



I AM CONCENTRATED PERFORMANCE



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
- New EXPEED 5 image-processing engine achieves superior image quality and ISO sensitivity up to 51200, expandable to Hi 5
- 4K UHD (30p) video, suitable for professional productions
- 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®





[Wildlife] **Go Yamagata** 'The viewfinder visibility is superb. With ease, it lets me





Todd Owyoung

The D500 gives me the image quality and tack-sharp focus need. Even in the lowest ight, it never disappoints'



[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



[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'



C.S.Ling

'I'm very impressed that I can get everything I need as a professional in such a compact



- DX | 153 focus points: □/ □/ (99 cross sensors: □/ ■) | 55 selectable points: □/ □ (35 cross sensors: □/ □)

153 focus points with broader, denser coverage

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.

153 AF POINTS

Revolutionary autofocus system with exceptional acquisition performance

Comprehensively refined AF system

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

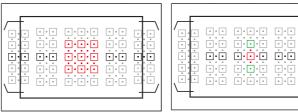
Like the D5, the D500 uses a dedicated AF engine to swiftly process the vast amounts of data streaming in from its 153 AF points and then delivers accurate focus on fast-moving subjects. The engine and sequence control microcomputer work in parallel to speed up AF processing and control, which means 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.

Reliable AF, even with 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: .../■
- 15 focus points: . / . / . / . / . . / . . 9 selectable points: . . / . . / . . . 5 cross sensors: . . / . . .

For effective maximum apertures

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

at f/8

Focusing capability down to -4 EV

The D500's AF capability is about more than just focus points. 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-ISO sensitivity

camera's impressive high-ISO sensitivity performance (up to 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.



© C.S.Ling

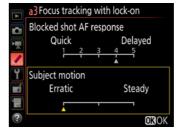


D500 + AF-S TELECONVERTER TC-20E III + AF-S NIKKOR 500mm f/4E FL ED VR

Intuitive AF lock-on settings

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 intervening object, 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.



Automatic AF fine-tune

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.

 $\ensuremath{^{*}}\xspace$ *"AF fine-tune" in the setup menu must be turned on to enable the tuned value for shooting.

Quick AF-area mode switching

The D500 offers a convenient way to temporarily switch AF-area mode. By assigning an AF-area mode* to a custom button (Pv, Fn1, AF-ON, center of sub-selector or a lens focus function button) in advance, the assigned mode can be selected by keeping the custom button depressed, returning to the original mode when released.

*Except 3D-tracking.





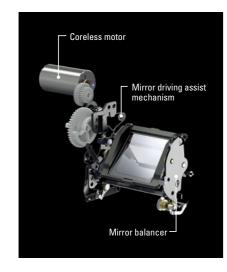


This image was created by combining consecutive shots using third-party software

Continuous shooting at approx. 10 fps for up to 200 shots

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.



Superior agility

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. 1.5x 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 farflung locations.

*35mm-format equivalent.



© Marcel Lämmerhirt

10 200/DX Shots AGILITY

High-speed continuous shooting and nimble DX system ideal for telephoto shoot ing

Stable viewfinder image

the impact. The combination of these technologies provides effective reduction in bounce, which in turn reduces image blur

in the viewfinder.

The incredibly light kit lens

A stable viewfinder image is essential when tracking fast-This is no ordinary kit lens — you can expect unprecedented moving subjects using high-speed continuous shooting, and agility from the AF-S DX NIKKOR 16-80mm f/2.8-4E ED VR, the D500's mirror mechanism employs a variety of measures lightweight 5× normal zoom lens. It weighs only approx. 1340 g/ to achieve better visibility in situations just like this. Its 2 lb 15.3 oz*1 even when attached to the D500, yet its specially developed mirror drive assist mechanism decelerates impressively light and compact body covers a wide angle of the mirror just before it completes its upward movement, view equivalent to a 24-120 mm lens in 35mm format. The while a coreless motor decelerates it just before it finishes advanced specifications include the first use of Nano Crystal moving back down. The camera's mirror balancer also absorbs 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.



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

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



D500 + AF-S NIKKOR 80-400mm f/4.5-5.6G ED VR

Approx. 2430 g/3 to 3.0 02

 $$^{*}135 mm\mbox{-}format\ equivalent.}$$ 1 Includes battery, one XQD memory card (two XQD cards for the D5) and lens cap.

1.3x 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.

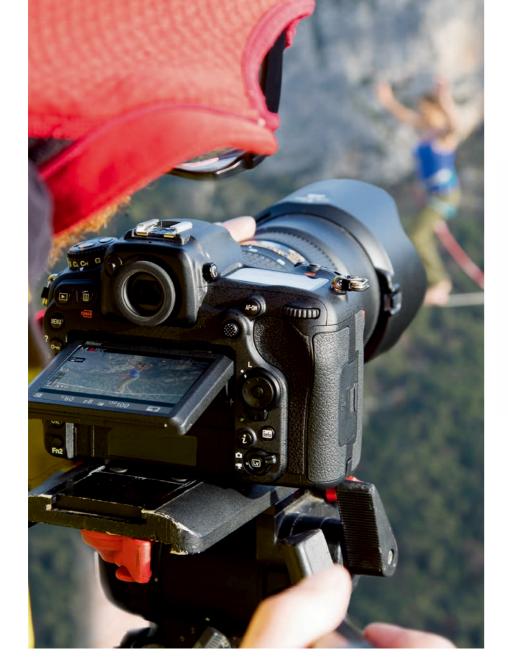


— 1.3×

^{*1} Including battery, XQD memory card and lens.

^{*2} Based on CIPA Standards. Achieved in NORMAL mode, with the lens attached to a DXformat digital SLR camera, and the zoom set at the maximum telephoto position.





4K UHD video

Meeting the demands of multimedia professionals, the D500 provides 4K UHD (3840 \times 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.

*4K UHD movies are recorded in separate files.



4KUHD

Stunning ultra-hi gh-definition video, designed for diverse multi media applications



■3840 × 2160: Compatible with 4K UHD
■1.3×-based image area: Compatible with Full HD and HD
■DX-based image area: Compatible with Full HD and HD
Note: Aspect ratio of movies is 16:9 regardless of the selected image area.



4K UHD time-lapse photography

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.

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

Dedicated movie menu

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 *t* button during movie live view or movie recording.



Electronic Vibration Reduction (VR)

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.

*Angle of view is slightly reduced when DX is selected for image area.



Active D-Lighting for Full HD/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: High

Active D-Lighting: Of

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 steps 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 to either "Wide range" or "Vocal range".



Auto ISO sensitivity control

The D500's auto ISO sensitivity control lets you achieve appropriate exposure in M mode by adjusting ISO sensitivity automatically, preserving your depth of field and any intended motion-blur effects. To avoid excessive increases in sensitivity level, it's possible to set a maximum sensitivity limit between ISO 200 and Hi 5.





© Todd Owyoung

Advanced Scene Recognition System with 180K-pixel RGB sensor

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 feature reduces flicker effects for more consistent still image shooting.



- *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.

Flicker reduction function

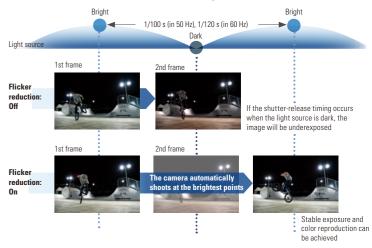
Artificial light sources such as fluorescent lighting tend to produce flickering, leaving some of your images dark. To avoid this effect, the D500 offers a flicker reduction function for still images as well as for movies. The camera detects the peak brightness level and automatically shifts the release 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

*Continuous shooting speed may be decreased.



You can choose to display FLICKER

Flicker reduction function (in continuous shooting)



New EXPEED 5 image-processing engine

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 \times 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.



Exceptional image quality with lower noise even at high ISO settings

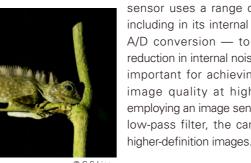
Standard ISO sensitivity from 100 to 51200

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

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

Picture Control system

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 to give your images a specific look. 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.

Three auto white balance modes

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

Auto 2: Keep warm lighting

Touch-operation, tilting 8-cm/3.2-in. 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 to 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.

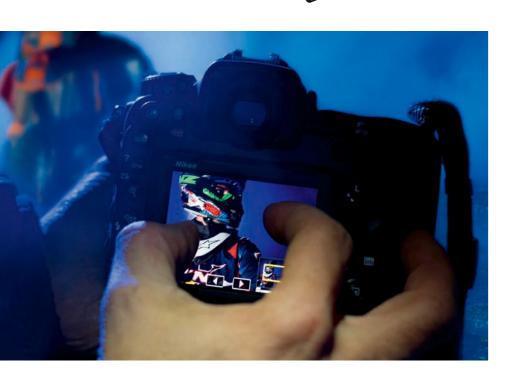
Easy-to-hold grip and superior sealing

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 monocogue 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.

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.



INNOV ATIVE **OPERABILITY**

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









Widest-ever approx. 30.8° diagonal viewing angle*

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.

using an APS-C size image sensor. Based on Nikon research

*As of January 6, 2016, among D-SLR cameras

Outstanding energy-saving design

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 imageprocessing engine help reduce the camera's EN-EL15 Rechargeable power consumption, making it possible Li-ion Battery

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

Dual memory card slots

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 select a slot for movie recording according to the remaining capacity on each card.

Other functions

- Simplified menu enables quick selection of JPEG image quality
- Choose from three RAW file sizes, depending on your requirements
- "Lighten" and "Darken" overlay enables more creative multiple exposures

New SnapBridge 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. For example, you can

automatically transfer images taken with the D500 to your smart device, as well as embed 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.

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

SYSTEM COMPATIBILITY

Wide array of high-performance accessories expands your creative opportunities



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

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 impressive specifications: it is the first DX-format lens to use Nano Crystal Coat, employ a fluorine coat, and also utilize an electromagnetic diaphragm mechanism. Its Vibration Reduction (VR) provides an effect equivalent to a shutter speed 4.0 stops*1 faster, and it features a lightweight body.



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*2 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 DX NIKKOR 10-24mm f/3.5-4.5G ED

© Keith Ladzinski



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

This super-telephoto zoom lens covers 300-750 mm*2 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*1 faster in NORMAL mode. SPORT mode is adopted as a VR mode option to cope with quick movements.



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

This telephoto lens employs a PF (Phase Fresnel) lens, 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*1 faster in NORMAL mode.



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



*2 35mm-format equivalent.

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.



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

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

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



WT-7/A/B/C Wireless Transmitter

Expanded Nikon Creative Lighting System functions available with SB-5000

☐ Radio-controlled Advanced Wireless Lighting

Attaching the WR-R10 Wireless Remote Controller*1 (optional) to the D500 lets you control multiple remote SB-5000s*2 via radio. Because radio waves are used, it is possible to control remote SB-5000s 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.



SB-5000

30 m/98 ft*3, allowing you to achieve more creative photography. Advanced Wireless Lighting is also available for up to three groups, by employing conventional Nikon Speedlight(s) (used as master or commander)*4, via light, and utilizing SB-5000(s), with WR-R10 (used as commander) attached to the D500, via radio waves.

- *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
- *4 SB-910, SB-900, SB-800, SB-700, SB-500 and SU-800 only.

☐ Unified flash control

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. Speedlight 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.

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

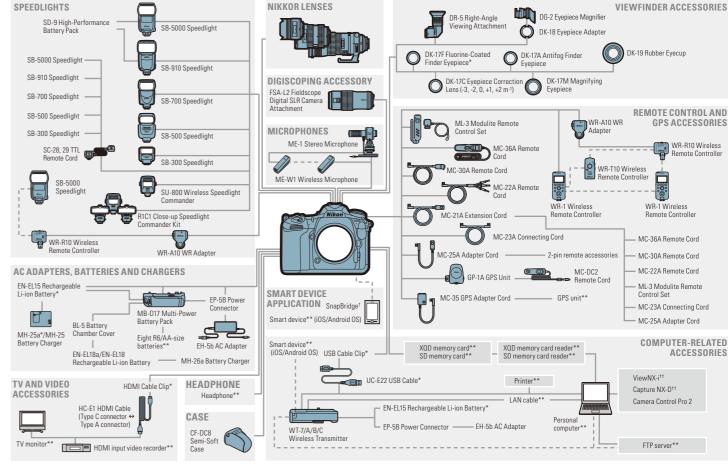
background, is effective when shooting against backgrounds such as a night landscape. "Subject only" automatically adjusts to obtain optimal exposure of the main subject alone. ISO sensitivity is changed only when the flash output is too high or low.





© Marcel Lämmerhirt

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 E Administration Regulations (EARI, 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.

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

Type of camera	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts) Nikon DX format; focal length in 35 mm [135] format equivalent to approx. 1.5× that
Effective angle of view Effective pixels	Nikoli DA format, focal length in 33 min [133] format equivalent to approx. 1.3× that of lenses with FX format angle of view 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-Baseline compliant with fine (approx. 1:4), normal (approx. 1:8) or basic (approx. 1:16) compression, Opimial 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 Frame coverage	Eye-level pentaprism single-lens reflex viewfinder • DX (24×16) image area: Approx. 100% horizontal and 100% vertical • 1.3× (18×12)
	image area: Approx. 98% horizontal and 98% vertical
Magnification Eyepoint	Approx. 1.0 × (50 mm f/1.4 lens at infinity, -1.0 m ⁻¹) 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, Al-P NIKKOR lenses, and non-CPU Al lenses (A and M modes only); IX-NIKKOR lenses, lenses for the F3AF, and non-Al lenses cannot be used The electronic rangefinder can be used with lenses that have a maximum aperture of 1/5.6 or faster (the electronic rangefinder supports 15 focus points with lenses that have a maximum aperture of 1/8 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 Flash sync speed	1/8000 to 30 s in steps of 1/3, 1/2 or 1 EV, bulb, time, X250 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
Approximate frame advance rate	shutter-release), QC (quiet continuous shutter-release), & (self-timer), MUP (mirror up) 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	
Exposure modes	Programmed auto with flexible program (P); shutter-priority auto (S); aperture-priority auto (A); manual (M)
	-5 to +5 EV in increments of 1/3, 1/2 or 1 EV
Exposure lock ISO sensitivity	Luminosity locked at detected value 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
(Recommended Exposure Index)	1EV (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 highlightweighted 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	Lightswhenoptionalflashunitisfullycharged; flashesafterflashisfiredatfulloutput
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 Live view lens servo	
	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
	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 50p, 50p, 30p, 25p and 24p are 59.94, 50, 29.97, 25 and 23.976 fps respectively;
F1 . 4	★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
	Linear PCM Ruilt in stores or external microphone: capacitivity adjustable
Audio recording device ISO sensitivity	Built-in stereo or external microphone; sensitivity adjustable • Exposure modes P, S and A: Auto ISO sensitivity control (ISO 100 to Hi 5) with
150 Selisiuvity	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 29 min. 59 s
Maximum length Other movie options	Index marking, time-lapse movies, electronic vibration reduction
Monitor	Note: The Note:
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)
	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,
Battery	Thai, Turkish, Ukrainian, Vietnamese 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
A 0 - 1 - 1 - 1	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 Dimensions (W×H×D)	1/4 in. (ISO 1222)
Weight	Approx. $147 \times 115 \times 81 \text{ mm/} 5.8 \times 4.6 \times 3.2 \text{ in.}$ Approx. $860 \text{ g/1 lb } 14.4 \text{ oz with battery and XQD memory card but without body cap;}$
Operating environment	approx. 760 g/1 lb 10.9 oz (camera body only) Temperature: 0 to 40°C/32 to 104°F; humidity: 85% or less (no condensation)
Supplied accessories (may differ by country or	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,
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