

Specification sheet

Sensor

Sensor type

1.0-type (13.2 mm x 8.8 mm) Exmor R™ CMOS Sensor, aspect ratio 3:2

Number of Pixels (Effective)

Approx. 20.1 megapixels

Number of Pixels (Gross)

Approx. 20.9 megapixels

Lens

Lens type

ZEISS® Vario-Sonnar T* Lens, 10 elements in 9 groups (9 aspheric elements including AA lens)

F-number (Maximum Aperture)

F1.8 (W) – 2.8 (T)

ND-filter

Auto / On (3 steps) / Off

Focal length

f=8.8-25.7mm

ANGLE OF VIEW (35MM FORMAT EQUIVALENT) (STILL IMAGE)

84 deg-34 deg (24-70 mm²)³

Focus Range (From the Front of the Lens)

AF approx. 5cm to infinity (W), approx. 30cm to infinity (T)

Optical zoom

2.9x (Optical Zoom during movie recording)

Clear Image Zoom (Still Image)

Still images: approx. 5.8x, Movie: approx. 5.8x (*1)

Clear Image Zoom (Movie)

Approx. 5.8x

Digital Zoom (Still Image)

20M Approx. 11x / 10M Approx. 16x / 5M Approx. 23x / VGA Approx. 44x

Digital Zoom (Movie)

Approx. 11x

Aperture Type

7 blades

Digital Zoom

Still images: 20M approx. 11x, 10M approx. 16x, 5M approx. 23x, VGA approx. 44x, Movie: approx. 11x*1

Focal Length (f=) 35mm format equivalent

Still images 3:2: f=24-70mm, Still images 16:9 f=26-76mm, Still images 4:3: f=25-73mm, Still images 1:1 f=30.5-89mm, Movie 16:9: f=25.5-74mm (SteadyShot Standard), f=30-86mm (SteadyShot Active), f=33.5-95mm (SteadyShot Intelligent Active), Movie 4:3: f=31-90mm (SteadyShot Standard), f=37-105mm (SteadyShot Active), f=41-117mm (SteadyShot Intelligent Active)

LCD**Screen type**

7.5 cm (3.0 type)(4:3) / 1,228,800 dots / Xtra Fine / TFT LCD

Brightness Control

Auto/Manual (5 steps)

Adjustable Angle

Up: approx. 180 degrees, down: approx. 45 degrees

Display Selector (Finder/Lcd)

Auto/EVF

MF Assist Magnification

5.0x, 12.5x

Touch Panel

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Viewfinder

Viewfinder Screen Type/Number of Dots

0.39-type electronic viewfinder (OLED), 1,440,000 dots

Field Coverage

100%

Magnification

Approx. 0.59x with 50mm lens at infinity, -1m^{-1} (35mm equiv.)

Eye Point

Approx. 20mm from the eyepiece, 19.2mm from the eyepiece frame at -1m^{-1} (CIPA standard)

Dioptre Adjustment

-4.0 to $+3.0\text{m}^{-1}$

Brightness Control

Auto/Manual (5 steps)/Sunny Weather

Camera

Image Processing Engine

BIONZ™ X

SteadyShot

Still images: Optical, Movie: Intelligent Active Mode, Optical type with electronic compensation (Anti rolling)

Focus Type

Contrast detection AF

Focus Mode

Single-shot AF, Continuous AF, DMF, Manual Focus

Focus Area

Wide, Center, Flexible Spot (S/M/L), Lock on AF(Wide/Center/Flexible Spot(S/M/L))

LOCK ON AF

Yes

Light Metering Mode

Multi Pattern, Center Weighted, Spot

Exposure Compensation

+/- 3.0 EV, 1/3 EV step

ISO Sensitivity (Still Image)(Recommended Exposure Index)

Auto(ISO125-12800, selectable with upper/lower limit),
125/160/200/250/320/400/500/640/800/1000/1250/1600/2000/2500/3200/4000/5000/6400/
8000/10000/12800 (Extendable to ISO80/100), Multi-Frame NR: Auto(ISO125-12800),
200/400/800/1600/3200/6400/12800/25600*3, (*2)

ISO Sensitivity (Movie)

Auto:(ISO125Level-ISO12800Level, selectable with upper/lower limit),
125/160/200/250/320/400/500/640/800/1000/1250/1600/2000/2500/3200/4000/5000/6400/
8000/10000/12800

Minimum Illumination (Movie)

Auto: 1.2 lux(Shutter Speed 1/30")

White Balance Modes

Auto, Daylight, Shade, Cloudy, Incandescent, Fluor.: Warm White, Fluor.: Cool White, Fluor.: Day
White, Fluor.: Daylight, Flash, C.Temp., Filter, Custom

WB Micro Adjustment

G7-M7, A7-B7

Shutter Speed

iAuto (4-1/2000sec.), Program Auto (1-1/2000sec.), Manual (Bulb,30-1/2000sec.), Aperture
Priority (8-1/2000sec.), Shutter Priority (30-1/2000sec.)

Aperture

iAuto (F1.8/F11 (W)), Program Auto (F1.8/F11 (W)), Manual (F1.8/F11 (W)), Shutter Priority
(F1.8/F11 (W)), Aperture Priority (F1.8/F11 (W))

Image Control

Contrast, Saturation, Sharpness, Creative Style, Colour Space (sRGB/Adobe RGB), Quality
(RAW/RAW&JPEG/Extra fine/Fine/Standard)

Noise Reduction

Long exposure NR: On/off, available for shutter speeds longer than 1/3 sec. / High ISO NR:
High/Normal/Low/Multi Frame NR: Auto ISO200-25600

Dynamic Range Functions

Off, Dynamic Range Optimizer (Auto/Level 1-5), Auto High Dynamic Range: Off, Auto Exposure
Difference, Exposure difference Level (1.0-6.0EV, 1.0EV step)

Shooting Mode

Superior Auto, Intelligent Auto, Program Auto, Aperture Priority, Shutter Speed Priority, Manual Exposure, MR (Memory Recall) 1/2/3, Movie Mode (Program Auto, Aperture Priority, Shutter Speed Priority, Manual Exposure), Panorama, Scene Selection

Scene Selection

Portrait, Sports Action, Macro, Landscape, Sunset, Night Scene, Handheld Twilight, Night Portrait, Anti Motion Blur, Pet Mode, Gourmet, Fireworks, High Sensitivity

Continuous Shooting Speed (maximum) (with max. recording pixels)

Speed Priority Continuous Shooting: approx. 10 fps, Continuous Shooting: approx. 2.9 fps (AF-S)*5, (*4)

Self-Timer

Off, 10 sec., 2sec., 3 or 5 consecutive shots with 10 sec.delay selectable

Drive Modes

Single, Continuous shooting, Speed priority continuous shooting, Self-timer, Self-timer (cont.), Single-bracketing, Cont.-bracketing, White balance bracketing, DRO bracketing

Panorama (Shooting)

Sweep Panorama

Picture Effect

Still Image: Toy camera, Pop Colour, Posterization, Retro Photo, Soft High-key, Partial Colour, High Contrast Mono., Soft Focus, HDR Painting, Richtone Monochrome, Miniature, Watercolour, Illustration, Movie: Toy camera, Pop Colour, Posterization, Retro Photo, Soft High-key, Partial Colour, High Contrast Monochrome.

Creative Style

Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn Leaves, Black & White, Sepia, Style Box

Auto Image Rotation

Yes

Metering Type

1200-zone evaluative metering

Number of Recognised Scenes

Still images: Superior Auto: 44, Intelligent Auto: 33, Movie: 44

Minimum Illumination

Auto: 1.5lux (Shutter Speed 1/30 sec.)

Flash Red-Eye Correction

On/Off

Flash

Flash Mode

Auto, Flash On, Slow Synchro, Rear Sync, Flash Off

Flash type

Built-in, manual pop-up

AF Illuminator

Auto/Off

Bracketing

Yes

Flash Range

ISO Auto: approx. 0.4m to 10.2m (1.31 ft. to 33.46 ft.) (W), approx. 0.4m to 6.5m (1.31 ft. to 21.33 ft.) (T), ISO12800: up to approx. 20.4m (66.93 ft.) (W), approx. 13.0m (42.65 ft.) (T)

Recording

Compatible Recording Media

Memory Stick Duo™, Memory Stick PRO Duo™, Memory Stick PRO Duo™ (High Speed), Memory Stick PRO-HG Duo™, Memory Stick Micro™*7, Memory Stick Micro™ (Mark2)*7, Memory Stick XC-HG Duo™, SD Memory Card, SDHC Memory Card(UHS-I), SDXC Memory Card(UHS-I), microSD Memory Card*7, microSDHC Memory Card*7, microSDXC Memory Card*7, (*6)

Recording Format

Still images: JPEG, RAW (Sony ARW 2.3 format), Movie: XAVC S, AVCHD Ver. 2.0, MP4

Recording Format (Movie Audio)

XAVC S: LPCM 2ch, AVCHD: Dolby® Digital (AC-3) 2ch (Dolby® Digital Stereo Creator), MP4: MPEG-4 AAC-LC 2ch

Colour Space (Still)

sRGB, Adobe RGB

DCF/DPOF

DCF/DPOF/EXIF/MPF

Still Image Number of recorded pixels (Image Size)

3:2 mode: 20M (5,472 × 3,648) / 10M (3,888 × 2,592) / 5M (2,736 × 1,824), 4:3 mode: 18M (4,864 × 3,648) / 10M (3,648 × 2,736) / 5M (2,592 × 1,944) / VGA, 16:9 mode: 17M (5,472 × 3,080) / 7.5M (3,648 × 2,056) / 4.2M (2,720 × 1,528), 1:1 mode: 13M (3,648 × 3,648) / 6.5M (2,544 × 2,544) / 3.7M (1,920 × 1,920), Sweep Panorama: Wide (12,416 × 1,856/5,536 × 2,160), Standard (8,192 × 1,856/3,872 × 2,160)

Movie Recording Mode (NTSC)

NTSC/PAL Selector: [NTSC] AVCHD: 28M PS (1,920 × 1,080/60p) / 24M FX (1,920 × 1,080/60i) / 17M FH (1,920 × 1,080/60i) / 24M FX (1,920 × 1,080/24p) / 17M FH (1,920 × 1,080/24p), XAVC S: 60p 50M (1,920 × 1,080/60p)/30p 50M (1,920 × 1,080/30p)/24p 50M (1,920 × 1,080/24p)/120p 50M (1,280 × 720/120p)/ MP4: 12M (1,440 × 1,080/30fps) / 3M VGA (640 × 480/30fps)

Movie Recording Mode

AVCHD: 28M PS (1920x1080/60p) / 24M FX (1920x1080/60i) / 17M FH (1920x1080/60i) / 24M FX (1920x1080/24p) / 17M FH (1920x1080/24p), XAVC S: 60p 50M (1920x1080/60p) / 30p 50M (1920x1080/30p) / 24p 50M (1920x1080/24p) / 120p 50M (1280x720/120p) / MP4: 12M (1440x1080/30fps) / 3M VGA (640x480/30fps)

Number of Recording Pixels (Image Size)

3:2: 20M (5472 × 3648) / 10M (3888 × 2592) / 5M (2736 × 1824), 4:3 mode: 18M (4864 × 3648) / 10M (3648 × 2736) / 5M (2592 × 1944) / VGA, 16:9: 17M (5472 × 3080) / 7.5M (3648 × 2056) / 4.2M (2720 × 1528), 1:1: 13M (3648 × 3648) / 6.5M (2544 × 2544) / 3.7M (1920 × 1920), Sweep Panorama: Wide (12416 × 1856/5536 × 2160), Standard (8192 × 1856/3872 × 2160)

Interface

Input and output terminals

Multi/Micro USB Terminal*8, Hi-Speed USB (USB2.0), Micro HDMI

NFC

NFC forum Type 3 Tag compatible, One-touch remote, One-touch sharing

WI-FI

Yes (IEEE802.11 b/g/n (2.4 GHz band))

Interfaces

Yes

Power

Power Source

DC3.6V (supplied battery)/DC5.0V (supplied AC adaptor)

Battery System

Rechargeable Battery Pack NP-BX1 (supplied)

Power Consumption (Camera Mode)

Approx. 1.7W with LCD monitor and approx. 2.3W with viewfinder(CIPA standard)

USB Charge/USB Power Supply

Yes (Power supply during shooting/playback requires separately sold AC-UD10.)

BATTERY LIFE(STILL IMAGES)(CIPA)

Still images*9 Screen: approx. 320 / approx. 160 min., ViewFinder: approx. 230/ approx. 115min., Movies (actual shooting)*10*11 Screen: approx. 50 min., ViewFinder: approx. 50 min. (In [MP4 12M] mode, max. continuous shooting time is approx. 15 min. and max. file size is 2 GB), Movies (continuous shooting)*10*12 Screen: approx. 85 min., ViewFinder: approx. 90 min. (In [MP4 12M] mode max. continuous shooting time is approx. 15 min. and max. file size is 2 GB)

BATTERY LIFE(MOVIES ACTUAL SHOOTING)(CIPA)

Monitor: Approx. 50 min., ViewFinder: Approx. 50 min. (In [MP4 12M] mode, max. continuous shooting time is approx. 15 min. and max. file size is 2 GB)⁴⁵

BATTERY LIFE(MOVIES CONTINUOUS SHOOTING)(CIPA)

Monitor: Approx. 85 min., ViewFinder: Approx. 90 min. (In [MP4 12M] mode, max. continuous shooting time is approx. 15 min. and max. file size is 2 GB)⁴

Others

Playmemories Camera Apps

Yes *14

Photo Creativity

Yes

Shooting Functions

Eye AF, Face Detection, Face Registration, Smile Shutter, Quick Navi, Digital Level Gauge (pitch and roll), WB Bracketing, DRO Bracketing, MF Assist, Peaking, Zebra, Micref Level, Step Zoom, Self-portrait timer

Playback Functions

BRAVIA™ Sync, 9/25-frame index view, Auto orientation, Slide Show, Forward/Rewind (Movie), Delete, Protect, Motion Shot Video, Beauty Effect, TRILUMINOS Colour*13, 4K image output

TRILUMINOS Color

Yes⁶

4K image output

yes (still image only)

Operating Temperature

Approx. 0-40°C (32-104°F)

Print

Print

Exif Print, PRINT Image Matching (PIM3)

Size & Weight

DIMENSIONS (W X H X D) (APPROX.)

Approx. 101.6 x 58.1 x 41.0 mm

WEIGHT (CIPA COMPLIANT)

Approx. 263 g (Body only) / 290 g (with battery and Memory Stick Duo™)

Footnotes

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*1 Optical zoom from the wide side., *2REI=Recommended Exposure Index, *3Achieved by using overlay burst shooting., *4You may not be able to shoot images in Burst mode depending on the Shooting mode., *5 Speed will slow down after taking some shots.*6For movies, compatible Memory Stick PRO Duo (Mark2), Memory Stick PRO-HG Duo, Memory Stick XC-HG Duo, Memory Stick Micro (Mark2), SD/SDHC/SDXC memory card or microSD/microSDHC/microSDXC card (Class 4 or faster speed is recommended) can be used., *7 With Adaptor (optional)*8Supports Micro USB compatible device., *9 The LCD screen is turned on, shooting once every 30 seconds, the zoom is switched alternately between the W and T ends, the flash strobos once every two shots, the power turns on and off once every ten shots., *10 Continuous shooting is possible for approximately 29 minutes (limited by product specifications)., *11 Indicated recording time, which is defined by repeating the cycle: Power on, start recording, zoom, stand-by, power off., *12 Based on non-stop recording until the limit (29 minutes or 2 GB) has been reached, and then continued recording again. Shooting functions such as zoom will not be available., *13 Models capable of extended-gamut recording and HDMI transmission of both still images and movies., *14 Services vary by country.