Clifton Cameras Product Specification

Nikon D850 Body

Specifications

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 x 23.9 mm CMOS sensor

Total pixels: 46.57 million

Dust-reduction system: Image sensor cleaning, Image Dust Off reference data (Capture NX-D software required)

Image size (pixels):

FX (36x24) image area: 8256 x 5504 (L: 45.4 million), 6192 x 4128 (M: 25.5 million), 4128 x 2752 (S: 11.3 million)

1.2x (30x20) image area: 6880 x 4584 (L: 31.5 million), 5152 x 3432 (M: 17.6 million), 3440 x 2288 (S: 7.8 million)

DX (24x16) image area: 5408 x 3600 (L: 19.4 million), 4048 x 2696 (M: 10.9 million), 2704 x 1800 (S: 4.8 million)

5 : 4 (30x24) image area: 6880 x 5504 (L: 37.8 million), 5152 x 4120 (M: 21.2 million), 3440 x 2752 (S: 9.4 million)

1 : 1 (24x24) image area: 5504 x 5504 (L: 30.2 million), 4128 x 4128 (M: 17.0 million), 2752 x 2752 (S: 7.5 million)

FX-format photographs taken during movie recording: 8256 x 4640 (L: 38.3 million), 6192 Å~ 3480 (M: 21.5 million), 4128 x 2320 (S: 9.5 million)

DX-format photographs taken during movie recording: 5408 Å~ 3040 (L: 16.4 million), 4048 Å~ 2272 (M: 9.1 million), 2704 Å~ 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 (36x24): Approx. 100% horizontal and 100% vertical

       1.2x (30x20): Approx. 97% horizontal and 97% vertical

       DX (24x16): Approx. 97% horizontal and 97% vertical

       5:4 (30x24): Approx. 97% horizontal and 100% vertical

       1:1 (24x24): Approx. 97% horizontal and 100% vertical

Magnification: Approx. 0.75Å~ (50 mm f/1.4 lens at infinity, -1.0 m-1)

Eyepoint: 17 mm (-1.0 m-1; from center surface of viewfinder eyepiece lens)

Diopter adjustment: -3 to +1 m-1

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 (24Å~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 shutterrelease and mirror up release modes

Shutter speed: 1/8000 to 30 s in steps of 1/3, 1/2 or 1 EV, bulb, time, X250

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), Cl (continuous low speed), Ch (continuous high speed), Q (quiet shutterrelease), Qc (quiet continuous shutter-release), E (self-timer), Mup (mirror up)\

Approximate frame:

With an EN-EL18b battery inserted in an MB-D18 battery pack: advance rate CI: 1 to 8 fps, Ch: 9 fps, Qc: 3 fps

Other power sources: CI: 1 to 6 fps, Ch: 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, 20ÅãC/68ÅãF)

Highlight-weighted metering: 0 to 20 EV

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 (Recommended Exposure Index) 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, 20ÅãC/68ÅãF)

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 highlightweighted metering, standard i-TTL fill-flash for digital SLR with spot metering

Flash modes: Front-curtain sync, slow sync, rear-curtain sync, red-eye reduction, red-eye reduction with slow sync, slow rear-curtain sync, off

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: C (photo live view), 1 (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):

3840 x 2160 (4K UHD); 30p (progressive), 25p, 24p

1920 x 1080; 60p, 50p, 30p, 25p, and frame rate 24p

1280 x 720; 60p, 50p

1920 x 1080 (slow-mo); 30p x4, 25p x4, 24p x5

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 Å~ 2160 (when quality is fixed at H) and 1920 Å~ 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:

Exposure modes P, S and A: Auto ISO sensitivity control (ISO 64 to Hi 2) with (Recommended Exposure Index) 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 170Åã 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 Å~ H Å~ D) Approx. 146 Å~ 124 Å~ 78.5 mm/5.8 Å~ 4.9 Å~ 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 40ÅãC/32 to 104ÅãF; humidity: 85% or less (no condensation)

Supplied accessories: EN-EL15a Rechargeable Li-ion Battery, MH-25a Battery Charger, DK-17F Fluorine- (may differ by country or area) Coated Finder Eyepiece, UC-E22 USB Cable, HDMI/USB Cable Clip, AN-DC18 Strap, BF-1B Body Cap

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