Nikon

At the heart of the image

D500

I AM CONDENSED POWER

95 million NIKKOR

• Camera: D500 • Lens: AF DX Fisheye-Nikkor 10.5mm f/2.8G ED © Marcel Lämmerhirt

• Camera: D500 • Lens: AF-S NIKKOR 14-24mm f/2.8G ED © Marcel Lämmerhirt

• Camera: D500 • Lens: AF-S DX NIKKOR 10-24mm f/3.5-4.5G ED © Keith Ladzinski

• Camera: D500 • Lens: AF-S DX NIKKOR 10-24mm f/3.5-4.5G ED © Keith Ladzinski

• Camera: D500 • Lens: AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR © Todd Owyoung

• Camera: D500 • Lens: AF-S NIKKOR 14-24mm f/2.8G ED © Todd Owyoung

• Camera: D500 • Lens: AF-S NIKKOR 500mm f/4E FL ED VR © C.S.Ling

• Camera: D500 • Lens: AF-S NIKKOR 200-500mm f/5.6E ED VR © Go Yamagata

[Wildlife]

Go Yamagata

‘The viewfinder visibility is superb. With ease, it lets me capture split-second action in the wild.’

[Action Sports]

Marcel Lämmerhirt

‘What I really liked was how the wide AF coverage makes it easy to freeze dynamic motion when I’m shooting action sports.’

[Music]

Todd Owyoung

‘The D500 gives me the image quality and tack-sharp focus I need. Even in the lowest light, it never disappoints.’

[Adventure]

Keith Ladzinski

‘Whether it’s stills or video, the D500 is ideal for multimedia users who want to shoot accurately in extreme locations. It’s incredible.’

[Wildlife]

C.S.Ling

‘I’m very impressed that I can get everything I need as a professional in such a compact body.’

DX: SUPERCHARGED

Meet the D500: it's a compact powerhouse fusing the highest performance of Nikon's professional D5 with the unique agility of the DX format. Portable and powerful, the D500 will galvanize the way you shoot stills and video.

- Powerful new 153-point AF system delivers superior subject acquisition performance across a wider range of situations
- Approx. 10 fps continuous shooting (up to 200 shots in 14-bit lossless compressed RAW) captures decisive, split-second moments
- Compact, lightweight DX system offers outstanding agility, especially for telephoto shooting
- 4K UHD video (30p), suitable for professional productions
- New EXPEED 5 image-processing engine achieves superior image quality and sensitivity up to ISO 51200, expandable to Hi 5 (equivalent to ISO 1640000)
- Touch-screen, tilting 8-cm/3.2-in., 2359k-dot LCD monitor ensures comfortable shooting when composing from low or high angles
- SnapBridge support lets you connect the camera to a compatible smart device via built-in Wi-Fi® and Bluetooth®

4K UHD

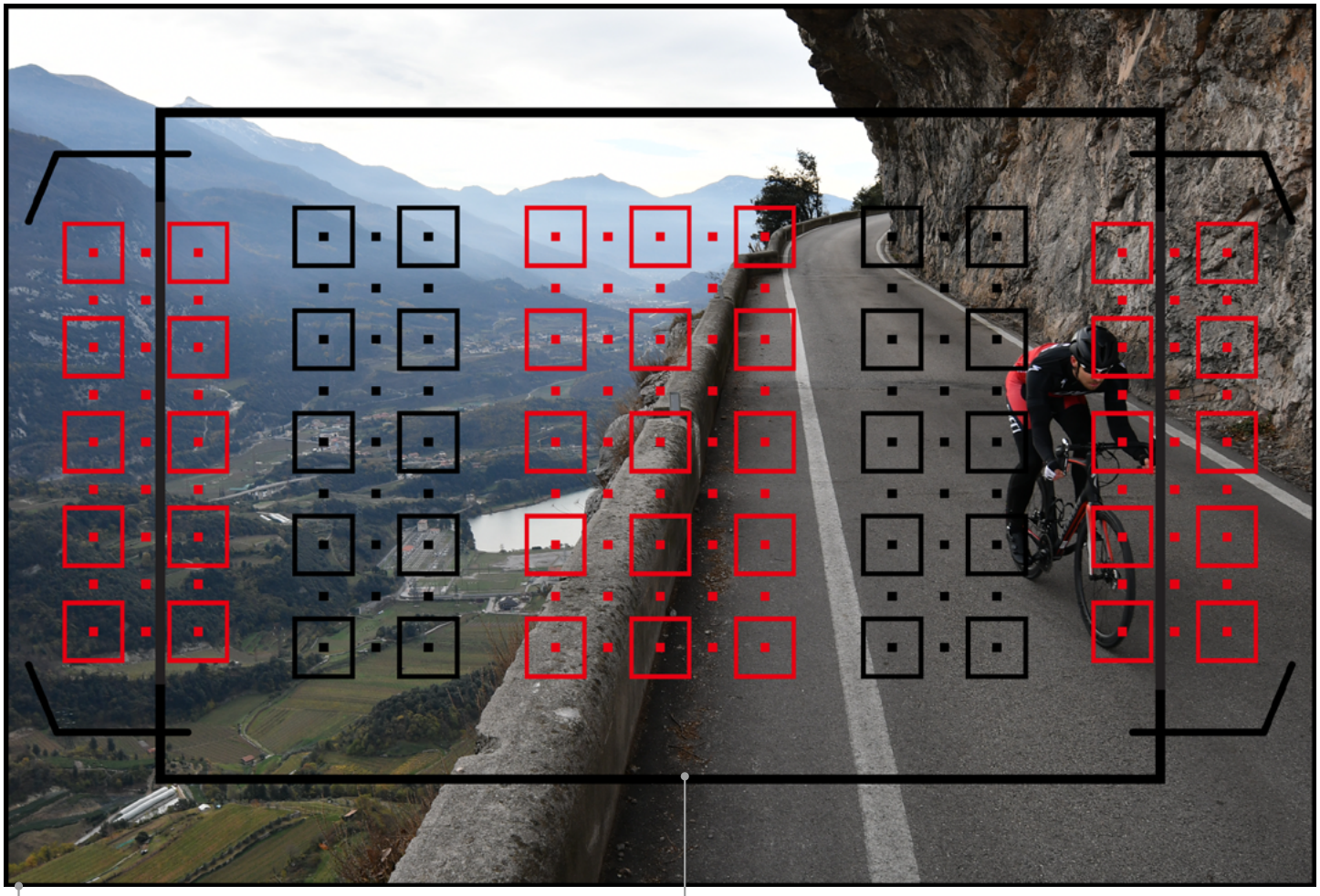
D500

Table of Contents

Page numbers clickable

153
AF POINTS

Revolutionary autofocus system with exceptional acquisition performance



DX
153 focus points: ⊡ / ⊡ / ■ / ■ (99 cross sensors: ⊡ / ■)
55 selectable points: ⊡ / ⊡ (35 cross sensors: ⊡)

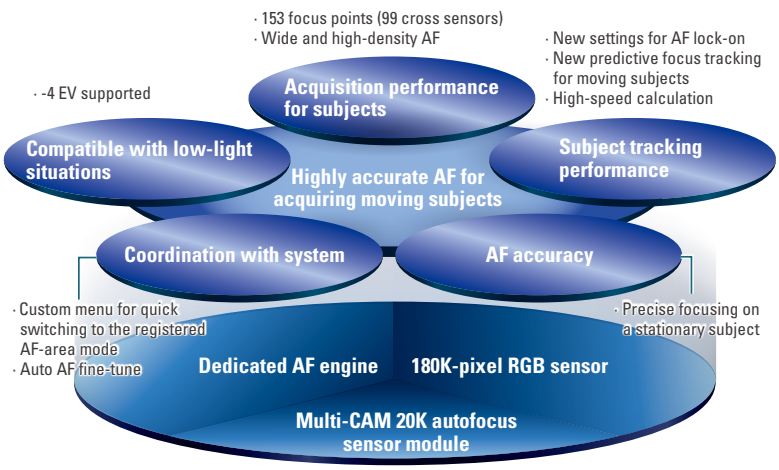
1.3×
117 focus points: ⊡ / ⊡ / ■ / ■ (63 cross sensors: ⊡ / ■)
45 selectable points: ⊡ / ⊡ (25 cross sensors: ⊡)

153 focus points with broader, denser image area coverage allow incredible subject acquisition performance

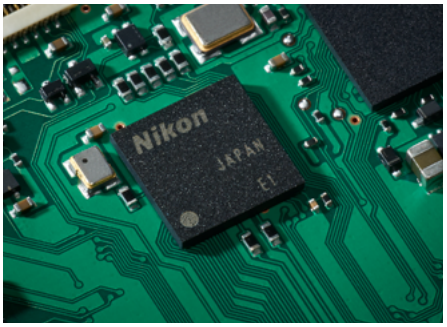
Boasting the most advanced AF system in the history of Nikon digital SLR cameras, the D500 empowers you to capture more decisive moments in sharp focus. The camera's Multi-CAM 20K autofocus sensor module — also used by the D5 for phase-detection AF — gives you a dense, 153 focus-point configuration (55 selectable) that covers an extremely wide portion of the image area, with 99 cross sensors in the frequently used central and peripheral areas, realizing more flexible composition. This ensures the D500 is able to focus easily on small or low-contrast subjects.

Comprehensively refined AF system for revolutionary performance

The D500's huge leap in AF performance is a result of more than just the Multi-CAM 20K autofocus sensor module. In fact, the entire AF system has been redesigned: a dedicated AF engine quickly processes the massive amounts of information detected by 153 focus points, while the 180K-pixel RGB sensor boosts accuracy through detailed scene analysis. All of these functions are managed by the D500's AF algorithm, which has been constantly refined over generations of Nikon D-SLR development, to attain faster and more accurate autofocus than ever.

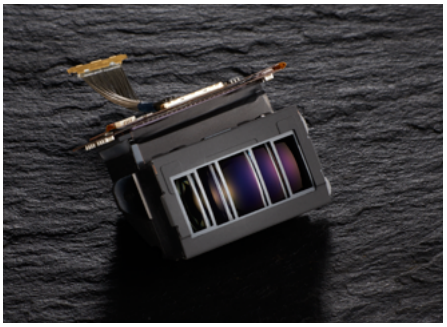


Dedicated AF engine streamlines AF processing



Like the D5, the D500 uses a dedicated AF engine to swiftly process the vast amounts of data streaming in from its 153 AF points and then delivers accurate focus on fast-moving subjects. The engine and sequence control microcomputer work in parallel to speed up AF processing and control, which means that you benefit from more accurate focusing and more stable tracking, even when capturing fast-moving subjects with high-speed continuous shooting at approx. 10 fps.

Focusing capability down to -4 EV lets you capture a wider range of scenes



The D500's AF capability is about more than just focus points. By minimizing noise, the newly developed Multi-CAM 20K autofocus sensor module is able to focus down to -4 EV with the central focus point, and -3 EV with all other points*. This makes AF possible even in low light or when shooting low-contrast subjects. Consider the possibilities when you combine this with the camera's impressive high-sensitivity performance (up to ISO 51200) and the ability to meter exposure all the way down to -3 EV. The D500 opens up an entirely new photographic frontier.

*At ISO 100 and 20°C/68°F.

• Lens: AF-S NIKKOR 80-400mm f/4.5-5.6G ED VR • Exposure: [A] mode, 1/60 second, f/8 • White balance: Cloudy • Sensitivity: ISO 3200 • Picture Control: Standard © C.S.Ling

• Lens: AF-S NIKKOR 500mm f/4E FL ED VR+AF-S TELECONVERTER TC-20E III • Exposure: [A] mode, 1/80 second, f/8 • White balance: Auto 0 • Sensitivity: ISO 320 • Picture Control: Standard

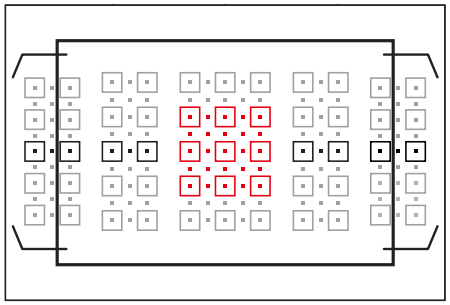
© Go Yamagata

Reliable AF shooting, even when using a teleconverter

Faraway subjects are brought into sharper focus with the D500. That's because all 153 of the camera's focus points are compatible with lenses that have an effective maximum aperture of f/5.6 or faster when a teleconverter is attached*. Even with effective aperture at f/8, 15 points (nine points are selectable) can be used.

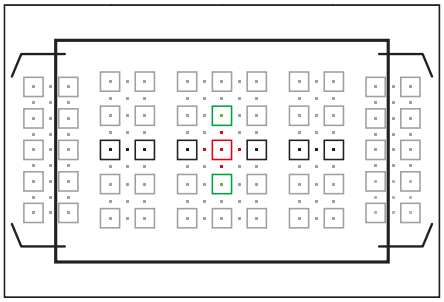
*The number of focus points that function as cross sensors varies depending on the lens combination.

Focus points allowing AF and electronic rangefinder when using AF-S/AF-I teleconverter



For effective maximum apertures slower than f/5.6 and faster than f/8

37 focus points: ⊡ / ⊡ / ■ / ■
17 selectable points: ⊡ / ⊡
25 cross sensors: ⊡ / ■



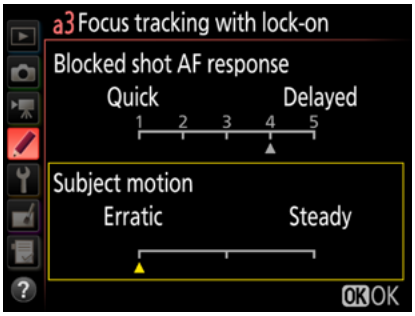
For effective maximum apertures at f/8

15 focus points: ⊡ / ⊡ / ⊡ / ■ / ■
9 selectable points: ⊡ / ⊡ / ⊡
5 cross sensors: ⊡ / ■

Note: Focus points other than cross sensors are line sensors detecting horizontal lines (⊡ points detect vertical lines).

D500 + AF-S TELECONVERTER TC-20E III + AF-S NIKKOR 500mm f/4E FL ED VR

AF lock-on settings allow intuitive selection of tracking characteristics

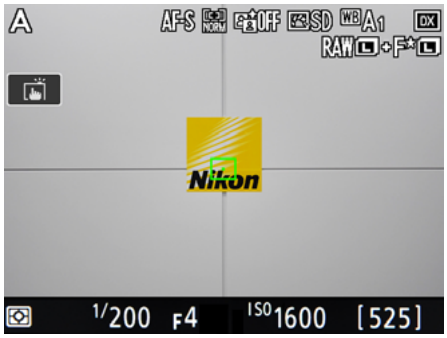


The AF lock-on function prevents the focus from shifting to an obstacle that passes between a moving subject and the camera. The D500 now features two adjustment parameters: "Blocked shot AF response" and "Subject motion." The former allows AF response when the subject is obscured by another object, and can be set from "Quick," where focus shifts more easily to the object coming in, to "Delayed," in which focus is less likely to shift from the original subject. Meanwhile, the latter can be toggled according to the subject's movement characteristics from "Erratic," for movement prone to sudden starts and stops, to "Steady," which is better for movement at a more constant speed. Whether you're tracking a particular speed skater during a sprint, or capturing a specific player during a tumultuous game of rugby or soccer, AF lock-on can be intuitively adjusted to keep you on target.

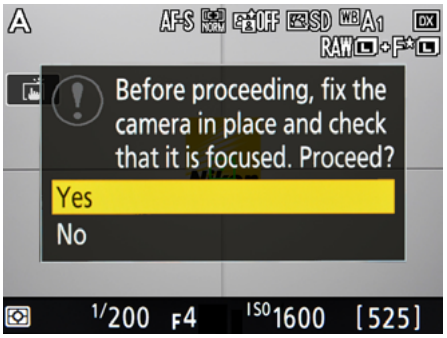
Automated AF fine-tune makes it easier to adjust subtle differences in focusing

When you want to ensure accurate focusing, the D500 provides an easier way to fine-tune AF with the lens you use. Using live view photography mode, the camera automatically sets and registers the tuning value*, giving you precise focus. Manual fine-tuning is also available.

*"AF fine-tune" in the setup menu must be turned on to enable the tuned value for shooting.



Focusing during live view photography



Fine-tuning adjustment value set automatically

AF fine-tuning value is automatically added to the "Saved value" list

Custom setting allows quick AF-area mode switching

If you want to capture the surrounding scenery or a stationary person while shooting a sports scene using dynamic-area AF, the D500 offers a convenient way to temporarily switch AF-area mode. Simply assign an AF-area mode to a custom button (Pv, Fn1, AF-ON, center of sub-selector or a lens focus function button) in advance, and then the AF-area mode can be switched to the assigned mode* by keeping the custom button depressed, returning to the original mode when it is released.

*Except 3D-tracking.

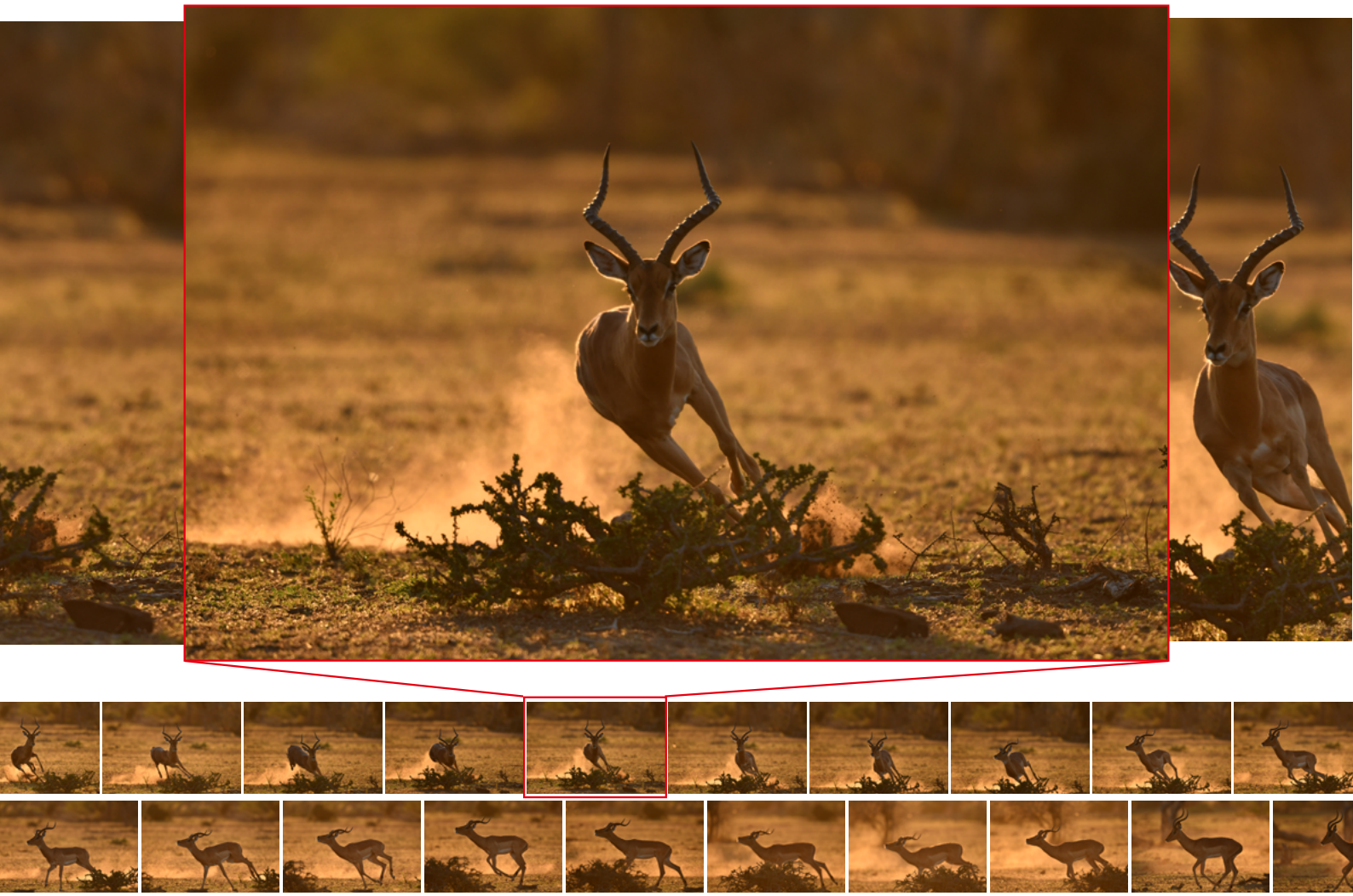
10 fps

UP TO 200 SHOTS*

High-speed continuous shooting to confidently capture decisive moments

***14-bit lossless compressed RAW.**

This image was created by combining consecutive shots using third-party software.



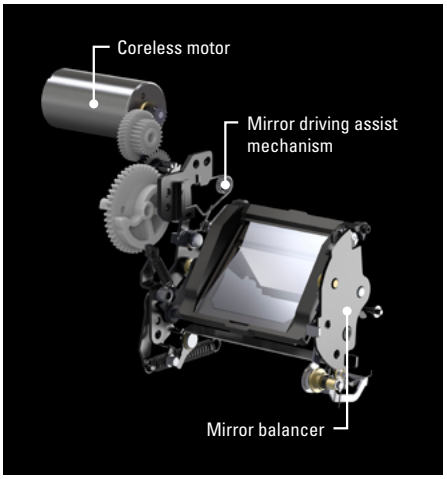
High-speed continuous shooting at approx. 10 fps for up to 200 shots in 14-bit lossless compressed RAW

The D500 harnesses all the powerful technology at its disposal to realize exceptional continuous shooting performance. Its image sensor is designed for even faster readout, while the new EXPEED 5 image-processing engine accelerates performance even further. The combination of these features with an improved mirror sequence mechanism helps achieve the feat of high-speed continuous shooting at approx. 10 fps*. Together with a quick release time lag of approx. 50 ms, this means that the D500 is ready to capture decisive moments, and thanks to an extended buffer capacity, you can also take continuous sequences of up to 200 shots in JPEG and in 14-bit lossless compressed RAW. Nail that crucial instant with total confidence — with the D500, you can.

*Approximate frame rates for a fully charged EN-EL15 Rechargeable Li-ion Battery, using continuous-servo AF, a shutter speed of 1/250 s or faster, and with other settings at default values.

Stable viewfinder image facilitates tracking of moving subjects

A stable viewfinder image is essential when tracking fast-moving subjects using high-speed continuous shooting, and the D500's mirror mechanism employs a variety of measures to achieve better visibility in situations just like this. Its specially developed mirror drive assist mechanism decelerates the mirror just before it completes its upward movement, while a coreless motor decelerates it just before it finishes moving back down. The camera's mirror balancer also absorbs the impact. The combination of these technologies provides effective reduction in bounce, which in turn reduces image blur in the viewfinder. The viewfinder blackout time is also shortened by using the mirror driving assist mechanism to delay the start of mirror-up and to accelerate the initial speed of mirror-down, letting you stay focused on your subject with more consistency and stability.



DX AGILITY

Compact, nimble DX system delivers advantages for telephoto shooting

Combinations that deliver an angle of view equivalent to a 600 mm focal length lens*1

D5 + AF-S NIKKOR 600mm f/4E FL ED VR
Approx. 5215 g/11 lb 8.0 oz*2 (XQD-Type)

D500 D5

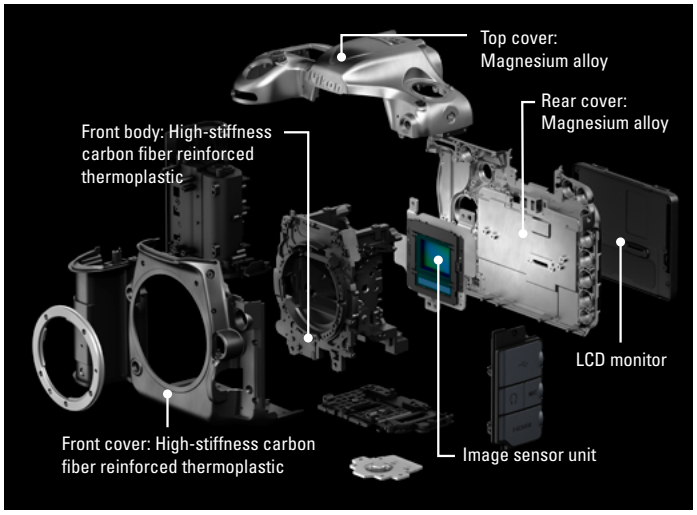
D500 + AF-S NIKKOR 80-400mm f/4.5-5.6G ED VR
Approx. 2430 g/5 lb 5.8 oz*2

*1 35mm-format equivalent.
*2 Includes battery, one XQD memory card (two XQD cards for the D5) and lens cap.

Superior agility brings an edge to telephoto shooting

While it shares many of the top-level features of the D5, its leading FX-format counterpart, the D500 possesses its own unique form of agility when it comes to telephoto shooting. The smaller DX-format image sensor provides an angle of view equivalent to that of a lens with approx. 1.5× longer focal length*, which means you benefit from a telephoto range comparable to the D5 while using smaller and lighter lenses. For durability, the D500 employs a monocoque structure, with high-stiffness carbon fiber reinforced thermoplastic and magnesium alloy, all of which contribute to its lightweight body without sacrificing its ruggedness. This outstanding agility lets you travel light — a crucial advantage when shooting in far-flung locations.

*35mm-format equivalent.



D500 + AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR

The incredibly light kit lens provides ease and agility in day-to-day use

This is no ordinary kit lens — you can expect unprecedented agility from the AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR, lightweight 5× normal zoom lens. It weighs only approx. 1340 g/2 lb 15.3 oz*1 even when attached to the D500, yet its impressively light and compact body covers a wide angle of view equivalent to a 24-120 mm lens in 35mm format. The advanced specifications include the first use of Nano Crystal Coat in a DX lens, as well as a fluorine coat, an electromagnetic diaphragm mechanism and a Vibration Reduction (VR) structure offering an effect equivalent to a shutter speed 4.0 stops*2 faster. Now you can take advantage of such superior optical performance without the bulk.

*1 Including battery, XQD memory card and lens.
*2 Based on CIPA Standards. Achieved in NORMAL mode, with the lens attached to a DX-format digital SLR camera, and the zoom set at the maximum telephoto position.

AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR

More powerful telephoto shooting possible using 1.3× image area

If you want to get closer to your subject but don't have time to change the lens, the D500's 1.3× image area may be just what you need. By providing an angle of view equivalent to that of a lens with roughly double the focal length in 35mm format (approx. 1.3× equivalent of DX format), it allows quick, dramatic changes of composition. This is especially useful for video, as it provides Full-HD movies in cropped size.

4K UHD

**Stunning ultra-high-definition video,
designed for diverse multimedia applications**

4K UHD video (3840 × 2160), essential for multimedia users

Meeting the demands of multimedia professionals, the D500 provides 4K UHD (3840 × 2160)/24p/25p/30p as well as 1080/60p video for up to 29 min. 59 s. Thanks to the camera's new EXPEED 5 image-processing engine, you can expect detail-rich, high-definition movies that take full advantage of the stunning depiction NIKKOR lenses offer, with smooth exposure control specifically tailored to movie recording. The exceptional agility of the DX system, combined with a wide sensitivity range from ISO 100 to 51200, expandable to Hi 5 (equivalent to ISO 1640000), broadens your shooting possibilities even further. Your 4K UHD video footage can be displayed simultaneously on an external monitor via HDMI, and uncompressed 4K UHD movie data can be recorded directly to an external storage device while also recording video onto an in-camera memory card. You can also convert videos from 4K UHD to Full HD in post-production to create even sharper footage.

Note: Aspect ratio of movies is 16:9 regardless of the selected image area.

HIGH-DEFINITION MULTIMEDIA INTERFACE

4K UHD time-lapse photography*, generated simply in-camera

Time-lapse photography transforms a scene of slow-moving clouds or the flow of a crowded city intersection into dramatic, high-speed sequences. The D500 lets you generate 4K UHD and Full HD time-lapse movies, entirely within the camera. Its exposure smoothing function reduces unwanted flicker effects by automatically decreasing the slight exposure variance between the current and preceding frame when shooting with an auto exposure mode such as aperture-priority. Exposure smoothing is also available for interval timer photography, which can record up to 9,999 shots.

*Maximum recording duration of 4K UHD time-lapse photography is 3 min.

This movie was generated in 4K UHD and converted to Full HD for display

Electronic Vibration Reduction (VR) allows comfortable hand-held video shooting for Full HD and HD

When shooting movies hand-held in Full HD or HD mode, the D500's electronic VR function* reduces the effects of camera shake in the horizontal, vertical and rotational directions (centering on the lens). This is convenient when the shooting location or time constraints make setting up a tripod impossible. Used in combination with NIKKOR's optical VR technology, the benefits are even more apparent.

*Image area will be slightly smaller in Full HD.

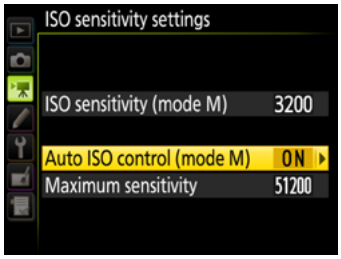
Active D-Lighting available for Full HD and HD videos

Thanks to the new EXPEED 5 image-processing engine, Active D-Lighting can now be applied to Full HD and HD movies. This function preserves details in highlights and shadows when shooting high-contrast scenes, giving your footage richer tonal gradation and a more natural brightness. This comes in extremely handy when you need to use footage straight from the camera without making post-production adjustments.

Active D-Lighting: Off

Active D-Lighting: High

Auto ISO sensitivity control adds flexibility to full-manual movie shooting



When filming sequences that involve dramatic changes in brightness, such as a subject running from a dark corridor into the midday sun, the D500's auto ISO sensitivity control is invaluable. It lets you control exposure in M mode by adjusting sensitivity automatically, preserving your depth of field and any intended motion-blur effects. To avoid excessive increases in sensitivity, it's possible to set a maximum sensitivity limit between ISO 200 and Hi 5.

Convenient custom settings for movie recording

The D500 now lets you make smooth exposure compensation adjustments during movie recording using pre-assigned Pv and Fn buttons. The power aperture* function can also be assigned to these buttons, allowing you to change the depth of field continuously within a scene by smoothly controlling the aperture.

*Only available in A and M exposure modes.

ME-1 Stereo Microphone (optional) attached to the D500

Versatile sound controls

The D500 has a built-in stereo microphone and is compatible with the optional ME-1 Stereo Microphone and ME-W1 Wireless Microphone. Microphone sensitivity levels can be adjusted in 20 increments while visually monitoring the sound level indicator during movie recording. Sound monitoring is also possible using commercially available stereo headphones. You can also set the audio frequency response: "Wide range" is ideal for capturing a broad array of frequencies, such as the bustle of a city street, while "Vocal range" is optimized for recording human speech. Wind noise reduction is also available when using the built-in microphone.

Dedicated movie menu for efficient workflow

The D500's dedicated movie menu lets you adjust settings such as white balance and Picture Control independently of those used for still photography — convenient when you are alternating between movies and still images. Movie settings can also be quickly accessed by pressing the **i** button during movie live view or movie recording.

ISO 51200 with EXPEED 5

Exceptional image quality with lower noise even at high ISO settings

• Lens: AF-S Micro NIKKOR 60mm f/2.8G ED • Exposure: [M] mode, 1/160 second, f/8 • White balance: Color temperature (5560 K) • Sensitivity: ISO 51200 • Picture Control: Standard

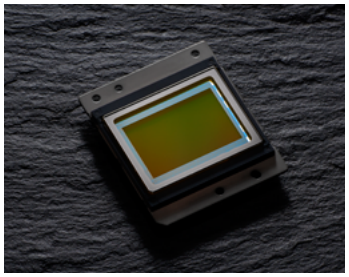
New EXPEED 5 image-processing engine for superb image quality

The D500's new EXPEED 5 image-processing engine packs in some formidable calculation capability. It handles image sensor data at such fast speeds that you now get high-speed continuous shooting at approx. 10 fps, as well as 4K UHD (3840 × 2160)/30p video recording. It also adopts an improved noise reduction algorithm that minimizes noise more effectively than ever before, while helping preserve texture. Even subtle gradations can be reproduced with smoother tones.

Standard ISO sensitivity from 100 to 51200, expandable to Hi 5 (equivalent to ISO 1640000), dramatically widens shooting possibilities

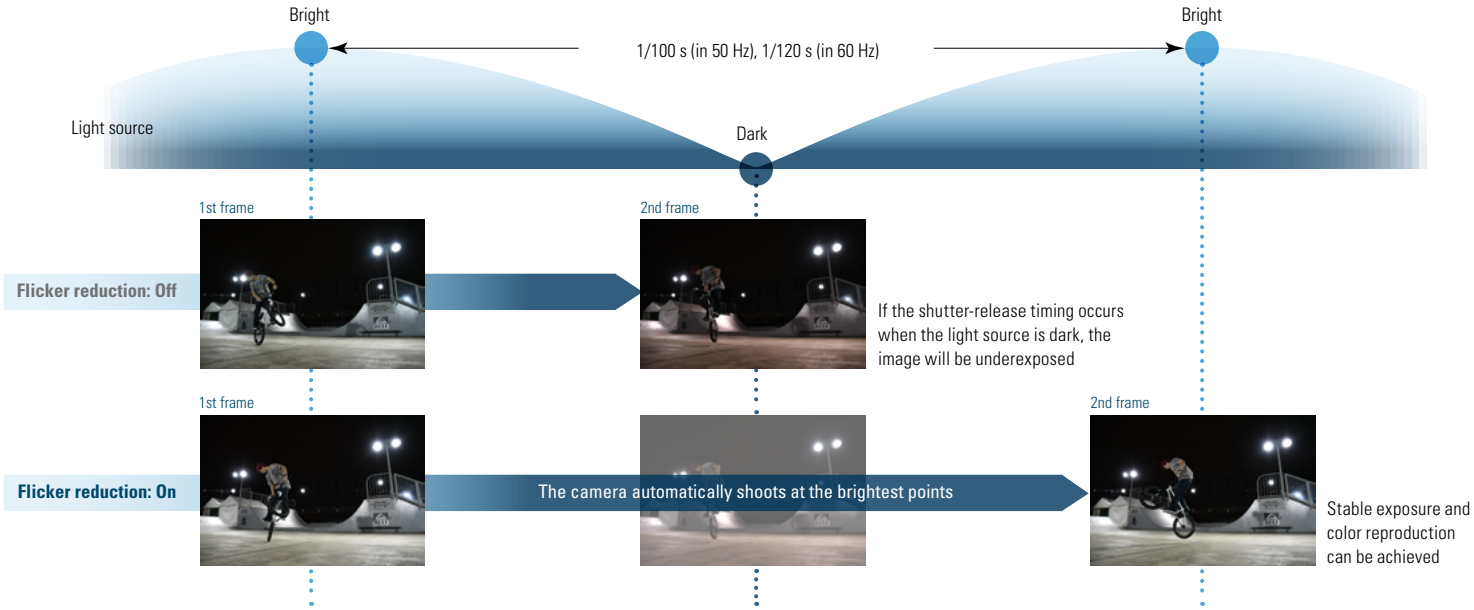
Powerful subject matter isn't always well lit. For these times, the D500 has an extremely wide ISO sensitivity range of 100 to 51200, and even at the higher sensitivities, you can achieve sharper images with lower noise than was previously possible. You can also drop the ISO sensitivity down to Lo 1 (ISO 50 equivalent) or raise it up to Hi 5 (ISO 1640000 equivalent). Combined with enhanced metering and AF capability in low-light situations, it's now easier to capture dark scenes that were once difficult to reproduce.

Newly developed Nikon DX-format CMOS sensor strikes an ideal balance between resolution and image quality at high sensitivities



Together with an image resolution of 20.9 effective megapixels, the D500's new Nikon DX-format CMOS sensor delivers astoundingly low-noise performance, suitable for a broad range of professional applications. The image sensor uses a range of improvements — including in its internal circuit structure and A/D conversion — to produce a marked reduction in internal noise, which is especially important for achieving such exceptional image quality at high ISO settings. By employing an image sensor without an optical low-pass filter, the camera captures even higher-definition images.

Flicker reduction function (in continuous shooting)



Flicker reduction function minimizes exposure variations

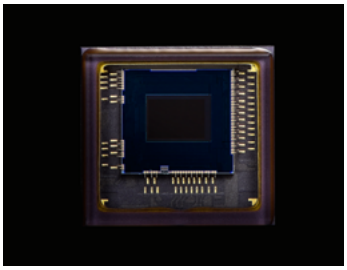
Artificial light sources such as fluorescent lighting tend to produce flickering, leaving some of your images dark. To avoid this effect, the D500 offers a flicker reduction function for still images as well as for movies. The camera detects the peak brightness level and automatically shifts the release timing slightly to avoid underexposure, giving you stable exposures even when using continuous shooting*. In movie shooting, use "Auto" flicker reduction, and the camera automatically detects 50 Hz or 60 Hz light, preventing the occurrence of banding in footage.

*Continuous shooting speed may be decreased.

You can choose to display **FLICKER** icon in the viewfinder when flicker is detected

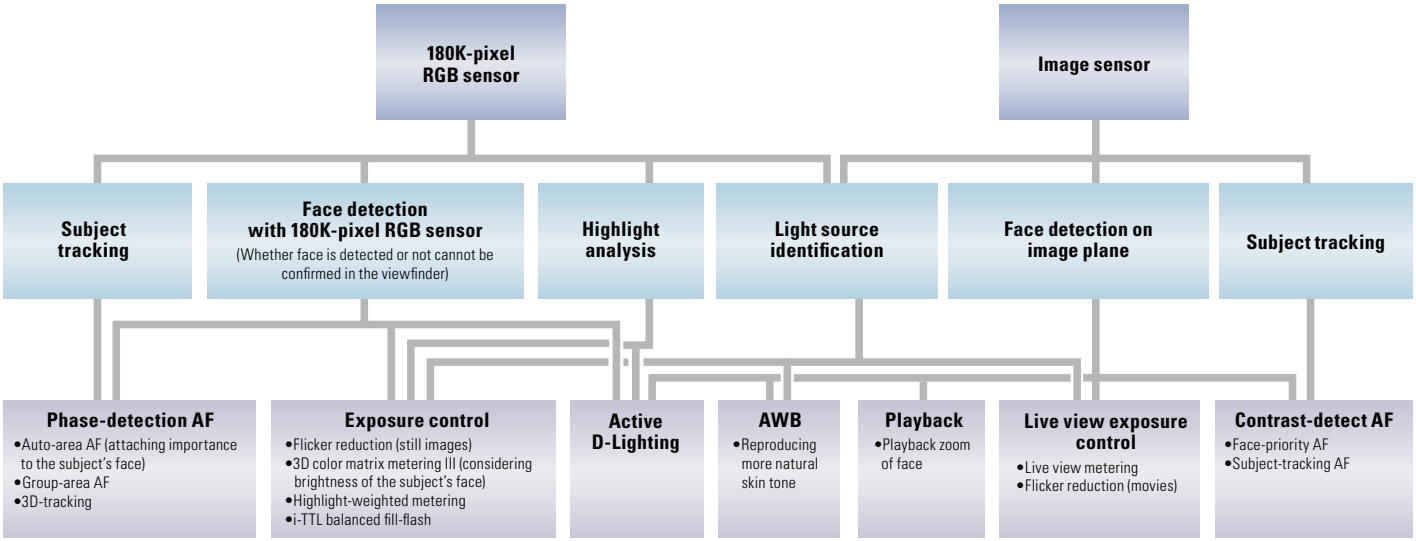
180K-pixel RGB sensor significantly enhances the Advanced Scene Recognition System, especially for viewfinder photography

Just like the D5, the D500 employs a new RGB sensor with approx. 180,000 pixels. Thanks to the hugely increased pixel count, you will experience stronger face detection performance for scenes involving smaller faces or moving subjects. The D500 uses the face information it detects to enhance the accuracy of various auto controls such as matrix metering*1, i-TTL balanced fill-flash, auto-area AF, 3D-tracking*1 and Active D-Lighting. Furthermore, metering is now available down to -3 EV*2, which is valuable in lower-contrast scenes, or when a teleconverter is attached to a lens resulting in a slow effective aperture. Meanwhile, the newly added flicker detection reduces flicker effects for more consistent still image shooting.



180K-pixel RGB sensor

*1 Face detection On/Off can be chosen.
*2 ISO 100, 50mm f/1.4 lens, 20°C/68°F, matrix or center-weighted metering.



Choice of three auto white balance modes according to your preference or intention

The 180K-pixel RGB sensor and a new algorithm make auto white balance even more precise. Like the leading FX model, the D5, the D500 offers three AWB modes: "Keep white (reduce warm colors)" ensures that whites appear white even under a light source with a low color temperature (reddish colors); "Normal" reproduces the original colors of the subject well balanced with the mood of ambient light; and "Keep warm lighting colors" preserves the warm tint that you normally perceive under incandescent lighting.

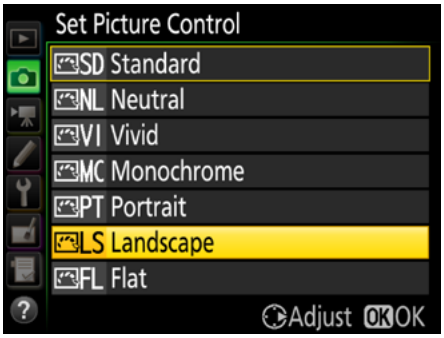
Auto 0: Keep white (reduce warm colors)

Auto 1: Normal

Auto 2: Keep warm lighting colors

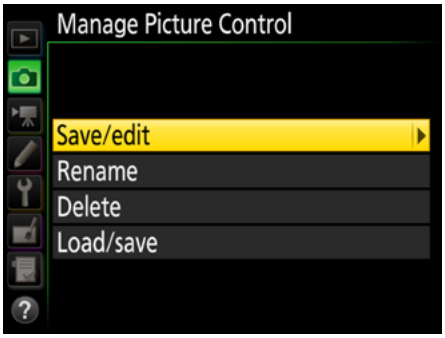
The larger display size of Picture Control Utility 2 makes it easier to confirm results when adjusting parameters

Picture Control system for even more flexible image-tuning



Nikon's original Picture Control system offers an easy way to take creative control over your images. Select one of seven Picture Controls according to your creative intentions, and then adjust the parameters of each, such as clarity or sharpening, if you want to give your images a specific look. Flat Picture Control, which uses a straighter tone curve than the other Picture Controls, retains the richest color, brightness and texture information. Even after adjusting this Picture Control, there is less chance of clipping in highlights and shadows or of color saturation. The resulting images will have rich gradation in colors and contrast — ideal when you want to emphasize healthy skin tones or reveal highlight details in flower petals during post-production. Flat is also useful for recording movies with color grading in mind. It is also possible to set a different Picture Control for movies than that used for still images, with the dedicated movie menu.

Custom Picture Control gives you greater freedom over image creation

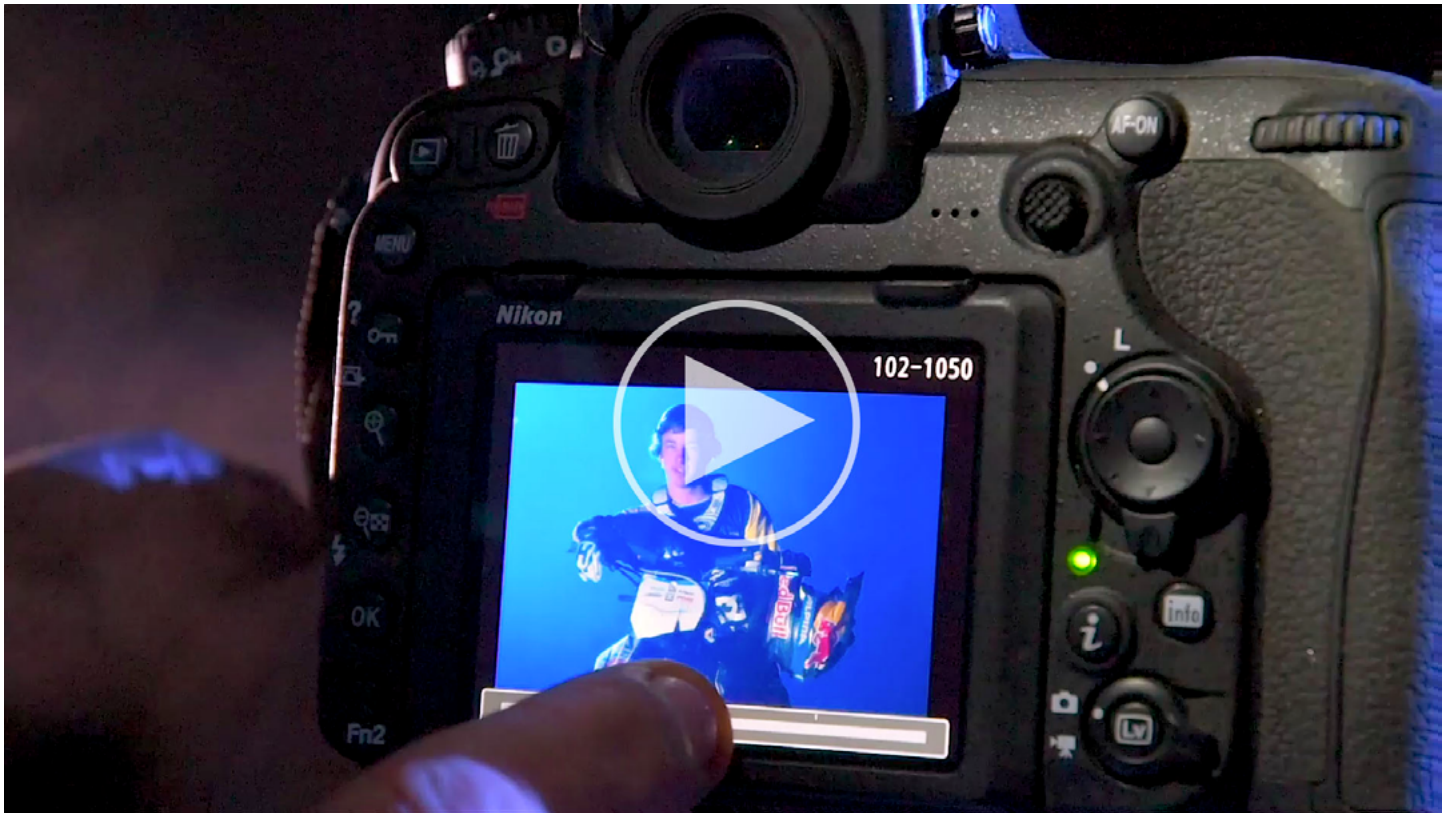


In addition to the existing Picture Controls, you can register up to nine custom Picture Controls in the D500. Custom Picture Controls can be easily created in-camera using the default Picture Controls as a base, while the Picture Control Utility 2 software (available as a free download from Nikon's website) lets you make more minute adjustments. The custom Picture Control file can also be shared with your friends by sending it as an email attachment.

Click here to go to Picture Control special site **http://imaging.nikon.com/lineup/microsite/picturecontrol/**

INNOVATIVE OPERABILITY

Tilting monitor, touch screen and SnapBridge — The superior operability of the leading DX-format model



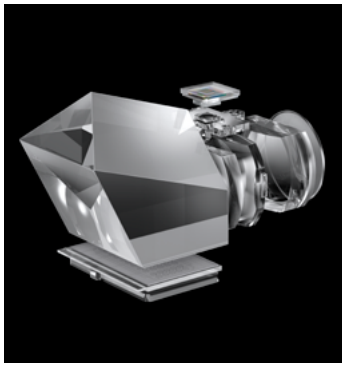
Touch-operation, tilting 8-cm/3.2-in., 2359k-dot high-resolution LCD monitor

The D500's touch-panel LCD monitor brings an entirely new level of usability to still and movie shooting. It offers functions such as touch AF and touch shutter (in still image shooting), as well as the ability, shared with the D5, to input text such as copyright information, and to switch sequences of images at high speed using the frame advance bar in image playback — both particularly useful for professionals. The monitor's 3-axis hinge structure allows it be tilted up or down flexibly across a wide range of angles. When tilted upward, the camera's eyepiece remains unobstructed, and it can also be tilted smoothly downward while attached to a tripod. Thanks to the monitor's significantly increased 2359k-dot resolution, you can check images and confirm focus in superbly precise detail, and its colors can be customized to match those of the computer monitor used for image editing.

Optical viewfinder with the widest-ever diagonal viewing angle* of approx. 30.8°

The large glass pentaprism used in the D500's optical viewfinder affords a diagonal viewing angle of approx. 30.8° — the widest ever* — as well as offering approx. 1.0× magnification. You can keep track of subjects in real time across a wide field of view, without the time lags that can occur with electronic viewfinders, resulting in more comfortable continuous shooting. An organic EL display element incorporated into the information display (beneath the image area) provides enhanced visibility even in bright daylight. Appropriately for a class-leading D-SLR model, the D500 has a rounded eyepiece, as used for the D5.

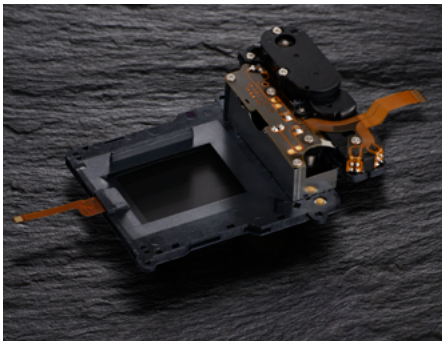
*As of January 5, 2016, among D-SLR cameras using an APS-C size image sensor. Based on Nikon research.



Rounded DK-17F Fluorine-Coated Finder Eyepiece (supplied), common with the D5

High-precision shutter unit tested for 200,000 cycles

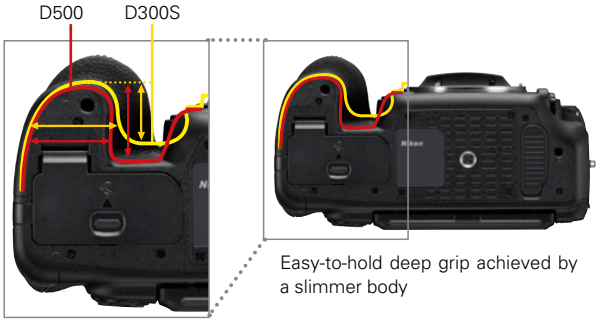
Designed for maximum durability, the D500's shutter has been tested for 200,000 cycles with the shutter unit and driving mechanism actually loaded in the camera. To ensure the utmost precision, the camera's shutter monitor function calculates the amount of time between front- and rear-curtain movements every time the shutter is released, and automatically corrects any variance.



Comprehensive sealing ensures dust and water-drop resistance

Easy-to-hold grip and superior environment-resistant performance

Agile, but rugged enough for heavy use, the D500's body utilizes sturdy carbon fiber reinforced thermoplastic, with magnesium alloy for the top and rear covers. Its monocoque structure keeps the camera's internal components well protected, while permitting a slimmer body with a deep grip that's easier to hold. Comprehensive sealing ensures that it has the dust and water-drop resistance you'd expect from a leading DX-format model.



Easy-to-hold deep grip achieved by a slimmer body

Magnesium alloy adopted for top and rear covers

Outstanding energy-saving design lets you shoot without worrying about battery life

The D500 uses an EN-EL15 Rechargeable Li-ion Battery, the same as the D810, D750 and D7200. An efficient power circuit and the highly energy-efficient EXPEED 5 image processing help reduce the camera's power consumption, making it possible to shoot approx. 1,240 shots or approx. 50 min. of video (based on CIPA Standards) on a single charge. An optional MB-D17 Multi-Power Battery Pack and EH-5b AC Adapter (with EP-5B Power Connector) can also be used as power sources.

MB-D17 Multi-Power Battery Pack (optional) attached to the D500

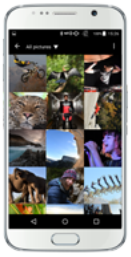
Control system consistent with the D5

Shooting functions aren't the only thing that the D500 shares with the D5. Both cameras also utilize a similar control layout and adopt a sub-selector that can be used to select the focus point — a popular feature introduced with the D4S. The D500 is also the first DX-format model to offer illuminated buttons for easier operation at night. D5 owners intending to use the D500 as a secondary camera will find it instantly familiar.

Dual memory card slots support high-speed formats

The D500 is equipped with card slots for UHS-II SD and XQD memory cards, both of which offer the fast writing speeds that are essential for smooth continuous shooting. It's possible to use both types of memory card at once, and there are multiple recording options available: you can record two full cards of data, record the same data onto two cards for instant backup, or record RAW and JPEG simultaneously onto separate cards. It is also possible to transfer data from one card to another, as well as selecting a slot for movie recording according to the remaining capacity on each card.

Convenient SnapBridge functions that can be enjoyed with the D500



Automatic image transfer
- Size of transferred images can be set
- Movies must be selected for transfer via SnapBridge application

Browse images with a smart device
Images on the camera can be viewed even when it is turned off

NIKON IMAGE SPACE

Automatic uploads to NIKON IMAGE SPACE
Images transferred to a smart device can be uploaded automatically

Use location and date/time information
- Embed location information from a smart device
- Synchronize the camera with a smart device's time zone and time information

Remote shooting
Shoot remotely with a smart device, with automatic image transfer

Embed credit information
Embed up to two types of information, such as copyright and exposure settings

Smart device
SnapBridge application

Supports SnapBridge, Nikon's new image transferring application

SnapBridge

The D500 can be constantly connected to a smart device*1 with the new SnapBridge application installed (available as a free download), via Bluetooth. This enables a variety of features. You can automatically transfer images taken with the D500 to your smart device, as well as upload them automatically to NIKON IMAGE SPACE, or use the smart device to browse images stored in the camera. You can also embed those images with the location and date/time information from your smart device. The D500's NFC support*2 means that establishing link with your smart device via Bluetooth is as simple as touching it against the camera's N-Mark. The camera also comes with built-in Wi-Fi that permits higher-speed communication, which can be switched to manually when there are images waiting to be transferred. SnapBridge dramatically enhances the experience of taking and sharing images with a digital SLR camera.

*1 Compatible iPhone® and/or iPad® or smart devices running on the Android™ operating system.
*2 NFC is compatible only with Android OS. Smart device must support NFC.

With electronic front-curtain shutter

With mechanical shutter

Electronic front-curtain shutter minimizes internal mechanical vibrations

When you want to reduce camera blur as much as possible, for instance when shooting landscapes or astrophotography with a telephoto lens, the electronic front-curtain shutter (only selectable in MUP mode) can be used to minimize mechanical vibration. By making the camera's image sensor act as the front curtain of the focal-plane shutter, the camera eliminates vibrations caused by movement of the mechanical front curtain. Used in live view photography, where there is also no reflex mirror movement, the benefits are even more noticeable.

Note: When using the electronic front-curtain shutter, the fastest shutter speed available is 1/2000 s, and the highest sensitivity available is ISO 51200.

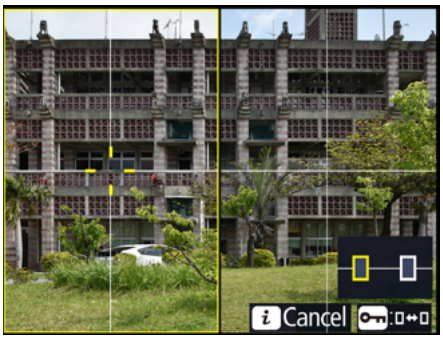
HDR (High Dynamic Range) produces a single image with rich tonal gradation, even in high-contrast scenes

HDR instantly combines two images taken at different exposures with one shutter release, creating a single image with wider dynamic range. Ideal for stationary subjects, such as landscapes and still lifes, this feature produces images with rich tonal gradation — from shadows to highlights — with less noise, even for scenes with dramatic differences in contrast.

Note: Tripod use recommended.

Split-screen display zoom function for accurate leveling

When you need to achieve perfect leveling of your subject, such as in architecture photography, the split-screen display zoom function gives you a convenient advantage. During live view photography, two points on the same horizontal line are enlarged on a split screen, and can be magnified simultaneously at the same ratio (the ratio of the two points can be changed). You can adjust the camera's leveling while monitoring these magnified portions on the screen. This function can be accessed using the **i** button during live view photography.



Split-screen display zoom

Simplified menu enables quick selection of JPEG image quality

The JPEG image quality (fine/normal/basic) and compression format (optimal quality/size priority) menus have been combined for greater efficiency. You can also select and change settings using the QUAL button and main command dial.

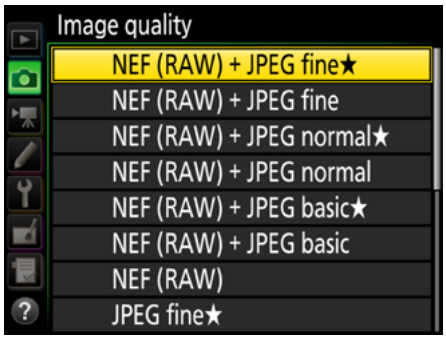


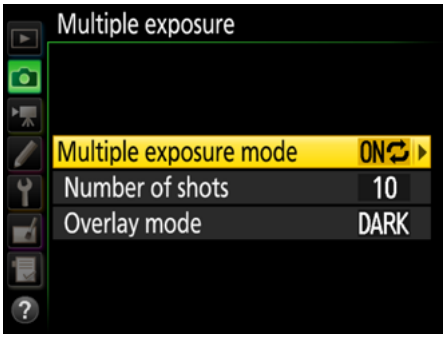
Image quality options with a star ("★") use compression intended to ensure maximum quality.

Choose from three RAW file sizes, depending on your requirements

For faster image transfer after shooting, the D500 offers RAW medium and RAW small (both 12-bit lossless compressed) file size options — convenient if you want to save storage capacity without losing the flexibility of RAW processing. All size options allow in-camera RAW processing.

"Lighten" and "Darken" overlay enables more creative multiple exposures

Up to 10 images can be combined to produce a single image using the multiple exposure function. In addition to the conventional "Add" and "Average," the D500 also gives you two new options. With "Lighten," the camera compares the pixels in each exposure and uses only the brightest — ideal for reproducing a night sky filled with fireworks. Alternatively, by utilizing just the darkest pixels, "Darken" can trace the path of a jumping bike and its rider.



"Darken" overlay

SYSTEM COMPATIBILITY

Wide array of high-performance accessories expands your creative opportunities

NIKKOR lenses unlock the full imaging potential of the D500

NIKKOR lenses are trusted and praised by professionals and advanced amateurs all over the world. Taking advantage of accumulated Nikon technology, they ensure high resolution even in the peripheral areas of the frame, along with exceptional rendering of point light sources and beautiful image blur that conveys a natural sense of depth, all while effectively reducing ghost and flare. NIKKOR lenses truly bring out the full potential of the D500.

AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR delivers remarkable agility and superior optical performance

As the D500's kit lens, the AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR is a compact and lightweight 5× normal zoom with advanced specifications: it is the first DX-format lens to use a Nano Crystal Coat, and also employs a fluorine coat and electromagnetic diaphragm mechanism. Its Vibration Reduction (VR) provides an effect equivalent to a shutter speed 4.0 stops* faster, while achieving light weight. You can enjoy shooting high-quality images even in the midst of adventure.

*Achieved in NORMAL mode, with the lens attached to a DX-format digital SLR camera, and the zoom set at the maximum telephoto position.

AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR

AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR © Keith Ladzinski

AF-S NIKKOR 20mm f/1.8G ED

This 20 mm lens enables photographic expression utilizing the shallow depth of field achieved at the maximum aperture of f/1.8. The latest optical design technology delivers high resolution and superb point-image reproduction while minimizing chromatic aberration. ED glass elements and Nano Crystal Coat ensure superior image quality. A great choice for landscapes and indoor shots.

AF-S DX NIKKOR 10-24mm f/3.5-4.5G ED

Explore the extremes of photography with the ultra-wide-angle coverage of this practical zoom lens. With the widest end of 15 mm*1 covering a 109° angle of view, this lens delivers dramatic perspectives to give your photography a creative edge. Close-up shooting capability and minimized distortion also add to its appeal.

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

This super-telephoto zoom lens covers 350-750 mm*1 focal-length range with a fixed maximum aperture of f/5.6. Adoption of ED glass elements achieves superior optical performance with minimal chromatic aberration throughout the entire zoom range. Vibration Reduction (VR) system provides an effect equivalent to a shutter speed 4.5 stops*2 faster in NORMAL mode. SPORT mode is adopted as a VR mode option to cope with quick movements. Stable AE control is ensured even during high-speed continuous shooting via the adoption of an electromagnetic diaphragm mechanism, enabling the capture of decisive moments when shooting wild birds or flying aircraft.

AF-S Micro NIKKOR 60mm f/2.8G ED

Delivers stunningly sharp images up to life-size (1×) at all f-stops with incredible bokeh. Nano Crystal Coat effectively reduces ghost and flare effects under harsh lighting, such as in backlit situations. With its wide focusing range, this lens is not limited to extreme close-up photography and can be used for most subject matter.

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

This 5× telephoto zoom is ideal for shooting sports, wild birds, aircraft and landscapes. Its superior optical performance is due in part to its one Super ED and four ED glass elements, as well as its Nano Crystal Coat. Vibration Reduction (VR) is integrated to offer an effect equivalent to a shutter speed 4.0 stops*2 faster.

AF-S NIKKOR 300mm f/4E PF ED VR

This telephoto lens employs a PF (Phase Fresnel) lens element, a first in the NIKKOR lineup, to realize an outstandingly compact and light body while effectively minimizing chromatic aberration. High optical performance is also ensured with an ED glass element and Nano Crystal Coat. Vibration Reduction (VR) function provides an effect equivalent to a shutter speed 4.5 stops*2 faster in NORMAL mode. Ideal for capturing a wide range of scenes such as sports, wildlife, landscapes, and portraits.

*1 35mm-format equivalent.
*2 Based on CIPA Standards. Achieved in NORMAL mode, when attached to an FX-format digital SLR camera, and the zoom lens set at the maximum telephoto position.

AF-S DX NIKKOR 10-24mm f/3.5-4.5G ED © Todd Owyoung

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

• Lens: AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR • Speedlight: SB-5000 © Keith Ladzinski

For this image, the rock climber was illuminated by two SB-5000s mounted on a drone hovering just out of frame. Thanks to the SB-5000's radio-controlled system, they could be fired by the D500 via the attached WR-R10 from a distance of more than 20 m/66 ft.

Versatile, high-output Nikon SB-5000 Speedlight can be controlled wirelessly via radio waves

The SB-5000 is the first Nikon Speedlight that can be controlled via radio waves. When used as a remote flash for wireless multi-flash shooting, it provides greater lighting flexibility, as it is only minimally affected by obstacles or ambient lighting compared with conventional optical control (radio-controlled Advanced Wireless Lighting*[1]). The SB-5000 employs a cooling system that prevents the flash panel from overheating due to consecutive bursts. As a result, it can fire consecutively for longer than conventional models, without flash cool-down time between bursts, while maintaining a powerful output at the guide number of 41m/134.5 ft*[2].

*1 WR-R10 Wireless Remote Controller and WR-A10 WR Adapter (both optional) are required. The WR-R10's firmware must be updated to be compatible with radio-controlled AWL (check Nikon website for details).

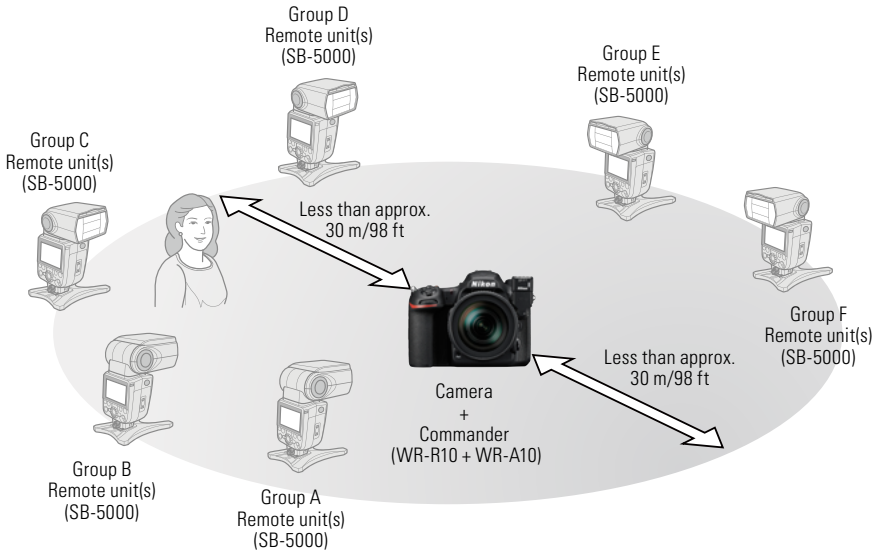
*2 ISO 100, at 35 mm zoom head position, in DX format, standard illumination pattern.

Expanded Nikon Creative Lighting System functions available when using D500 with SB-5000

☐ Radio-controlled Advanced Wireless Lighting introduces new possibilities for lighting

Attaching the WR-R10 Wireless Remote Controller*1 (optional) to the D500 as the master lets you control multiple remote flash units*2 via radio. Because radio waves are used, it is possible to control remote units in ways that would be difficult using conventional optical transmission, due to distance, obstacles or excessive ambient brightness. Up to 18 flash units can be operated remotely from distances of approx. 30 m/98 ft*3, giving you an entirely new level of control over your lighting, and allowing you to achieve more creative photography. Advanced Wireless Lighting using both light and radio waves is also available for up to three groups, by attaching a conventional Nikon Speedlight (used as master or commander)*4 and WR-R10 (used as commander) to the D500.

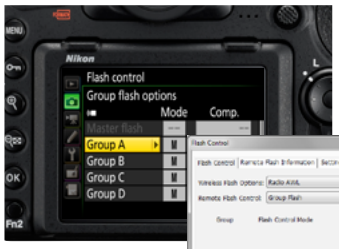
*1 WR-A10 WR Adapter (optional) required. WR-R10's radio-controlled AWL support requires firmware update. (Please check Nikon website.)
*2 SB-5000 Speedlight only.
*3 Approximate range at height of about 1.2 m/4 ft; varies with weather conditions, presence of obstacles and radio communication conditions.
*4 SB-910, SB-900, SB-800, SB-700, SB-500 and SU-800 only.



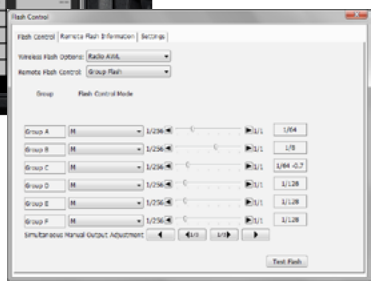
☐ Unified flash control lets you operate flash and change settings via computer

Whether a single SB-5000 is mounted onto your D500, or SB-5000 unit(s) are being used remotely in radio-controlled AWL, it is possible to change various settings using the camera menus, or even with a computer (Camera Control Pro 2 required*). Changes to flash settings made using the SB-5000, the D500 or a computer will be applied to all devices. Flash control settings can also be saved to the memory card using the camera's "Save/load setting" menu, allowing you to share settings between D500 bodies.

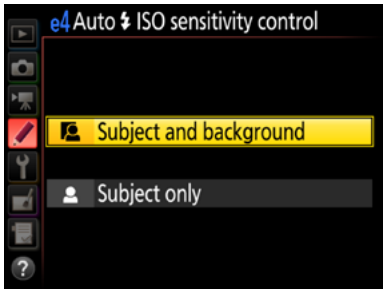
*Version update required for Camera Control Pro 2 (Ver. 2.23.0 or later).



Camera


Computer (Camera Control Pro 2)

Adjust flash performance to match your creative vision with auto ISO sensitivity control



When using a flash with auto ISO sensitivity control, you can choose from two options to ensure optimal exposure, according to how you want the background to appear in your images (via custom settings menu). "Subject and background," which automatically controls sensitivity to obtain optimal exposure of both the main subject and background, is effective when shooting against backgrounds such as a night landscape. "Subject only" automatically adjusts to obtain optimal exposure of the main subject alone. Sensitivity is changed only when the flash output is too high or low. It is also possible to set a maximum sensitivity for flash shooting, independently of the one used for non-flash shooting (from ISO 200 to Hi 5). When the flash is being used to add lighting, setting a low maximum sensitivity often produces the best results.

Newly developed WT-7/A/B/C Wireless Transmitter (optional) allows high-speed wired/wireless LAN communication

WT-7/A/B/C Wireless Transmitter (optional)

Nikon's WT-7/A/B/C Wireless Transmitter is aimed at professionals who need to transfer images more quickly and securely than they can with SnapBridge. It permits images and movie files to be transferred to computers*1 or FTP servers via both wired and wireless LAN. Wired LAN supports 1000BASE-T and offers transmission speeds of up to approx. 1000 Mbps*2, while wireless LAN supports IEEE802.11ac and enables transmission at up to approx. 866.7 Mbps*2, over distances of up to approx. 200 m/656.1 ft*3. Used in conjunction with Camera Control Pro 2 (optional), it is also possible to control the D500 remotely*1.

*1 Requires Wireless Transmitter Utility (available for download from Nikon website).
*2 Maximum logical data rates according to IEEE standard. Actual rates may differ.
*3 With large antenna at wireless LAN access point. Range may vary according to signal strength and presence or absence of obstacles.

WT-7/A/B/C Wireless Transmitter (optional) attached to the D500

☐ Enhanced HTTP server mode functions offer greater convenience

HTTP server mode lets you shoot remotely and browse images stored on the camera's memory cards, using the web browser on a computer or smart device. Continuous shooting is newly supported with the D500, and you can also edit IPTC, text comments and copyright information via the browser. Up to five devices can be connected simultaneously.

☐ Access point mode enables easy wireless LAN connection

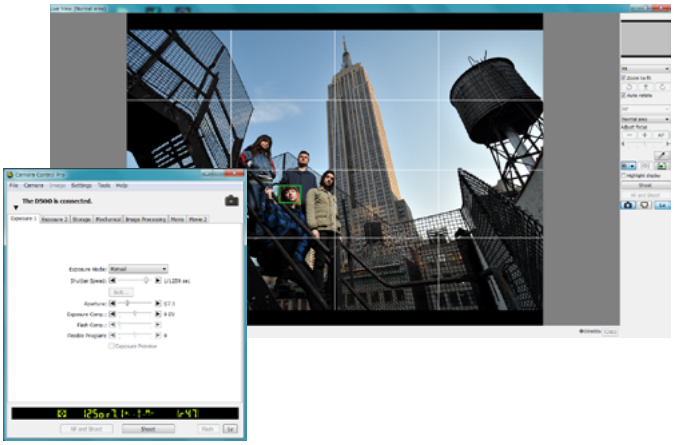
The D500 with an attached WT-7/A/B/C Wireless Transmitter (optional) can be used as a wireless LAN access point, allowing easy connections with computers and smart devices.

RAW image processing software with auto retouch brush — Capture NX-D (free download)

Capture NX-D, Nikon's free software for processing its original RAW (NEF/NRW) files, now comes with an auto retouch brush that lets you remove dust spots on an image easily. It can also be used to adjust options such as exposure compensation, white balance, Picture Control and unsharp mask. JPEG and TIFF files are compatible.

Remote control software with extended features — Camera Control Pro 2 (optional)

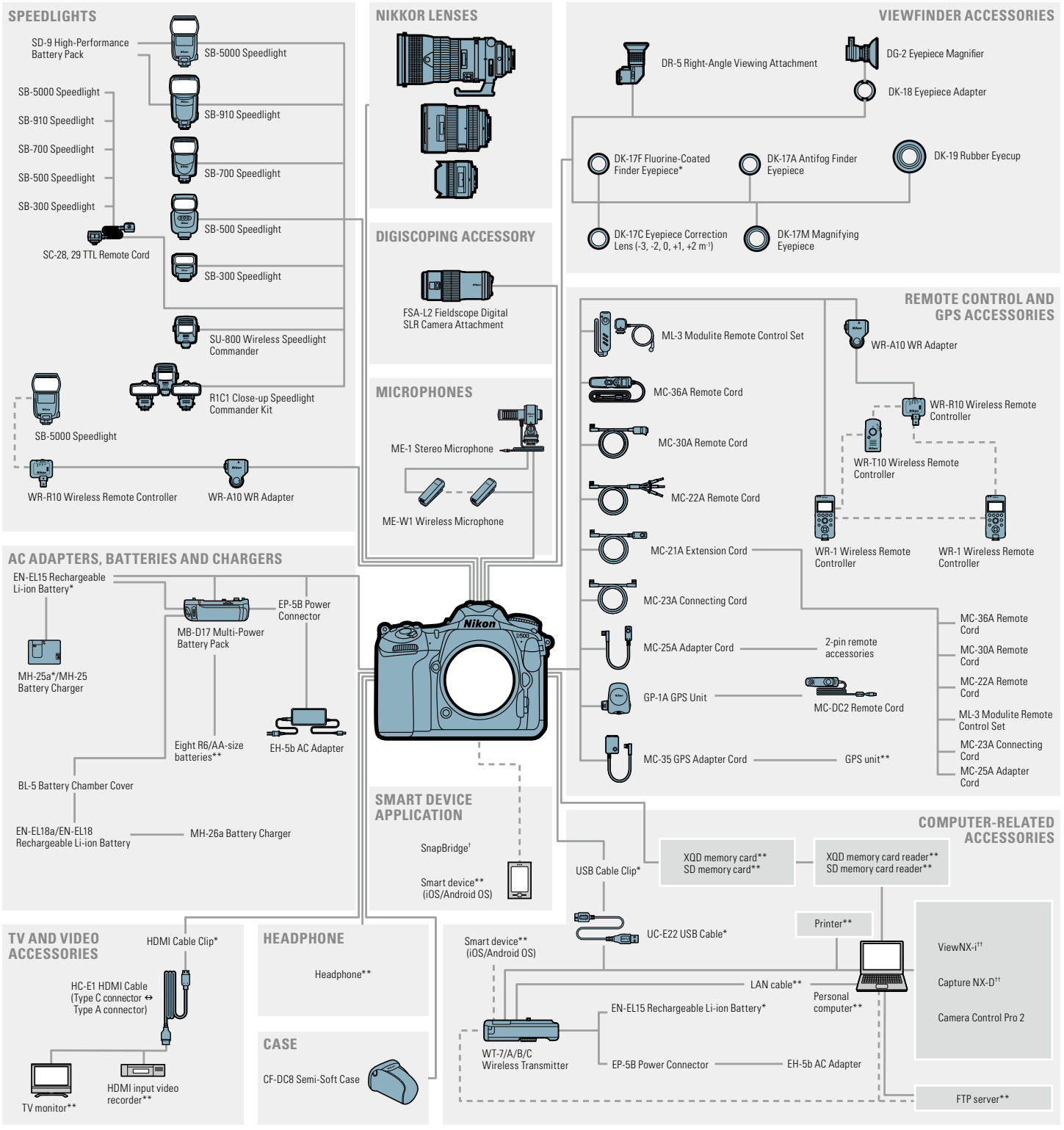
Camera Control Pro 2 lets you remotely control a camera from a computer via wired or wireless connection. It now supports Windows 64-bit (native) and is compatible with the advanced functions included in the D500, allowing you to enable/disable flicker reduction during still shooting, and turn Active D-Lighting for movies and electronic VR on/off. In-camera editing of IPTC information and remote operation of SB-5000 Speedlight (unified flash control) are also possible. You can use shortcuts to control settings such as exposure mode, exposure compensation, shutter speed and aperture, and interval timer photography in bulb mode is also supported, for more versatile remote shooting.



Still images and movie management software — ViewNX-i (free download)

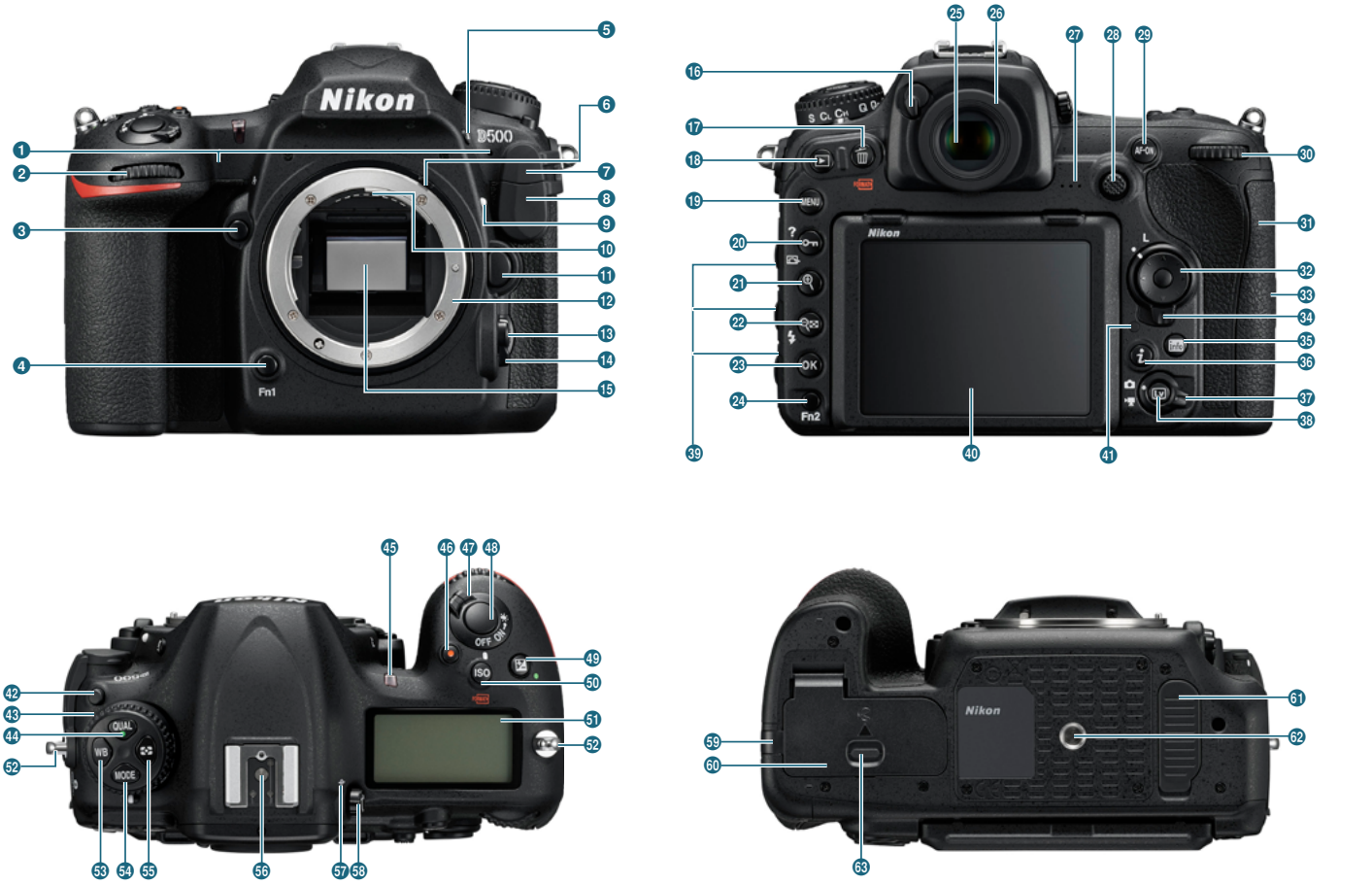
Nikon's free software for browsing JPEG, RAW and movie files employs a Photo Tray function that lets you temporarily store files from various folders. You can also browse RAW files edited with Capture NX-D. ViewNX-i lets you edit images, and it's easy to edit movies with ViewNX-Movie Editor, including 4K UHD. Access to various web services is also available.

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).
The D500, WT-7/A/B/C Wireless Transmitter and WR-1/WR-R10 Wireless Remote Controllers are controlled by the United States Export Administration Regulations (EAR). The permission of the United States government is not required for export to countries other than the following, which as of this writing are subject to embargo or special controls: Cuba, Iran, North Korea, Sudan and Syria.

Nomenclature



1 Stereo microphone
2 Sub-command dial
3 Pv button
4 Fn1 button
5 Bracketing button
6 Meter coupling lever
7 Flash sync terminal (under cover)
8 Ten-pin remote terminal (under cover)
9 Lens mounting mark
10 CPU contacts
11 Lens release button
12 Lens mount
13 AF-mode button
14 Focus-mode selector
15 Mirror
16 Eyepiece shutter lever
17 Delete button/Formatting memory cards button
18 Playback button
19 Menu button
20 Protect button/Picture Control button/Help button
21 Playback zoom in button
22 Playback zoom out button/Thumbnails button/ Flash mode button/Flash compensation button
23 OK button
24 Fn2 button
25 Viewfinder
26 Viewfinder eyepiece
27 Speaker
28 Sub-selector
29 AF-ON button
30 Main command dial
31 Memory card slot cover
32 Multi selector
33 N-Mark (NFC antenna)
34 Focus selector lock
35 Info button
36 *i* button
37 Live view selector
38 Live view button
39 Connector cover (USB connector/Headphone connector/ Connector for external microphone/HDMI connector)
40 Tilting monitor
41 Memory card access lamp
42 Release mode dial lock release
43 Release mode dial
44 Image quality/image size button/Two-button reset button
45 Self-timer lamp
46 Movie-record button
47 Power switch
48 Shutter-release button
49 Exposure compensation button/Two-button reset button
50 ISO sensitivity button/Auto ISO sensitivity control button/ Formatting memory cards button
51 Control panel
52 Eyelet for camera strap
53 White balance button
54 Exposure mode button
55 Metering button
56 Accessory shoe (for optional flash unit)
57 Focal plane mark
58 Diopter adjustment control
59 Power connector cover
60 Battery-chamber cover
61 Contact cover for optional MB-D17 Multi-Power Battery Pack
62 Tripod socket
63 Battery-chamber cover latch

Type of camera	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts)
Effective angle of view	Nikon DX format; focal length in 35 mm [135] format equivalent to approx. 1.5× that of lenses with FX format angle of view
Effective pixels	20.9 million
Image sensor	23.5 × 15.7 mm CMOS sensor
Total pixels	21.51 million
Dust-reduction system	Image sensor cleaning, Image Dust Off reference data (Capture NX-D software required)
Image size (pixels)	• DX (24×16) image area: 5568 × 3712 [L], 4176 × 2784 [M], 2784 × 1856 [S] • 1.3× (18×12) image area: 4272 × 2848 [L], 3200 × 2136 [M], 2128 × 1424 [S] • Photographs with image area of DX taken during movie recording: 5568 × 3128 [L], 4176 × 2344 [M], 2784 × 1560 [S] • Photographs with image area of 1.3× taken during movie recording: 4272 × 2400 [L], 3200 × 1800 [M], 2128 × 1192 [S] • Photographs taken during movie recording at a frame size of 3840 × 2160: 3840 × 2160
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	Standard, Neutral, Vivid, Monochrome, Portrait, Landscape, Flat; selected Picture Control can be modified; storage for custom Picture Controls
Storage media	XQD, SD (Secure Digital) and UHS-II compliant SDHC and SDXC memory cards
Dual card slot	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 2.3, PictBridge
Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame coverage	• DX (24×16) image area: Approx. 100% horizontal and 100% vertical • 1.3× (18×12) image area: Approx. 98% horizontal and 98% vertical
Magnification	Approx. 1.0× (50 mm f/1.4 lens at infinity, -1.0 m^{-1})
Eyepoint	16 mm (-1.0 m^{-1}; from center surface of viewfinder eyepiece lens)
Diopter adjustment	-2 to +1 m^{-1}
Focusing screen	Type B BriteView Clear Matte Mark II 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	Compatible with AF NIKKOR lenses, including type G, E and D lenses (some restrictions apply to PC lenses) and DX lenses, 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 15 focus points with lenses that have a maximum aperture of f/8 or faster, of which 9 points are available for selection)
Shutter type	Electronically controlled vertical-travel focal-plane mechanical shutter; electronic front-curtain shutter available in mirror up release mode
Shutter 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
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	CL: 1 to 9 fps, CH: 10 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
Exposure metering	TTL exposure metering using RGB sensor with approx. 180K (180,000) pixels
Metering method	• 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 8-mm circle in center of frame; diameter of circle can be changed to 6, 10 or 13 mm, or weighting can be based on average of entire frame (non-CPU lenses use 8-mm circle) • Spot: Meters 3.5-mm circle (about 2.5% of frame) centered on selected focus point (on center focus point when non-CPU 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)	• 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	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 100 to 51200 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 50 equivalent) below ISO 100 or to approx. 0.3, 0.5, 0.7, 1, 2, 3, 4 or 5 EV (ISO 1640000 equivalent) above ISO 51200; auto ISO sensitivity control available
Active D-Lighting	Auto, extra high, high, normal, low or off
Autofocus	Multi-CAM 20K autofocus sensor module with TTL phase detection, fine-tuning, and 153 focus points (including 99 cross sensors and 15 sensors that support f/8), of which 55 (35 cross sensors and 9 f/8 sensors) are available for selection
AF detection range	-4 to 20 EV (ISO 100, 20°C/68°F)
Lens servo	• Autofocus (AF): 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 focus points, of which 55 or 15 are available for selection
AF-area modes	Single-point AF; 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
Flash control	TTL: i-TTL flash control using RGB sensor with approx. 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
Flash modes	Front-curtain sync, slow sync, rear-curtain sync, red-eye reduction, red-eye reduction with slow sync, slow rear-curtain sync, off; auto FP high-speed sync supported
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, Advanced Wireless Lighting (optical/radio), auto FP high-speed sync, modeling illumination, FV lock, unified flash control, flash color information communication and AF-assist illumination for multi-point AF
Sync terminal	ISO 519 sync terminal with locking thread
White balance	Auto (3 types), 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 10000 K), all with fine-tuning
Bracketing types	Exposure, flash, white balance and ADL
Live view modes	📷 (photo live view), 🎥 (movie live view)
Live view lens servo	• 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, center-weighted or highlight-weighted
Frame size (pixels) and frame rate	• 3840 × 2160 (4K UHD); 30p (progressive), 25p, 24p • 1920 × 1080; 60p, 50p, 30p, 25p, 24p • 1280 × 720; 60p, 50p Actual frame rates for 60p, 50p, 30p, 25p and 24p are 59.94, 50, 29.97, 25 and 23.976 fps respectively; ★high quality available at all frame sizes, normal quality available at all frame sizes except 3840 × 2160
File format	MOV
Video compression	H.264/MPEG-4 Advanced Video Coding
Audio recording format	Linear PCM
Audio recording device	Built-in stereo or external microphone; sensitivity adjustable
ISO sensitivity	• Exposure modes P, S and A: Auto ISO sensitivity control (ISO 100 to Hi 5) with selectable upper limit • Exposure mode M: Auto ISO sensitivity control (ISO 100 to Hi 5) available with selectable upper limit; manual selection (ISO 100 to 51200 in steps of 1/3, 1/2 or 1 EV) with additional options available equivalent to approx. 0.3, 0.5, 0.7, 1, 2, 3, 4 or 5 EV (ISO 1640000 equivalent) above ISO 51200
Active D-Lighting	Extra high, high, normal, low or off
Maximum length	29 min. 59 s
Other movie options	Index marking, time-lapse movies, electronic vibration reduction
Monitor	8-cm/3.2-in., approx. 2359k-dot (XGA) tilting TFT touch-sensitive LCD with 170° viewing angle, approx. 100% frame coverage and manual monitor brightness control
Playback	Full-frame and thumbnail (4, 9 or 72 images) playback with playback zoom, movie playback, photo and/or movie slide shows, histogram display, highlights, photo information, location data display, auto image rotation, picture rating and IPTC information embedding and display
USB	SuperSpeed USB (USB 3.0 Micro-B connector); 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)
Ten-pin remote terminal	Can be used to connect optional remote control, WR-R10 (requires WR-A10 WR Adapter) or WR-1 Wireless Remote Controller, GP-1/GP-1A GPS Unit or GPS device compliant with NMEA0183 version 2.01 or 3.01 (requires MC-35 GPS Adapter Cord and cable with D-sub 9-pin connector)
Wireless standards	IEEE 802.11b, IEEE 802.11g
Authentication	Open system, WPA2-PSK
Bluetooth communication protocols	Bluetooth Specification Version 4.1
NFC operation	NFC Forum Type 3 Tag
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-EL15 Rechargeable Li-ion Battery
Battery pack	Optional MB-D17 Multi-Power Battery Pack with one EN-EL18a or EN-EL18 Rechargeable Li-ion Battery (available separately), one EN-EL15 Rechargeable Li-ion Battery or eight R6/AA-size alkaline, Ni-MH or lithium batteries; a BL-5 Battery Chamber Cover is required when using EN-EL18a or EN-EL18 battery
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. 147 × 115 × 81 mm/5.8 × 4.6 × 3.2 in.
Weight	Approx. 860 g/1 lb 14.4 oz with battery and XQD memory card but without body cap; approx. 760 g/1 lb 10.9 oz (camera body only)
Operating environment	Temperature: 0 to 40°C/32 to 104°F; humidity: 85% or less (no condensation)
Supplied accessories (may differ by country or area)	EN-EL15 Rechargeable Li-ion Battery, MH-25a Battery Charger, DK-17F Fluorine-Coated Finder Eyepiece, UC-E22 USB Cable, USB Cable Clip, HDMI Cable Clip, AN-DC17 Camera Strap, BF-1B Body Cap