

- Included items

   Rechargeable Battery DB-110

   USB Power Adapter

   Power Plug

   USB Cable I-USB166

   Handstrap

  Specifications

Lens	Lens Construction	6 elements in 4 groups (2 aspherical lens elements)				
	Focal Length, Aperture	18.3mm (Approx. 28mm in 35mm equivalent focal length), F2.8~F16				
Image Capture Unit Image Sensor		Type: Primary color filter CMOS. Size: 23.5mm x 15.6mm				
	Effective Pixels	Approx. 24.24 megapixels				
	Sensitivity (Standard output)	ISO100~102400: Auto (ISO Auto Lower/Upper Limit and Minimum Shutter Speed can be set), Manual:				
	Image Stabilization	Sensor-shift shake reduction (SR)(3-axis)				
	AA Filter Simulator	Moiré reduction using SR unit (Off, Low, High)				
	Dust Removal	Image sensor cleaning using ultrasonic vibrations "DR II"				
File Formats	Still Image	File Format: RAW (DNG) 14bit, JPEG (Exif 2.3), DCF2.0 compliant Color Space: sRGB, AdobeRGB Recorded Pixels: [3:2]L(24M:6000x4000), M(15M:4800x3200), S(7M:3360x2240), XS(2M:1920x1280) [1:1]L(16M:4000x4000), M(10M:3200x3200), S(5M:2240x2240), XS(1.6M:1280x1280)				
	Movie	File Format: MPEG4 AVC/H.264 (MOV) Recorded Pixels: Full HD (1920x1080, 60p/30p/24p), Sound: Built-in stereo microphone Recording Time: Up to 25 minutes or 4GB; automatically stops recording if the internal temperature of the camera becomes high.				
	Storage Medium	Internal Memory (Approx. 2GB), SD/SDHC/SDXC Memory Card (Conforms to UHS-I standards)				
Focus	Type	Hybrid AF (Image plane phase-matching and Contrast detection)				
	Focus Mode	Auto-area AF, Zone AF, Select AF, Pinpoint AF, Tracking AF, Continuous AF, MF, Snap, 🔘				
	Face Detection	ON, Use only in Auto-area, OFF				
	Focus Range (From lens face)	Normal: Approx. 0.1m∼ co, Macro Mode: Approx. 0.06m∼0.12m				
Exposure	Exposure Mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual Exposure				
	Metering Mode	Multi-segment, Center-weighted, Spot, Highlight-weighted				
Timed Exposu		1/4000 sec 30 sec. (Limit by aperture setting F2.8: 1/2500 sec, F5.6 or greater: 1/4000 sec.) Timed Exposure (10sec 20min.), Bulb, Time				
		Still Image: ±5EV, 1/3EV steps, Movie: ±2EV, 1/3EV steps				
	ND Filter (2EV)	AUTO, ON, OFF				
White Balance		Auto White Balance, Multi Auto White Balance, Daylight, Shade, Cloudy, Fl. – Daylight Color, Fl. – Daylight White, Fl. – Cool White, Fl. – Warm White, Tungsten, CTE, Manual White Balance, Color Temperature				
	Fine Adjustment	Adjustable ±14 steps on A-B axis or G-M axis				
Drive Mode	Drive	Single Frame Shooting, Continuous Shooting, Bracketing, Multi-exposure, Interval Shooting, Interval Composite				
	Self-timer	10 sec., 2 sec., OFF				
Shooting Functions	Crop	35mm, 50mm, OFF				
	Image Control	Standard, Vivid, Monotone, Soft Monotone, Hard Monotone, Hi-Contrast B&W, Positive Film, Bleach Bypass, Retro, HDR Tone, Custom1, Custom2  Adjust parameters: Saturation, Hue, High/Low Key Adjustment, Contrast, Contrast (Highlight), Contrast (Shadow), Sharpness, Shading, Clarity, Toning, Filter Effect, Grain Effect*, HDR Tone Level (Adjust parameter varies depending on the selected image setting)  * This parameter will be available via a firmware update.				
	Dynamic Range Correction	Highlight Correction, Shadow Correction				
	Noise Reduction	Slow Shutter Speed Noise Reduction, High-ISO Noise Reduction				
	Display	Display magnification (4x, 16x), Grid display (4x4 Grid, 3x3 Grid), Histogram, Bright area warning, Electronic Level				

Playback Functions	Playback View	Single frame, Multi-image (20, 48 frames), Display magnification (up to 16x, 100% view and Quick Zoom view available), Histogram (Y histogram, RGB histogram), Grid display (3x3 Grid, 4x4 Grid), Bright area warning, Auto Image Rotation,		
	Base Parameter Adjustment	Brightness, Saturation, Hue, Contrast, Sharpness		
	RAW Development	Aspect Ratio, JPEG Recorded Pixels, Color Space, White Balance, Image Control, Peripheral Illumination Correction, Sensitivity, High-ISO Noise Reduction, Shadow Correction		
	Edit	Resize, Cropping, Levels Adjustment, White Balance Adjustment, Color Moiré Correction, Movie Edit (Cut), Movie Edit (Divide)		
LCD Monitor	Туре	3.0 inch TFT color LCD (aspect ratio 3:2), Approx. 1037K dots, Wide viewing angle, Air-gapless tempered glass		
	Touch Screen	Capacitive sensing method		
	Adjustments	Brightness, Saturation, Blue/Amber, Green/Magenta, Outdoor View Setting: ±2 Steps		
Wireless LAN	Standards	IEEE 802.11b/g/n (HT20) (Wireless LAN standard protocol)		
	Frequency (Center Frequency)	2412MHz~2462MHz (1ch~11ch)		
	Security	Authentication: WPA2, Encryption: AES		
Bluetooth®	Standards	Bluetooth® v4.2 BLE(Bluetooth Low Energy)		
	Frequency (Center Frequency)	2402MHz~2480MHz (CH0~CH39)		
Interfaces	USB Type-C™	Battery Recharge/Power Supply (Optional AC Adapter required), Data Transfer: MTP, Video output: DisplayPort over USB-C (DisplayPort Alternative Mode)		
	Hotshoe	Compatible with P-TTL Auto Flash Flash Mode: Flash On, Flash On+Red-eye, Slow-speed Sync, Slow Sync+Red-eye Flash Exposure Compensation: -2.0 -+1.0		
	Lens adapter pin	Available		
Power Supply	Battery Type	Rechargeable Battery DB-110		
	AC Adapter	AC Adapter Kit K-AC166(Optional)		
	Battery Life	Number of recordable images: Approx. 200 images,  * With a fully-charged Rechargeable Lithium-ion Battery under the temperature at 23° C. Tested in compliance with CIPA standard. Actual results may vary depending on the shooting condition.		
		Playback time: Approx. 180 minutes  * The playback time is a guide based on RICOH's measurement method . The actual number differs according to usage conditions.		
Dimensions and Weight	Dimensions	Approx. 109.4(W) × 61.9(H) × 33.2(D)mm (excluding protrusions)		
	Weight	Approx. 257g (Included dedicated battery and SD memory card), Approx. 227g (Body only)		
Included Accessories		Rechargeable Battery DB-110, USB Power Adapter, Power Plug, USB Cable I-USB166, Handstrap		
Language		English, French, Germany, Spanish, Portuguese, Italy, Dutch, Danish, Swedish, Finnish, Polish, Czech, Hungarian, Turkey, Greek, Russian, Thai, Korean, Simplified Chinese, Traditional Chinese, Japanese		

## Storage

						(shots)
Mode	Fomat/Size	Aspect Ratio	Focal Length*	Number of Recorded pixels	Internal Memory 2GB	SD Card 8GB
Still image	RAW	3:2	28mm	24M(6000 x 4000)	40	150
		3:2	35mm	15M(4800 x 3200)	40	154
		3:2	50mm	7M(3360 × 2240)	41	157
		1:1	28mm	16M(4000 x 4000)	40	153
		1:1	35mm	10M(3200 x 3200)	41	156
		1:1	50mm	5M(2240 × 2240)	42	158
	RAW+	3:2	28mm	24M(6000 x 4000)	31	117
		3:2	35mm	15M(4800 x 3200)	34	129
		3:2	50mm	7M(3360 × 2240)	38	143
		1:1	28mm	16M(4000 x 4000)	34	128

	1:1	35mm	10M(3200 x 3200)	36	138
	1:1	50mm	5M(2240 × 2240)	39	148
[L] (JPEG)	3:2	_	24M(6000 x 4000)	140	527
	1:1	_	16M(4000 x 4000)	209	788
[M] (JPEG)	3:2	_	15M(4800 x 3200)	218	820
	1:1	_	10M(3200 x 3200)	324	1220
[S] (JPEG)	3:2	_	7M(3360 × 2240)	437	1646
	1:1	_	5M(2240 × 2240)	645	2428
[XS] (JPEG)	3:2	_	2M(1920 x 1280)	1253	4717
(	1:1	_	1.6M(1280 x 1280)	1810	6813

<sup>\* 35</sup>mm equivalent focal length

(min:sec)

Mode	Size	Aspect Ratio	Frame Rate	Number of Recorded pixels	Internal Memory 2GB	SD Card 8GB
Movie**	Full HD	(16:9)	60p	1920×1080	3:16	12:17
		(16:9)	30p	1920×1080	6:25	24:09
		(16:9)	24p	1920x1080	7:57	29:56

<sup>\*\*</sup> The maximum recording time per shooting is 25minutes or 4GB.

## Operating Environment

It is confirmed that a USB connection can be established between the camera and the following OSs.

Windows®	Windows®10(FCU, CU) (32-bit, 64-bit), Windows® 8.1(32-bit, 64bit), Windows® 8(32-bit, 64-bit), or Windows® 7(32-bit, 64-bit)			
Мас	macOS 10.14 Mojave, macOS 10.13 High Sierra, macOS 10.12 Sierra, OS X 10.11 El Capitan, OS X 10.10 Yosemite			