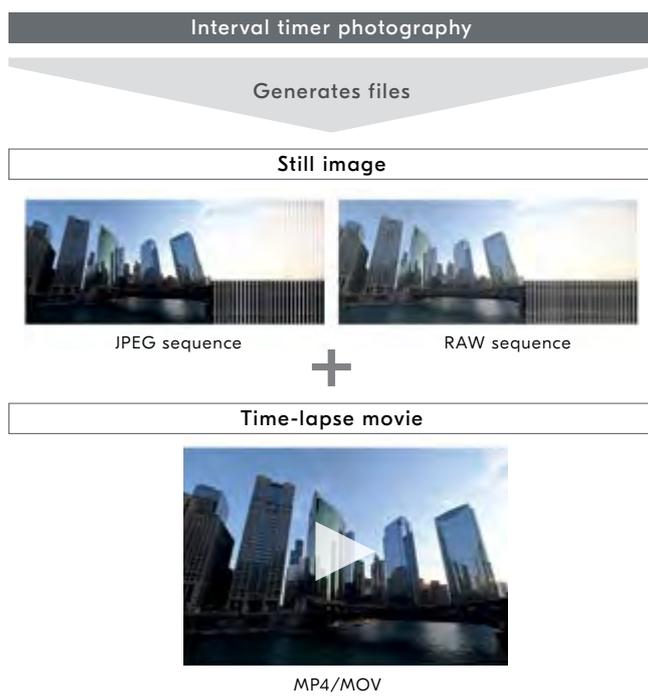
Spectacular time-lapse movies, in-camera –
Interval timer and time-lapse photography

Using interval timer photography to make time-lapse movies typically requires post-processing on a computer. But with the D780, it's possible to create time-lapse sequences in-camera^{*1} using interval timer mode, and instantly confirm – and share – the results. Movies are created in 16:9 aspect ratio, while the camera also saves the individual frames. In both interval timer shooting and conventional time-lapse photography, Nikon's unique exposure smoothing function^{*2} reduces subtle exposure variations between frames, which can create unattractive flickering effects when converted into video. What's more, when used with silent mode, it extends the camera's exposure metering capability beyond the -3 EV^{*3} available during regular shooting. This lets photographers use A mode or other auto exposure modes to shoot scenes where brightness changes significantly, such as a sky transitioning from sunset to midnight, all in one continuous sequence.

*1 Interval timer photography is not available when activating this option with 1:1 image area selected.

*2 Also available in focus shift photography.

*3 ISO 100, f/1.4, 20°C/68°F.



Advanced functions for more professional
videography – Timecode recording and
Atomos Open Protocol

The D780 can be incorporated into more complex movie shoots. The camera can record a timecode^{*1} in video data, as well as including it with footage saved to an external recorder^{*2} via HDMI, for easier synchronization of footage and sounds from multiple devices in post-production. Drop frame support is also available. What's more, the D780 is compatible with Atomos Open Protocol, and syncs the start/stop of 4K UHD and Full HD recording on the in-camera memory card and a connected HDMI recorder^{*3} when the camera's movie-recording button is pressed.

*1 Not available when shooting slow-motion movies, or with photo illustration/miniature effects applied.

*2 Atomos Monitor Recorders (SHOGUN, NINJA, SUMO series), etc. are supported.

*3 When using a third-party recorder which supports Atomos Open Protocol.



NIKKOR

Superior optical quality and abundant creative options — NIKKOR F lenses

NIKKOR lenses are powerful tools for photographers looking to get brilliantly sharp images regardless of the subject, environment or lighting conditions. With the D780, you have access to a vast selection of native F-mount lenses, ranging from macro to super-telephoto — offering an almost limitless array of creative possibilities. Thanks to Nikon's superb optical technology, each provides sharp resolution even at the periphery of the image, combined with elaborately designed, beautiful bokeh. Many lenses feature the anti-reflective Nano Crystal Coat, which effectively reduces ghost and flare, and are also designed to reproduce point light sources as point images as much as possible.

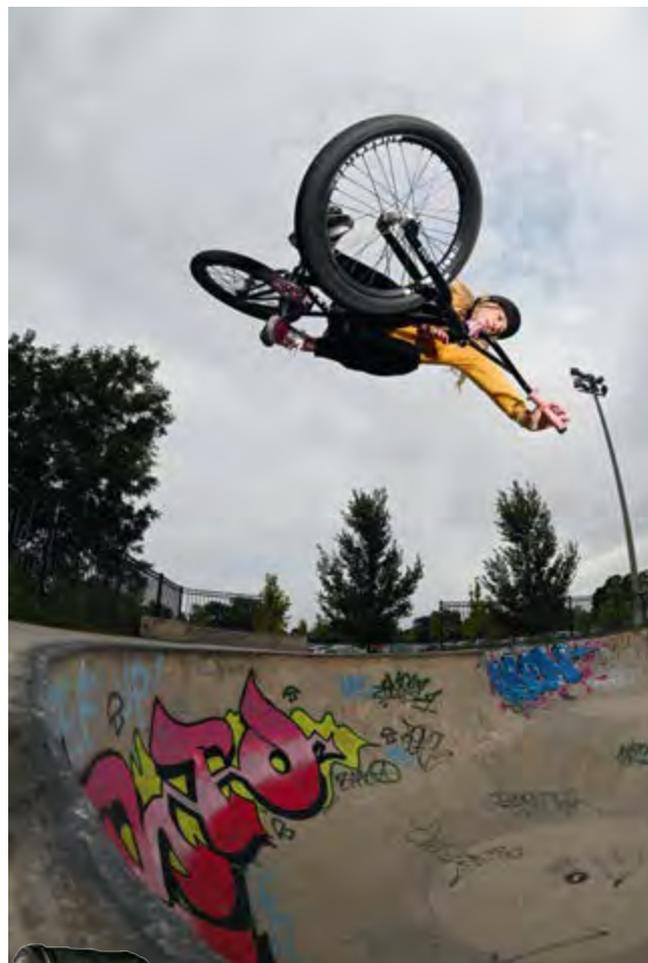
110
million
NIKKOR



© Ryan Taylor

AF-S NIKKOR 200-500mm f/5.6E ED VR

This super-telephoto zoom lens covers a 200-500 mm focal-length range with a fixed maximum aperture of f/5.6. It incorporates three ED glass elements to achieve superior optical performance with minimal chromatic aberration throughout the entire zoom range. Its Vibration Reduction (VR) system provides an effect equivalent to a shutter speed 4.5 stops* faster in Normal mode, while the additional Sport mode option is ideal for quick movements. An electromagnetic diaphragm mechanism ensures stable AE control even during high-speed continuous shooting, making it possible to capture decisive moments when shooting wild birds or flying aircraft.



© Ryan Taylor

AF-S Fisheye NIKKOR 8-15mm f/3.5-4.5E ED

This fisheye zoom lens provides both circular and full-frame fisheye effects for elaborate image expression. Three ED glass elements reduce lateral chromatic aberration to deliver sharp and high-contrast images. Nano Crystal Coat effectively controls ghost and flare effects that are likely to occur with a wide angle of view up to 180°, creating images that are crisp and clear. For enhanced reliability, a dust- and drip-resistant structure is employed, while a fluorine coat ensures easy maintenance.



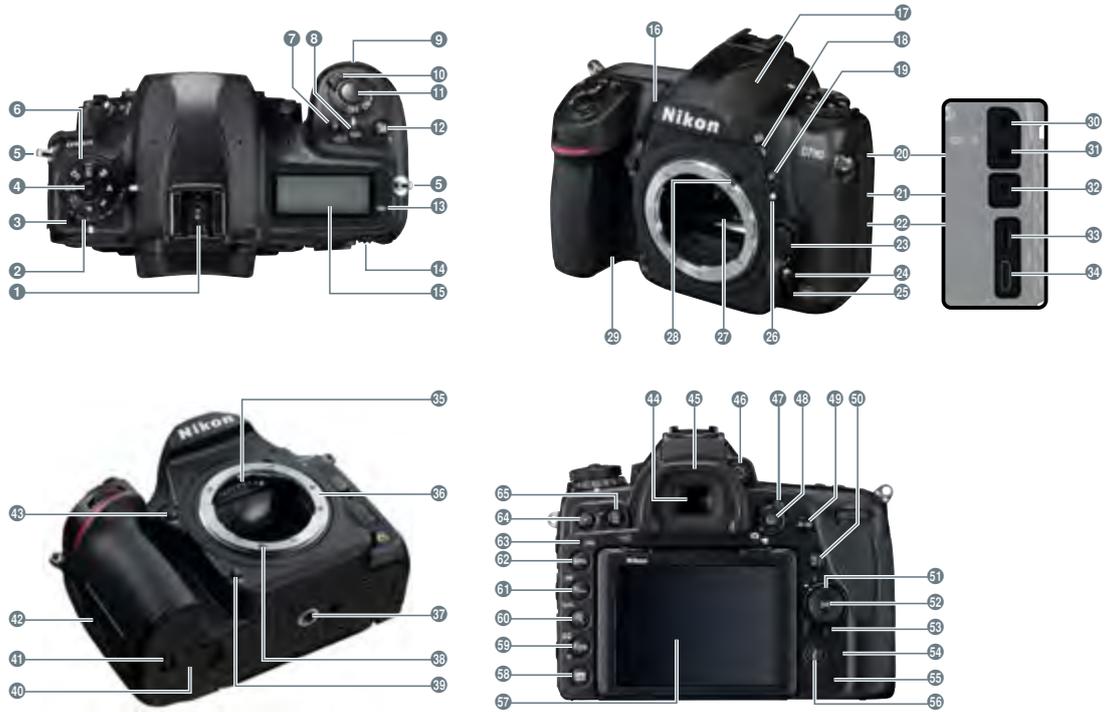
© Simone Cmoon

AF-S VR Micro-Nikkor 105mm f/2.8G IF-ED

This medium telephoto micro has VR with an effect equivalent to 3.0 stops* for easy handheld macro shooting. The lens delivers crisp yet natural images in any genre of photography. The longer focal length gives it a great working distance when shooting close-ups of flowers, insects and other small wildlife, and it also takes fantastic portraits. Nano Crystal Coat effectively reduces ghost and flare effects.

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

Nomenclature



- 1 Accessory shoe (for optional flash unit)
- 2 Release mode dial
- 3 Release mode dial lock release
- 4 Mode dial lock release
- 5 Eyelet for camera strap
- 6 Mode dial
- 7 Movie-record button
- 8 ISO sensitivity button/Format button
- 9 Sub-command dial
- 10 Power switch
- 11 Shutter-release button
- 12 Exposure compensation button/Two-button reset button
- 13 Focal plane mark
- 14 Main command dial
- 15 Control panel
- 16 Self-timer lamp
- 17 Stereo microphone
- 18 Flash mode button/Flash compensation button
- 19 Bracketing button
- 20 Audio connector cover
- 21 Accessory terminal connector cover
- 22 Cover for USB and HDMI connectors
- 23 Lens release button
- 24 AF-mode button
- 25 Focus-mode selector
- 26 Lens mounting mark
- 27 Mirror
- 28 Meter coupling lever
- 29 Power connector cover
- 30 Connector for external microphones
- 31 Headphone connector
- 32 Accessory terminal
- 33 USB connector
- 34 HDMI connector
- 35 CPU contacts
- 36 Lens mount
- 37 Tripod socket
- 38 AF coupling
- 39 Fn button
- 40 Battery-chamber cover
- 41 Battery-chamber cover latch
- 42 Memory card slot cover
- 43 Pv button
- 44 Viewfinder eyepiece
- 45 Rubber eyecup
- 46 Diopter adjustment control
- 47 Live view selector
- 48 Live view button
- 49 AF-ON button
- 50 AE-L/AF-L button
- 51 Multi selector
- 52 OK button
- 53 Focus selector lock
- 54 Speaker
- 55 Memory card access lamp
- 56 \updownarrow button
- 57 Tilting monitor
- 58 Info button
- 59 Playback zoom out button/Thumbnail button/
Metering button/Two-button reset button
- 60 Playback zoom in button/Image quality button/
Image size button
- 61 Help button/Protect button/White balance button
- 62 Menu button
- 63 Charge lamp
- 64 Playback button
- 65 Delete button/Format button

Specifications

Type of camera	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts)
Effective angle of view	Nikon FX format
Effective pixels	24.5 million
Image sensor	35.9 × 23.9 mm CMOS sensor
Total pixels	25.28 million
Dust-reduction system	Image sensor cleaning, Image Dust Off reference data (Capture NX-D software required)
Image size (pixels)	<ul style="list-style-type: none"> FX (36×24) image area: 6048 × 4024 (L: 24.3 million), 4528 × 3016 (M: 13.7 million), 3024 × 2016 (S: 6.1 million) DX (24×16) image area: 3936 × 2624 (L: 10.3 million), 2944 × 1968 (M: 5.8 million), 1968 × 1312 (S: 2.6 million) 1 : 1 (24×24) image area: 4016 × 4016 (L: 16.1 million), 3008 × 3008 (M: 9.0 million), 2000 × 2000 (S: 4.0 million) 16 : 9 (36×20) image area: 6048 × 3400 (L: 20.6 million), 4528 × 2544 (M: 11.5 million), 3024 × 1696 (S: 5.1 million) Photographs taken while filming movies at a frame size of 3840 × 2160: 3840 × 2160 Photographs taken while filming movies at other frame sizes: 1920 × 1080
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 and 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, Creative Picture Controls (Dream, Morning, Pop, Sunday, Somber, Dramatic, Silence, Bleached, Melancholic, Pure, Denim, Toy, Sepia, Blue, Red, Pink, Charcoal, Graphite, Binary, Carbon); selected Picture Control can be modified; storage for custom Picture Controls
Storage media	SD (Secure Digital) and UHS-II compliant SDHC and SDXC memory cards
Double card slots	The card in Slot 2 can be used for overflow 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
Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame coverage	<ul style="list-style-type: none"> FX: Approx. 100% horizontal and 100% vertical DX: Approx. 97% horizontal and 97% vertical 1:1: Approx. 97% horizontal and 100% vertical 16:9: Approx. 100% horizontal and 97% vertical
Magnification	Approx. 0.7× (50 mm f/1.4 lens at infinity, -1.0 m ⁻¹)
Eyepoint	21 mm (-1.0 m ⁻¹); from center surface of viewfinder eyepiece lens
Diopter 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 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	<ul style="list-style-type: none"> AF NIKKOR lenses, including type G, E and D lenses (some restrictions apply to PC lenses) Other AF NIKKOR lenses (excluding IX NIKKOR lenses and lenses for the F3AF) AI-P NIKKOR lenses DX lenses (using [DX 24×16] image area) Non-CPU AI lenses (exposure modes A and M only) <p>During viewfinder photography, the electronic rangefinder can be used with lenses that have a maximum aperture of f/5.6 or faster. With lenses that have a maximum aperture of f/8 or faster, the electronic rangefinder supports 11 focus points</p>
Shutter type	Electronically controlled vertical-travel focal-plane mechanical shutter; electronic front-curtain shutter; electronic shutter
Shutter speed	1/8000 to 30 s in steps of 1/3 or 1/2 EV, extendable to 900 s in mode M ; Bulb; Time; X200
Flash sync speed	X=1/200 s; synchronizes with shutter at 1/200 s or slower; auto FP high-speed sync supported

Release 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	<ul style="list-style-type: none"> CL: 1 to 6 fps (viewfinder photography); 1 to 3 fps (live view photography) CH: 7 fps; when shooting NEF/RAW pictures during silent photography, either 8 fps (bit depth 14 bits) or 12 fps (bit depth 12 bits) 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
Exposure metering system	<ul style="list-style-type: none"> Viewfinder photography: TTL exposure metering using RGB sensor with approx. 180K (180,000) pixels Live view: TTL exposure metering performed by image sensor
Exposure metering modes	<ul style="list-style-type: none"> 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 circle approx. 4 mm in diameter (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
Metering range (ISO 100, f/1.4 lens, 20°C/68°F)	<ul style="list-style-type: none"> 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	Combined CPU and AI
Exposure modes	<ul style="list-style-type: none"> A Auto; P programmed auto with flexible program; S shutter-priority auto; A aperture-priority auto; M manual EFCT Special effect modes: N night vision; VI super vivid; POP pop; PI photo illustration; TC toy camera effect; ME miniature effect; SL selective color; SH silhouette; HL high key; LL low key U1 and U2: user settings
Exposure compensation	Available in P , S , A , M and EFCT modes, -5 to +5 EV; -3 to +3 EV when filming movies; in increments of 1/3 or 1/2 EV
Exposure lock	Luminosity locked at detected value
ISO sensitivity (Recommended Exposure Index)	ISO 100 to 51200 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 204800 equivalent) above ISO 51200; auto ISO sensitivity control available
Active D-Lighting	Can be selected from auto, extra high, high, normal, low or off
Autofocus type	<ul style="list-style-type: none"> Viewfinder photography: TTL phase detection performed using Advanced Multi-CAM 3500 II autofocus sensor module with support for 51 focus points (including 15 cross-type sensors; f/8 supported by 11 sensors); autofocus fine-tuning supported Live view: Hybrid phase-detection/contrast-detect AF performed by image sensor; autofocus fine-tuning supported
AF detection range (ISO 100, 20°C/68°F)	<ul style="list-style-type: none"> Viewfinder photography: -3 to +19 EV Live view: -5 to +19 EV; -7 to +19 EV with low-light AF; still photography using single-servo AF (AF-S) and apertures of f/1.4 at dark end of range and f/5.6 at bright end of range
Lens servo	<ul style="list-style-type: none"> Autofocus (AF): Single-servo AF (AF-S); continuous-servo AF (AF-C); AF mode auto-switch (AF-A, still photography only); full-time AF (AF-F, movie recording only); predictive focus tracking activated automatically according to subject status Manual focus (M): Electronic rangefinder can be used
Focus point	<ul style="list-style-type: none"> Viewfinder photography: 51 points with [All points] selected for Custom Setting a6 [Focus points used], 11 points with [Every other point] selected Live view: 273 points with [All points] selected for Custom Setting a6 [Focus points used], 77 points with [Every other point] selected; still photography, [FX (36×24)] image area, single-point AF

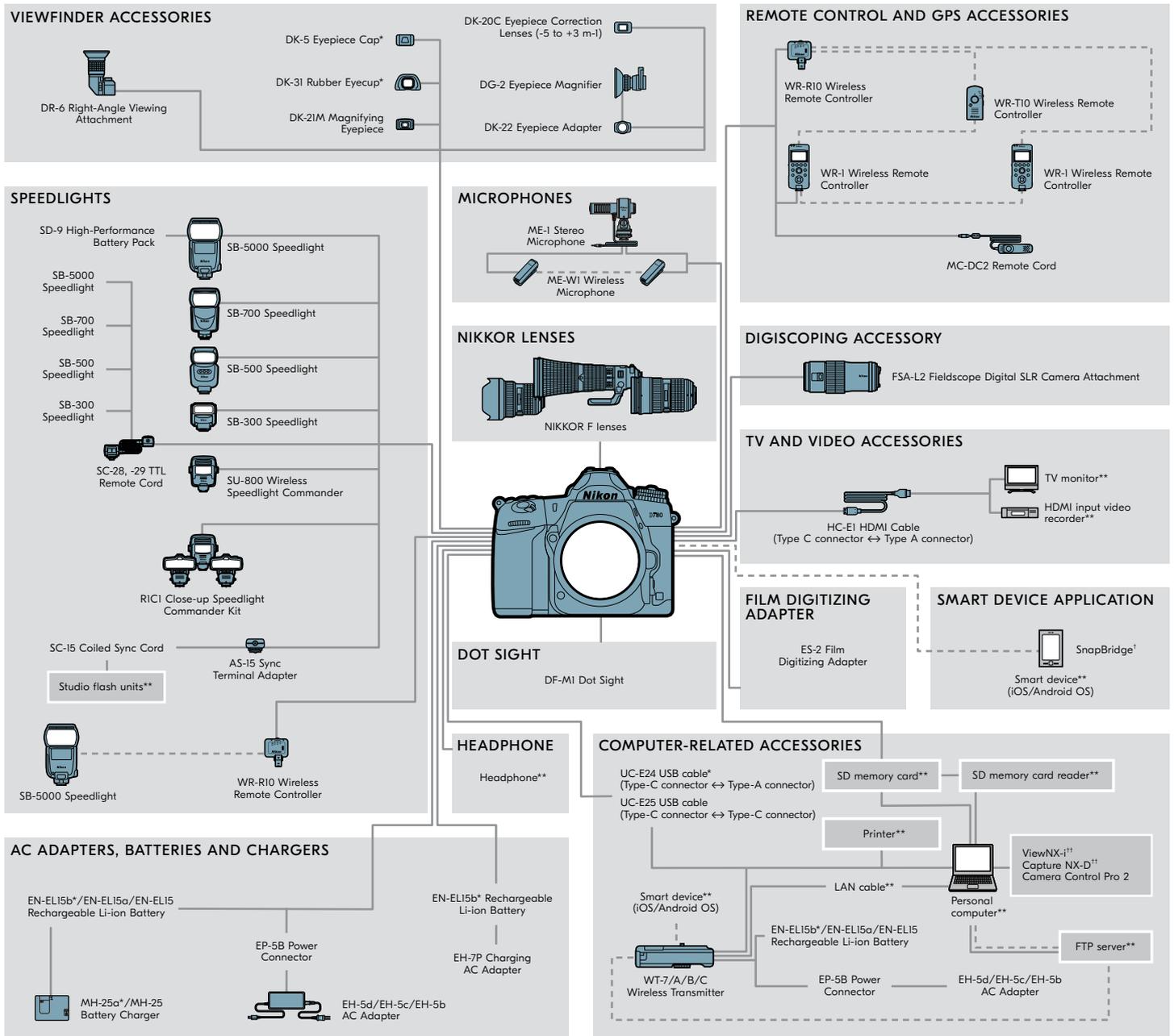
AF-area modes	• Viewfinder photography: Single-point AF, 9-, 21-, or 51-point dynamic-area AF, 3D-tracking, group-area AF, auto-area AF • Live view: Pinpoint AF (still photography only, single-servo AF/AF-S), single-point AF, dynamic-area AF (still photography only, continuous-servo AF/AF-C), wide-area AF (S), wide-area AF (L), auto-area AF
Focus lock	Focus can be locked by pressing shutter-release button halfway (single-servo AF/AF-S) or by pressing  (AE-L/AF-L) button
Flash control	• Viewfinder photography: TTL flash control performed by RGB sensor with approx. 180K (180,000) pixels • Live view photography: TTL flash control performed by image sensor • i-TTL balanced fill-flash for D-SLR available with matrix, center-weighted, and highlight-weighted metering; standard i-TTL fill-flash for D-SLR available with spot metering
Flash modes	Front-curtain sync, red-eye reduction, slow sync, red-eye reduction with slow sync, rear-curtain sync, off
Flash compensation	Available in P , S , A , and M modes, -3 to +1 EV in increments of 1/3 or 1/2 EV
Flash-ready indicator	Lights when optional flash unit is fully charged; blinks 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 (viewfinder photography), unified flash control
Sync terminal	AS-15 Sync Terminal Adapter (available separately)
White balance	Auto (3 types), natural light auto, direct sunlight, cloudy, shade, incandescent, fluorescent (7 types), flash, choose color temperature (2500 K to 10000 K), preset manual (up to 6 values can be stored, spot white balance measurement available during live view photography), all except choose color temperature with fine-tuning
Bracketing types	Exposure and/or flash, white balance, and ADL
Live view modes	 (photo live view),  (movie live view)
Movie metering system	TTL metering using camera image sensor
Movie metering modes	Matrix, center-weighted, or highlight-weighted
Frame size (pixels) and frame rate	• 3840 × 2160 (4K UHD); 30p (progressive), 25p, 24p • 1920 × 1080; 120p, 100p, 60p, 50p, 30p, 25p, 24p • 1920 × 1080 (slow-motion); 30p ×4, 25p ×4, 24p ×5 Actual frame rates for 120p, 100p, 60p, 50p, 30p, 25p and 24p are 119.88, 100, 59.94, 50, 29.97, 25 and 23.976 fps respectively; quality selection available at all sizes except 3840 × 2160, 1920 × 1080 120p/100p, and 1920 × 1080 slow-motion, when quality is fixed at  (high)
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 with attenuator option; sensitivity adjustable
Movie ISO sensitivity (Recommended Exposure Index)	Manual selection (ISO 100 to 51200 in steps of 1/3 or 1/2 EV) with additional options available equivalent to approx. 0.3, 0.5, 0.7, 1, or 2 EV (ISO 204800 equivalent) above ISO 51200; auto ISO sensitivity control (ISO 100 to Hi 2) available with selectable upper limit
Movie Active D-Lighting	Can be selected from extra high, high, normal, low or off
Other movie options	Time-lapse movie recording, electronic vibration reduction, time codes, logarithmic (N-Log) and HDR (HLG) movie output
Monitor	8-cm/3.2-in., approx. 2359k-dot (XGA) tilting TFT touch-sensitive LCD with 170° viewing angle, approx. 100% frame coverage, 11-level manual brightness adjustment, and color balance control

Playback	Full-frame and thumbnail (4, 9 or 72 images or calendar) 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, auto image rotation and index marking
USB	Type C USB connector (SuperSpeed USB); connection to built-in USB port is recommended
HDMI output	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)
Accessory terminal	Built-in (can be used with accessories such as the MC-DC2 Remote Cord)
Wi-Fi	• Standards: IEEE 802.11b/g/n (Africa, Asia, Oceania); IEEE 802.11b/g/n/a/ac (Europe, U.S.A., Canada, and Mexico); IEEE 802.11b/g/n/a (other countries in the Americas) • Operating frequency: 2412 to 2462 MHz (channel 11) (Africa, Asia, Oceania); 2412 to 2462 MHz (channel 11) and 5180 to 5825 MHz (U.S.A., Canada, and Mexico); 2412 to 2462 MHz (channel 11) and 5180 to 5805 MHz (other countries in the Americas); 2412 to 2462 MHz (channel 11) and 5745 to 5805 MHz (Georgia); 2412 to 2462 MHz (channel 11) and 5180 to 5320 MHz (other European countries) • Maximum output power (EIRP): 2.4 GHz band: 2.9 dBm; 5 GHz band: 5.7 dBm (Georgia); 5 GHz band: 8.7 dBm (other countries) • Authentication: Open system, WPA2-PSK
Bluetooth	• Communication protocols: Bluetooth Specification Version 4.2 • Operating frequency: 2402 to 2480 MHz (Bluetooth), 2402 to 2480 MHz (Bluetooth Low Energy) • Maximum output power (EIRP): -2.6 dBm (Bluetooth), -4.1 dBm (Bluetooth Low Energy)
Range (line of sight)	Approx. 10 m/32 ft without interference; range may vary with signal strength and presence or absence of obstacles
Battery	One EN-EL15b Rechargeable Li-ion Battery; EN-EL15a/EN-EL15 batteries can also be used Fewer pictures may sometimes be taken on a single charge with the EN-EL15 than with an EN-EL15b/EN-EL15a; EH-7P Charging AC Adapter can be used to charge EN-EL15b batteries only
AC adapter	EH-5d/EH-5c/EH-5b AC Adapter; requires EP-5B Power Connector (available separately)
Tripod socket	1/4 in. (ISO 1222)
Dimensions (W × H × D)	Approx. 143.5 × 115.5 × 76 mm/5.7 × 4.6 × 3 in.
Weight	Approx. 840 g/1 lb. 13.7 oz. with battery and SD memory card but without body cap; approx. 755 g/1 lb. 10.7 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 (may differ by country or area)	EN-EL15b Rechargeable Li-ion Battery, MH-25a Battery Charger, DK-5 Eyepiece Cap, UC-E24 USB Cable, AN-DC-21 Strap, BF-1B Body Cap, DK-31 Rubber Eyecup

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System Chart



*Supplied accessories **Non-Nikon products † Can be downloaded from the application store of each smart device (free). †† Can be downloaded from Nikon website (free).

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. January 2020

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WARNING

TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.



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