



P R E S S R E L E A S E

Nikon D3S Digital SLR Camera

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Redefine Impossible: expand ISO to 102,400

Sydney – Nikon Australia is pleased to announce the introduction of its newest FX-format digital SLR flagship for fast response and high light sensitivity: the Nikon D3S.

Standing on the shoulders of the world-renowned D3, the D3S takes the potential of Nikon's proprietary FX-format to incredible new levels designed to meet or exceed a professional's high standards. The D3S delivers ISO 200 to ISO 12,800 as standard, with the excellent noise control and wide dynamic range that the D3 is famous for. This provides photographers of any discipline with additional latitude to achieve quality images in most lighting situations.

When needed, ISO sensitivity can be expanded from Lo 1 (ISO 100 equivalent) up to Hi 3 (ISO 102,400 equivalent), making a significant difference in extremely low-lit shooting scenarios and other situations where faster shutter speeds or more depth-of-field is required.

In a first for an FX-format flagship, the D3S incorporates the HD-quality D-Movie function, letting users take full advantage of the wide dynamic range and high ISO performance, including the breakthrough High Sensitivity Movie mode. The D3S's D-Movie also offers compatibility with an external stereo recording microphone, as well as convenient in-camera editing functions such as the ability to select the starting and ending points in order to trim D-Movie footage, as well as the ability to save selected movie frames as JPEGs.

The flagship shoots approximately 9 frames-per-second high-speed continuous shooting in FX-format and 11 fps in DX-format, with a buffer twice the size of the D3. These features, along with a 0.04-second* shutter release time lag and improved AF accuracy work seamlessly for lightning-fast responses. Various improvements in ergonomics, operation, and reliability, such as image sensor cleaning, will help photographers focus on shooting under any conditions.

When combined with state-of-the-art NIKKOR lenses and the Nikon Total Imaging System, which includes Nikon Speedlights, wireless transmitters and various software, the D3S delivers exceptional quality and versatility for an unprecedented variety of professional and personal assignments.

* Based on CIPA Guidelines.

Nikon D3S Feature Highlights

ISO performance: ISO 12,800 as standard, expandable to ISO equivalent of 102,400 (Hi 3)

Professional photographers can now rely on ISO 200 to ISO 12,800 as the professional standard of image quality for their assignments — an incredible advantage when shooting indoor sports, stadium events at night, dimly-lit spot news or any other shooting situation where light is limited and Speedlights are not applicable. Shooting at ISOs as high as 12,800, the D3S can take commercial-quality, tack-sharp images in low light at action-freezing shutter speeds — a capability that will open a new world of photographic opportunities. When needed, the D3S expands to the amazing ISO equivalent of 102,400, still revealing colours and details even in extremely low-lit places where human eyes may find it difficult to discern objects. This exceptional low-noise performance also applies to D-Movie capture, which creates new potential for multimedia projects and assignments.

Large pixel pitch: the 12.1-megapixel FX-format advantage

The D3S's image sensor has been completely redesigned from the one found in the amazing D3. This new sensor's inner structure



has been further optimized, with the pixel count and large pixel pitch maintained for even greater latitude in high ISO performance. As a result, the D3S captures and renders light in ways that no other ordinary digital SLR cameras have yet achieved, with a significantly higher signal-to-noise ratio and a wide dynamic range for unmatched image quality for both still images and movies throughout the broadened ISO sensitivity capabilities.

New and improved D-Movie function

From well-lit scenes to extremely low-lit situations, the D3S's D-Movie mode delivers unique versatility. The newly refined D-Movie offers HD quality (1,280 x 720 pixels) Motion-JPEG movies at 24 fps. By controlling the aperture from the widest f-stop to the smallest, the large FX-format sensor renders low-noise images with beautiful bokeh effects from a large selection of NIKKOR lenses. High-Sensitivity Movie mode allows users to shoot at up to ISO equivalent of 102,400 in places too dark to see clearly with their own eyes. D-Movie footage is easy to trim in-camera by simply selecting the starting and ending point. An extra bonus for sports and spot news photographers is the ability to save selected movie frames as JPEGs for immediate print and web publishing needs. The D3S has both an internal mono-aural microphone and an external stereo microphone input, enabling higher fidelity audio recording.

Image sensor cleaning: assured protection

Another important improvement from the D3 is the employment of the Image Sensor Cleaning function, which generates vibrations at four specific frequencies to optimize dust removal. This function can be set to operate automatically when the camera is turned on and off, or manually.

EXPEED: Nikon's comprehensive approach to quality digital images

Nikon's fast, comprehensive, and energy-efficient approach to in-camera image processing maintains the rich initial data's integrity through 14-bit A/D conversion and a 16-bit image-processing pipeline, which shows the enormous creative potential inherent in the NEF (Nikon Electronic Image Format). Combined with Nikon's FX-format sensor, the D3S produces an exceptional tonal range and minimised tone jumps. Users can expect more accuracy with difficult color combinations such as skin tones and strong reds in the same frame without over-saturation and finer tonal gradation in highlights, even with extremely bright subject matter.

Lateral chromatic aberration reduction: edge-to-edge sharpness

The D3S corrects colour fringes caused by chromatic aberrations that, in some instances, can appear at the edges between differing subject elements. Because lateral chromatic aberrations are corrected regardless of lens type — whether telephoto, wide-angle, non-CPU and other types of NIKKOR lenses — this important aspect of the D3S contributes substantially to the highly refined, edge-to-edge image integrity that professionals demand.

Active D-Lighting: rescuing tone in highlights and shadows

Nikon's Active D-Lighting automatically regulates the dynamic range of high-contrast scenes, pulling out shadow details and preserving highlights while maintaining proper contrast. The D3S allows photographers to choose from six Active D-Lighting settings, including the newly added Auto and Extra high, as well as High, Normal, Low and Off. You can also bracket Active D-Lighting strength levels up to five frames and select the best rendition afterwards.

Picture Control: custom-tailored tone and colour

Picture Control helps you define the look and feel of your images by custom-tailoring sharpness, saturation and other parameters to match your creative intentions. The D3S comes with four pre-installed Picture Control profiles, which can be fine-tuned and saved as new custom Picture Control profiles that match your personal shooting style or particular shooting conditions. These profiles can easily be copied to additional cameras.

Speed and readiness throughout the workflow

The D3S optimises workflow speed and fluidity throughout the entire shooting process. Start-up time is approx. 0.12 seconds* and release time lag is minimized to approx. 0.04 seconds*, exactly as fast as the D3, but the D3S's increased buffer memory is twice as large as that of the D3's. In addition, the D3S's autofocus, image processing, memory card access and recording, USB interface and optional wireless transmitter all work together to keep professional photographers focused and moving forward. And for sport and spot news photographers, many of the D3S's JPEG files are print-ready with little or no post-production: an extra edge when time is short.

* Based on CIPA Guidelines.

9-frames-per-second* shooting rate in FX-format, 11 fps* in DX crop

The D3S's continuous shooting rates are quite impressive, and what makes them truly unique is that the D3S's powerful stepping motor allows for a more steady delivery of fast continuous shooting speeds at a wider range of aperture settings than lesser cameras can claim. Professionals will now have greater control and fewer limitations when making the images they desire. With the DX crop, photographers can also add a 1.5x picture angle and a faster frame rate to their arsenal. Furthermore, the factory-installed buffer memory is twice the capacity of the D3, dramatically increasing the power of continuous shooting.

* Based on CIPA Guidelines.

Scene Recognition System: enlightened accuracy and intelligence

Nikon's exclusive 1,005-pixel RGB sensor precisely reads brightness and colour information to raise the overall accuracy of AF, AE, i-TTL flash control and auto white balance to new heights, thanks to the Scene Recognition System. The D3S's AF delivers superb

subject tracking and subject identification performance. Highlight analysis used for AE reproduces brightness faithful to what your eyes see, and light source identification makes auto white balance uniquely precise and reliable.

51-point AF: fast and accurate subject acquisition

The D3S's strategically positioned 51 AF points deliver faster focus, even with quick and/or erratic subject movement. The 15 cross-type sensors in the center of the frame maintain the same outstanding performance with any AF NIKKOR lens f/5.6 or faster. There are four Dynamic-area AF options, including 51 points (3D-tracking), which accurately follows your subject by shifting focus points using color and brightness information from the Scene Recognition System. This gives users an extra advantage when composition is important but your subject's movement is extremely erratic. Single-point and Auto-area AF modes are also available.

Sophisticated AE with highlight analysis

Nikon's exclusive 3D color matrix metering II is highly praised for its outstanding performance and faithful exposure results — even in complex, unforgiving lighting conditions. The D3S takes accurate exposure further, using highlight analysis from the Scene Recognition System and then carefully selecting from a database containing information from over 30,000 actual shooting situations.

Informed auto white balance

Leading professionals often note that Nikon's auto white balance exhibits remarkable results, even in challenging conditions with mixed light sources. With the D3S, auto white balance makes even further progress. Professionals can expect white as truly white in a wider variety of settings.

Approx. 100% frame coverage

The D3S's large prism gives you the FX-format visual advantage when you shoot. The viewfinder image is not only larger and brighter, but the focusing screen is also carefully designed to help you to more intuitively sense sharp focus, be it manual or autofocus.

Superior durability

For the reliability professionals demand, the shutter of the D3S has been tested for up to 300,000 cycles in fully assembled cameras under rigorous conditions. The ruggedly constructed D3S employs a strong yet lightweight magnesium alloy for its body, exterior cover, chassis and mirror box. Furthermore, a comprehensive series of O-rings and other specialized seals, combined with additional Nikon engineering, protect the D3S against invasive moisture, dust and even electromagnetic interference.

Twin CF card slots

The D3S lets you designate each card slot for certain tasks: record two full CF cards of data sequentially for a large amount of storage, record the same data onto two cards (backup), record RAW and JPEG simultaneously onto separate cards, and transfer data from one card to another. You can also designate the slot for data-heavy D-Movie recording.

Long-life battery

The D3S uses the EN-EL4a rechargeable batteries. Power consumption and power management systems have been engineered for greater operating efficiency, so you can expect long battery life, shooting up to 4,200 images* per charge.

* Based on CIPA Standards.

Easy-to-access Live View mode

The dedicated Live View button gives you instant access to two Live View modes: Tripod mode for accurate AF operation and Hand-held mode for more versatile shooting angles. The speed for Contrast-detect AF in Tripod mode has also been improved for enhanced practicality.

Quiet Shutter-release mode for nonintrusive shooting

Photographers can select "Q" on the release mode dial to substantially reduce the sound of the camera's mirror-down during shooting. This is particularly useful when shooting in restrictive conditions such as when photographing theatrical performances or wildlife.

3-in., approx. 921k-dot color, 170° viewing angle LCD monitor

The D3S's large, high-resolution LCD monitor delivers bright, crisp image playback with up to 27x enlargement for immediate and precise image confirmation. Each LCD is covered with scratch resistant tempered glass and individually calibrated and fine-tuned at the factory to deliver consistent performance.

Additional Nikon D3S Features

- Newly added image area of 1.2x crop (30 x 20) format with approx. 8.4 megapixels
- Multiple exposure operation that can be repeated by designating the function to the bracketing button
- Electronic virtual horizon that is available in Live View shooting
- Extended menu banks that stores up to four combinations of exposure mode, shutter speed and aperture value
- Versatile in-camera Retouch Menus, including RAW processing to enhance your images without using a computer

- Compatible with HDMI (High-Definition Multimedia Interface) output. Type C connector (mini size) is employed
- With the optional GPS Unit GP-1, location information such as latitude, longitude, altitude and time are automatically recorded to each image's EXIF data. The Time Adjustment feature, which adjusts your camera's time zone, is also available using the GP-1. Especially useful for group assignments that require several D3S cameras to be synchronized.
- Exclusive Nikon Software — Nikon Transfer and ViewNX software packages (supplied) for a range of basic photo browsing and editing operations; Capture NX 2, Camera Control Pro 2, and Image Authentication Software (all optional) enable more advanced operation and image editing.

Nikon Digital SLR Camera D3S Specifications

Type

Type	Single-lens reflex digital camera
Lens Mount	Nikon F mount (with AF coupling and AF contacts)
Picture Angle	Equivalent to angle produced by lens focal length (1.5 times when DX format is selected)

Effective Pixels

Effective Pixels	12.1 million
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Image Sensor

Image Sensor	CMOS sensor, 36.0 × 23.9 mm; Nikon FX format
Total Pixels	12.87 million
Dust-reduction System	Image Sensor Cleaning, Image Dust Off reference data (optional Capture NX 2 software required)

Storage

Image Size (pixels)

Image area	Large	Medium	Small
FX format (36×24)	4,256 × 2,832	3,184 × 2,120	2,128 × 1,416
1.2× (30×20)	3,552 × 2,368	2,656 × 1,776	1,776 × 1,184
DX format (24×16)	2,784 × 1,848	2,080 × 1,384	1,392 × 920
5:4 (30×24)	3,552 × 2,832	2,656 × 2,120	1,776 × 1,416

File Format	1) NEF (RAW): 12 or 14 bit, lossless compressed, compressed, or uncompressed, 2) TIFF (RGB), 3) JPEG: JPEG-Baseline compliant with fine (approx. 1:4), normal (approx. 1:8), or basic (approx. 1:16) compression (Size priority); Optimal quality compression available, 4) NEF (RAW) + JPEG: Single photograph recorded in both NEF (RAW) and JPEG formats
Picture Control System	Four setting options: Standard, Neutral, Vivid, Monochrome; each option can be adjusted
Storage Media	CompactFlash (Type I, compliant with UDMA)
Double Slot	Slot 2 can be used for overflow or backup storage or for separate storage of NEF (RAW) and JPEG images; pictures can be copied between cards
File System	Compliant with DCF 2.0, DPOF, Exif 2.21, and PictBridge

Viewfinder

Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame Coverage	FX (36×24): Approx. 100% (vertical/horizontal), 1.2× (30×20): Approx. 97% (vertical/horizontal), DX (24×16): Approx. 97% (vertical/horizontal), 5:4 (30×24): Approx. 100% (vertical) and approx.

	97% (horizontal)
Magnification	Approx. 0.7x (50mm f/1.4 lens at infinity; -1.0 m-1)
Eyepoint	18 mm (-1.0 m-1)
Diopter Adjustment	-3 to +1 m-1
Focusing Screen	Type B BriteView Clear Matte VI screen with AF area brackets
Reflex Mirror	Quick return
Depth-of-field Preview	When Pv (depth-of-field preview) button is pressed, lens aperture can be stopped down to value selected by user (A and M modes) or value selected by camera (P and S modes)
Lens Aperture	Instant return, electronically controlled
Lens	
Compatible Lenses	1) Type G or D AF NIKKOR*1: All functions supported (PC Micro-NIKKOR does not support some functions), 2) DX NIKKOR: All functions supported except FX-format (36x24)/1.2x (30x20)/5.4 (30x24) image size, 3) Other AF NIKKOR*2: All functions supported except 3D color matrix metering II, 4) AI-P NIKKOR: All functions supported except autofocus and 3D color matrix metering II, 5) Non-CPU: Can be used in exposure modes A and M; color matrix metering and aperture value display supported if user provides lens data (AI lenses only) Electronic rangefinder can be used if maximum aperture is f/5.6 or faster *1. IX- NIKKOR lenses cannot be used *2. Excluding AF- NIKKOR lenses for F3AF
Shutter	
Type	Electronically-controlled vertical-travel focal-plane shutter
Speed	1/8,000 to 30 s in steps of 1/3, 1/2 or 1 EV, bulb, X250
Flash Sync Speed	X = 1/250 s; flash synchronization at up to 1/250 s
Release	
Release Modes	Single frame, continuous low speed, continuous high speed, quiet shutter-release, self-timer, mirror up
Frame Advance Rate (CIPA Guidelines)	• DX (24x16): Up to approx. 9 fps (CL) or approx. 9 to 11 fps (CH) • Other image areas: Up to approx. 9 fps
Self-timer	Electronically controlled timer with duration of 2, 5, 10 or 20 s
Exposure	
Metering	TTL full-aperture exposure metering using 1,005-pixel RGB sensor
Metering System	1) Matrix: 3D color matrix metering II (type G and D lenses); color matrix metering II (other CPU lenses); color matrix metering (non-CPU lenses if user provides lens data) 2) Center-Weighted: Weight of 75% given to 12-mm circle in center of frame, diameter of circle can be changed to 8, 15 or 20 mm, or weighting can be based on average of entire frame (non-CPU lenses use 12-mm circle or average of entire frame) 3) Spot: Meters 4-mm circle (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU lens is used)
Metering Range	1) 0 to 20 EV (Matrix or center-weighted metering), 2) 2 to 20 EV (Spot metering) (ISO 100 equivalent, f/1.4 lens, at 20°C/68°F)
Exposure Meter Coupling	Combined CPU and AI

Exposure Modes	1) Programmed Auto (P) with flexible program, 2) Shutter-Priority Auto (S), 3) Aperture-Priority Auto (A), 4) Manual (M)
Exposure Compensation	±5 EV in increments of 1/3, 1/2 or 1 EV
Exposure Bracketing	2 to 9 frames in steps of 1/3, 1/2, 2/3 or 1 EV
Exposure Lock	Exposure locked at detected value with AE-L/AF-L button
ISO Sensitivity	ISO 200 to 12800 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 100 equivalent) below ISO 200 or to approx. 0.3, 0.5, 0.7, 1, 2 or 3 EV (ISO 102400 equivalent) above ISO 12800; auto ISO sensitivity control available
Active D-Lighting	Can be selected from [Auto], [Extra high], [High], [Normal], [Low] or [Off]
ADL Bracketing	2 frames using selected value for one frame or 3 to 5 frames using preset values for all frames
Focus	
Autofocus	Nikon Multi-CAM 3500FX autofocus sensor module with TTL phase detection; 51 focus points (including 15 cross-type sensors); AF fine tuning possible
Detection Range	-1 to +19 EV (ISO 100 at 20°C/68°F)
Lens Servo	1) Autofocus: Single-servo AF (S); Continuous-servo AF (C); predictive focus tracking automatically activated according to subject status, 2) Manual focus (M) with electronic rangefinder
Focus Point	Can be selected from 51 or 11 focus points
AF-area Mode	1) Single-point AF, 2) Dynamic-area AF [number of AF points: 9, 21, 51, 51 (3D-tracking)], 3) Auto-area AF
Focus Lock	Focus can be locked by pressing AE-L/AF-L button or by pressing shutter-release button halfway (Single-servo AF)
Flash	
Flash Control	1) TTL: i-TTL balanced fill-flash and standard i-TTL flash for digital SLR using 1,005-pixel RGB sensor are available with SB-900, 800, 600 or 400 2) Auto aperture (AA): Available with SB-900, 800 and CPU lens 3) Non-TTL auto (A): Available with SB-900, 800, 28, 27 or 22S 4) Range-priority manual (GN): Available with SB-900 and 800
Flash Modes	1) Front curtain sync, 2) Slow sync, 3) Rear-curtain sync, 4) Red-eye reduction, 5) Red-eye reduction with slow sync
Flash Bracketing	2 to 9 frames in steps of 1/3, 1/2, 2/3 or 1 EV
Flash-ready Indicator	Lights when Speedlight such as SB-900, SB-800, SB-600, SB-400, SB-80DX, SB-28DX or SB-50DX is fully charged; blinks after flash is fired at full output
Accessory Shoe	ISO 518 hot-shoe with sync and data contacts, and safety lock
Nikon Creative Lighting System (CLS)	Advanced Wireless Lighting supported with SB-900, SB-800 or SU-800 as commander and SB-900, SB-800, SB-600 or SB-R200 as remotes; Auto FP High-Speed Sync and modeling illumination supported with all CLS-compatible flash units except SB-400; Flash Color Information Communication and FV lock supported with all CLS-compatible flash units
Sync Terminal	ISO 519 sync terminal with locking thread
White Balance	

White Balance	Auto (TTL white balance with main image sensor and 1,005-pixel RGB sensor), Incandescent, Fluorescent (7 options), Direct Sunlight, Flash, Cloudy, Shade, preset manual (up to 5 values can be stored), and color temperature setting (2,500 K to 10,000 K), all with fine tuning
White Balance Bracketing	2 to 9 frames in steps of 1, 2 or 3
Live View	
Modes	Tripod, Hand-held
Autofocus	• Tripod: Contrast-detect AF anywhere in frame • Hand-held: TTL phase-detection AF with 51 focus points (including 15 cross-type sensors)
Flicker Reduction	50 Hz and 60 Hz
Movie	
Frame Size (pixels)	1,280 × 720/24 fps, 640 × 424/24 fps, 320 × 216/24 fps
File Format	AVI
Compression Format	Motion-JPEG
Audio	Microphone sensitivity can be adjusted
ISO Sensitivity	ISO 200 to 12800 (ISO 6400 to Hi 3 in high-sensitivity movie mode)
Monitor	
LCD Monitor	3-in., approx. 921k-dot (VGA), 170-degree wide-viewing-angle, 100% frame coverage, low-temperature polysilicon TFT LCD with brightness adjustment
Playback	
Playback Function	Full-frame and thumbnail (4, 9 or 72 images) playback with playback zoom, movie playback, slide show, histogram display, highlight display, auto image rotation, image comment (up to 36 characters), and voice memo input and playback
Interface	
USB	Hi-Speed USB
Video Output	NTSC or PAL; simultaneous playback from both the video output and on the LCD monitor available
HDMI Output	Type C HDMI connector; camera monitor turns off when HDMI cable is connected
Audio Input	Stereo mini-pin jack (3.5-mm diameter)
10-pin Remote Terminal	Can be used to connect optional remote control, GPS Unit GP-1 or GPS device compliant with NMEA 0183 version 2.01 and 3.01 (requires optional GPS Cable MC-35 and cable with D-sub 9-pin connector)
Supported Languages	
Supported Languages	Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Turkish
Power Source	
Battery	One Rechargeable Li-ion Battery EN-EL4a/EL4
AC Adapter	AC Adapter EH-6 (optional)
Tripod Socket	
Tripod Socket	1/4 in. (ISO 1222)
Dimensions/Weight	

Dimensions (W x H x D)	Approx. 159.5 x 157 x 87.5 mm/6.3 x 6.2 x 3.4 in.
Weight	Approx. 1,240 g/2 lb. 12 oz. without battery, memory card, body cap or accessory shoe cover
Operating Environment	
Temperature	0-40°C/32-104°F
Humidity	Under 85% (no condensation)
Accessories	
Supplied Accessories*	Rechargeable Li-ion Battery EN-EL4a, Quick Charger MH-22, USB Cable UC-E4, Audio Video Cable EG-D2, Camera Strap AN-DC5, Body Cap BF-1B, Accessory Shoe Cover BS-2, Eyepiece DK-17, Battery Chamber Cover BL-4, USB Cable Clip, Software Suite CD-ROM
	* Supplied accessories may differ depending on country or area
Main Optional Accessories	
	Wireless Transmitter WT-4A/B/C/D/E*, GPS Unit GP-1, Magnifying Eyepiece DK-17M, AC Adapter EH-6, Capture NX 2 Software, Camera Control Pro 2 Software, Image Authentication Software
	* Product name varies according to region, depending on local frequency channels available.

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