Type

1. **Type**

   Single-lens reflex digital camera

2. **Lens Mount**

   Nikon F mount (with AF coupling and AF contacts)

Image Sensor

1. **Effective Pixels (Megapixels)**

   20.8 million

2. **Sensor Size**

   35.9 mm
   x 23.9 mm

3. **Image Sensor Format**

   FX

4. **Image Sensor Type**

   CMOS

5. **Total Pixels**

   21.33 million

6. **Dust-Reduction System**

   Image sensor cleaning
   Image Dust Off reference data (optional Capture NX-D software required)

7. **Image Area (pixels)**

   FX-format
   (L) 5,568 x 3,712

   (M) 4,176 x 2,784

   (S) 2,784 x 1,856
   DX-format
   (L) 3,648 x 2,432

   (M) 2,736 x 1,824

   (S) 1,824 x 1,216
   1:2 format (30 x 20)
   (L) 4,640 x 3,088

   (M) 3,472 x 2,312

(S) 2,320 x 1,544
5:4 format (30 x 24)
(L) 4,640 x 3,712

(M) 3,472 x 2,784

(S) 2,320 x 1,856
1:1 format (24 x 24)
(L) 3,712 x 3,712

(M) 2,784 x 2,784

(S) 1,856 x 1,856
16:9 format (36 x 20)
(L) 5,568 x 3,128 (17.4 million)

(M) 4,176 x 2,344 (9.8 million)

(S) 2,784 x 1,560 (4.3 million)
Photographs taken during movie recording at a frame size of 3,840 x 2,160: 3,840 x 2,160
Photographs taken during movie recording at a frame size of 1,920 x 1,080: 1,920 x 1,080
Photographs taken during movie recording at a frame size of 1,280 x 720: 1,280 x 720

File System

1. **File Format Still Images**

   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
   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)
   NEF (RAW) + JPEG: single photograph recorded in both NEF (RAW) and JPEG Formats

2. **Storage Media**

   CFexpress (Type B)
   XQD Type Memory

3. **Card Slot**

   2 CFexpress (Type B) cards or 2 XQD memory type cards
   The card in Slot 2 can be used for overflow or backup storage, for separate storage of NEF (RAW) and JPEG copies of photos taken at image quality settings of NEF (RAW) + JPEG, or to store separate copies of JPEG photos at different sizes and compression ratios; pictures can be copied between cards

4. **File System**

   Compliant with DCF (Design Rule for Camera File System) 2.0
   EXIF 2.31 (Exchangeable Image File Format for Digital Still Cameras)

Viewfinder

1. **Viewfinder**

   Eye-level Pentaprism Single-Lens Reflex Viewfinder

2. **Viewfinder Frame Coverage**

   FX (36x24): 100% horizontal and 100% vertical (Approx.)
   1.2x (30x20): 97% horizontal and 97% vertical (Approx.)
   DX (24x16): 97% horizontal and 97% vertical (Approx.)
   5:4 (30x24): 97% horizontal and 100% vertical (Approx.)
   1:1 (24x24): 95% horizontal and 100% vertical (Approx.)
   16:9 (36x20): 100% horizontal and 96% vertical (Approx.)

3. **Viewfinder Magnification**

   0.72x (50 mm f/1.4 lens at infinity, –1.0 m–1) (Approx.)

4. **Viewfinder Eyepoint**

   17 mm (-1.0 m^{-1}) from center surface of viewfinder eyepiece lens

5. **Viewfinder Diopter Adjustment**

   -3 to + 1m^{-1}

6. **Focusing Screen**

   Type B BriteView Clear Matte Mark X screen with Af area brackets; framing grid can be displayed

7. **Reflex Mirror**

   Quick-return type

8. **Mirror Lock Up**

   Yes

Lens

1. **Lens Aperture**

   Instant-return type
   Electronically controlled

2. **Compatible Lenses**

   AI-P NIKKOR lenses
   DX lenses (using [DX 24 x 16] image area)
   Non-CPU AI lenses (modes A and M only)
   Other AF NIKKOR lenses (excluding IX NIKKOR lenses and lenses for the F3AF)
   Types G, E, and D (some restrictions apply to PC lenses)
   During viewfinder photography, the electronic rangefinder can be used with lenses that have a maximum aperture of f/5.6 or faster. With lenses that have a maximum aperture of f/8 or faster, the electronic rangefinder supports 15 focus points.

Shutter

1. **Shutter Type**

Electronically controlled vertical-travel focal-plane mechanical shutter
Electronic front-curtain shutter
Electronic shutter

2. **Shutter Speed**

   1/8000 to 30 sec. in steps of 1/3, 1/2, and 1 EV, extendable to 900 sec. in mode M; Bulb; Time; X250

3. **Flash Sync Speed**

   Up to 1/250 sec.
   Synchronizes with shutter at 1/250 sec. or slower
   Auto FP High-Speed sync supported

4. **Top Continuous Shooting Speed at Full Resolution**

   14 frames per second

5. **Self-Timer**

   2, 5, 10, 20 sec.; 1 to 9 exposures at intervals of 0.5, 1, 2, or 3 sec.
   Timer duration electronically controlled

Exposure

1. **Exposure Metering System**

   TTL exposure metering using 180,000-pixel RGB sensor
   Live view: TTL exposure metering performed by image sensor

2. **Metering Method**

   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 and AF-S Fisheye NIKKOR 8-15mm f/3.5- 4.5E ED lenses use 12-mm circle)
   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
   Spot: Meters circle approximately 4 mm in diameter (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU or AF-S Fisheye NIKKOR 8-15mm f/3.5-4.5E ED lens is used)
   Highlight-weighted: Available with type G, E, and D lenses

3. **Metering Range**

   -3 ± 20 EV (Matrix or center-weighted metering)
   2 to 20 EV (spot metering)
   0 to 20 EV (highlight-weighted metering)
   Figures are for ISO 100 and f/1.4 lens at 20 °C/68 °F

4. **Exposure Meter Coupling**

   Combined CPU and AI

5. **Exposure Modes**

Aperture-Priority Auto (A)
Manual (M)
Programmed Auto with flexible Program (P)
Shutter-Priority Auto (S)

6. **Exposure Compensation**

   ±5 EV in increments of 1/3, 1/2 or 1 EV

7. **Exposure Lock**

   Luminosity locked at detected value

8. **Picture Control**

   Auto
   Creative Picture Controls (Dream, Morning, Pop, Sunday, Somber, Dramatic, Silence, Bleached, Melancholic, Pure, Denim, Toy, Sepia, Blue, Red, Pink, Charcoal, Graphite, Binary, Carbon)
   Flat
   Landscape
   Monochrome
   Neutral
   Portrait
   Standard
   Vivid
   Selected Picture Control can be modified
   Storage for custom Picture Controls

Sensitivity

1. **ISO Sensitivity**

   ISO 100 -
   102,400
   Choose from step sizes of 1/3, 1/2, and 1 EV
   Can also be set to approx. 0.3, 0.5, 0.7, or 1 EV (ISO 50 equivalent) below ISO 100 or to approx. 0.3, 0.5, 0.7, 1, 2, 3, 4, or 5 EV (ISO 3,280,000 equivalent) above ISO 102,400; auto ISO sensitivity control available

2. **Active D-Lighting**

   Can be selected from:
   Extra High
   High
   Normal
   Low
   Off

Focus/Autofocus

1. **Detection Range**

   -4.5 to +20 EV (ISO 100, 68°F/20°C)

2. **Lens Servo**

Autofocus (AF): Single-servo AF (AF-S); Continuous-servo AF (AF-C); predictive focus tracking activated automatically according to subject status full-time AF (AF-F; available only during live view and movie recording)
Manual focus (MF): Electronic rangefinder can be used

3. **AF-Area Mode**

   Viewfinder photography: Single-point AF; 9, 25, 49, or 105-point dynamic-area AF; 3D-tracking; group-area AF; group-area AF (C1); group-area AF (C2); auto-area AF
   Live view: face-detection AF, wide-area AF, normal area AF, subject-tracking AF

4. **Focus Lock**

   Focus can be locked by pressing shutter-release button halfway (single-servo AF/AF-S) or by pressing the center of the sub-selector

Flash

1. **Flash Control**

   TTL: i-TTL flash control using RGB sensor with approximately 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

2. **Flash Compensation**

   -3 to +1 EV in increments of 1/3, 1/2 or 1 EV

3. **Flash-ready Indicator**

   Lights when optional flash unit is fully charged; flashes after flash is fired at full output

4. **Accessory Shoe**

   ISO 518 hot-shoe with sync and data contacts and safety lock

5. **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 (viewfinder photography), unified flash control

White Balance

1. **White Balance**

   Auto (3 types)
   Choose color temperature (2500K to 10000K)
   Cloudy
   Direct Sunlight
   Flash
   Fluorescent (7 types)
   Incandescent
   Natural Light Auto
   Preset manual (up to 6 values can be stored, spot white balance measurement available during live view)

Shade
All except choose color temperature with fine-tuning

2. **White Balance Bracketing**

   Yes

Movie

1. **Movie Metering**

   TTL exposure metering using main image sensor

2. **Movie File Format**

   MOV
   MP4

3. **Movie Video Compression**

   H.264/MPEG-4 Advanced Video Coding

4. **Movie Audio Recording Format**

   Linear PCM
   AAC

5. **Movie**

   4K UHD 3,840x2,160 / 30 fps
   4K UHD 3,840x2,160 / 25 fps
   4K UHD 3,840x2,160 / 24 fps
   Full HD 1,920x1,080 / 60 fps
   Full HD 1,920x1,080 / 50 fps
   Full HD 1,920x1,080 / 30 fps
   Full HD 1,920x1,080 / 25 fps
   Full HD 1,920x1,080 / 24 fps
   Full HD 1,920x1,080 crop / 60 fps
   Full HD 1,920x1,080 crop / 50 fps
   Full HD 1,920x1,080 crop / 30 fps
   Full HD 1,920x1,080 crop / 25 fps
   Full HD 1,920x1,080 crop / 24 fps
   HD 1,280x720 / 60 fps
   HD 1,280x720 / 50 fps
   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 3,840 x 2,160 when quality is fixed at (high)

6. **Movie Audio**

   Built-in stereo or external microphone with attenuator option; sensitivity adjustable

Monitor

1. **Monitor Size**

   3.2 in. diagonal

2. **Monitor Resolution**

   2,359,000 Dots

3. **Monitor Type**

   TFT touch-sensitive LCD

Playback

1. **Playback Functions**

   Auto Image Rotation
   Full-frame and thumbnail (4, 9, or 72 images)
   Highlights
   Histogram Display
   Index Marking
   IPTC information embedding and display
   Location Display
   Movie Playback
   Movie Slideshow
   Photo Information
   Photo Slideshow
   Picture Rating
   Playback with Playback Zoom
   Playback Zoom Cropping
   Voice Memo

2. **Voice Memo Function**

   Yes

Interface

1. **Interface**

   Type C USB (Super speed USB), type C HDMI, Stereo mini-pin audio input (microphone), Stereo mini-pin output (headphones), Ten pin remote port

2. **Wi-Fi Functionality**

   Standards: IEEE 802.11b/g/n/a/ac (Europe, U.S.A., Canada, Mexico)
   IEEE 802.11b/g/n/a (other countries in the Americas)
   IEEE 802.11b/g/n (Africa, Asia, and Oceania)
   Operating frequency: 2412–2462 MHz (channel 11) and 5180–5825 MHz (U.S.A., Canada, Mexico)
   2412–2462 MHz (channel 11) and 5180–5805 MHz (other countries in the Americas)
   2412–2462 MHz (channel 11) and 5745–5805 MHz (Georgia)
   2412–2462 MHz (channel 11) and 5180–5320 MHz (other European countries)
   Maximum output power (EIRP): 2.4 GHz band: 6.8 dBm
   5 GHz band: 6.3 dBm (Georgia)
   5 GHz band: 9.3d Bm (other countries)
   Authentication: Open system, WPA2-PSK

3. **Ethernet Connector**

RJ-45 connector
Standards: IEEE 802.3ab (1000BASE-T)/IEEE 802.3u (100BASE-TX)/IEEE 802.3 (10BASE-T)
Data rates*: 10/100/1000 Mbps with auto detect
Port: 1000BASE-T/100BASE-TX/10BASE-T (AUTOMDIX)
**Maximum logical data rates according to IEEE standard; actual rates may differ.*

4. **Peripheral Connector**

   For WT-6

5. **Smart Device App Connectivity**

   SnapBridge

6. **Bluetooth**

   Yes
   Communication protocols: Bluetooth Specification Version 4.2
   Operating frequency: Bluetooth: 2402–2480 MHz
   Bluetooth Low Energy: 2402–2480 MHz
   Maximum output power (EIRP):
   Bluetooth: 1.3 dBm
   Bluetooth Low Energy: -0.2 dBm

7. **GPS**

   Receiving frequency: 1575.42 MHz (C/A code)
   Geodesics: WGS 84

8. **Supported GNS Systems**

   GPS (USA)
   GLONASS (Russia)
   QZSS (Japan)

9. **Data Acquired**

   Latitude, longitude, altitude, UTC (Universal Coordinated Time)

10. **Clock Synchronization**

    Camera clock can be set to time acquired via GNSS

11. **Track Logs**

    NMEA-compliant

12. **Log Interval**

    15 sec., 30 sec., 1 min., 2 min., 5 min.

13. **Maximum Log Recording Time**

    6, 12, or 24 hours

14. **Log Deletion**

    Supported

Menus

1. **Supported Languages**

   The languages available vary with the country or region in which the camera was originally purchased.

Power

1. **Battery / Batteries**

   EN-EL18c Rechargeable Li-ion Battery
   EN-EL18b/EN-EL18a/EN-EL18 batteries can also be used. Note, however, that fewer pictures can be taken on a single charge with an EN-EL18 than with an EN-EL18c/EN-EL18b/EN-EL18a.

2. **Battery Life (shots per charge)**

   3,580 shots (CIPA)

   Movies: Approx. 105 minutes of HD footage
   Battery enables up to approx. 3,580 shots per charge in single-frame release mode or approx. 8,670 shots in continuous-release mode***
   **Based on CIPA Standards*
   ***Under Nikon's own test conditions*

3. **AC Adapter**

   EH-6c AC Adapter; requires EP-6 Power Connector (available separately)

4. **Battery Charger**

   MH-26a Quick Charger

Miscellaneous

1. **Tripod Socket**

   1/4 in. (ISO 1222)

2. **Approx. Dimensions (Width x Height x Depth)**

   6.3 in.
   (160 mm)
   x 6.5 in.
   (163 mm)
   x 3.7 in.
   (92 mm)

3. **Approx. Weight**

   44.8 oz.

(1,270 g)
camera body only

4. **Operating Environment**

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