D3100™

BEAUTIFUL PICTURES. AMAZING MOVIES. INCREDIBLY EASY.

Nikon

At the heart of the image ™

D3100™

FEATURES

- **14.2 Megapixel DX-format CMOS Image Sensor**
  Delivers beautiful photographs and prints well beyond 20 x 30 inches

- **Includes 3x 18-55mm Zoom-NIKKOR VR Image Stabilization Lens**
  With legendary NIKKOR optical quality and fast, accurate autofocus for vivid color, striking contrast and crisp detail and VR image stabilization to ensure the sharpest hand-held pictures and movies

- **Full 1080p HD Cinematic Video with full-time autofocus and sound**
  Lets you record cinematic-quality movies in full 1080p HD format (1920 x 1080 pixels)

- **Compact and Lightweight Design**
  Beautifully styled—Ready to go wherever life takes you

- **Easy-To-Use—Featuring Nikon's Guide Mode**
  With intuitive controls and on-board assistance helping you take better pictures every step of the way

- **Split-second Shutter Response**
  Eliminates the frustration of shutter delay, capturing moments that other cameras miss

- **Fast 11-point AutoFocus System**
  Delivers razor-sharp pictures

- **ISO sensitivity 100-3200 expandable to ISO 12800 equivalent**
  Delivers exceptional results, even in the most challenging low-light situations

- **3-in. monitor with one-touch Live View shooting and movie capture**

- **Scene Auto Selector**
  Lets the D3100 decide the best mode to match the shooting situation when using Live View

- **EXPEED 2**
  Nikon's new image processing engine assures breathtakingly rich image quality, managing color, contrast, exposure, noise and speed

- **Scene Recognition System**
  In Live View automatically optimizes exposure, autofocus, and white balance, allowing you to obtain beautiful photos without the hassle of making complicated camera adjustments yourself

- **6 Automatic Exposure Scene Modes**
  Just set the Mode dial to Portrait, Landscape, Child, Sports, Close-up or Night Portrait for stunning results in otherwise challenging conditions

- **Active D-Lighting**

- **Picture Control**

- **Automatic Image Sensor Cleaning**

- **Built-in pop-up flash**

- **In-camera Image Editing**

Nikon Digital SLR Camera D3100 Specifications

Type

Type	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF contacts)
Effective angle of view	Approx. 1.5 x lens focal length (Nikon DX format)

Effective pixels

Effective pixels	14.2 million

Image sensor

Image sensor	23.1 x 15.4 mm CMOS sensor
Total pixels	14.8 million
Dust-reduction system	Image sensor cleaning, Airflow Control System, Image Dust Off reference data (optional Capture NX 2 software required)

Storage

Image size (pixels)	• 4,608 x 3,072 [L] • 3,456 x 2,304 [M] • 2,304 x 1,536 [S]
File format	• NEF (RAW) • JPEG: JPEG-Baseline compliant with fine (approx. 1:4), normal (approx. 1:8), or basic (approx. 1:16) compression • NEF (RAW) + JPEG: Single photograph recorded in both NEF (RAW) and JPEG formats
Picture Control System	Standard, Neutral, Vivid, Monochrome, Portrait, Landscape; selected Picture Control can be modified
Media	SD (Secure Digital), SDHC and SDXC memory cards
File system	DCF (Design Rule for Camera File System) 2.0, DPOF (Digital Print Order Format), Exif 2.21 (Exchangeable Image File Format for Digital Still Cameras), PictBridge

Viewfinder

Viewfinder	Eye-level pentamirror single-lens reflex viewfinder
Frame coverage	Approx. 95% horizontal and 95% vertical
Magnification	Approx. 0.8 x (50 mm f/1.4 lens at infinity, -1.0 m^{-1})
Eyepoint	18 mm (-1.0 m^{-1})
Diopter adjustment	-1.7 to +0.5 m^{-1}
Focusing screen	Type B BriteView Clear Matte Mark VII screen
Reflex mirror	Quick return
Lens aperture	Instant return, electronically controlled

Lens

Compatible lenses	• AF-S and AF-I: All functions supported. • Type G or D AF NIKKOR without built-in autofocus motor: All functions except autofocus supported. IX NIKKOR lenses not supported. • Other AF NIKKOR: All functions supported except autofocus and 3D color matrix metering II. Lenses for F3AF not supported. • Type D PC NIKKOR: All functions supported except autofocus and some shooting modes. • AI-P NIKKOR: All functions supported except autofocus and 3D color matrix metering II. • Non-CPU: Autofocus not supported. Can be used in exposure mode M, but exposure meter does not function. Note: Electronic rangefinder can be used if lens has a maximum aperture of f/5.6 or faster.

Shutter

Type	Electronically controlled vertical-travel focal-plane shutter
Speed	1/4000 to 30 s in steps of 1/3 EV, Bulb
Flash sync speed	X=1/200 s; synchronizes with shutter at 1/200 s or slower

Release

Release mode	Ⓢ (single frame), ▢ (continuous), ☉ (self-timer), ▣ (quiet shutter release)
Frame advance rate	Up to 3 fps (manual focus, mode M or S, shutter speed 1/250 s or faster, and other settings at default values)
Self-timer	2 s, 10 s

Exposure

Metering	TTL exposure metering using 420-pixel RGB sensor
Metering method	• Matrix: 3D color matrix metering II (type G and D lenses); color matrix metering II (other CPU lenses) • Center-weighted: Weight of 75% given to 8-mm circle in center of frame • Spot: Meters 3.5-mm circle (about 2.5% of frame) centered on selected focus point
Range (ISO 100, f/1.4 lens, 68°F/20°C)	• Matrix or center-weighted metering: 0 to 20 EV • Spot metering: 2 to 20 EV
Exposure meter coupling	CPU
Exposure modes	Auto modes (auto, auto [flash off]); scene modes (portrait; landscape; child; sports; close up; night portrait; 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 EV
Exposure lock	Luminosity locked at detected value with AE-L/AF-L button
ISO sensitivity (Recommended Exposure Index)	ISO 100 to 3200 in steps of 1 EV; can also be set to approx. 1 EV above ISO 3200 (ISO 6400 equivalent) or to approx. 2 EV above ISO 3200 (ISO 12800 equivalent); auto ISO sensitivity control available
Active D-Lighting	On, Off

Focus

Autofocus	Nikon Multi-CAM 1000 autofocus sensor module with TTL phase detection, 11 focus points (including one cross-type sensor), and AF-assist illuminator (range approx. 1 ft. 8 in. to 9 ft. 10 in.)
Detection range	-1 to +19 EV (ISO 100, 68°F/20°C)
Lens servo	• Autofocus (AF): Single-servo AF (AF-S); continuous-servo AF (AF-C); auto AF-S/AF-C selection (AF-A); predictive focus tracking activated automatically according to subject status • Manual focus (MF): Electronic rangefinder can be used
Focus point	Can be selected from 11 focus points
AF-area mode	Single-point AF, dynamic-area AF, auto-area AF, 3D-tracking (11 points)
Focus lock	Focus can be locked by pressing shutter-release button halfway (single-servo AF) or by pressing AE-L/AF-L button

Flash

Built-in flash	Auto, Portrait, Child, Close up, Night portrait: Auto flash with auto pop-up P, S, A, M: Manual pop-up with button release

Flash (continued)

Guide number	Approx. 39/12, 43/13 with manual flash (ft/m, ISO 100, 68°F/20°)
Flash control	• TTL: i-TTL balanced fill-flash and standard i-TTL flash for digital SLR using 420-pixel RGB sensor are available with built-in flash and SB-900, SB-800, SB-600, or SB-400 (i-TTL balanced fill-flash is available when matrix or center-weighted metering is selected) • Auto aperture: Available with SB-900/SB-800 and CPU lens • Non-TTL auto: Supported flash units include SB-900, SB-800, SB-80DX, SB-28DX, SB-28, SB-27, and SB-22S • Distance-priority manual: Available with SB-900 and SB-800
Flash mode	Auto, auto with red-eye reduction, fill-flash, auto slow sync, auto slow sync with red-eye correction, and rear curtain with slow sync
Flash compensation	-3 to +1 EV in increments of 1/3 EV
Flash-ready indicator	Lights when built-in flash or optional flash unit such as SB-900, SB-800, SB-600, SB-400, SB-80DX, SB-28DX, or SB-50DX is fully charged; blinks for 3 s 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; Flash Color Information Communication supported with built-in flash and all CLS-compatible flash units
Sync terminal	Sync Terminal Adapter AS-15 (available separately)

White balance

White balance	Auto, incandescent, fluorescent (7 types), direct sunlight, flash, cloudy, shade, preset manual, all except preset manual with fine tuning.

Live View

Lens servo	• Autofocus (AF): Single-servo AF (AF-S); full-time-servo AF (AF-F) • Manual focus (MF)
AF-area mode	Face-priority AF, wide-area AF, normal-area AF, subject-tracking AF
Autofocus	Contrast-detect AF anywhere in frame (camera selects focus point automatically when face-priority AF or subject-tracking AF is selected)
Scene Auto Selector	Available in auto and auto (flash off) modes

Movie

Metering	TTL exposure metering using main image sensor
Metering method	Matrix
Frame size (pixels) and frame rate	• 1,920 x 1,080 (24p): 24 fps (23.976 fps) • 1,280 x 720 (30p): 30 fps (29.97 fps) • 1,280 x 720 (25p): 25 fps • 1,280 x 720 (24p): 24 fps (23.976 fps) • 640 x 424 (24p): 24 fps (23.976 fps)
Maximum recording time	10 min.
File format	MOV
Video compression	H.264/MPEG-4 Advanced Video Coding
Audio recording format	Linear PCM
Audio recording device	Built-in monaural microphone

Monitor

LCD monitor	3-in., approx. 230 k-dot TFT LCD with brightness adjustment

Playback

Playback function	Full-frame and thumbnail (4, 9, or 72 images or calendar) playback with playback zoom, movie playback, slide show, histogram display, highlights, auto image rotation, and image comment (up to 36 characters)

Interface

USB	Hi-Speed USB
Video output	NTSC, PAL
HDMI output	Type C mini-pin HDMI connector
Accessory terminal	• Remote cord: MC-DC2 (available separately) • GPS unit: GP-1 (available separately)

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-EL14
AC adapter	AC Adapter EH-5a; requires Power Connector EP-5A (available separately)

Tripod socket

Tripod socket	1/4 in. (ISO 1222)

Dimensions / weight

Dimensions (W x H x D)	Approx. 4.9 x 3.8 x 2.9 in.
Weight	Approx. 1lb. (camera body only); 1 lb. 1.8 oz. with battery and memory card but without body cap

Operating environment

Temperature	32 to 104°F (0 to 40°C)
Humidity	Less than 85% (no condensation)

Accessories

Supplied accessories (may differ by country or area)	Rechargeable Li-ion Battery EN-EL14, Battery Charger MH-24, Eyepiece Cap DK-5, Rubber Eyecap DK-20, Camera Strap AN-DC3, Accessory Shoe Cover BS-1, Body Cap BF-1B, ViewNX 2 CD-ROM, Ferrite Core (2 types)

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