



Nikon  
*100<sup>th</sup>*  
anniversary

*At the heart of the image™*

# D850™



**I AM** THE DIFFERENCE MAKER

*100*  
million  
NIKKOR



















[Landscape]  
**LUKE AUSTIN**

"It's not just an increase in resolution — I also love the focus shift function, tilting touch screen, silent photography and high ISO performance."



[Fashion/Wedding]  
**JERRY GHIONIS**

"Some of my favorite features include its medium format-level quality and detail with D-SLR flexibility, working in tandem with countless NIKKOR lenses, three RAW settings including 45.7 megapixels at 9 fps... the list goes on!"



[Commercial Sports]  
**LITTLE SHAO**

"Happy that I can finally have a compact body which integrates 45.7-megapixel resolution with fast shutter speeds and the best 153-point AF system."



[Time-lapse]  
**MARSEL VAN OOSTEN**

"You will really appreciate the incredible amount of detail throughout the image. But it's not just about the pixel count: it's about the quality of those pixels."



[Video]  
**LITTLE SHAO and BEYOND CONTENT**

"This camera is the perfect one for me. I love the fact that I can deal with video at this high level with my photographer's mind and logic."  
— Little Shao  
"The combination of 4K UHD, superb low-light performance and light weight means the D850 comes on more shoots, gets used more, and more shoots make it into more edits."  
— Steve Leavesley, Director, Beyond Content



HIGHER RESOLUTION. HIGHER SPEED. GREATER VERSATILITY.  
PURE POTENTIAL FOR STILLS AND VIDEO.



Witness the next stage in evolution for high-resolution photography. The D850 doesn't simply surpass the incredible image quality of the D810, with 45.7 effective megapixels and ISO sensitivity from 64-25600. It pairs these with a new level of versatile and uncompromising performance, including continuous shooting speeds of 7 fps (up to 9 fps with the optional MB-D18 Multi-Power Battery Pack\*) and the 153-point AF system used in the flagship D5. It's the first Nikon FX-format D-SLR camera to offer full-frame 4K UHD video, while time-lapse shooters can create high-resolution sequences even under extremely low light. From landscape to commercial sports, wedding and fashion photography, as well as multimedia shooting, the D850 lets you create astounding images that meet the strictest professional requirements.

\* When using EN-EL18b/EN-EL18a Rechargeable Li-ion Battery.



**D850**<sup>TM</sup>





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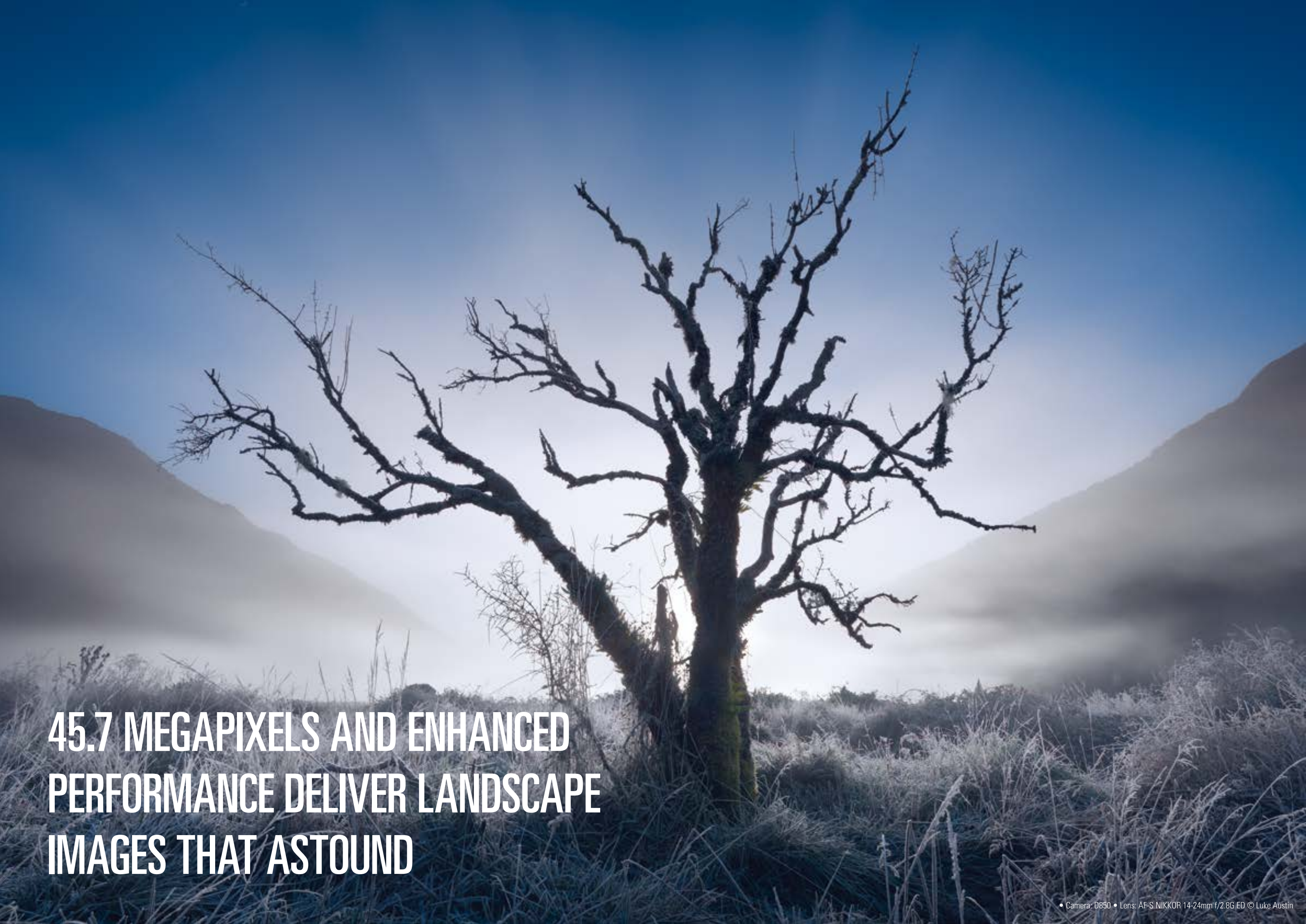
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**45.7 MEGAPIXELS AND ENHANCED  
PERFORMANCE DELIVER LANDSCAPE  
IMAGES THAT ASTOUND**





• Lens: AF-S NIKKOR 14-24mm f/2.8G ED • Exposure: [M] mode, 15 seconds, f/2.8 • White balance: Color temperature (3700 K) • Sensitivity: ISO 10000 • Picture Control: Auto © Luke Austin

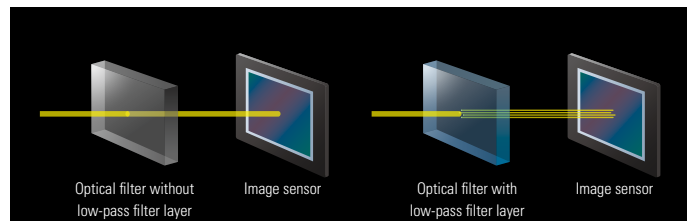
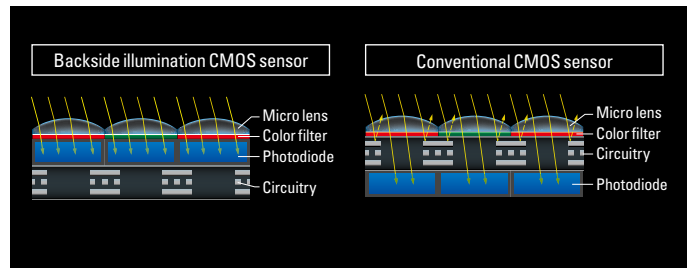
### Magnificent images with stunning detail — Nikon FX-format, backside illumination CMOS sensor delivering 45.7 megapixels with ISO 64-25600



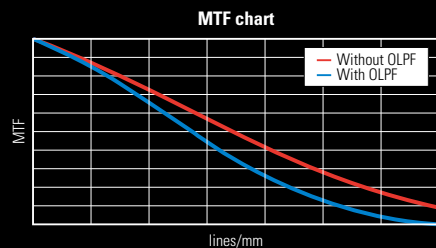
The D850 allows landscape photographers to capture a diverse range of scenes in sumptuously rich detail. It is the first Nikon D-SLR to use a backside illumination sensor, which allows incoming light to reach photodiodes more efficiently. Together with the camera's low-noise performance, this enables it to achieve ISO 25600 despite its high pixel count. What's more, it strikes an optimal balance between sensor sensitivity and the volume of light information accumulated in photodiodes, yielding images with a wide dynamic range even at ISO 64 (expandable to ISO 32 equivalent) — the lowest native ISO setting offered by any camera manufacturer. Copper wiring is used to cut electrical resistance, while the backside illumination structure allows a flexible wiring layout, reducing stray capacity. These measures enable 45-megapixel FX-format images to be captured at continuous shooting speeds of 9 fps\*<sup>1</sup>. And because the sensor is designed without an optical low-pass filter, it can harness the sharpness of 45 megapixels when combined with the high resolving power of NIKKOR lenses. The D850 yields pictures that can be enlarged as massive prints at up to A2 size\*<sup>2</sup> or used for 8K digital signage displays.

\*<sup>1</sup> When using the optional MB-D18 Multi-Power Battery Pack with the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery.

\*<sup>2</sup> When printed at 300 dpi.



Because the D850's image sensor is designed without an optical low-pass filter (OLPF), the light arrives at the sensor directly, delivering higher resolution.



• This is a conceptual graphic of an f/5.6 aberration-free lens.

### Effective noise reduction, fine detail and color reproduction with powerful image processing — EXPEED 5

Beauty is where you find it. The D850 captures it all — thanks to its EXPEED 5 image-processing engine, also incorporated in the flagship D5. EXPEED 5 renders delicate tonality in highly vivid colors, and its superb noise reduction suppresses noise effectively while maintaining detail. Its powerful calculation ability also permits high-speed continuous shooting at approx. 9 fps\* with 45 megapixels, as well as full-frame, 4K UHD movie recording.

\* When using the MB-D18 Multi-Power Battery Pack with the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery. The D850 shoots at 7 fps with the EN-EL15a/EN-EL15.



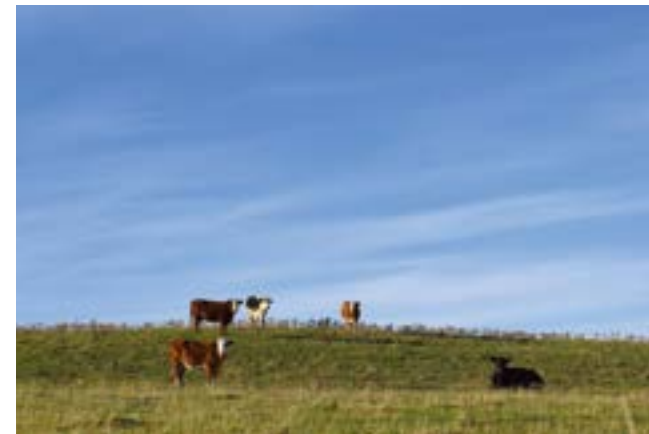
### Create your ideal images — Picture Control system

Nikon's Picture Control system helps you craft images that match your creative intentions and purposes. The D850 incorporates the new Auto Picture Control, in addition to the seven existing presets. Each preset allows you to tune settings such as sharpening and clarity, opening up a wider range of options for achieving your ideal image. You can adjust settings and store them as your own custom Picture Controls.



### Automatically adjust images to fit the scene — Auto Picture Control

Auto Picture Control produces more desirable images by automatically fine-tuning the tone curve, color, sharpening and clarity of the Standard option, according to each scene's characteristics. As a result, blue skies and verdant greens are rendered more vibrantly for landscape shots. The Advanced Scene Recognition System is now even better at identifying light sources, meaning red colors can be emphasized in sunsets and sunrises.



Picture Control: Auto



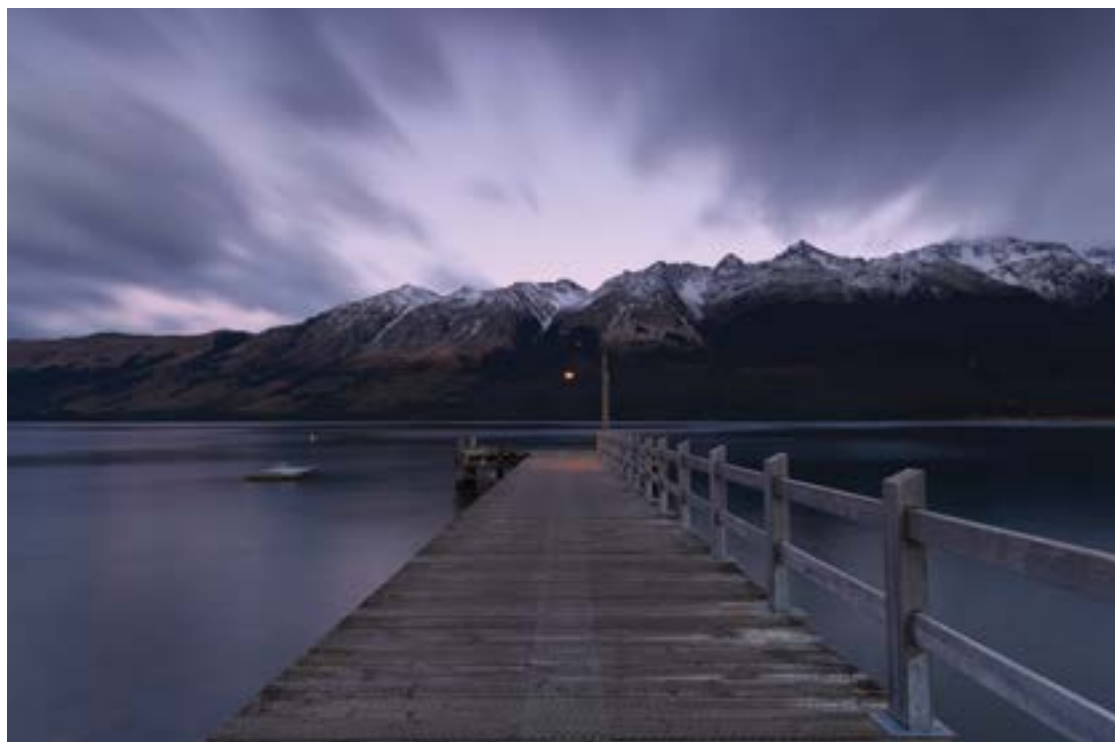
Picture Control: Standard

• Lens: AF-S NIKKOR 70-200mm f/2.8E FL ED VR • Exposure: [A] mode, 1/125 second, f/8 • White balance: Natural light auto • Sensitivity: ISO 64 © Luke Austin



### Unparalleled resolving power to match 45 megapixels — NIKKOR lenses

With their exceptionally high resolving power, which makes full use of 45 megapixels, NIKKOR lenses are a perfect partner for the D850, allowing photographers in every field to better capture the essence of their vision, and render every delicate tone or nuance. Thanks to Nikon's superb optical technology, they provide sharp resolution even at the periphery of an image, combined with elaborately designed, beautiful image-blur characteristics. Many lenses feature the anti-reflective Nano Crystal Coat, which effectively reduces ghost and flare. They are also designed to reproduce point light sources as point images as much as possible. NIKKOR lenses are powerful tools for professionals looking to ensure brilliantly sharp images regardless of the subject, environment or lighting conditions.



- Exposure: [A] mode, 30 seconds, f/11
- White balance: Natural light auto
- Sensitivity: ISO 400 • Picture Control: Auto

© Luke Austin



#### AF-S NIKKOR 14-24mm f/2.8G ED

With a fixed maximum aperture of f/2.8, this award-winning professional lens delivers edge-to-edge sharpness across the frame. Nano Crystal Coat and ED glass ensure outstanding contrast, even in backlit conditions. Tough and reliable, this is essential glass for landscape photographers.



- Exposure: [A] mode, 20 seconds, f/11
- White balance: Natural light auto
- Sensitivity: ISO 64 • Picture Control: Auto

© Luke Austin



#### AF-S NIKKOR 70-200mm f/2.8E FL ED VR

This fast f/2.8 telephoto zoom with reduced weight enables highly agile shooting in diverse situations. Movable parts and other sections are sealed to maximize dust- and drip-resistant performance. Further enhanced optical performance is realized with a newly developed optical system and the adoption of fluorite, ED glass and HRI lens elements, as well as Nano Crystal Coat. The VR system provides a powerful effect equivalent to a shutter speed 4.0 stops\* faster in Normal mode. AF drive and AF tracking performance have also been enhanced, while stable AE control is obtained with the adoption of an electromagnetic diaphragm.

\* Based on CIPA Standards. This value is achieved when attached to an FX-format D-SLR camera, with zoom set at the maximum telephoto position.



- Exposure: [M] mode, 1/160 second, f/5.6
- White balance: Natural light auto
- Sensitivity: ISO 800 • Picture Control: Flat

© Luke Austin



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

NIKKOR's first fisheye zoom lens provides two fisheye effects (circular and full-frame) for elaborate image expression. Three ED glass elements effectively reduce lateral chromatic aberration for sharp and high-contrast images. Two aspherical lens elements contribute to improved reproduction of point light images, while Nano Crystal Coat controls ghost and flare effects. A dust- and drip-resistant structure is employed for enhanced reliability, while a fluorine coat ensures easy maintenance.





- Exposure: [M] mode, 5 seconds, f/6.3
- White balance: Natural light auto
- Sensitivity: ISO 64 • Picture Control: Auto

© Luke Austin



### PC NIKKOR 19mm f/4E ED

The 19 mm focal length of this PC lens gives an angle of view that will be familiar to architecture and interior photographers, while bringing dramatic perspectives to landscape shots. Its mechanical structure allows the shift position to be adjusted smoothly and precisely, without the need for locking and unlocking. And thanks to its “PC Rotation” mechanism, the direction of tilt operation can be made parallel or perpendicular to shift, giving you greater control over perspective, focus and depth of field. Three ED glass elements and two aspherical lens elements are employed along with Nano Crystal Coat and a fluorine coat.



- Exposure: [M] mode, 1/2 second, f/8
- White balance: Natural light auto
- Sensitivity: ISO 64 • Picture Control: Auto

© Luke Austin



### AF-S NIKKOR 28mm f/1.4E ED

With an angle of view similar to the viewfield of human sight, naturally spreading space and depth can be reproduced. The maximum aperture of f/1.4 delivers large and beautiful bokeh characteristics. Two ED glass elements and three aspherical lens elements minimize various types of aberrations. Nano Crystal Coat effectively controls ghost and flare effects for clear images. Body is designed to ensure superb dust- and drip-resistant performance, while fluorine coat is applied for easy maintenance.



- Lens: AF-S NIKKOR 14-24mm f/2.8G ED • Exposure: [M] mode, 15 seconds, f/2.8 • White balance: Color temperature (3570K) • Sensitivity: ISO 6400 • Picture Control: Auto

© Luke Austin

### Nail the shot with full detail and no mechanical vibration or shutter release sound — Silent photography at 45 megapixels

When capturing a night sky blanketed with stars, you probably want to avoid even the tiniest image blur to maximize the advantage of 45 megapixels. The D850's silent photography function\*<sup>1</sup> in live view mode utilizes an electronic shutter instead of triggering any mirror or shutter movement, meaning it doesn't cause any mechanical vibration. Photographers can capture every last detail in 45 megapixels — and in complete silence. This mode can be used in approx. 6-fps continuous shooting, but can also shoot approx. 8.6-megapixel pictures in DX image area at approx. 30 fps\*<sup>2</sup>.

\*<sup>1</sup> In M and A modes. Aperture drive sound occurs in P and S modes.

\*<sup>2</sup> Continuous shooting is available for up to approx. 3 s.

Note: Rolling shutter distortion may occur during silent photography. AF/AE fixed with the first frame in continuous shooting.





• Lens: AF-S NIKKOR 14-24mm f/2.8G ED • Exposure: [M] mode, 1.6 seconds, f/11 • White balance: Natural light auto • Sensitivity: ISO 64 • Picture Control: Auto

© Luke Austin

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

The D850 employs a new “natural light auto” white balance mode, taking advantage of the Advanced Scene Recognition System’s improved light source identification function. This option delivers optimal white balance results under natural light — a valuable asset for landscape shooters. It makes it possible to respond quickly to changes in the weather conditions without switching to the direct sunlight or cloudy options. When shooting scenes such as an autumnal landscape awash with red leaves or spectacular orange sunset, it also enhances the warm colors, helping create even more impressive pictures.



White balance: Auto 0

### Preserve details in highlights and shadows — Active D-Lighting

Even when shooting high-contrast scenes in backlit situations, Active D-Lighting preserves details in highlight areas as well as shadowy areas, reproducing brightness as you see it. Active D-Lighting is suitable for use with moving subjects, as it does not involve combining two images like the High Dynamic Range (HDR) function does.

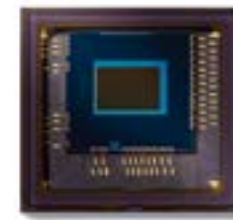
### Produce amazing dynamic range — HDR

The High Dynamic Range (HDR) function takes two images of different exposures with one shutter release and automatically combines them to produce a single image with a wider dynamic range. This achieves images with rich tonal gradation in shadows and highlights, even for high-contrast shooting scenes. HDR is ideal for stationary subjects such as high-contrast landscapes and still lifes.

Note: Tripod use recommended.

### Convenient shooting with ND filters\*1 — Low-light metering down to -3 EV

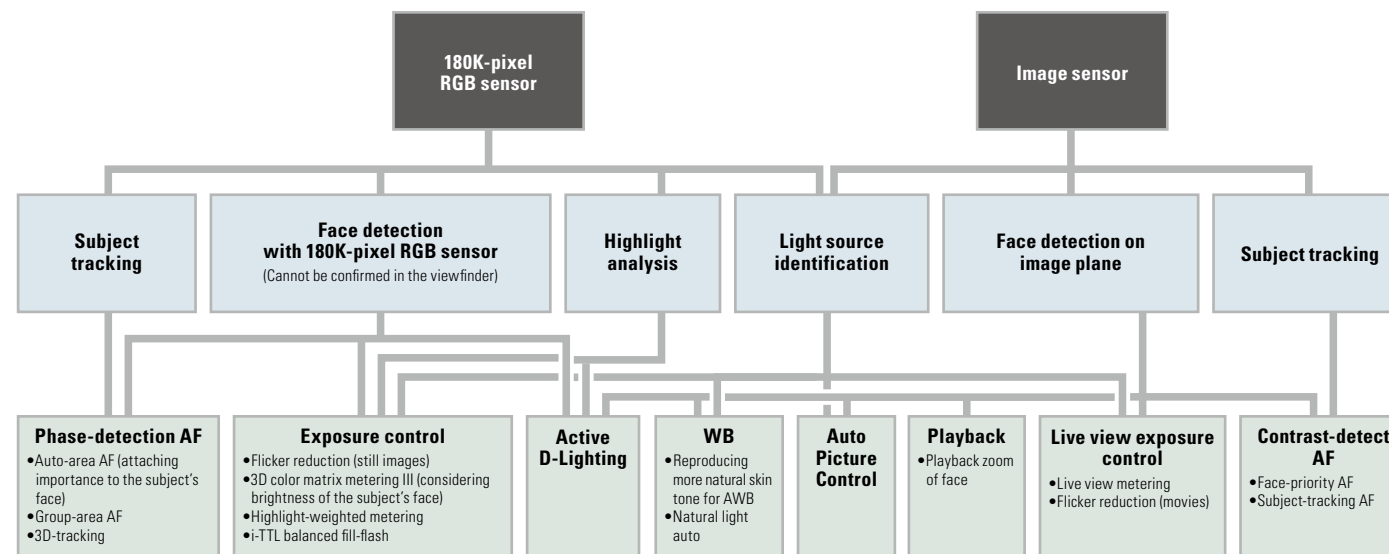
The D850 employs a 180K-pixel RGB sensor with superb low-light sensitivity, the same as the flagship D5, offering metering down to -3 EV\*2. This helps enormously when shooting low-light scenes. It is also invaluable when capturing long-exposure shots with ND filters (such as seascapes or running water), as it allows you to rely fully on the camera’s AE and AF without needing to detach the filter. Furthermore, the Advanced Scene Recognition System uses the RGB sensor’s increased pixel count to enhance the accuracy of various auto controls such as auto white balance, i-TTL balanced fill-flash, auto-area AF, 3D-tracking and Active D-Lighting, making it easier for photographers to achieve their desired results.



180K-pixel RGB sensor

\*1 Except high-density ND filters.

\*2 ISO 100, f/1.4 lens, 20°C/68°F, using matrix or center-weighted metering.



### Clearly confirm your entire view — 0.75× optical viewfinder

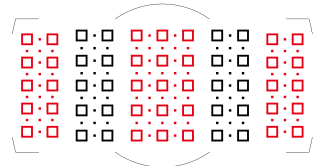
The D850 provides a wide field of view for easier subject confirmation with a 0.75× magnification\* for its optical viewfinder — the highest ever offered by a Nikon FX-format D-SLR. The viewfinder has been redesigned to employ an aspherical lens and a new condenser lens with refined refraction, allowing for a slimmer body while keeping a sufficiently long eye point. Its high-contrast viewfinder information display uses organic EL display elements, making it easier to read even under bright sunlight.

\* 50mm f/1.4 lens at infinity, -1.0 m<sup>-1</sup>.





**Powerful AF in the dark and more compositional freedom — 153-point AF system and AF down to -4 EV**



The D850's powerful 153-point AF system — the same acclaimed technology used in the flagship D5 — delivers over 130% of the D810's frame coverage, with 99 cross sensors offering powerful detection. Thanks to a Multi-CAM 20K autofocus sensor module, developed to keep noise to an absolute minimum, the central point functions at -4 EV\* and other focus points at -3 EV\*. Accurate AF is possible in challenging low-light or low-contrast situations — a great asset for landscape photographers shooting in the hours when light is scarce, such as at sunrise and sunset, and especially useful for capturing nighttime scenes.

\* At ISO 100 and 20°C/68°F.

Focus points (153): □/□/•/•  
 Selectable points (55): □/□  
 Cross sensors (99): □/•



© Luke Austin

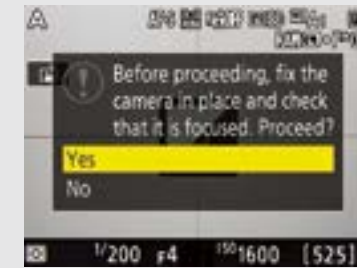
**Simplified adjustment for more accurate focus — Auto AF fine-tune for viewfinder shooting**

Accurate AF is crucial to take full advantage of the D850's high pixel count. To ensure focusing accuracy, the D850's auto AF fine-tune makes subtle adjustments for each type of lens you use. The simplified process involves achieving focus in live view and letting the camera automatically acquire, then store, the AF tuning value.

**Auto AF fine-tune steps**



Achieve focus at a focus distance you use frequently in live view. Press and hold the AF-mode and movie-record buttons simultaneously until the next dialogue appears.



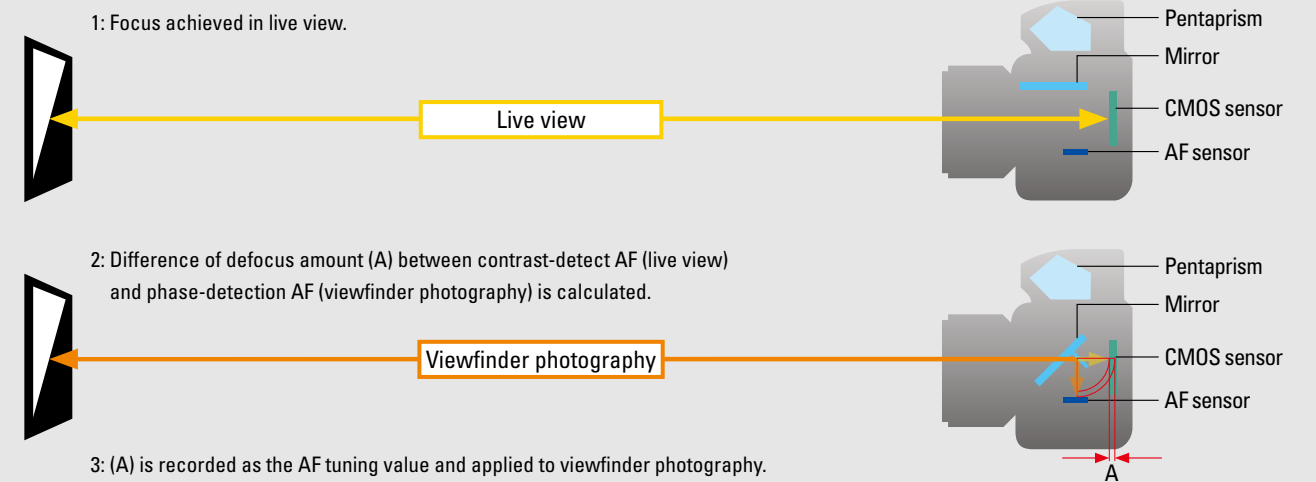
Select "Yes" to save the tuning value.



The camera automatically stores the result to "Saved value" list.

Note: AF fine-tune must be turned on in the setup menu to enable the tuning value to be used for shooting.

**Auto AF fine-tune system**







• Lens: AF-S NIKKOR 14-24mm f/2.8G ED • Exposure: [A] mode, 3 seconds, f/11 • White balance: Natural light auto • Sensitivity: ISO 64 • Picture Control: Auto © Luke Austin

**Greater convenience in the field — Touch-operable, tilting 8-cm/3.2-in. 2359k-dot monitor**

Whether lowering the camera down for a macro shot or pointing upwards at a starry night sky, the D850's tilting LCD monitor makes it easier to shoot from difficult angles. The monitor opens smoothly even when the camera is mounted on a tripod and has the most extensive touch functionality found in any Nikon D-SLR camera to date. From changing menu settings to shooting to reviewing images, it brings a new level of convenience. And thanks to the monitor's 2359k-dot high-resolution display, you can easily check images and confirm focus in precise detail — which is crucial when working with 45 megapixels — by pinching out to enlarge.



Normal-area AF Pinpoint AF © Luke Austin

**Achieve precise focus on a very small area — Pinpoint AF**

The D850's new pinpoint AF mode is a valuable asset for macro shooting in live view photography. It uses a focus area that's a quarter the size of conventional normal-area AF, enabling you to achieve precise focus on small details — particularly useful when focusing on subjects such as the pistil or stamen of a flower.

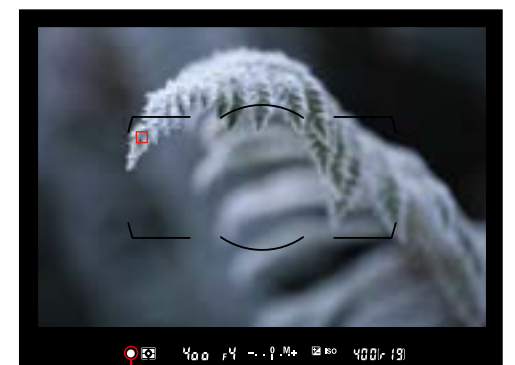
**Accurate manual focus confirmation — Focus peaking display**

Many landscape photographers prefer to use manual focus for macro shots, such as when shooting at wide apertures like f/1.4 or f/2.8 with a shallow depth of field. The D850's focus peaking display makes it easier to confirm manual focus during live view, including when zooming. The camera detects the scene's highest-contrast edges — meaning they are in focus — and highlights them in a designated color. You can choose to display highlights in red, white, yellow or blue, according to your subject's own coloration, and adjust between three levels of detection sensitivity.



**More accuracy in manual focus — Electronic rangefinder with improved precision**

In addition to offering superb autofocus performance, the D850 also makes manual focusing more precise. Its electronic rangefinder identifies whether a subject is in focus more accurately than ever before, allowing you to capture sharp images when focusing in manual mode, or using a manual focus lens.



In-focus indicator





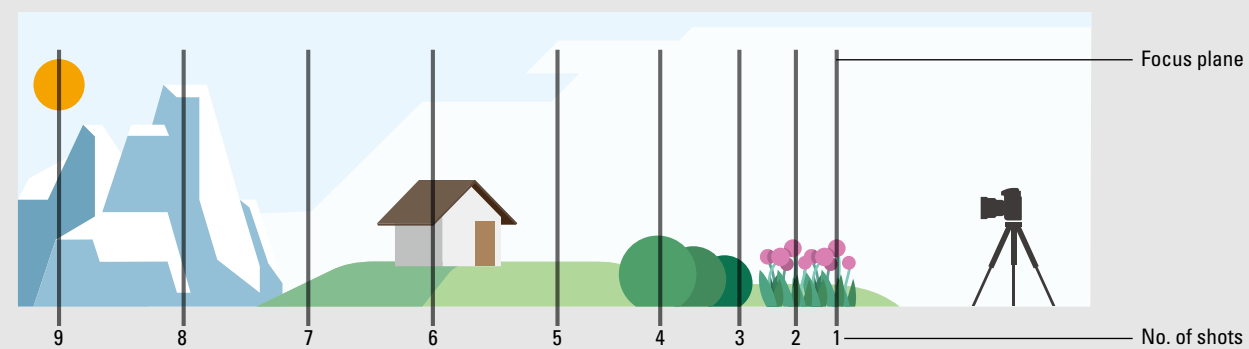
© Luke Austin

### Bring everything in focus for focus stacking — Focus shift photography

When shooting a landscape containing various subjects at different focus distances or creating specimen pictures of insects and flowers, photographers may want to bring everything into sharp focus. The D850 introduces a focus shift photography function, which enables it to shoot sequences of up to 300 frames, while gradually and automatically shifting focus position from the start point to infinity. The shutter release interval can be set from 0-30 s, while the focus step width can be selected from 10 levels. Continuous shooting at approx. 5 fps is also available. Combining the pictures using focus stacking in post-production\* gives you an image where every detail is in brilliantly sharp focus.

\* Requires third-party editing software.

#### Focus shift photography steps



Set the number of shots (nine in the example illustration above), focus step width (the amount of shifted focus distance with each shot) and interval between shots.  
 Note: Exposure smoothing and silent photography options are available.

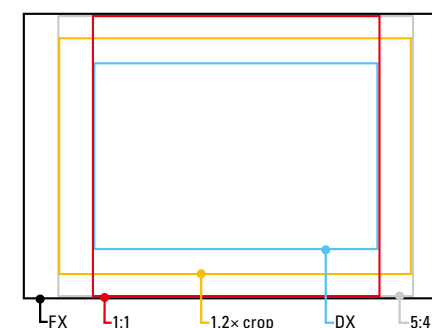
### Huge time savings in post-production — In-camera RAW batch processing

Shooting in RAW gives greater leeway in post-production, letting photographers draw the most from the images they capture. Until now, however, processing RAW has always been extremely time-consuming. The D850 resolves this issue by offering an incredibly convenient, in-camera RAW batch-processing feature, which enables you to quickly apply the same adjustments to selected images. You can save the original RAW files and processed JPEG files on one large-capacity XQD card, or else save the original on XQD and the JPEG on an SD card in the second slot, for easier data management.



### Show your creativity in a social media-friendly format — New 1:1 image area option

The D850 introduces a new image area option with a 1:1 aspect ratio. While reminiscent of 6 × 6 medium format, it's also ideal for social media, where square images have become increasingly popular. It is also possible to add shading in the viewfinder around the image area you choose, helping you compose more accurately. You can create pictures to impress your followers, as well as experiment with the creative potential of this unique image area.



• Lens: AF-S NIKKOR 80-400mm f/4.5-5.6G ED VR • Exposure: [A] mode, 1/6 second, f/8 • White balance: Natural light auto • Sensitivity: ISO 64  
 • Picture Control: Auto © Luke Austin





### Keep shooting under harsh conditions — Superior weather-/dust-resistant performance and a robust body

Working in environments such as tropical forests or desert, landscape photographers often expose their camera bodies to harsh conditions. Nikon has applied its stringently high standards for weather resistance and durability, renowned in the fields of photography and science alike, to the D850. It has comprehensive weather- and dust-sealing applied to its joints and seams, and its top, rear and bottom covers, as well as the inside body structure, are made of robust magnesium alloy. It's a camera that allows you to work with confidence in a wide range of tough environments. Also, its redesigned grip is deeper and longer, making it easier to hold even over extended periods of time.



### Tested for 200,000 cycles — Durable, high-precision shutter

To ensure durability, the D850's shutter has been tested for 200,000 cycles while actually loaded in the camera. It's also designed to minimize the mechanical vibration that causes image blur. The D850 is the first Nikon D-SLR to adopt a shutter counter-balancer in its shutter drive, which travels upward during each shutter release to counteract the vibration caused by the front curtain's downward motion. What's more, the camera's shutter monitor function calculates the duration between front- and rear-curtain movements every time the shutter is released, and automatically corrects any variance.



### Ergonomic operation and confidence even in the dark — Button illumination and layout

The superb performance of the D850, such as its low noise at high ISO settings and wide detection range for AF/AE, encourages landscape photographers to venture out in the dark and create amazing images from challenging situations. The camera offers illuminated buttons on the rear left side and release mode dial, making it easier to change settings when shooting in the dark. Moreover, the buttons and dials are arranged in a convenient ergonomic layout to fit photographers' hands. The rear side now features a sub selector added in the same position as for the D5, to allow easier right-handed operation by photographers who use both models.



### Shoot for extended periods without worry — Long battery life

The D850 allows you to concentrate on shooting without having to worry about battery life. The camera can shoot up to approx. 1840 still images\*1 from a single charge of an EN-EL15a/EN-EL15 Rechargeable Li-ion Battery, thanks to its energy-efficient power circuit and EXPEED 5 image-processing engine. An optional weather- and dust-resistant MB-D18 Multi-Power Battery Pack can also be used as a power source, enabling shooting of up to 5140 images\*2.

\*1 Based on CIPA Standards.

\*2 Based on CIPA Standards. With the EN-EL15a/EN-EL15 Rechargeable Li-ion Battery in the body and the EN-EL18b/EN-EL18a in the MB-D18. Optional BL-5 Battery Chamber Cover required for use of the EN-EL18b/EN-EL18a.

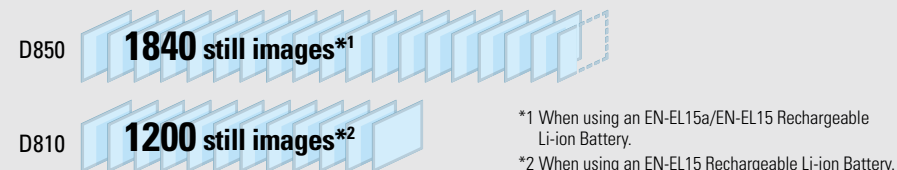


D850 + MB-D18



EN-EL15a

Maximum number of pictures that can be shot per single battery charge (CIPA Standards)



### Dual memory card slots for fast and secure data storage — Compatible with XQD and UHS-II SD cards

Reliable storage media is crucial to all creative work. The D850 features dual slots for XQD and UHS-II SD cards, enabling rapid reading and writing of the vast data generated from its high-pixel-count image sensor. It also offers a variety of storage options, including the ability to store the same data onto two cards for instant backup and recording RAW and JPEG simultaneously onto separate cards.



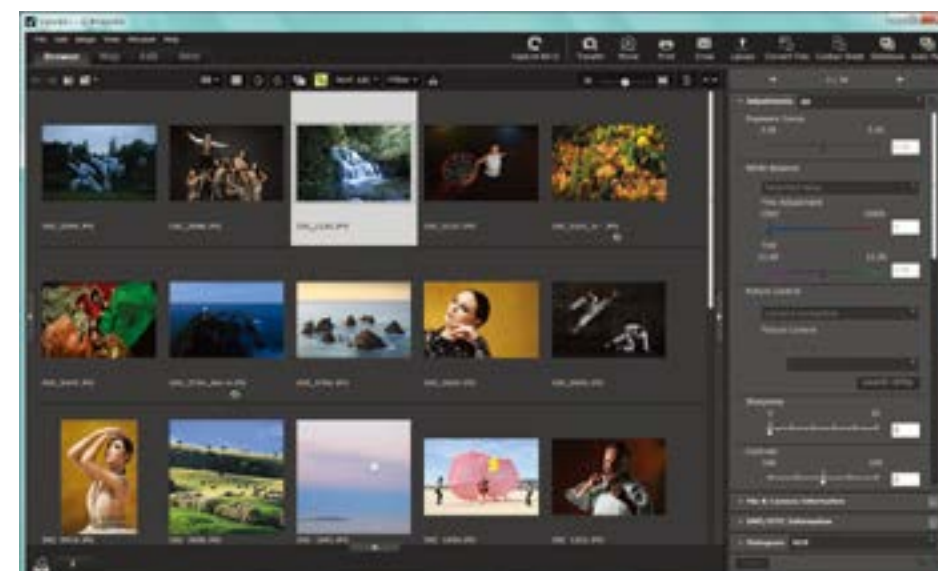
### RAW image-processing software with auto retouch brush — Capture NX-D (free download)

Nikon's Capture NX-D software offers the best way of processing original RAW (NEF/NRW) files without losing any of their extremely rich data. It incorporates an auto retouch brush that lets you remove dust spots on pictures. You can also adjust options such as exposure compensation, white balance, Picture Controls and unsharp mask. JPEG and TIFF files are also compatible.



### Optimal management of still images and movies — ViewNX-i (free download)

ViewNX-i is Nikon's free software for browsing and editing JPEG, RAW and movie files, as well as RAW files edited with Capture NX-D. It incorporates ViewNX-Movie Editor, which can be used to edit movies, including 4K UHD footage. Access to various web services is also available.



### Flexible remote shooting control — WR-1, WR-R10/WR-T10 Wireless Remote Controllers (optional)

Wireless remote controllers bring a new array of options to your photography. The WR-1 and WR-T10 Wireless Remote Controllers can both be configured as a transmitter, and release the shutter of a camera with another WR-1 or WR-R10\*1 attached. When using the WR-1 as a transmitter, it's also possible to perform interval timer photography, and use its screen to confirm and change settings\*2 of the remote camera. WR-1 units communicate via 2.4 GHz radio frequencies, offering a communication range of up to 120 m/394 ft\*3 with 15 channels. The WR-R10/WR-T10 can communicate within a range of up to 20 m/66 ft\*3.

\*1 Attaching a WR-R10 to the D850 requires the optional WR-A10 Wireless Remote Adapter.

\*2 Limited functions only.

\*3 At approx. height of 1.2 m/3.9 ft; may vary depending on weather, presence of obstacles and radio communication conditions.



WR-1



WR-R10



WR-T10



WR-A10





**HIGH RESOLUTION MEETS HIGH SPEED,  
ADDING NEW VALUE TO YOUR  
COMMERCIAL SPORTS PHOTOGRAPHY**





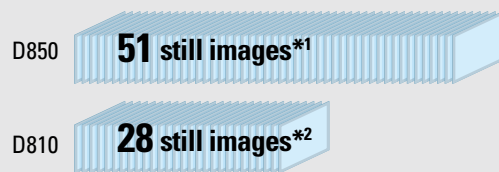
• Lens: AF-S NIKKOR 24-70mm f/2.8E ED VR • Exposure: [M] mode, 1/2500 second, f/5.6 • White balance: Auto 1 • Sensitivity: ISO 1600 • Picture Control: Standard © Little Shao

**Spectacular speed to capture dynamic action in detail — 9-fps/7-fps high-speed continuous shooting**

Redefine the power of a dynamic moment with a spectacular match of high resolution and high-speed shooting. The D850 captures massive, sharp 45-megapixel images at 9 fps with the optional MB-D18 Multi-Power Battery Pack (with EN-EL18b/EN-EL18a Rechargeable Li-ion Battery\*1) attached, or at 7 fps with the body only. The new image sensor achieves fast readout of large amounts of data, which is handled rapidly by the powerful EXPEED 5 image-processing engine. Despite the heavy load, the camera is capable of continuous shooting for up to 51 frames\*2 (body alone) even in 14-bit lossless compressed RAW (up to 170 frames in 12-bit lossless compressed RAW). It lets you explore a whole new realm of high-speed photography combined with high-resolution images.

\*1 Optional BL-5 Battery Chamber Cover required.  
 \*2 When using a 64 GB XQD (Sony QD-G64E) memory card.

Maximum number of pictures (large, 14-bit lossless compressed RAW) that can be shot in a single burst of high-speed continuous shooting



\*1 When using a 64 GB XQD (Sony QD-G64E) card.  
 \*2 When using a 16 GB SanDisk SDCFXPS-016G-J92 card.

**More speed, more battery life and more comfortable vertical shooting — MB-D18 Multi-Power Battery Pack (optional)**

The new, optional MB-D18 Multi-Power Battery Pack boosts the D850's high-speed continuous shooting speed up to 9 fps\*1, while increasing the number of frames that can be photographed per full battery charge up to 5140\*2 (1840 frames with body alone). Its ergonomically designed grip ensures the camera is comfortable and secure in your hands, with dedicated control buttons and dials for vertical composition. And like the camera body, it features a durable magnesium alloy shell with weather- and dust-sealing. The MB-D18 accepts one EN-EL15a/EN-EL18b\*3 Rechargeable Li-ion Battery, eight AA-size batteries or the EH-5c/EH-5b AC Adapter (requires EP-5B Power Connector) as a power source.

\*1 With the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery inserted. Optional BL-5 Battery Chamber Cover required for use of the EN-EL18b/EN-EL18a.  
 \*2 Based on CIPA Standards. With the EN-EL15a/EN-EL15 Rechargeable Li-ion Battery in the body and the EN-EL18b/EN-EL18a in the MB-D18.  
 \*3 EN-EL15, EN-EL18a and EN-EL18 can also be used.

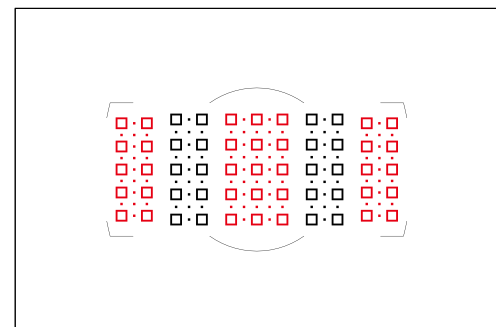


© Little Shao

**Powerful acquisition and tracking of fast, erratic movements — 153-point AF system and AF down to -4 EV**

Accurate focusing is crucial to large-pixel-count images. The D850 comes equipped with the same powerful 153-point AF system as the flagship D5 — a technology widely praised by editorial sports photographers. The 153 densely packed focus points (55 selectable) provide over 130% of the D810's frame coverage, while 99 cross sensors with powerful detection are optimally distributed. The AF system makes it possible to achieve pinpoint focus on a small area such as an athlete's eye, but is also designed to immediately acquire fast, often random movements and track them tenaciously. The D850 also comes with the same AF lock-on adjustment menu as the D5, helping to focus more accurately on subjects moving toward the camera. Furthermore, the central point functions at -4 EV\* and all other focus points at -3 EV\*, thanks to the Multi-CAM 20K autofocus sensor module, which was developed to keep noise to an absolute minimum, allowing for accurate AF in challenging light.

\* At ISO 100 and 20°C/68°F.

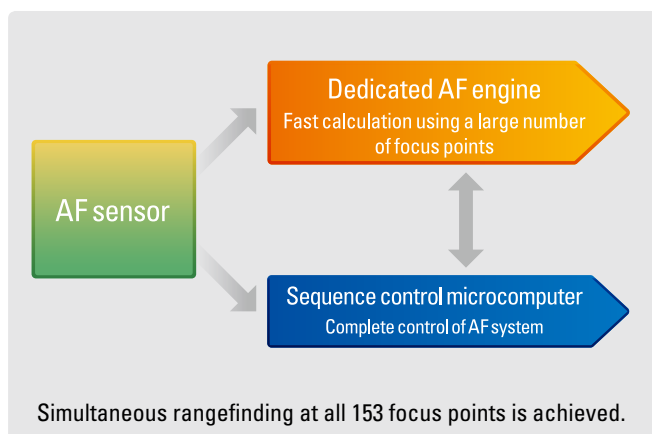


Focus points (153): □ / ◻ / • / ◉  
 Selectable points (55): □ / ◻  
 Cross sensors (99): ◻ / •



### Fast, accurate focusing — Dedicated AF engine

Like the D5, the D850 employs a dedicated AF engine. Working in parallel with the sequence control microcomputer, it achieves simultaneous rangefinding at all 153 focus points, which contributes to fast, accurate focusing. As a result, when shooting an athlete portrait in auto-area AF, for example, it eliminates the need to select focus points each time you change your composition, contributing to a more efficient workflow.



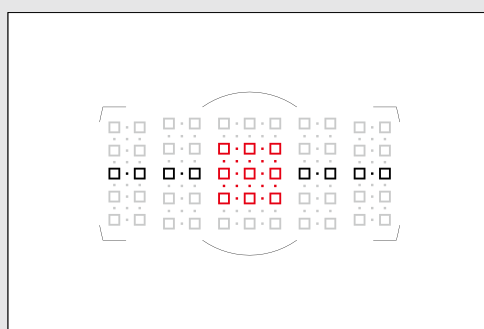
### Precise focus on distant subjects with teleconverters — Powerful AF compatible with an effective aperture of f/8

The D850 demonstrates powerful AF performance even when using a teleconverter. All 153 points are compatible with effective apertures of f/5.6 or faster\*. And fifteen focus points, including nine selectable points, are compatible with an effective aperture of f/8.

\* Number of effective cross sensors varies with certain lens combinations.

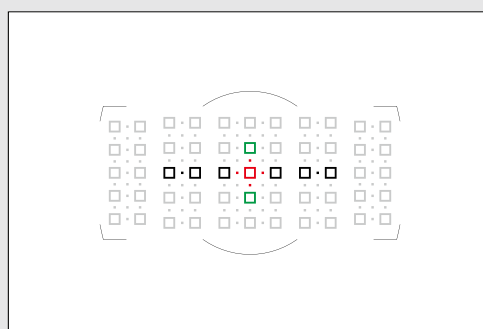
#### Focus points capable of AF and electronic rangefinding when using AF-S/AF-I teleconverters

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



Focus points (37): □/□/•/•  
 Selectable points (17): □/□  
 Cross sensors (25): □/•

For effective aperture of f/8



Focus points (15): □/□/□/•/•  
 Selectable points (9): □/□/□  
 Cross sensors (5): □/•

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

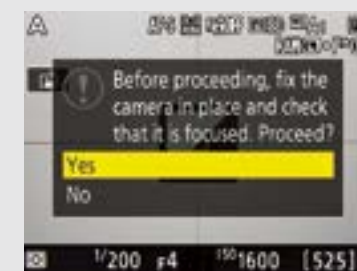
### Simplified adjustment for more accurate focus — Auto AF fine-tune for viewfinder shooting

Accurate AF is crucial to take full advantage of the D850's high pixel count. To ensure focusing accuracy, the D850's auto AF fine-tune makes subtle adjustments for each type of lens you use. The simplified process involves achieving focus in live view and letting the camera automatically acquire, then store, the AF tuning value.

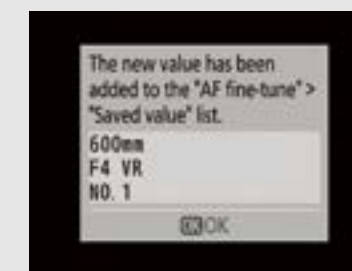
#### Auto AF fine-tune steps



Achieve focus at a focus distance you use frequently in live view. Press and hold the AF-mode and movie-record buttons simultaneously until the next dialogue appears.



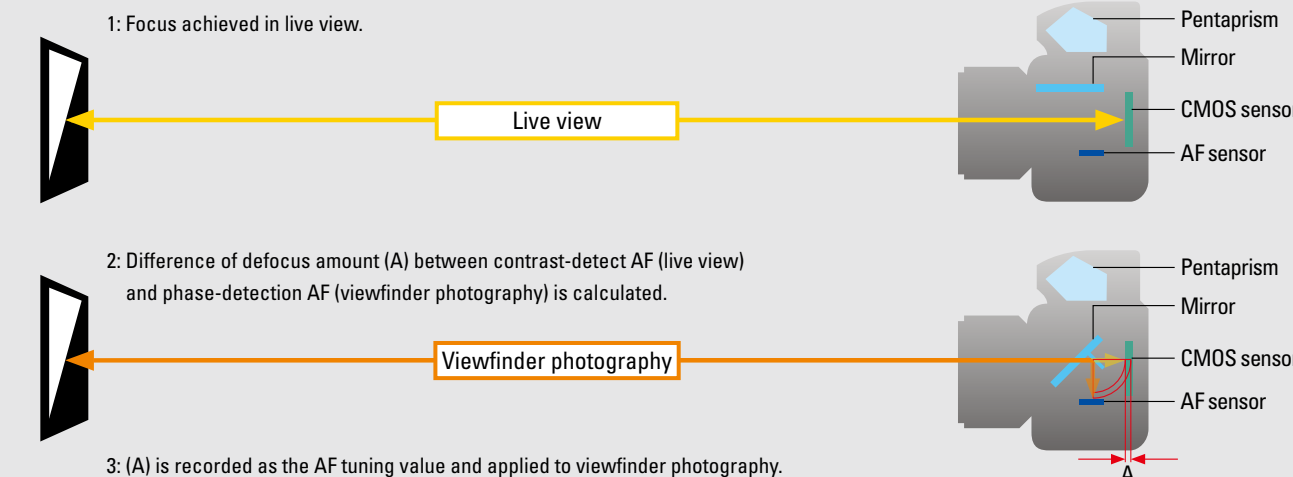
Select "Yes" to save the tuning value.



The camera automatically stores the result to "Saved value" list.

Note: AF fine-tune must be turned on in the setup menu to enable the tuning value to be used for shooting.

#### Auto AF fine-tune system

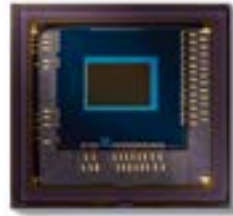




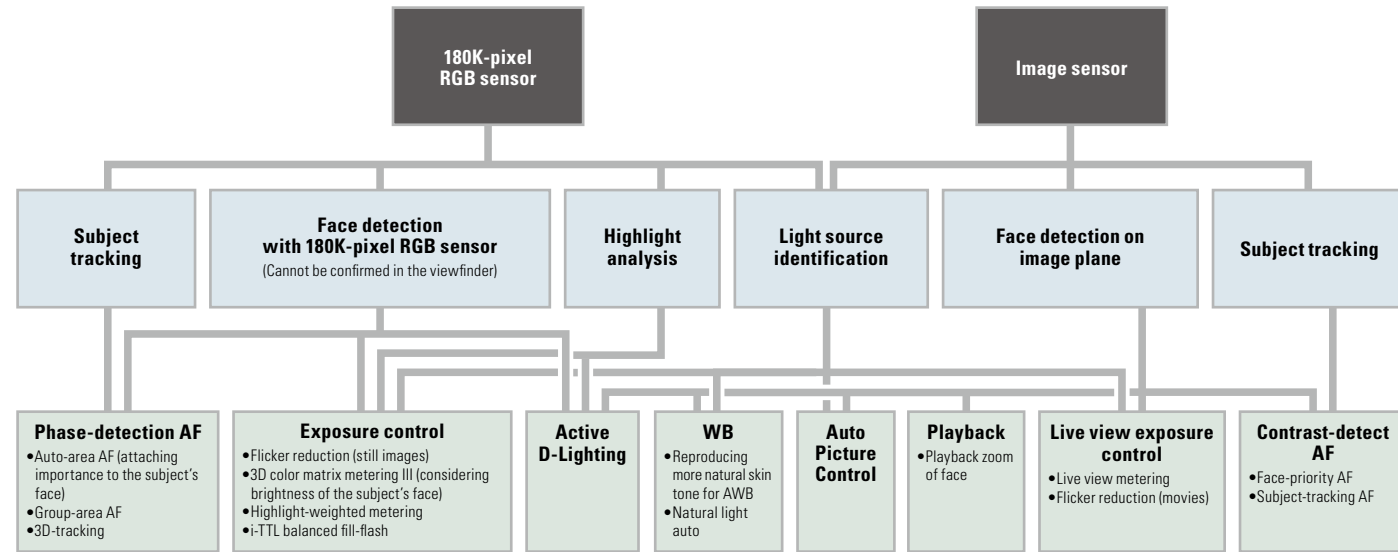
### More reliable auto control — 180K-pixel RGB sensor for Advanced Scene Recognition System

The D850 is equipped with the same 180K-pixel RGB sensor as the D5. Its increased pixel count enhances the accuracy of various auto controls by the Advanced Scene Recognition System, such as matrix metering, auto white balance, i-TTL balanced fill-flash, auto-area AF, 3D-tracking and Active D-Lighting. Furthermore, metering is available down to -3 EV\* thanks to the sensor's superb low-light sensitivity, which is effective when shooting low-contrast scenes or using a teleconverter. Meanwhile, the flicker detection function reduces flicker effects for more consistent still photo shooting.

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



180K-pixel RGB sensor



### Avoid white clipping and preserve tones in highlights — Highlight-weighted metering

Imagine shooting a white-clad karate athlete under a spotlight against a dark background. If you want to retain the subtle tones and nuances of color in the clothes, try highlight-weighted metering. This setting delivers a richer tonality in images by giving priority to the brightest portions of a scene and avoiding white clipping.

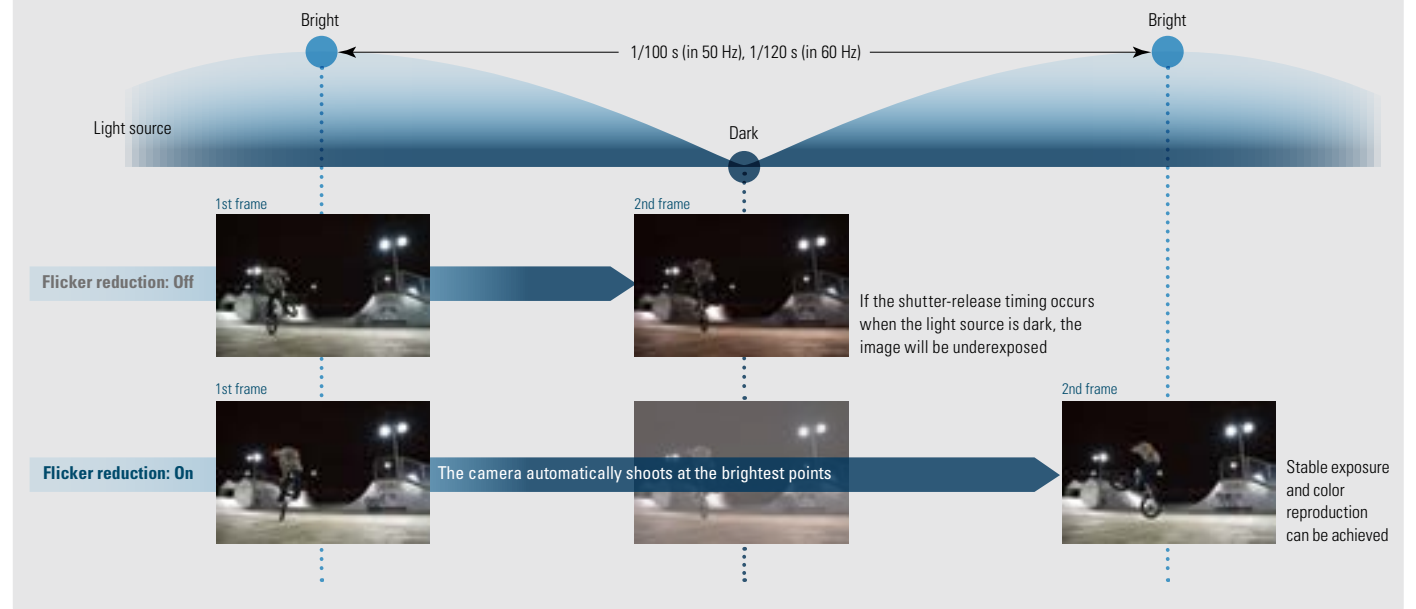


Highlight-weighted metering



Matrix metering

### Flicker reduction function (in continuous shooting)



(Conceptual images)

### Consistent exposures under artificial light sources: Flicker reduction minimizes exposure variances

Artificial light sources such as mercury lighting often produce flickering, causing undesired variations in exposure and color in consecutive shots. The D850's flicker reduction function avoids this problem by detecting the peak brightness level and automatically shifting the release timing slightly to avoid underexposure and color casts. This gives you stable exposures even during continuous shooting\*. In movie shooting, using "Auto" flicker reduction makes the camera automatically switch exposure control according to the frequency of light sources, preventing the occurrence of banding in footage.

\* Continuous shooting speed may be decreased.

### Effective noise reduction, fine detail and color reproduction with powerful image processing — EXPEED 5

Beauty is where you find it. The D850 captures it all — thanks to its EXPEED 5 image-processing engine, also incorporated in the flagship D5. EXPEED 5 renders delicate tonality in highly vivid colors, and its superb noise reduction suppresses noise effectively while maintaining detail. Its powerful calculation ability also permits high-speed continuous shooting at approx. 9 fps\* with 45 megapixels, as well as full-frame, 4K UHD movie recording.

\* When using the MB-D18 Multi-Power Battery Pack with the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery. The D850 shoots at 7 fps with the EN-EL15a/EN-EL15.



### Create your ideal images — Picture Control system

Nikon's Picture Control system helps you craft images that match your creative intentions and purposes. The D850 incorporates the new Auto Picture Control, in addition to the seven existing presets. Each preset allows you to tune settings such as sharpening and clarity, opening up a wider range of options for achieving your ideal image. You can adjust settings and store them as your own custom Picture Controls.



### Automatically adjust images to fit the scene — Auto Picture Control

Auto Picture Control produces more desirable images by automatically fine-tuning the tone curve, color, sharpening and clarity of the Standard option, according to each scene's characteristics. It boosts contrast in backlit scenes, which some sports photographers prefer. What's more, it maintains a consistent look across multiple images during continuous shooting, even when there are small variations in brightness or angle between each frame.





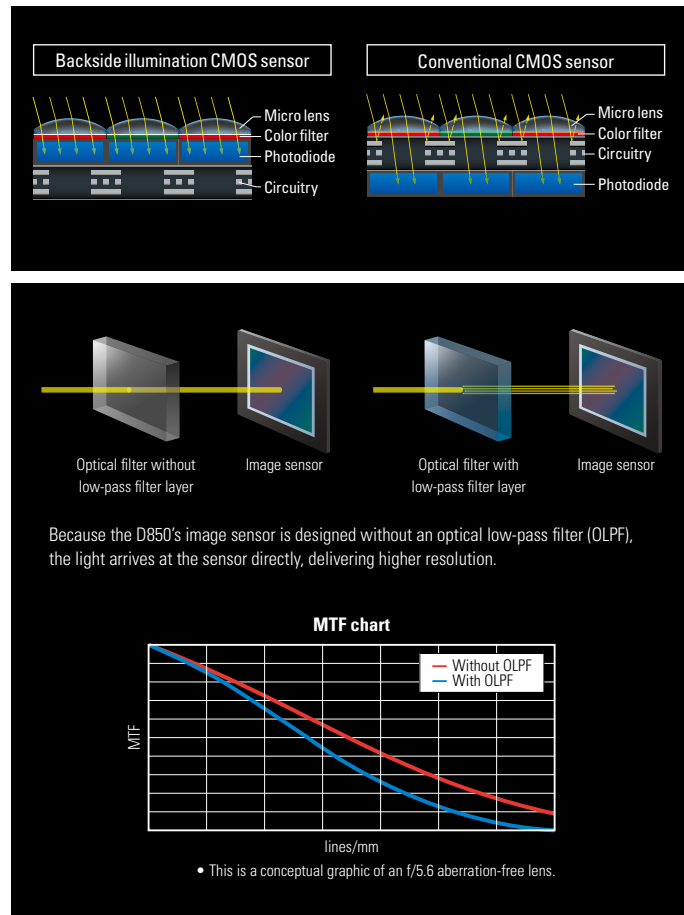
• Lens: AF-S NIKKOR 200mm f/2G ED VR II • Exposure: [M] mode, 1/640 second, f/2 • White balance: Color temperature (7690 K) • Sensitivity: ISO 6400 • Picture Control: Neutral © Little Shao

**Truly dynamic action photography — Nikon FX-format, backside illumination CMOS sensor for 45.7 megapixels with ISO 64-25600**



The D850 allows commercial sports photographers to capture moments of dynamic action in sumptuously rich detail — even during 9-fps continuous shooting. It is the first Nikon D-SLR to use a backside illumination sensor, which allows incoming light to reach photodiodes more efficiently. Together with the camera's low-noise performance, this enables it to achieve ISO 25600 despite its high pixel count. What's more, it strikes an optimal balance between sensor sensitivity and the volume of light information accumulated in photodiodes, yielding images with a wide dynamic range even at ISO 64 (expandable to ISO 32 equivalent) — the lowest native ISO setting offered by any camera manufacturer. Copper wiring is used to cut electrical resistance, while the backside illumination structure allows a flexible wiring layout, reducing stray capacity. These measures enable 45-megapixel FX-format images to be captured at continuous shooting speeds of 9 fps\*<sup>1</sup>. And because the sensor is designed without an optical low-pass filter, it can harness the sharpness of 45 megapixels when combined with the high resolving power of NIKKOR lenses. The D850 yields pictures that can be enlarged as massive prints at up to A2 size\*<sup>2</sup> or used for 8K digital signage displays.

\*<sup>1</sup> When using the optional MB-D18 Multi-Power Battery Pack with the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery.  
\*<sup>2</sup> When printed at 300 dpi.



**Unparalleled resolving power to match 45 megapixels — NIKKOR lenses**

With their exceptionally high resolving power, which makes full use of 45 megapixels, NIKKOR lenses are a perfect partner for the D850, with a diverse lineup including many telephoto lenses. Thanks to Nikon's superb optical technology, they provide sharp resolution even at the periphery of an image, combined with elaborately designed, beautiful image-blur characteristics. Many lenses feature the anti-reflective Nano Crystal Coat, which effectively reduces ghost and flare. They are also designed to reproduce point light sources as point images as much as possible. NIKKOR lenses are powerful tools for professionals looking to ensure brilliantly sharp images regardless of the subject, environment or lighting conditions.



• Exposure: [M] mode, 1/800 second, f/8  
• White balance: Auto 0 • Sensitivity: ISO 320  
• Picture Control: Standard  
© Little Shao



**AF-S NIKKOR 24-70mm f/2.8E ED VR**

An aspherical ED glass element — a first for NIKKOR lenses — works with ED glass, aspherical lens and HRI lens elements as well as Nano Crystal Coat to achieve remarkably high optical performance. Evolved Vibration Reduction (VR) provides an effect equivalent to a shutter speed 4.0 stops\* faster. Other notable features include an electromagnetic diaphragm mechanism, fluorine coat and highly durable body.

\* Based on CIPA Standards. This value is achieved when attached to an FX-format D-SLR camera, with zoom set at the maximum telephoto position.





• Exposure: [M] mode, 1/500 second, f/9  
 • White balance: Auto 1 • Sensitivity: ISO 200  
 • Picture Control: Standard  
 © Little Shao



**AF-S NIKKOR 70-200mm f/2.8E FL ED VR**

This fast f/2.8 telephoto zoom with reduced weight enables highly agile shooting in diverse situations. Movable parts and other sections are sealed to maximize dust- and drip-resistant performance. Further enhanced optical performance is realized with a newly developed optical system and the adoption of fluorite, ED glass and HRI lens elements, as well as Nano Crystal Coat. The VR system provides a powerful effect equivalent to a shutter speed 4.0 stops\*<sup>1</sup> faster in Normal mode. Meanwhile, Sport mode brings the same level of viewfinder image stability in handheld shooting that you would expect when using a monopod. AF drive and AF tracking performance have been enhanced, while stable AE control is obtained with the adoption of an electromagnetic diaphragm mechanism.



**AF-S NIKKOR 400mm f/2.8E FL ED VR**

This new-generation super-telephoto lens delivers outstanding optical performance with minimized chromatic aberration. A weight of approx. 3800 g/8.4 lb\*<sup>2</sup> is achieved through the employment of fluorites for superior mobility. The VR system provides a powerful effect equivalent to a shutter speed 4.0 stops\*<sup>1</sup> faster in Normal mode, and Sport mode achieves a stable viewfinder image that's similar to using a monopod, even during handheld shooting. Other notable features include an electromagnetic diaphragm for stable exposure control even during continuous shooting, a highly reliable fluorine coat applied to the lens front, and a tripod mount ring incorporating bearings for smoother operation.

\*<sup>1</sup> Based on CIPA Standards. This value is achieved when attached to an FX-format digital SLR camera, with zoom set at the maximum telephoto position.  
 \*<sup>2</sup> Based on CIPA Standards.

**Clearly confirm your entire view — 0.75x optical viewfinder**

The D850 provides a wide field of view for easier subject confirmation with a 0.75x magnification\* for its optical viewfinder — the highest ever offered by a Nikon FX-format D-SLR. The viewfinder has been redesigned to employ an aspherical lens and a new condenser lens with refined refraction, allowing for a slimmer body while keeping a sufficiently long eye point. Its high-contrast viewfinder information display uses organic EL display elements, making it easier to read even under bright sunlight.

\* 50mm f/1.4 lens at infinity, -1.0 m<sup>-1</sup>.



**Greater convenience in the field — Touch-operable, tilting 8-cm/3.2-in. 2359k-dot monitor**

When capturing action from a unique angle, the D850's tilting LCD monitor makes it easier to get the shot. The monitor opens smoothly even when the camera is mounted on a tripod and has the most extensive touch functionality found in any Nikon D-SLR camera to date. From changing menu settings to shooting to reviewing images, it brings a new level of convenience. And thanks to the monitor's 2359k-dot high-resolution display, you can easily check images and confirm focus in precise detail — which is crucial when working with 45 megapixels — by pinching out to enlarge.



• Lens: AF-S NIKKOR 14-24mm f/2.8G ED • Exposure: [M] mode, 1/800 second, f/5 • White balance: Auto 0 • Sensitivity: ISO 200 • Picture Control: Standard

© Little Shao



**Push your creativity further with image overlays — Enhanced multiple exposure options**

The D850's multiple exposure function is more versatile than ever before, allowing photographers to explore their creativity further. The camera now saves all pictures shot in this mode, so you can use individual images for other purposes as well. It is also now possible to confirm each picture during shooting, as well as the overlay image being created. If your last shot doesn't meet your satisfaction, you can delete, reshoot and replace it easily. Furthermore, the camera lets you select a picture stored as RAW (L) on your memory cards for use as the first image of the overlay. Lighten and darken overlay modes are also now available.





### Confident operation under wet conditions — Superior weather-/dust-resistant performance and a robust body

Commercial sports photographers may sometimes use splashes of water or sand for dramatic effect, which can result in the camera getting wet or dirty. Nikon has applied its stringently high standards for weather resistance and durability, renowned in the fields of photography and science alike, to the D850. It has comprehensive weather- and dust-sealing applied to its joints and seams, and its top, rear and bottom covers, as well as the inside body structure, are made of robust magnesium alloy. It's a camera that allows you to work with confidence in a wide range of tough environments. Also, its redesigned grip is deeper and longer, making it easier to hold even over extended periods of time.



### Tested for 200,000 cycles — Durable, high-precision shutter

To ensure durability, the D850's shutter has been tested for 200,000 cycles while actually loaded in the camera. It's also designed to minimize the mechanical vibration that causes image blur. The D850 is the first Nikon D-SLR to adopt a shutter counter-balancer in its shutter drive, which travels upward during each shutter release to counteract the vibration caused by the front curtain's downward motion. What's more, the camera's shutter monitor function calculates the duration between front- and rear-curtain movements every time the shutter is released, and automatically corrects any variance.



### Ergonomic operation and confidence even in the dark — Button illumination and layout

The D850's buttons and dials are arranged in a convenient ergonomic layout designed to facilitate comfortable operation in fast-action shooting. The rear side now features a sub selector — added in the same position as for the D5, to allow easier right-handed operation by photographers who use both camera models. Furthermore, the D850 has illuminated buttons on the rear left side and release mode dial, making it simpler to change settings when shooting in the dark.

### Dual memory card slots for fast and secure data storage — Compatible with XQD and UHS-II SD cards

Reliable storage media is crucial to all creative work. The D850 features dual slots for XQD and UHS-II SD cards, enabling rapid reading and writing of the vast data generated from its high-pixel-count image sensor. It also offers a variety of storage options, including the ability to store the same data onto two cards for instant backup and recording RAW and JPEG simultaneously onto separate cards.





### Flexible remote shooting control — WR-1, WR-R10/WR-T10 Wireless Remote Controllers (optional)

Wireless remote controllers bring a new array of options to your photography. The WR-1 and WR-T10 Wireless Remote Controllers can both be configured as a transmitter, and release the shutter of a camera with another WR-1 or WR-R10\*<sup>1</sup> attached. When using the WR-1 as a transmitter, it's also possible to perform interval timer photography, and use its screen to confirm and change settings\*<sup>2</sup> of the remote camera. WR-1 units communicate via 2.4 GHz radio frequencies, offering a communication range of up to 120 m/394 ft\*<sup>3</sup> with 15 channels. The WR-R10/WR-T10 can communicate within a range of up to 20 m/66 ft\*<sup>3</sup>.

\*<sup>1</sup> Attaching a WR-R10 to the D850 requires the optional WR-A10 Wireless Remote Adapter.  
 \*<sup>2</sup> Limited functions only.  
 \*<sup>3</sup> At approx. height of 1.2 m/3.9 ft; may vary depending on weather, presence of obstacles and radio communication conditions.



### Fast wired/wireless LAN transfer — WT-7/A/B/C Wireless Transmitter (optional)

The optional WT-7/A/B/C Wireless Transmitter provides a faster way to securely transfer images to storage. It can transmit images and movies to a computer\*<sup>1</sup> or FTP server via both wired and wireless LAN. Wired LAN supports 1000BASE-T and offers transmission speeds of up to approx. 1000 Mbps\*<sup>2</sup>, while wireless LAN supports IEEE802.11ac and enables transmission at up to approx. 866.7 Mbps\*<sup>2</sup>, over distances of up to approx. 200 m/656.1 ft\*<sup>3</sup>. Combined with the optional Camera Control Pro 2 software, it allows the D850 to be controlled wirelessly from a computer\*<sup>1</sup> — another advantage in studio photography.

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



D850 + WT-7/A/B/C

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

Nikon's Capture NX-D software offers the best way of processing original RAW (NEF/NRW) files without losing any of their extremely rich data. It incorporates an auto retouch brush that lets you remove dust spots on pictures. You can also adjust options such as exposure compensation, white balance, Picture Controls and unsharp mask. JPEG and TIFF files are also compatible.



### Optimal management of still images and movies — ViewNX-i (free download)

ViewNX-i is Nikon's free software for browsing and editing JPEG, RAW and movie files, as well as RAW files edited with Capture NX-D. It incorporates ViewNX-Movie Editor, which can be used to edit movies, including 4K UHD footage. Access to various web services is also available.







**HIGH RESOLUTION AND AMAZING  
VERSATILITY LET YOU CAPTURE  
SPECIAL MOMENTS IN STYLE**





• Lens: AF-S NIKKOR 70-200mm f/2.8E FL ED VR • Exposure: [M] mode, 1/400 second, f/6.3 • White balance: Direct sunlight • Sensitivity: ISO 64 • Picture Control: Auto © Jerry Ghionis

**Stunning beauty with exquisite detail — Nikon FX-format, backside illumination CMOS sensor delivering 45.7 megapixels with ISO 64-25600**

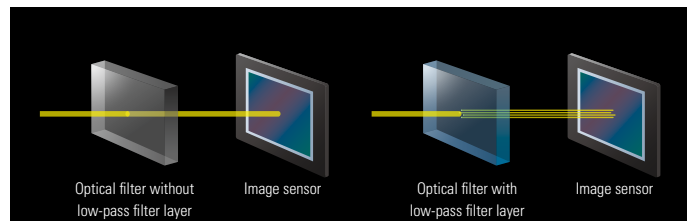
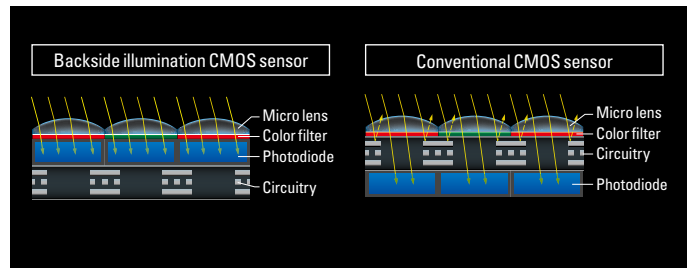


The D850 allows fashion and wedding photographers to capture beautiful moments in sumptuously rich detail, even when subjects are moving under low light. It is the first Nikon D-SLR to use a backside illumination sensor,

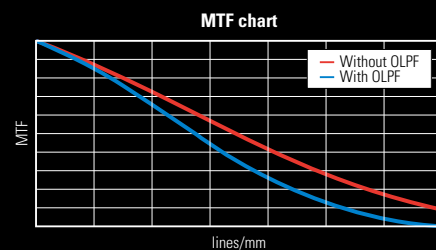
which allows incoming light to reach photodiodes more efficiently. Together with the camera's low-noise performance, this enables it to achieve ISO 25600 despite its high pixel count. What's more, it strikes an optimal balance between sensor sensitivity and the volume of light information accumulated in photodiodes, yielding images with a wide dynamic range even at ISO 64 (expandable to ISO 32 equivalent) — the lowest native ISO setting offered by any camera manufacturer. Copper wiring is used to cut electrical resistance, while the backside illumination structure allows a flexible wiring layout, reducing stray capacity. These measures enable 45-megapixel FX-format images to be captured at continuous shooting speeds of 9 fps\*<sup>1</sup>. And because the sensor is designed without an optical low-pass filter, it can harness the sharpness of 45 megapixels when combined with the high resolving power of NIKKOR lenses. The D850 yields pictures that can be enlarged as massive prints at up to A2 size\*<sup>2</sup> or used for 8K digital signage displays.

\*<sup>1</sup> When using the optional MB-D18 Multi-Power Battery Pack with the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery.

\*<sup>2</sup> When printed at 300 dpi.



Because the D850's image sensor is designed without an optical low-pass filter (OLPF), the light arrives at the sensor directly, delivering higher resolution.



• This is a conceptual graphic of an f/5.6 aberration-free lens.

**Smaller images with full post-production flexibility — RAW size options**

There are times when you don't necessarily need to shoot at a full 45 megapixels. However, the variety of scenarios that wedding photography involves — from posed portraits and multiple flash set-ups to low-light candid shots — means you may still want to retain the flexibility of RAW in post-production. That's why the D850 offers three file size options for 12-bit lossless compressed RAW: large (45.4 MP), medium (25.5 MP) and small (11.3 MP). And whichever option you use, in-camera RAW processing is still available.

**Large** (45.4 MP)

**Medium** (25.5 MP)

**Small** (11.3 MP)



• Lens: AF-S NIKKOR 70-200mm f/2.8E FL ED VR • Exposure: [A] mode, 1/1000 second, f/3.5 • White balance: Direct sunlight • Sensitivity: ISO 400 • Picture Control: Standard © Jerry Ghionis

**Effective noise reduction, fine detail and color reproduction with powerful image processing — EXPEED 5**

Beauty is where you find it. The D850 captures it all — thanks to its EXPEED 5 image-processing engine, also incorporated in the flagship D5. EXPEED 5 renders delicate tonality in highly vivid colors, and its superb noise reduction suppresses noise effectively while maintaining detail. Its powerful calculation ability also permits high-speed continuous shooting at approx. 9 fps\* with 45 megapixels, as well as full-frame, 4K UHD movie recording.

\* When using the MB-D18 Multi-Power Battery Pack with the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery, The D850 shoots at 7 fps with the EN-EL15a/EN-EL15.







• Lens: AF-S NIKKOR 70-200mm f/2.8E FLED VR • Exposure: [M] mode, 1/200 second, f/3.2 • White balance: Direct sunlight • Sensitivity: ISO 4000 • Picture Control: Standard © Jerry Ghionis

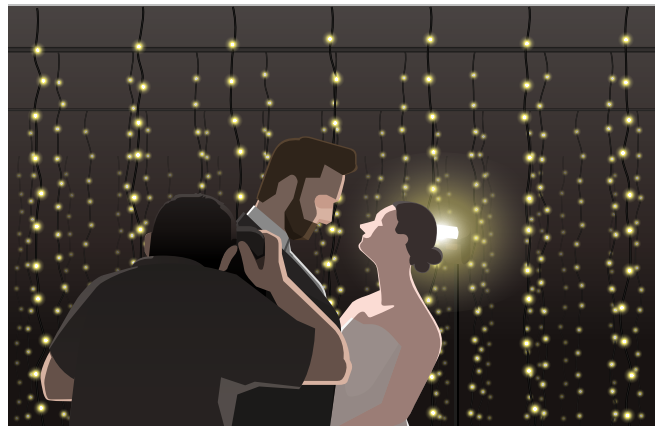
**Flexible, easy flash control for elaborate lighting indoors or outdoors — SB-5000 Speedlight with radio-controlled system**

Whether you're shooting indoors or outdoors, the SB-5000 Speedlight gives you complete mastery over your lighting. It can communicate via radio from distances up to approx. 30 m/98 ft\*1 with minimum interference from obstacles or ambient lighting (radio-controlled Advanced Wireless Lighting\*2). This makes wireless lighting possible even under natural light, letting you render your outdoor subject more impressively — for example, by illuminating from the side. Despite featuring powerful output at a guide number of 34.5/113 (m/ft, ISO 100)\*3, the SB-5000 can fire consecutively for longer than conventional models thanks to its built-in cooling system. Advanced Wireless Lighting with optical-controlled units such as the SB-910 is also possible with the D850.

\*1 Approx. range at height of about 1.2 m/4 ft; varies according to weather conditions, presence of obstacles and radio communication conditions.

\*2 Radio-controlled AWL with the D850 and SB-5000 requires WR-R10 Wireless Remote Controller and WR-A10 Wireless Remote Adapter (both optional).

\*3 At 35 mm zoom head position, in FX format, standard illumination pattern.



**Unparalleled resolving power to match 45 megapixels — NIKKOR lenses**

With their exceptionally high resolving power, which makes full use of 45 megapixels, NIKKOR lenses are a perfect partner for the D850, allowing photographers in every field to better capture the essence of their vision, and render every delicate tone or nuance. Thanks to Nikon's superb optical technology, they provide sharp resolution even at the periphery of an image, combined with elaborately designed, beautiful image-blur characteristics. Many lenses feature the anti-reflective Nano Crystal Coat, which effectively reduces ghost and flare. They are also designed to reproduce point light sources as point images as much as possible. NIKKOR lenses are powerful tools for professionals looking to ensure brilliantly sharp images regardless of the subject, environment or lighting conditions.



• Exposure: [M] mode, 1/250 second, f/1.4  
 • White balance: Direct sunlight  
 • Sensitivity: ISO 160 • Picture Control: Standard  
 © Jerry Ghionis



**AF-S NIKKOR 105mm f/1.4E ED**

This fast, medium-telephoto lens embodies NIKKOR's unique design concept of "three-dimensional high fidelity." It provides a large and beautiful bokeh effect with smooth alteration from the focus plane to ensure natural depth of subjects. Superior optical performance achieves high resolution even in the peripheral areas, sharp rendering of distant subjects even at the maximum aperture, and exceptional reproduction of point light sources. Three ED glass elements reduce chromatic aberration, while Nano Crystal Coat effectively minimizes ghost and flare effects. The latest design technology is employed in an original optical system of 105mm f/1.4 with AF, and stable AE with an electromagnetic diaphragm mechanism. Fluorine coat is applied to lens surfaces for easy maintenance.





- Exposure: [A] mode, 1/400 second, f/5.6
- White balance: Direct sunlight
- Sensitivity: ISO 800
- Picture Control: Standard

© Jerry Ghionis



### AF-S NIKKOR 24-70mm f/2.8E ED VR

An aspherical ED glass element — a first for NIKKOR lenses — works with ED glass, aspherical lens and HRI lens elements as well as Nano Crystal Coat to achieve remarkably high optical performance. Evolved Vibration Reduction (VR) provides an effect equivalent to a shutter speed 4.0 stops\* faster. Other notable features include an electromagnetic diaphragm mechanism, fluorine coat and highly durable body.



- Exposure: [M] mode, 1/400 second, f/6.3
- White balance: Direct sunlight
- Sensitivity: ISO 64
- Picture Control: Auto

© Jerry Ghionis



### AF-S NIKKOR 70-200mm f/2.8E FL ED VR

This fast f/2.8 telephoto zoom with reduced weight enables highly agile shooting in diverse situations. Movable parts and other sections are sealed to maximize dust- and drip-resistant performance. Further enhanced optical performance is realized with a newly developed optical system and the adoption of fluorite, ED glass and HRI lens elements, as well as Nano Crystal Coat. The VR system provides a powerful effect equivalent to a shutter speed 4.0 stops\* faster in Normal mode. AF drive and AF tracking performance have also been enhanced, while stable AE control is obtained with the adoption of an electromagnetic diaphragm.

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



- Lens: AF-S NIKKOR 70-200mm f/2.8E FL ED VR • Exposure: [M] mode, 1/400 second, f/7.1 • White balance: Direct sunlight • Sensitivity: ISO 200 • Picture Control: Auto

© Jerry Ghionis

### Capture the beauty of fleeting moments in detail — 9-fps/7-fps high-speed continuous shooting

The D850 lets you depict the spontaneous energy of a fashion shoot in gloriously high resolution. The D850 captures massive, sharp 45-megapixel images at 9 fps with the optional MB-D18 Multi-Power Battery Pack (with EN-EL18b/EN-EL18a Rechargeable Li-ion Battery\*<sup>1</sup>) attached, or at 7 fps with the body only. The new image sensor achieves fast readout of large amounts of data, which is handled rapidly by the powerful EXPEED 5 image-processing engine. Despite the heavy load, the camera is capable of continuous shooting for up to 51 frames\*<sup>2</sup> (body alone) even in 14-bit lossless compressed RAW (up to 170 frames in 12-bit lossless compressed RAW). It lets you explore a whole new realm of high-speed photography combined with high-resolution images.

\*<sup>1</sup> Optional BL-5 Battery Chamber Cover required.

\*<sup>2</sup> When using a 64 GB XQD (Sony QD-G64E) memory card.

Maximum number of pictures (large, 14-bit lossless compressed RAW) that can be shot in a single burst of high-speed continuous shooting

D850 **51 still images\*<sup>1</sup>**

D810 **28 still images\*<sup>2</sup>**

\*<sup>1</sup> When using a 64 GB XQD (Sony QD-G64E) card.

\*<sup>2</sup> When using a 16 GB SanDisk SDCFXPS-016G-J92 card.

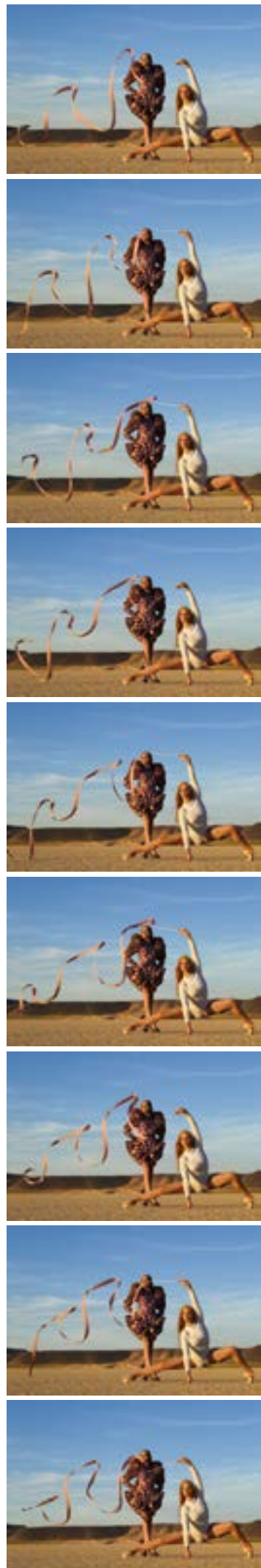
### More speed, more battery life and more comfortable vertical shooting — MB-D18 Multi-Power Battery Pack (optional)

The new, optional MB-D18 Multi-Power Battery Pack boosts the D850's high-speed continuous shooting speed up to 9 fps\*<sup>1</sup>, while increasing the number of frames that can be photographed per full battery charge up to 5140\*<sup>2</sup> (1840 frames with body alone). Its ergonomically designed grip ensures the camera is comfortable and secure in your hands, with dedicated control buttons and dials for vertical composition. And like the camera body, it features a durable magnesium alloy shell with weather- and dust-sealing. The MB-D18 accepts one EN-EL15a/EN-EL18b\*<sup>3</sup> Rechargeable Li-ion Battery, eight AA-size batteries or the EH-5c/EH-5b AC Adapter (requires EP-5B Power Connector) as a power source.

\*<sup>1</sup> With the EN-EL18b/EN-EL18a Rechargeable Li-ion Battery inserted. Optional BL-5 Battery Chamber Cover required for use of the EN-EL18b/EN-EL18a.

\*<sup>2</sup> Based on CIPA Standards. With the EN-EL15a/EN-EL15 Rechargeable Li-ion Battery in the body and the EN-EL18b/EN-EL18a in the MB-D18.

\*<sup>3</sup> EN-EL15, EN-EL18a and EN-EL18 can also be used.

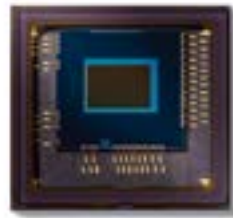




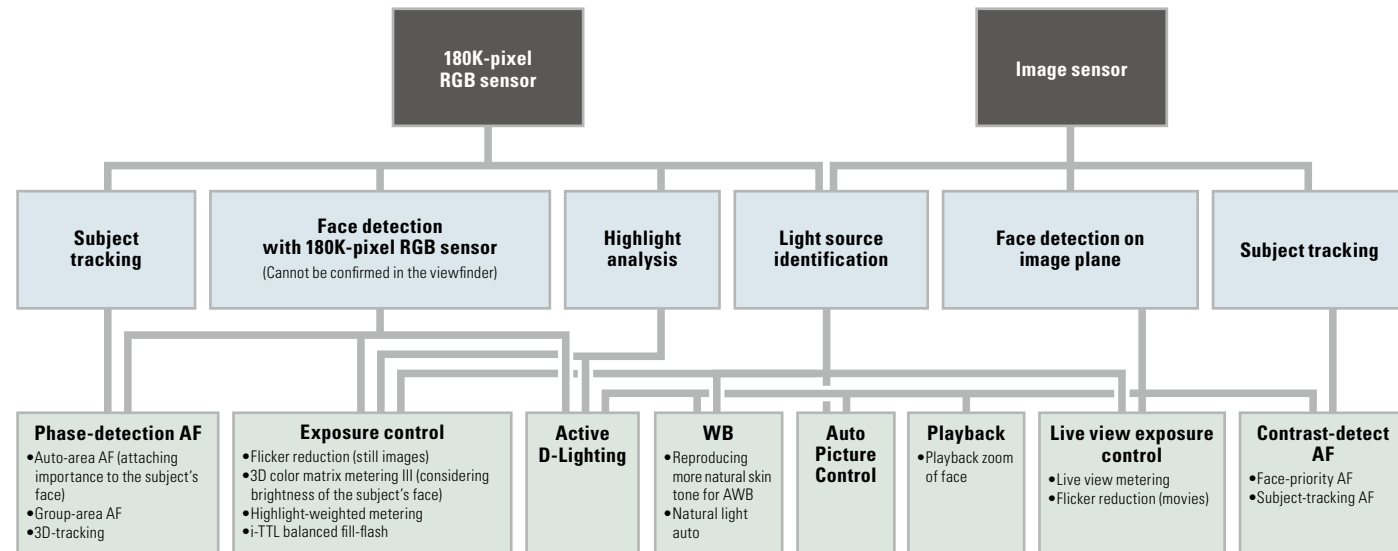
### More reliable auto control — 180K-pixel RGB sensor for Advanced Scene Recognition System

The D850 is equipped with the same 180K-pixel RGB sensor as the D5. Its increased pixel count enhances the accuracy of various auto controls by the Advanced Scene Recognition System, such as auto white balance, i-TTL balanced fill-flash, auto-area AF, 3D-tracking and Active D-Lighting. Notably, it delivers stronger face detection when using the optical viewfinder in scenes with moving subjects — an invaluable feature for wedding and fashion photographers. Furthermore, metering is available down to -3 EV\* which is helpful when shooting low-light scenes.

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



180K-pixel RGB sensor



### Avoid white clipping and preserve tones in highlights — Highlight-weighted metering

Being able to depict the delicate details of a white dress is critically important in wedding and fashion photography. If you want to retain the subtle tones and nuances of color in the clothes, try highlight-weighted metering. This setting delivers a richer tonality in images by giving priority to the brightest portions of a scene and avoiding white clipping.



Highlight-weighted metering

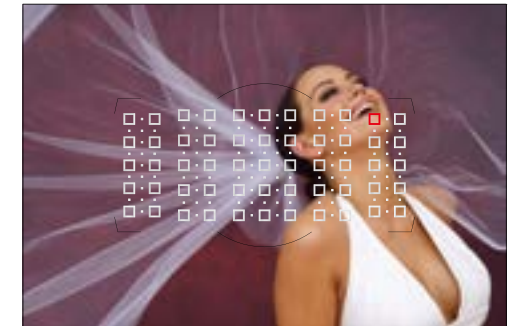


Matrix metering

### Smoother, more productive shooting — 153-point AF system with reliable auto-area AF

The D850 comes equipped with the same powerful 153-point AF system as the flagship D5. Fashion and wedding photographers will feel the difference in AF performance and the flexibility it brings. In auto-area AF, the D850 automatically detects and achieves focus on the closest subject, and the camera quickly changes the AF point according to the subject's movement or changes of framing. This means the photographer doesn't need to move the focus point manually when changing composition, resulting in a smoother shoot with sharp focus on faces. Pre-assigning a specific AF-area mode to a custom button also improves workflow, allowing you to temporarily switch modes during a shoot — for instance, if you shoot mainly using auto-area AF but want to use single-point AF to achieve pinpoint focus on a bride's eye when needed. Furthermore, AF compatibility down to -4 EV\* at the central focus point and -3 EV\* at all other points enables you to focus smoothly on low-contrast subjects such as a bride in a white dress.

\* At ISO 100 and 20°C/68°F.



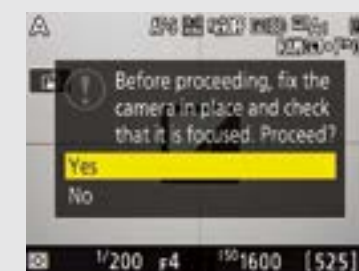
### Simplified adjustment for more accurate focus — Auto AF fine-tune for viewfinder shooting

Accurate AF is crucial to take full advantage of the D850's high pixel count. To ensure focusing accuracy, the D850's auto AF fine-tune makes subtle adjustments for each type of lens you use. The simplified process involves achieving focus in live view and letting the camera automatically acquire, then store, the AF tuning value.

#### Auto AF fine-tune steps



Achieve focus at a focus distance you use frequently in live view. Press and hold the AF-mode and movie-record buttons simultaneously until the next dialogue appears.



Select "Yes" to save the tuning value.



The camera automatically stores the result to "Saved value" list.

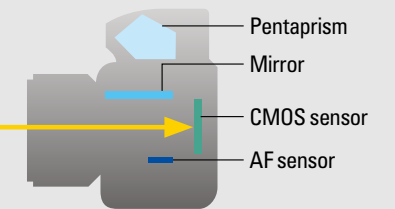
Note: AF fine-tune must be turned on in the setup menu to enable the tuning value to be used for shooting.

#### Auto AF fine-tune system

1: Focus achieved in live view.



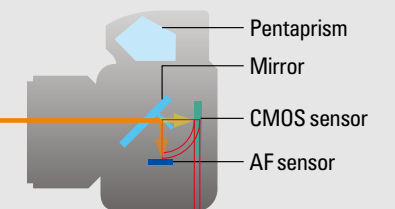
Live view



2: Difference of defocus amount (A) between contrast-detect AF (live view) and phase-detection AF (viewfinder photography) is calculated.



Viewfinder photography

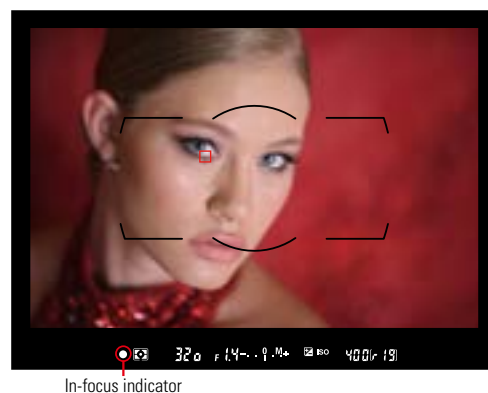


3: (A) is recorded as the AF tuning value and applied to viewfinder photography.



**More accuracy in manual focus —  
Electronic rangefinder with improved precision**

In addition to offering superb autofocus performance, the D850 also makes manual focusing more precise. Its electronic rangefinder identifies whether a subject is in focus more accurately than ever before, allowing you to capture sharp images when focusing in manual mode, or using a manual focus lens.



**Clearly confirm your entire view —  
0.75x optical viewfinder**

The D850 provides a wide field of view for easier subject confirmation with a 0.75x magnification\* for its optical viewfinder — the highest ever offered by a Nikon FX-format D-SLR. The viewfinder has been redesigned to employ an aspherical lens and a new condenser lens with refined refraction, allowing for a slimmer body while keeping a sufficiently long eye point. Its high-contrast viewfinder information display uses organic EL display elements, making it easier to read even under bright sunlight.

\* 50mm f/1.4 lens at infinity, -1.0 m<sup>-1</sup>.



**Greater convenience in the field — Fully touch-  
operable, tilting 8-cm/3.2-in. 2359k-dot LCD monitor**

If a unique angle is what you need to give you the creative edge, the D850's tilting LCD monitor makes it easier to get the shot. The monitor opens smoothly even when the camera is mounted on a tripod and has the most extensive touch functionality found in any Nikon D-SLR camera to date. From changing menu settings to shooting to reviewing images, it brings a new level of convenience. And thanks to the monitor's 2359k-dot high-resolution display, you can easily check images and confirm focus in precise detail — which is crucial when working with 45 megapixels — by pinching out to enlarge.



**Nail the shot with full detail and no mechanical  
vibration or shutter release sound — Silent  
photography at 45 megapixels**

When you're capturing the moment a couple ties the knot at their wedding ceremony, the sound of a camera shutter might ruin the atmosphere. The D850's silent photography function\*1 in live view mode utilizes an electronic shutter instead of triggering any mirror or shutter movement, meaning it doesn't cause any mechanical vibration. Photographers can capture every last detail in 45 megapixels — and in complete silence. This mode can be used in approx. 6-fps continuous shooting, but can also shoot approx. 8.6-megapixel pictures in DX image area at approx. 30 fps\*2.

\*1 In M and A modes. Aperture drive sound occurs in P and S modes.

\*2 Continuous shooting is available for up to approx. 3 s.

Note: Rolling shutter distortion may occur during silent photography. AF/AE fixed with the first frame in continuous shooting.



• Lens: AF-S NIKKOR 70-200mm f/2.8E FL ED VR • Exposure: [A] mode, 1/800 second, f/3.5 • White balance: Direct sunlight • Sensitivity: ISO 64 • Picture Control: Standard

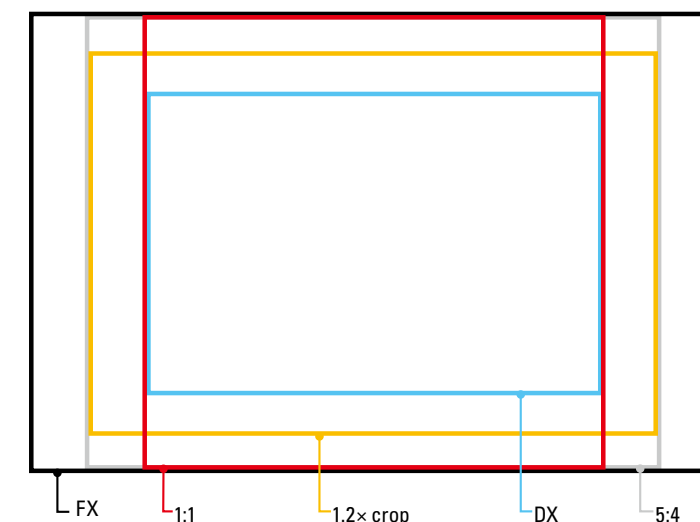
© Jerry Ghionis

**Show your creativity in a social media-friendly format — New 1:1 image area option**

The D850 introduces a new image area option with a 1:1 aspect ratio. While reminiscent of 6 × 6 medium format, it's also ideal for social media, where square images have become increasingly popular. It is also possible to add shading in the viewfinder around the image area you choose, helping you compose more accurately. You can create pictures to impress your followers, as well as experiment with the creative potential of this unique image area.



• Lens: AF-S VR Micro-Nikkor 105mm f/2.8G IF-ED  
• Exposure: [M] mode, 1/200 second, f/3  
• White balance: Direct sunlight  
• Sensitivity: ISO 800  
• Picture Control: Standard  
© Jerry Ghionis





### Dual memory card slots for fast and secure data storage — Compatible with XQD and UHS-II SD cards

Reliable storage media is crucial to all creative work. The D850 features dual slots for XQD and UHS-II SD cards, enabling rapid reading and writing of the vast data generated from its high-pixel-count image sensor. It also offers a variety of storage options, including the ability to store the same data onto two cards for instant backup and recording RAW and JPEG simultaneously onto separate cards.



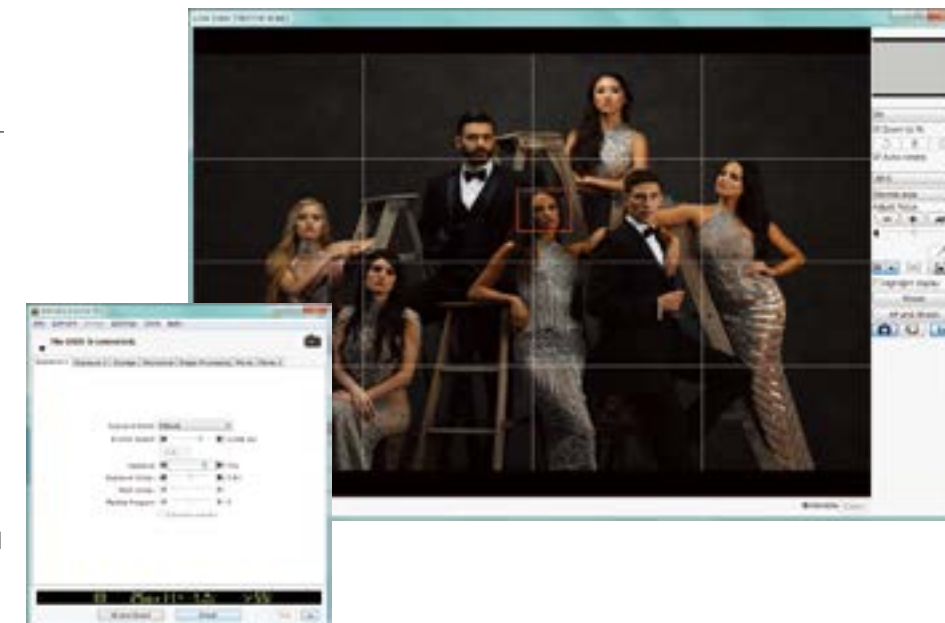
### Ergonomic operation and confidence even in the dark — Button illumination and layout

The D850's buttons and dials are arranged in a convenient ergonomic layout designed to facilitate comfortable operation. The rear side now features a sub selector — added in the same position as for the D5, to allow easier right-handed operation by photographers who use both camera models. Furthermore, the D850 has illuminated buttons on the rear left side and release mode dial, making it simpler to change settings when shooting in the dark.

### Versatile remote camera control from a computer — Camera Control Pro 2 software

Nikon's Camera Control Pro 2 lets you remotely control the D850 from a computer connected via wired or wireless LAN. Its capabilities have expanded to meet the demands of professional photographers: You can now use it to activate/deactivate live view, as well as release the shutter, start playback and change settings such as AF and metering modes in live view shooting. It also lets you use unified flash control\*, enabling you to change the settings of SB-5000 Speedlight units. In studios as well as outdoors, it makes remote camera control more versatile and more efficient.

\* Camera Control Pro 2 must be Ver. 2.26.0 or later.



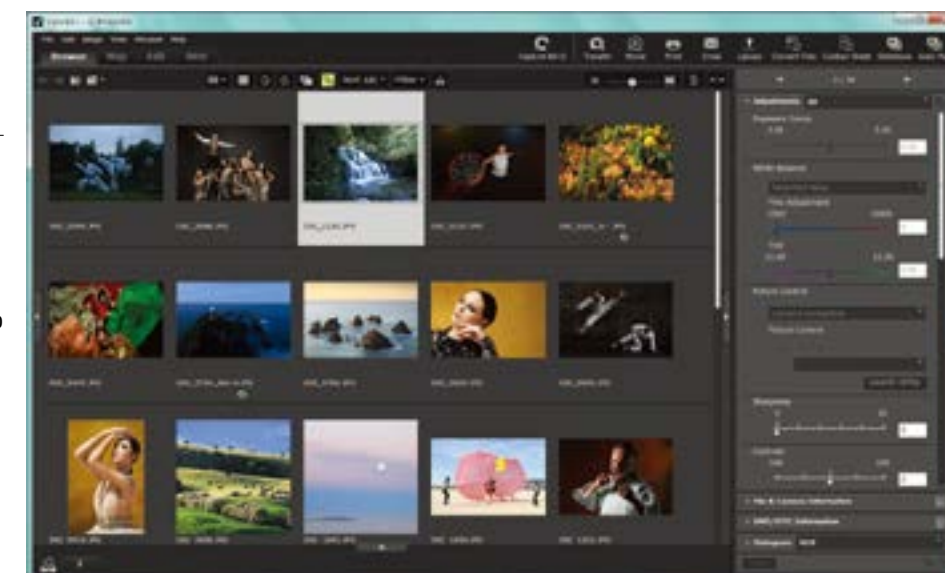
### RAW image-processing software with auto retouch brush — Capture NX-D (free download)

Nikon's Capture NX-D software offers the best way of processing original RAW (NEF/NRW) files without losing any of their extremely rich data. It incorporates an auto retouch brush that lets you remove dust spots on pictures. You can also adjust options such as exposure compensation, white balance, Picture Controls and unsharp mask. JPEG and TIFF files are also compatible.



### Optimal management of still images and movies — ViewNX-i (free download)

ViewNX-i is Nikon's free software for browsing and editing JPEG, RAW and movie files, as well as RAW files edited with Capture NX-D. It incorporates ViewNX-Movie Editor, which can be used to edit movies, including 4K UHD footage. Access to various web services is also available.

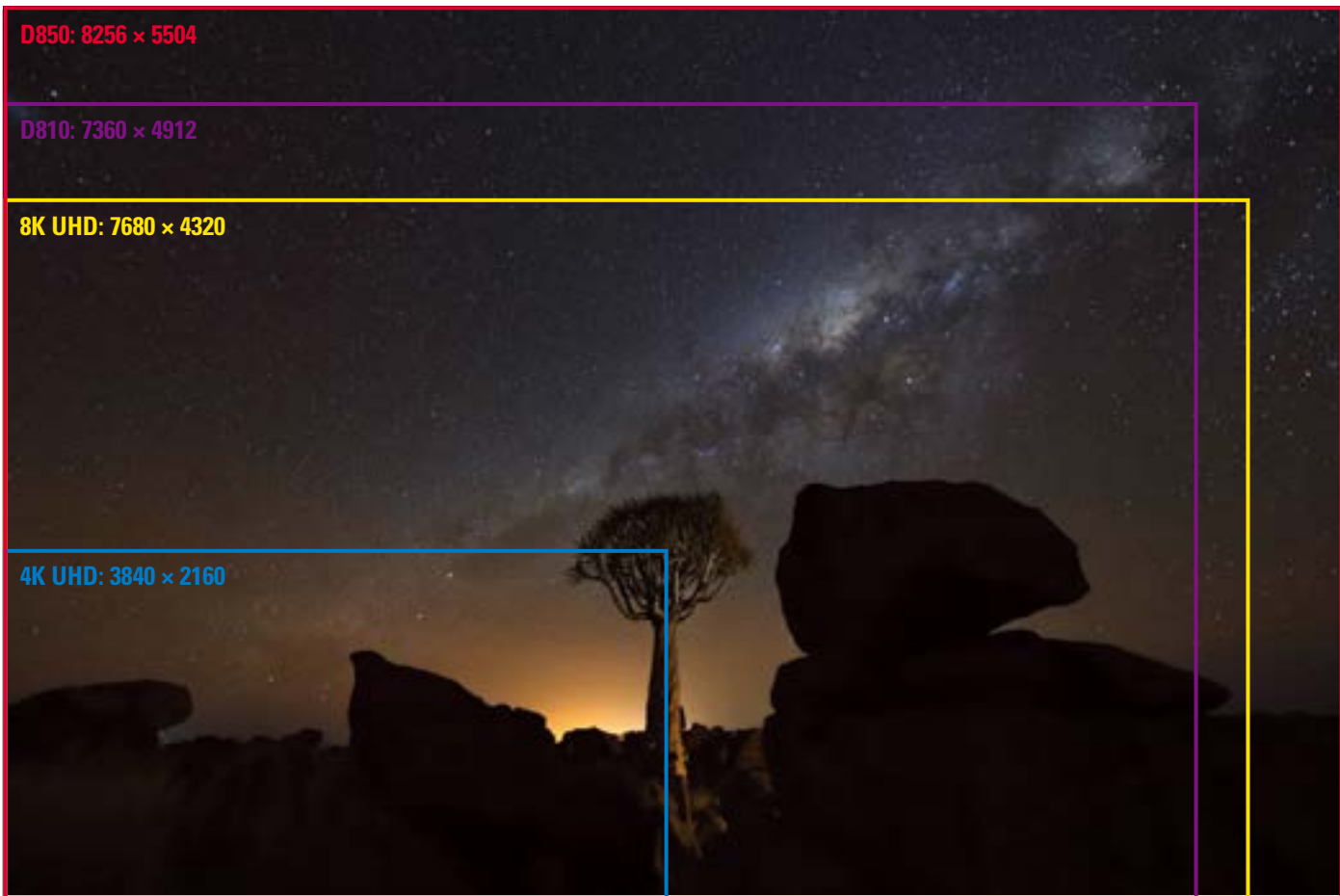






**THE D-SLR CAMERA THAT EXPANDS  
THE POTENTIAL OF 8K TIME-LAPSE  
MOVIE PRODUCTION**

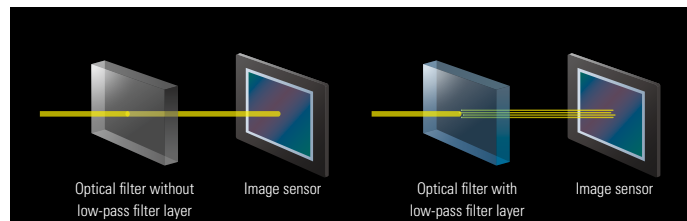
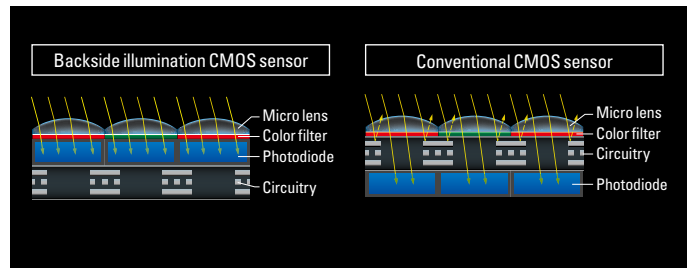




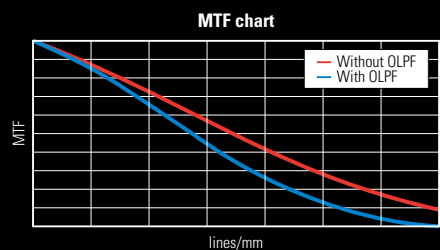
**Spectacular 8K time-lapse movie creation — 45-megapixel images delivered by a new Nikon FX-format, backside illumination CMOS sensor**

The D850 takes your time-lapse movies into a new realm with its Nikon FX-format CMOS image sensor. Harnessing the vast pixel count of 45 megapixels (8256 × 5504 pixels) with the high resolving power of NIKKOR lenses, the camera’s interval timer mode allows you to capture over 8K-size images with exquisite detail for time-lapse movie creation\*. The 45 megapixels also allow greater leeway in creating sharper 4K video by down-conversion, or adding pan and zoom effects within the frame in post-production using a computer to inject more dynamism into the finished piece. Thanks to the greater light-gathering efficiency of the backside illumination CMOS sensor structure, together with the advanced image processing of EXPEED 5, the D850 achieves a wider ISO sensitivity range from ISO 64-25600 (expandable to ISO 32 equivalent and to ISO 102400 equivalent). The resulting images feature low noise while maintaining detail even in the high ISO range. With the D850, you can create truly amazing time-lapse movies.

\* Requires third-party software.



Because the D850’s image sensor is designed without an optical low-pass filter (OLPF), the light arrives at the sensor directly, delivering higher resolution.



• This is a conceptual graphic of an f/5.6 aberration-free lens.

### Shoot time-lapse movie data without release noise, mechanical vibration or mechanical wear — Silent interval timer photography

When shooting time-lapse sequences outdoors for hours at night, you can focus on your shooting without worrying about shutter release noise or mechanical wear. The D850 addresses both of these issues with its silent interval timer photography function\* in live view mode, which drives the shutter electronically. The result is a silent shutter release that inflicts no stress on the mechanical drive. It also prevents mechanical vibrations that might cause image blur, meaning you’ll maximize the potential of the camera’s 45.7 megapixels. The silent interval timer function lets you shoot up to 9,999 frames.

\* In P and S modes, aperture drive sound occurs.

Note: Rolling shutter distortion may occur during silent photography.

For internal image processing, the interval needs to be set more than 2 seconds longer than the shutter speed.

### An easy way of shooting time-lapse sequences of starry night skies — Advanced new technology to extend low-light metering range

Capturing overnight star movement is a popular application of time-lapse videos, and the D850 makes it even easier. The exposure smoothing function, Nikon’s unique feature, which reduces subtle exposure variance between frames in interval timer shooting, is further improved for the D850. Now it extends exposure metering capability beyond -3 EV\*1 and lets you shoot starry night skies using aperture-priority auto mode when employed with silent interval timer shooting mode\*2. Photographers can now enjoy shooting star movements from midnight until dawn, when brightness changes significantly, in one continuous interval-timer sequence. This is impossible with manual exposure and opens up new opportunities to delight and impress.

\*1 ISO 100, f/1.4 lens and 20°C/68°F.

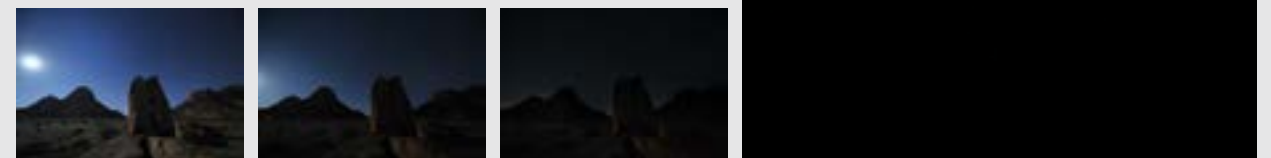
\*2 Also available with silent time-lapse and silent focus shift photography.

#### Extended low-light metering range

D850



D810



Time elapsed →

Thanks to the exposure metering capability beyond -3 EV, you can rely on the camera’s AE to capture changes in the sky after sunset and into the night, even stars gradually appearing.



### Huge time savings in post-production — In-camera RAW batch processing

Shooting in RAW gives greater leeway in post-production, letting photographers draw the most from the images they capture. Until now, however, processing RAW has always been extremely time-consuming. The D850 resolves this issue by offering an incredibly convenient, in-camera RAW batch-processing feature, which enables you to quickly apply the same adjustments to selected images. It can process 1000 RAW files\*1 in approx. 25 minutes\*2. You can save the original RAW files and processed JPEG files on one large-capacity XQD card, or else save the original on XQD and the JPEG on an SD card in the second slot, for easier data management.

\*1 When converting 14-bit lossless RAW into JPEG fine★, Large. Time varies according to conditions.

\*2 When data is read from SONY SF-G128 (128 GB) SD card and written to Lexar Professional 2933× (128 GB) XQD card.



### Smoother rendering of rapid motion in time-lapse movies — Minimum interval setting of 0.5 s

When capturing scenes with conspicuous motion, such as fast-moving clouds or fog, even a 1 s interval time may result in a sequence that does not look smooth when turned into a time-lapse movie. The D850 now offers a minimum interval setting of just 0.5 s\* for interval timer shooting. This renders movements more smoothly, while giving you greater flexibility in achieving your creative intentions.

\* May differ depending on camera settings. Use of an XQD card with 400 MB/s writing speed is recommended.



• Lens: AF-S NIKKOR 14-24mm f/2.8G ED • Exposure: [M] mode, 25 seconds, f/2.8 • White balance: Color temperature (4000 K) • Sensitivity: ISO 6400 • Picture Control: Standard © Marsel van Oosten

### Clearer, more beautiful images regardless of the light — ISO 64-25600

The D850 delivers superior image quality in diverse lighting situations. While taking a huge leap in effective pixel count from the D810, it also achieves a wider standard sensitivity range of ISO 64-25600 thanks to its backside illumination CMOS image sensor and EXPEED 5 image-processing engine. The camera consistently outputs images rich in detail and with minimum noise, even in its high ISO range, while images at ISO 64 are reproduced with faithful tones and nuances in highlights. Sensitivity is expandable down to Lo 1 (ISO 32 equivalent) or up to Hi 2 (ISO 102400 equivalent\*), extending the possibilities for your shooting. Even when shooting starscapes, the D850 consistently delivers high-quality images with minimum noise in interval timer photography.

\* Hi settings are not available in silent shooting.

### Unparalleled resolving power to match 45 megapixels — NIKKOR lenses

With their exceptionally high resolving power, which makes full use of 45 megapixels, NIKKOR lenses are a perfect partner for the D850, allowing photographers in every field to better capture the essence of their vision, and render every delicate tone or nuance. Thanks to Nikon's superb optical technology, they provide sharp resolution even at the periphery of an image, combined with elaborately designed, beautiful image-blur characteristics. Many lenses feature the anti-reflective Nano Crystal Coat, which effectively reduces ghost and flare. They are also designed to reproduce point light sources as point images as much as possible. NIKKOR lenses are powerful tools for professionals looking to ensure brilliantly sharp images regardless of the subject, environment or lighting conditions.



• Exposure: [M] mode, 25 seconds, f/2.8  
 • White balance: Color temperature (3600 K)  
 • Sensitivity: ISO 3200  
 • Picture Control: Standard  
 © Marsel van Oosten



### AF-S NIKKOR 14-24mm f/2.8G ED

With a fixed maximum aperture of f/2.8, this award-winning professional lens delivers edge-to-edge sharpness across the frame. Nano Crystal Coat and ED glass ensure outstanding contrast, even in backlit conditions. Tough and reliable, this is essential glass for producing wide-angle time-lapse videos.





- Exposure: [M] mode, 20 seconds, f/2.8
  - White balance: Color temperature (3600 K)
  - Sensitivity: ISO 3200
  - Picture Control: Standard
- © Marsel van Oosten



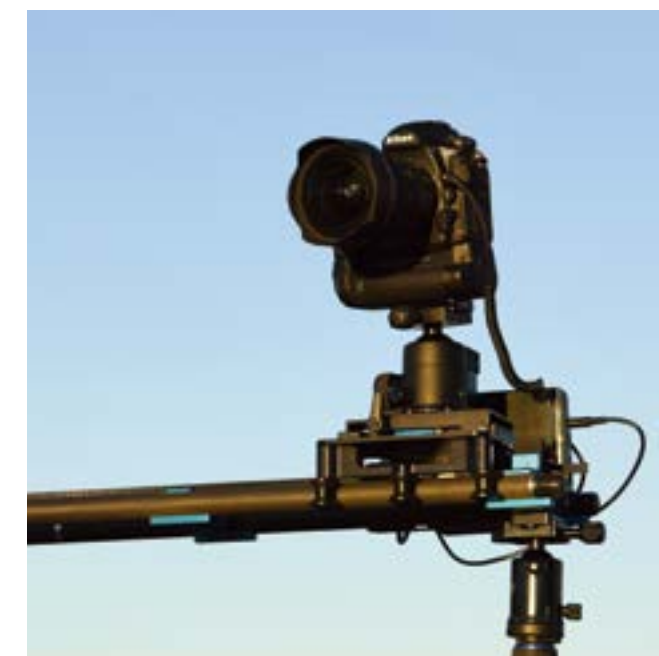
### AF-S NIKKOR 20mm f/1.8G ED

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 scenes.



### Keep shooting under harsh conditions — Superior weather-/dust-resistant performance and a robust body

When working outdoors for extended periods, time-lapse photographers regularly expose their camera bodies to harsh conditions. Nikon has applied its stringently high standards for weather resistance and durability, renowned in the fields of photography and science alike, to the D850. It has comprehensive weather- and dust-sealing applied to its joints and seams, and its top, rear and bottom covers, as well as the inside body structure, are made of robust magnesium alloy. It's a camera that allows you to work with confidence in a wide range of tough environments.







**Ergonomic operation offers confidence even in the dark — Button illumination and layout**

The superb performance of the D850, such as its low noise at high ISO settings and wide detection range for AE, encourages time-lapse photographers to venture out in the dark and create amazing images from challenging situations. The camera offers illuminated buttons on the rear left side and release mode dial, making it easier to change settings when shooting in the dark. Moreover, the buttons and dials are arranged in a convenient ergonomic layout to fit photographers' hands. The rear side now features a sub selector added in the same position as for the D5, to allow easier right-handed operation by photographers who use both models.

**Greater convenience in the field — Touch-operable, tilting 8-cm/3.2-in. 2359k-dot monitor**

Whether pointing the camera upwards at a starry night sky or down on a street full of traffic, the D850's tilting LCD monitor makes it easier to shoot from difficult angles. The monitor opens smoothly even when the camera is mounted on a tripod and has the most extensive touch functionality found in any Nikon D-SLR camera to date. From changing menu settings to shooting to reviewing images, it brings a new level of convenience. And thanks to the monitor's 2359k-dot high-resolution display, you can easily check images and confirm focus in precise detail — which is crucial when working with 45 megapixels — by pinching out to enlarge.



**Dual memory card slots for fast and secure data storage — Compatible with XQD and UHS-II SD cards**

Making time-lapse movies involves an enormous volume of images, so fast and reliable storage media is essential. The D850 features dual slots for XQD and UHS-II SD cards, enabling rapid reading and writing of the vast data generated from its high-pixel-count image sensor. It also offers a variety of storage options, including the ability to store the same data onto two cards for instant backup and recording RAW and JPEG simultaneously onto separate cards.



**Shoot for extended periods without worry — Long battery life**

Capturing a time-lapse sequence from dusk till dawn places enormous demands on power consumption. The D850 allows you to concentrate on shooting without having to worry about battery life. The camera can shoot up to approx. 1840 still images\*1 from a single charge of an EN-EL15a/EN-EL15 Rechargeable Li-ion Battery, thanks to its energy-efficient power circuit and EXPEED 5 image-processing engine. An optional weather- and dust-resistant MB-D18 Multi-Power Battery Pack can also be used as a power source, enabling shooting of up to 5140 images\*2.

\*1 Based on CIPA Standards.

\*2 Based on CIPA Standards. With the EN-EL15a/EN-EL15 Rechargeable Li-ion Battery in the body and the EN-EL18b/EN-EL18a in the MB-D18. Optional BL-5 Battery Chamber Cover required for use of the EN-EL18b/EN-EL18a.

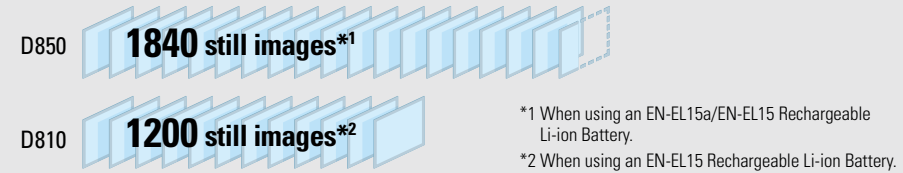


D850 + MB-D18



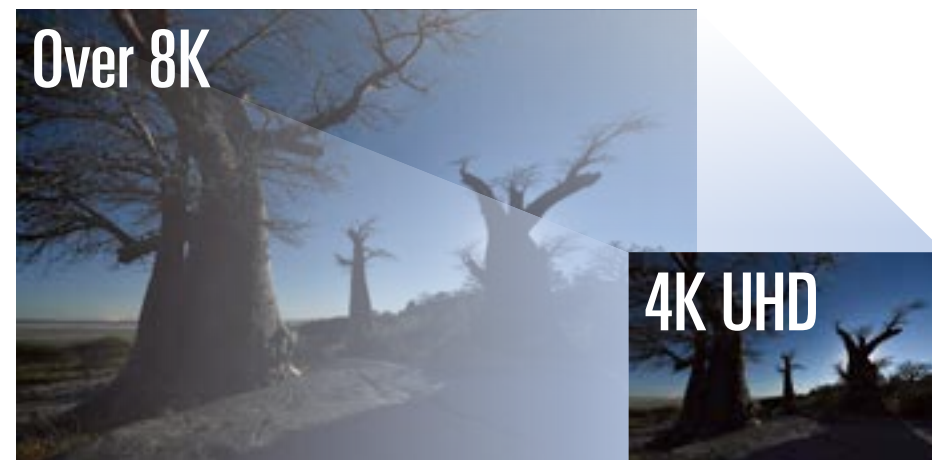
EN-EL15a

Maximum number of pictures that can be shot per single battery charge (single-frame release mode, CIPA Standards)



**Create high-resolution 4K UHD time-lapse movies — In-camera time-lapse**

If you want to create high-resolution time-lapse movies without the need for post-production editing, the D850's in-camera time-lapse movie function comes in handy. Since it converts full-pixel (over 8K-size) still images into 4K UHD video in camera, you can enjoy relatively high-resolution quality with ease. In-camera time-lapse is also available in Full HD, as well as silent in-camera time-lapse photography.



The D850 produces 4K UHD time-lapse movies by downconverting over 8K-size still photos, thus delivering beautiful, high-resolution quality.





**A COMPREHENSIVE MULTIMEDIA D-SLR,  
FEATURING FULL-FRAME 4K UHD AND  
×4, ×5 SLOW MOTION IN FULL HD**



## **4K UHD** Dynamic wide-angle movies, in high resolution — Nikon's first full-frame, 4K UHD video

The D850 lets you film magnificent 4K UHD/30p videos in full frame. You can capture more dramatic scenes by combining this with wide-angle NIKKOR lenses, which demonstrate high resolving power even around the periphery of the frame. It is also possible to simultaneously record uncompressed, broadcast quality 4:2:2 8-bit 4K UHD files on an external HDMI device. 4K UHD videos are also available in the DX-based movie format — equivalent to super 35mm size — while recording in MP4 format is possible in addition to the conventional MOV option.

Note: The aspect ratio is 16:9.



D850



D5

## Easily turn moments into drama — ×4 and ×5 slow-motion movie in Full HD

The D850 helps create dramatic Full HD movies with its new in-camera slow-motion video\*. It can generate both ×4 slow-motion videos (films at 120/100p and records at 30/25p) and ×5 slow-motion videos (films at 120p and records at 24p) entirely in-camera — great for creating drama out of moments.

\* Image quality is fixed at normal and image area is fixed at DX regardless of settings. AF-area modes are limited to normal-area and wide-area AF. No audio recording.



Image quality differs from the actual movie, as it is part of a pdf file.

## Take beautifully clean 4K UHD videos even in dark situations — Superior low-noise performance at high ISO settings

Even in dark scenes, you can rely on the D850 for consistently sharp video with low noise. Despite the great leap in effective pixel count from the D810, the camera achieves a wider standard sensitivity range of ISO 64-25600 for both stills and movies. This is thanks to the greater light-gathering efficiency of the new backside illumination CMOS structure, and the EXPEED 5 image-processing engine's ability to effectively reduce noise while maintaining details. You can also widen the possibilities for your shooting by extending sensitivity up to Hi 2 (ISO 102400 equivalent). The D850 encourages videographers to explore their creativity in a variety of scenes.



ISO 3200

## Automatic adjustment to brightness changes — Auto ISO control for fixed aperture/shutter speed in M mode

Imagine filming a scene where the brightness changes significantly, such as following a subject from a dark corridor into the noonday sun, within one take. The Auto ISO function in M mode ensures the camera automatically adjusts its ISO settings to changes in brightness, while maintaining a specific depth of field and shutter speed. This helps achieve appropriate exposure throughout the scene.

## Rich image information for easy post-production editing — Flat Picture Control

If you plan a video creation workflow that includes image enhancement in post-production, shooting in Flat Picture Control gives you the room you need to manipulate the original footage and achieve your preferred look. This option features a near-straight tone curve, which allows you to acquire as much information as possible — including subject colors, brightness and texture. It enables effective color grading using simple adjustments of the tone curve, without requiring technical knowledge of video log. Even if you are new to video, Flat Picture Control will amaze you with its creative potential and ease of use.



Image shot in Flat.



Adjusted image.

## Minimize highlight clipping for grading — Highlight-weighted metering

While brightness control can be applied in post-production, it cannot compensate for blown-out highlights. The D850's highlight-weighted metering is an invaluable tool for video shooting, helping to minimize overexposure. This setting delivers a richer tonality in images by giving priority to the brightest portions of a scene and avoiding white clipping. Used together with Flat Picture Control, you can acquire footage with even richer tones and less over-exposed highlights.



## The defining strength of your 4K UHD video creation — Incredibly sharp NIKKOR lenses

Only high-performance lenses with high resolving power can draw out the full potential of 4K UHD video. The diverse NIKKOR lens lineup, from wide angle to telephoto, features superior optical performance and reliability, highly praised by cinematographers around the world. The optical system delivers high resolution even in the peripheral areas of the frame, elaborately designed bokeh characteristics that depict subject impressively with natural depth, and high reproduction capability for point light sources even at the maximum aperture. These features empower you to create the movie productions of your dreams.



### AF-S NIKKOR 14-24mm f/2.8G ED

With a fixed maximum aperture of f/2.8, this award-winning professional lens delivers edge-to-edge sharpness across the frame. Nano Crystal Coat and ED glass ensure outstanding contrast, even in backlit conditions. Tough and reliable, this is essential glass for professional multimedia creators.



### AF-S NIKKOR 24mm f/1.4G ED

The greatest advantage of this versatile wide-angle lens is its amazingly beautiful bokeh at f/1.4 while covering an 84° angle of view. Its optical design now reveals more refined detail with even less aberration. In addition, its Nano Crystal Coat effectively reduces ghost and flare effects in harsh lighting.



### 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.

## Quickly switch between still-photo and movie shooting — Independent movie-shooting menu

The D850 is designed for multimedia shooters who consider stills and movies equally important. With that in mind, this camera sees Nikon introduce a dedicated movie-shooting menu in addition to the one for still photography. You can register different settings for video without changing those for stills, which makes it easier to switch between the two shooting modes. For example, shooting stills in Auto Picture Control is possible even immediately after filming in Flat. What's more, pressing the **i** button during movie recording gives you direct access to the movie-shooting settings, providing both convenience and efficiency during your shoot.



## Greater convenience in the field — Touch-operable, tilting 8-cm/3.2-in. 2359k-dot monitor

When you encounter a subject that just cries out to be shot from a creative angle, but don't have access to an HDMI monitor, the D850's smooth, tilting LCD monitor gives you the flexibility you need. It has the most extensive touch functionality, including menu and **i** button menu operation, found in any Nikon D-SLR camera to date, bringing a new level of convenience and causing less unwanted operational noise than button operation.



### Customizable highlight confirmation with even greater ease — Improved highlight display

Highlight display using zebra patterns helps you confirm overblown highlights, and the D850 has improved this function to assist you further. It now lets you adjust the level of brightness, to be indicated between 180-255 depending on your needs. What's more, the zebra patterns come in two varieties, selectable according to the patterns and textures of your subjects.



### Accurate manual focus confirmation — Focus peaking display

Many professional videographers use manual focus for accurate focusing. The D850's focus peaking display\* makes it easier to confirm manual focus. The camera detects the scene's highest-contrast edges — meaning they are in focus — and highlights them in a designated color. You can choose to display highlights in red, white, yellow or blue, according to your subject's own coloration, and adjust between three levels of detection sensitivity. For users' convenience, this peaking information will not be recorded on the external device when connected via HDMI.

\* Available with Full HD and HD.



### More reliable sound control — Attenuator menu

When filming out of the studio, audio levels can escalate unexpectedly, causing distortion. The D850 incorporates an attenuator menu to avoid such accidental occurrences. When activated, it automatically reduces the microphone sensitivity to the appropriate level — allowing smooth recording with clear sound.

### Confident hand-held video shooting — Electronic vibration reduction

When shooting movies hand-held in Full HD or HD, the D850's electronic vibration reduction function\* reduces the effects of camera shake in the horizontal, vertical and rotational directions (centering on the lens). This is invaluable when limitations of time and location make it difficult to set up a tripod. Used in combination with NIKKOR's optical VR technology, the benefits are even more apparent.

\* Image area will be slightly smaller in Full HD.



### Preserve details in highlights and shadows — Active D-Lighting

The EXPEED 5 image-processing engine makes it possible to apply Active D-Lighting to Full HD and HD movies. This popular function in still-photo shooting preserves details in highlights and shadows when recording high-contrast scenes, giving your footage richer tonal gradation and a more natural brightness. This comes in handy when you need to use footage straight out of the camera without post-production editing.



Active D-Lighting: Off

Active D-Lighting: High





**Keep shooting under harsh conditions — Superior weather-/dust-proof performance and a robust body**

Expensive, high-performance, professional movie cameras often can't be taken to sandy or rainy outdoor locations. Nikon has applied its stringently high standards for weather resistance and durability, renowned in the fields of photography and science alike, to the D850. It has comprehensive weather- and dust-sealing applied to its joints and seams, and its top, rear and bottom covers, as well as the inside body structure, are made of robust magnesium alloy. It's a camera that allows you to work with confidence in a wide range of tough environments.



**Continue filming without worry — Long battery life**

Filming for hours on end means that battery life is always a source of concern. The D850 allows you to concentrate on shooting without worry. The camera can shoot up to approx. 70 minutes of video\*1 from a single charge of an EN-EL15a/EN-EL15 Rechargeable Li-ion Battery, thanks to its energy-efficient power circuit and EXPEED 5 image-processing engine. An optional weather- and dust-resistant MB-D18 Multi-Power Battery Pack can also be used as a power source, allowing filming up to approx. 215 minutes\*2.

\*1 Based on CIPA Standards.

\*2 Based on CIPA Standards. With the EN-EL15a/EN-EL15 Rechargeable Li-ion Battery in the body and the EN-EL18b/EN-EL18a in the MB-D18. Optional BL-5 Battery Chamber Cover required for use of the EN-EL18b/EN-EL18a.



D850 + MB-D18



EN-EL15a

Movie footage that can be recorded per single battery charge (CIPA Standards)



\*1 When using an EN-EL15a/EN-EL15 Rechargeable Li-ion Battery.  
\*2 When using an EN-EL15 Rechargeable Li-ion Battery.

# BRING YOUR FILM PICTURES TO LIFE WITH THE HIGH-RESOLUTION D850

**The quick, easy way to convert film to digital data — Negative digitizer**

Some seasoned photographers may be exploring ways to convert their film assets created with old cameras into digital data. Taking advantage of its high-pixel count of 45 megapixels, the D850 offers an option for digitizing film (35mm-format), which can handle color and monochrome negatives. First, set an optional ES-2 Film Digitizing Adapter onto a lens such as the AF-S Micro NIKKOR 60mm f/2.8G ED attached to the D850. Then, insert the film to be digitized in an FH-4 Strip Film Holder or FH-5 Slide Mount Holder, and shoot. The camera's digitizing function automatically reverses the colors and stores them as JPEG images. This once time-consuming process involving a film scanner can be done much more quickly. You can enjoy pictures with family and friends while selecting and digitizing by displaying them on a large TV monitor connected via an HDMI cable. Enjoy your old film images by digitizing them with the D850.



ES-2



(Conceptual images)



	D850	D5	D750
<b>Image sensor size and resolution</b>			
<b>Image sensor size</b>	35.9 × 23.9 mm (FX)	35.9 × 23.9 mm (FX)	35.9 × 24.0 mm (FX)
<b>Effective megapixels</b>	45.7 megapixels	20.8 megapixels	24.3 megapixels
<b>Backside illumination CMOS sensor structure</b>	Yes	No	No
<b>Image quality</b>			
<b>Image-processing engine</b>	EXPEED 5	EXPEED 5	EXPEED 4
<b>ISO sensitivity range</b>	ISO 64 to 25600 Expandable down to ISO 32 and up to ISO 102400	ISO 100 to 102400 Expandable down to ISO 50 and up to ISO 328000	ISO 100 to 12800 Expandable down to ISO 50 and up to ISO 51200
<b>Picture Control Auto</b>	Yes	No	No
<b>Picture Control Flat</b>	Yes	Yes	Yes
<b>RAW file size options</b>	RAW L, M, S*1	RAW L, M, S*1	RAW L
<b>File format</b>	<ul style="list-style-type: none"> <li>• 12-/14-bit uncompressed/lossless compressed/compressed NEF (RAW)*1</li> <li>• TIFF</li> <li>• JPEG</li> <li>• NEF (RAW) + JPEG</li> </ul>	<ul style="list-style-type: none"> <li>• 12-/14-bit uncompressed/lossless compressed/compressed NEF (RAW)*1</li> <li>• TIFF</li> <li>• JPEG</li> <li>• NEF (RAW) + JPEG</li> </ul>	<ul style="list-style-type: none"> <li>• 12-/14-bit lossless compressed/compressed NEF (RAW)</li> <li>• JPEG</li> <li>• NEF (RAW) + JPEG</li> </ul>
<b>RAW batch processing</b>	Yes	No	No
<b>AF</b>			
<b>AF system</b>	153 focus points: 99 cross-type sensors, 15 f/8-compatible points	153 focus points: 99 cross-type sensors, 15 f/8-compatible points	51 focus points: 15 cross-type sensors, 11 f/8-compatible points
<b>AF detection range*2</b>	-4 to 20 EV	-4 to 20 EV	-3 to 19 EV
<b>AF lock on</b>	Adjustable with two parameters; blocked shot AF response and subject motion	Adjustable with two parameters; blocked shot AF response and subject motion	Adjustable by strength levels only
<b>Auto AF fine-tune</b>	Yes	Yes	No
<b>Pinpoint AF (live view)</b>	Yes	No	No
<b>AE</b>			
<b>Metering sensor</b>	180K-pixel RGB sensor	180K-pixel RGB sensor	91K-pixel RGB sensor
<b>Metering detection range*3</b>	-3 to 20 EV	-3 to 20 EV	0 to 20 EV
<b>Exposure smoothing function (interval-timer/in-camera time-lapse photography)</b>	Yes	Yes	Yes
<b>Extended low-light metering during exposure smoothing function</b>	Yes	No	No
<b>Highlight-weighted metering</b>	Yes	Yes	Yes
<b>Auto white balance</b>	3 options	3 options	2 options
<b>White balance [Natural light auto]</b>	Yes	No	No
<b>Flicker reduction (still photography)</b>	Yes	Yes	No

\*1 Medium and small sizes are available at 12-bit lossless compressed RAW (NEF).

\*2 ISO 100 and 20°C/68°F.

\*3 ISO 100, f/1.4 lens, 20°C/68°F, using matrix or center-weighted metering.

	D850	D5	D750
<b>Silent, reduced-vibration photography</b>			
<b>Silent photography</b>	<ul style="list-style-type: none"> <li>• Silent photography at 45 MP/approx. 6 fps or 8.6 MP/approx. 30 fps (in DX format, JPEG normal) for up to 3 s</li> <li>• Silent interval-timer photography</li> <li>• Silent time-lapse movie recording</li> <li>• Silent focus shift photography</li> </ul>	Silent photography in 5 MP/approx. 30 fps (in JPEG fine) for up to 5 s	No
<b>Quiet photography</b>	Yes	Yes	Yes
<b>Electronic front-curtain shutter</b>	Available in Mup, Q and Qc modes	Available in Mup mode	No
<b>High-speed continuous shooting</b>			
<b>Frame advance rate</b>	Up to approx. 9*4 or 7 fps	Up to approx. 14*5 or 12 fps	Up to approx. 6.5 fps
<b>Buffer capacity NEF (RAW), 14-bit lossless compressed</b>	51 shots	200 shots (XQD-type)	15 shots
<b>Unlimited continuous shooting at slow shutter speeds</b>	Yes	Yes	Yes
<b>Shutter speeds</b>	1/8000 to 30 s in steps of 1/3, 1/2 or 1 EV, bulb, time, X250	1/8000 to 30 s in steps of 1/3, 1/2 or 1 EV, bulb, time, X250	1/4000 to 30 s in steps of 1/3 or 1/2 EV, bulb, time, X200
<b>Movie quality, frame size and frame rate</b>			
<b>4K UHD/30p recording</b>	Yes (Full frame)	Yes (Crop)	No
<b>Full HD recording frame rates</b>	60p, 50p, 30p, 25p and 24p	60p, 50p, 30p, 25p and 24p	60p, 50p, 30p, 25p and 24p
<b>Image area options</b>	FX- and DX-based movie formats	4K UHD: 3840 × 2160 crop Full HD: FX- and DX-based movie formats, and 1980 × 1080 crop	FX- and DX-based movie formats
<b>In-camera slow motion</b>	30p/25p × 4 and 24p × 5 At Full HD in DX-based format	No	No
<b>In-camera time-lapse movie</b>	4K UHD and Full HD	4K UHD and Full HD	Full HD
<b>Movie image quality</b>			
<b>ISO sensitivity range</b>	ISO 64 to 25600 Expandable up to ISO 102400	ISO 100 to 102400 Expandable up to ISO 3280000	ISO 100 to 12800 Expandable up to ISO 51200
<b>Auto ISO control in M mode</b>	Yes	Yes	Yes
<b>Highlight-weighted metering</b>	Yes	Yes	Yes
<b>Active D-Lighting for movies</b>	Yes (Full HD)	No	No
<b>Movie operation</b>			
<b>Dedicated movie shooting menu</b>	Yes	Yes	Yes
<b>Highlight (zebra) display</b>	Yes 2 selectable zebra patterns Highlight brightness level adjustable	Yes	Yes
<b>Peaking display</b>	Yes	No	No
<b>Electronic VR</b>	Yes (Full HD)	Yes (Full HD)	No
<b>Power aperture control</b>	Yes	Yes	Yes
<b>File format</b>	MOV or MP4	MOV	MOV

\*4 With an EN-EL18b/EN-EL18a Rechargeable Li-ion Battery inserted in an MB-D18 Multi-Power Battery Pack.

\*5 With mirror up.



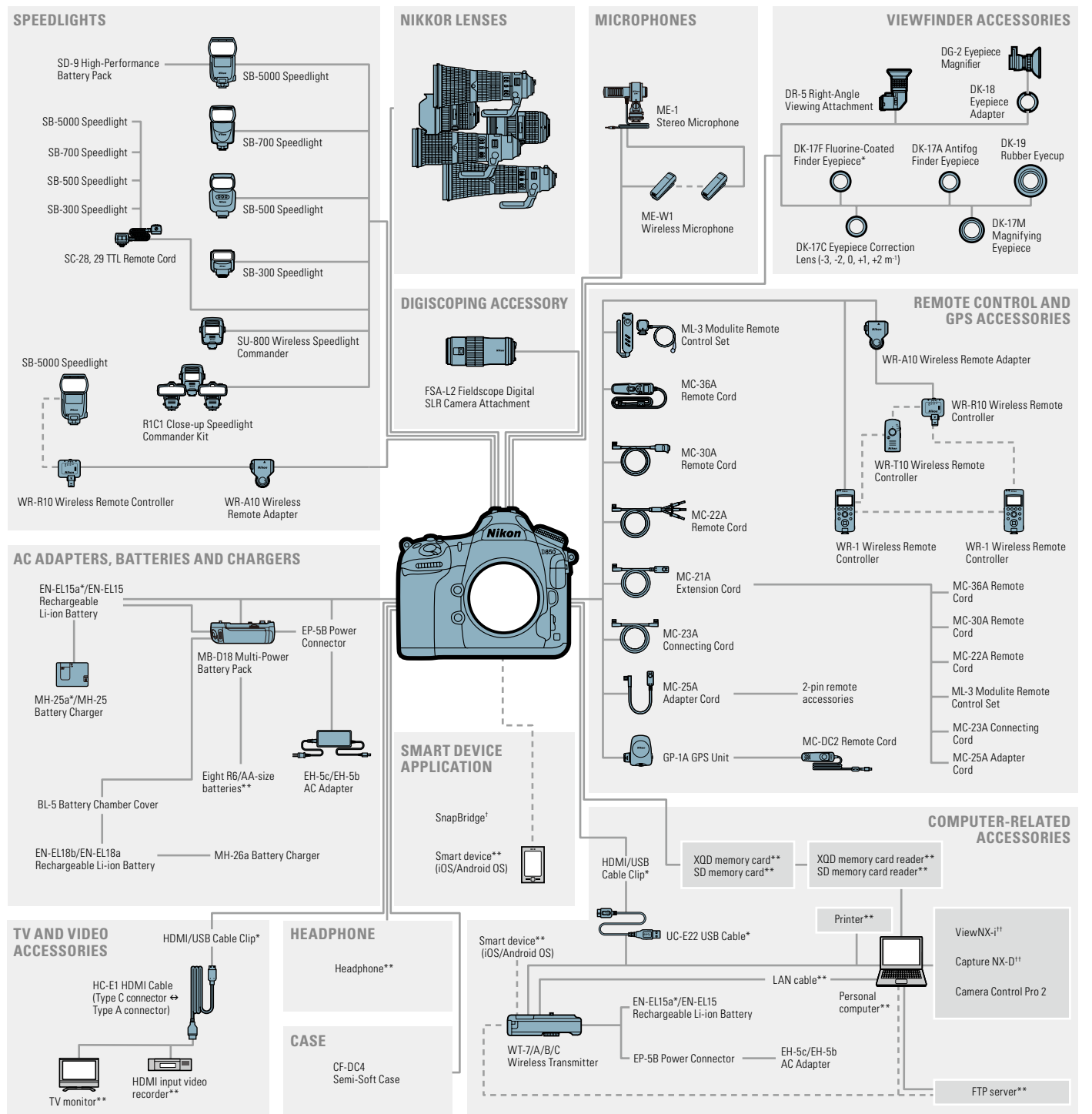
	D850	D5	D750
<b>Movie audio recording</b>			
<b>Attenuator</b>	Yes	No	No
<b>Audio recording format</b>	Linear PCM or AAC	Linear PCM	Linear PCM
<b>Selectable audio frequency range</b>	Wide or voice	Wide or voice	Wide or voice
<b>Image viewing</b>			
<b>Optical viewfinder magnification*6</b>	0.75x	0.72x	0.7x
<b>Image monitor</b>	3.2 in. 2359k dot	3.2 in. 2359k dot	3.2 in. 1229k dot
<b>Tilting screen</b>	Yes	No	Yes
<b>Touch-screen function</b>	Yes (including fully touch-operable menu screens and <b>z</b> button menu and touch shutter release)	Yes	No
<b>Advanced features</b>			
<b>Minimum interval for interval-timer photography</b>	0.5 s	0.5 s	1 s
<b>Multiple exposure modes</b>	Add, average, lighten overlay and darken overlay	Add, average, lighten overlay and darken overlay	Auto gain on and off
<b>Focus shift photography</b>	Yes	No	No
<b>1x1 image area</b>	Yes	No	No
<b>Negative digitizer</b>	Yes	No	No
<b>Camera handling</b>			
<b>Button illumination</b>	Yes	Yes	No
<b>Sub-selector</b>	Yes	Yes	No
<b>Fn buttons</b>	2	3	1
<b>Memory card slots</b>	SD + XQD	2 × XQD or 2 × CF	2 × SD
<b>Shutter durability</b>	200,000 cycles	400,000 cycles	150,000 cycles
<b>Multi-Power Battery Pack</b>	MB-D18	No	MB-D16
<b>Speedlight control</b>			
<b>Built-in flash</b>	No	No	Yes
<b>Radio-controlled Advanced Wireless Lighting compatibility</b>	Yes	Yes	No
<b>Network communication</b>			
<b>Wired and Wireless LAN</b>	With WT-7/A/B/C Wireless Transmitter	With WT-6/A/B/C or WT-5/A/B/C Wireless Transmitter	With WT-7/A/B/C or WT-5/A/B/C/D Wireless Transmitter
<b>Built-in Wi-Fi (SnapBridge)</b>	Yes	No	Yes
<b>Built-in Bluetooth (SnapBridge)</b>	Yes	No	No
<b>Size &amp; weight</b>			
<b>Dimensions</b>	Approx. 146 × 124 × 78.5 mm/ 5.8 × 4.9 × 3.1 in.	Approx. 160 × 158.5 × 92 mm/ 6.3 × 6.3 × 3.7 in.	Approx. 140.5 × 113 × 78 mm/ 5.6 × 4.5 × 3.1 in.
<b>Weight</b>	Approx. 1005 g/2 lb 3.5 oz*7	XQD-type: Approx. 1405 g/3 lb 1.6 oz*8 CF-type: Approx. 1415 g/3 lb 1.9 oz*8	Approx. 840 g/1 lb 13.7 oz*9

\*6 50mm f/1.4 lens at infinity, -1.0 m<sup>-1</sup>.

\*7 With battery and an XQD card but without body cap.

\*8 With battery and 2 XQD/CF cards but without body cap and accessory shoe cover.

\*9 With battery and a memory card but without body cap.



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



Type of camera	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts)
Effective angle of view	Nikon FX format
Effective pixels	45.7 million
Image sensor	35.9 × 23.9 mm CMOS sensor
Total pixels	46.89 million
Dust-reduction system	Image sensor cleaning, Image Dust Off reference data (Capture NX-D software required)
Image size (pixels)	• FX (36×24) image area: 8256 × 5504 (L: 45.4 million), 6192 × 4128 (M: 25.5 million), 4128 × 2752 (S: 11.3 million) • 1.2× (30×20) image area: 6880 × 4584 (L: 31.5 million), 5152 × 3432 (M: 17.6 million), 3440 × 2288 (S: 7.8 million) • DX (24×16) image area: 5408 × 3600 (L: 19.4 million), 4048 × 2696 (M: 10.9 million), 2704 × 1800 (S: 4.8 million) • 5 : 4 (30×24) image area: 6880 × 5504 (L: 37.8 million), 5152 × 4120 (M: 21.2 million), 3440 × 2752 (S: 9.4 million) • 1 : 1 (24×24) image area: 5504 × 5504 (L: 30.2 million), 4128 × 4128 (M: 17.0 million), 2752 × 2752 (S: 7.5 million) • FX-format photographs taken during movie recording: 8256 × 4640 (L: 38.3 million), 6192 × 3480 (M: 21.5 million), 4128 × 2320 (S: 9.5 million) • DX-format photographs taken during movie recording: 5408 × 3040 (L: 16.4 million), 4048 × 2722 (M: 9.1 million), 2704 × 1520 (S: 4.1 million)
File format	• NEF (RAW): 12 or 14 bit (lossless compressed, compressed or uncompressed), large, medium and small available (medium and small images are recorded at a bit depth of 12 bits using lossless compression) • TIFF (RGB) • JPEG: JPEG-Baseline compliant with fine (approx. 1 : 4), normal (approx. 1 : 8) or basic (approx. 1 : 16) compression; optimal quality compression available • NEF (RAW)+JPEG: Single photograph recorded in both NEF (RAW) and JPEG formats
Picture Control System	Auto, Standard, Neutral, Vivid, Monochrome, Portrait, Landscape, Flat; selected Picture Control can be modified; storage for custom Picture Controls
Storage media	XQD and SD (Secure Digital) and UHS-II compliant SDHC and SDXC memory cards
Dual card slots	Either card can be used for primary or backup storage or for separate storage of NEF (RAW) and JPEG images; pictures can be copied between cards
File system	DCF 2.0, Exif 2.31, PictBridge
Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame coverage	• FX (36×24): Approx. 100% horizontal and 100% vertical • 1.2× (30×20): Approx. 97% horizontal and 97% vertical • DX (24×16): Approx. 97% horizontal and 97% vertical • 5:4 (30×24): Approx. 97% horizontal and 100% vertical • 1:1 (24×24): Approx. 97% horizontal and 100% vertical
Magnification	Approx. 0.75× (50 mm f/1.4 lens at infinity, -1.0 m <sup>-1</sup> )
Eye point	17 mm (-1.0 m <sup>-1</sup> ; from center surface of viewfinder eyepiece lens)
Diopter adjustment	-3 to +1 m <sup>-1</sup>
Focusing screen	Type B BriteView Clear Matte Mark VIII screen with AF area brackets (framing grid can be displayed)
Reflex mirror	Quick return
Depth-of-field preview	Pressing Pv button stops lens aperture down to value selected by user (A and M modes) or by camera (P and S modes)
Lens aperture	Instant return, electronically controlled
Compatible lenses	Compatible with AF NIKKOR lenses, including type G, E and D lenses (some restrictions apply to PC lenses), and DX lenses (using DX [24×16] image area), AI-P NIKKOR lenses, and non-CPU AI lenses (exposure modes A and M only); IX-NIKKOR lenses, lenses for the F3AF, and non-AI lenses cannot be used The electronic rangefinder can be used with lenses that have a maximum aperture of f/5.6 or faster (the electronic rangefinder supports 15 focus points with lenses that have a maximum aperture of f/8 or faster, of which 9 points are available for selection)
Shutter type	Electronically controlled vertical-travel focal-plane mechanical shutter; electronic front-curtain shutter available in quiet shutter-release, quiet continuous shutter-release and mirror up release modes
Shutter speed	1/8000 to 30 s in steps of 1/3, 1/2 or 1 EV, bulb, time, X/250
Flash sync speed	X=1/250 s; synchronizes with shutter at 1/250 s or slower; auto FP high-speed sync supported
Release modes	S (single frame), C <sub>L</sub> (continuous low speed), C <sub>H</sub> (continuous high speed), Q (quiet shutter-release), Qc (quiet continuous shutter-release), Ⓞ (self-timer), MUP (mirror up)
Approximate frame advance rate	• With an EN-EL18b battery inserted in an MB-D18 battery pack C <sub>L</sub> : 1 to 8 fps, C <sub>H</sub> : 9 fps, Qc: 3 fps • Other power sources C <sub>L</sub> : 1 to 6 fps, C <sub>H</sub> : 7 fps, Qc: 3 fps
Self-timer	2 s, 5 s, 10 s, 20 s; 1 to 9 exposures at intervals of 0.5, 1, 2 or 3 s
Exposure metering system	TTL exposure metering using RGB sensor with approx. 180K (180,000) pixels
Exposure metering modes	• Matrix: 3D color matrix metering III (type G, E and D lenses); color matrix metering III (other CPU lenses); color matrix metering available with non-CPU lenses if user provides lens data • Center-weighted: Weight of 75% given to 12 mm circle in center of frame; diameter of circle can be changed to 8, 15 or 20 mm, or weighting can be based on average of entire frame (non-CPU lenses use 12-mm circle) • Spot: Meters 4 mm circle (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU lens is used) • Highlight-weighted: Available with type G, E and D lenses
Metering range	• Matrix or center-weighted metering: -3 to 20 EV • Spot metering: 2 to 20 EV (ISO 100, f/1.4 lens, 20°C/68°F)
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	ISO 64 to 25600 in steps of 1/3, 1/2 or 1 EV; can also be set to approx. 0.3, 0.5, 0.7 or 1 EV (ISO 32 equivalent) below ISO 64 or to approx. 0.3, 0.5, 0.7, 1 or 2 EV (ISO 102400 equivalent) above ISO 25600; auto ISO sensitivity control available
Active D-Lighting	Can be selected from auto, extra high, high, normal, low or off
Autofocus	Multi-CAM 20K autofocus sensor module with TTL phase detection, fine-tuning and 153 focus points (including 99 cross-type sensors and 15 sensors that support f/8), of which 55 (35 cross-type sensors and 9 f/8 sensors) are available for selection
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, 9-, 25-, 72- or 153-point dynamic-area AF, 3D-tracking, group-area AF, auto-area AF
Focus lock	Focus can be locked by pressing shutter-release button halfway (single-servo AF) or by pressing the center of the sub-selector
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
Flash compensation	-3 to +1 EV in increments of 1/3, 1/2 or 1 EV
Flash-ready indicator	Lights when optional flash unit is fully charged; flashes after flash is fired at full output
Accessory shoe	ISO 518 hot-shoe with sync and data contacts and safety lock
Nikon Creative Lighting System (CLS)	i-TTL flash control, radio-controlled Advanced Wireless Lighting, optical Advanced Wireless Lighting, modeling illumination, FV lock, color information communication, auto FP high-speed sync, AF-assist for multi-area AF, unified flash control
Sync terminal	ISO 519 sync terminal with locking thread
White balance	Auto (3 types), natural light auto, incandescent, fluorescent (7 types), direct sunlight, flash, cloudy, shade, preset manual (up to 6 values can be stored, spot white balance measurement available during live view), choose color temperature (2500 K to 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)
Live view AF-area modes	Face-priority AF, wide-area AF, normal-area AF, pinpoint AF, subject-tracking AF
Live view autofocus	Contrast-detect AF anywhere in frame (camera selects focus point automatically when face-priority AF or subject-tracking AF is selected)
Movie metering system	TTL exposure metering using main image sensor
Movie metering modes	Matrix, center-weighted or highlight-weighted
Frame size (pixels) and frame rate	• 3840 × 2160 (4K UHD); 30p (progressive), 25p, 24p • 1920 × 1080; 60p, 50p, 30p, 25p, 24p • 1280 × 720; 60p, 50p • 1920 × 1080 (slow-mo); 30p ×4, 25p ×4, 24p ×5 Actual frame rates for 60p, 50p, 30p, 25p and 24p are 59.94, 50, 29.97, 25 and 23.976 fps respectively; quality selection available at all sizes except 3840 × 2160 (when quality is fixed at ★) and 1920 × 1080 slow-mo (when quality is fixed at "normal")
File format	MOV, MP4
Video compression	H.264/MPEG-4 Advanced Video Coding
Audio recording format	Linear PCM, AAC
Audio recording device	Built-in stereo or external microphone; sensitivity adjustable
Movie ISO sensitivity (Recommended Exposure Index)	• Exposure modes P, S and A: Auto ISO sensitivity control (ISO 64 to Hi 2) with selectable upper limit • Exposure mode M: Auto ISO sensitivity control (ISO 64 to Hi 2) available with selectable upper limit; manual selection (ISO 64 to 25600 in steps of 1/3, 1/2 or 1 EV) with additional options available equivalent to approx. 0.3, 0.5, 0.7, 1 or 2 EV (ISO 102400 equivalent) above ISO 25600
Movie Active D-Lighting	Can be selected from same as photo settings, extra high, high, normal, low or off
Maximum movie recording 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, playback zoom cropping, movie playback, photo and/or movie slide shows, histogram display, highlights, photo information, location data display, picture rating and auto image rotation
USB	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 MC-30A/MC-36A Remote Cord, ML-3 Modulite Remote Control Set, WR-R10 (requires WR-A10 Wireless Remote Adapter) or WR-1 Wireless Remote Controller, GP-1/GP-1A GPS Unit
Wireless	• Standards: IEEE 802.11b, IEEE 802.11g • Operating frequency: 2412 to 2462 MHz (channels 1 to 11) • Maximum output power: 8.5 dBm (EIRP) • Authentication: Open system, WPA2-PSK
Bluetooth	• Communication protocols: Bluetooth Specification Version 4.1 • Operating frequency: 2402 to 2480 MHz (Bluetooth), 2402 to 2480 MHz (Bluetooth Low Energy)
Range (line of sight)	Approx. 10 m/32 ft without interference; range may vary with signal strength and presence or absence of obstacles
Supported languages	Arabic, Bengali, Bulgarian, Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Marathi, Norwegian, Persian, Polish, Portuguese (Portugal and Brazil), Romanian, Russian, Serbian, Spanish, Swedish, Tamil, Telugu, Thai, Turkish, Ukrainian, Vietnamese
Battery	One EN-EL15a/EN-EL15 Rechargeable Li-ion Battery
Battery pack	Optional MB-D18 Multi-Power Battery Pack with one EN-EL18b/EN-EL18a Rechargeable Li-ion Battery (available separately), one EN-EL15a/EN-EL15 Rechargeable Li-ion Battery or eight AA alkaline, Ni-MH or lithium batteries; a BL-5 Battery Chamber Cover is required when using EN-EL18b/EN-EL18a batteries
AC adapter	EH-5c/EH-5b AC Adapter, requires EP-5B Power Connector (available separately)
Tripod socket	1/4 in. (ISO 1222)
Dimensions (W × H × D)	Approx. 146 × 124 × 78.5 mm/5.8 × 4.9 × 3.1 in.
Weight	Approx. 1005 g/2 lb 3.5 oz with battery and XQD memory card but without body cap; approx. 915 g/2 lb 0.3 oz (camera body only)
Operating environment	Temperature: 0 to 40°C/32 to 104°F; humidity: 85% or less (no condensation)
Supplied accessories	EN-EL15a Rechargeable Li-ion Battery, MH-25a Battery Charger, DK-17F Fluorine-coated Body Eyepiece, UC-E22 USB Cable, HDMI/USB Cable Clip, AN-DC18 Strap, BF-1B Body Cap
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- 1 Shutter-release button
- 2 Power switch
- 3 Self-timer lamp
- 4 Lens mount
- 5 Mirror
- 6 Meter coupling lever
- 7 Bracketing button
- 8 Lens mounting mark
- 9 Flash sync terminal cover
- 10 Ten-pin remote terminal cover
- 11 Lens release button
- 12 AF-mode button
- 13 Focus-mode selector
- 14 Fn1 button
- 15 Pv button
- 16 Sub-command dial
- 17 Playback button
- 18 Delete button/Format button
- 19 Eyepiece shutter lever

- 20 Viewfinder
- 21 Viewfinder eyepiece
- 22 Speaker
- 23 Sub-selector
- 24 AF-ON button
- 25 Main command dial
- 26 Multi selector
- 27 Memory card slot cover
- 28 Focus selector lock
- 29 Info button
- 30 Live view selector
- 31 Live view button
- 32 **i** button
- 33 Memory card access lamp
- 34 Tilting monitor
- 35 Fn2 button
- 36 OK button
- 37 Playback zoom out button/Thumbnail button/Flash mode button/Flash compensation button

- 38 Playback zoom in button
- 39 Protect button/Picture Control button/Help button
- 40 Menu button
- 41 Release mode dial lock release
- 42 Image quality button/Image size button
- 43 Metering button
- 44 Stereo microphone
- 45 Control panel
- 46 Movie-record button
- 47 ISO sensitivity button/Format button
- 48 Exposure compensation button/Two-button reset button
- 49 Eyelet for camera strap
- 50 Diopter adjustment control
- 51 Focal plane mark
- 52 Accessory shoe (for optional flash unit)

- 53 Release mode dial
- 54 Exposure mode button
- 55 White balance button
- 56 Battery-chamber cover latch
- 57 Battery-chamber cover
- 58 Power connector cover
- 59 Tripod socket
- 60 Contact cover for optional MB-D18 multi-power battery pack
- 61 Connector covers
- 62 Headphone connector
- 63 Connector for external microphone
- 64 USB connector
- 65 HDMI connector



Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. August 2017

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**WARNING**

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



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