Specifications – PowerShot G7X

Type
Compact digital still camera with built-in flash, 4.2x Optical, 4x Digital and Approx. 17x Combined Zoom with Optical Image Stabilizer

Image Capture Device

Type
20.2 Megapixel*, 1.0-inch CMOS (sensor aspect ratio: 3:2)
*Image processing may cause a decrease in the number of pixels

Total Pixels
Approx. 20.9 Megapixels

Effective Pixels
Approx. 20.2 Megapixels

Lens

Focal Length
8.8 (W) - 36.8 (T) mm (35mm film equivalent: 24-100mm)

Optical Zoom
4.2x

Digital Zoom
4x

Focusing Range
Normal/Auto: 2.0 in. (5 cm) - infinity (W), 1.3 ft. (40 cm) - infinity (T) Macro: 2.0 in. - 1.6 ft. (5-50 cm) (W)

Autofocus System
TTL Autofocus (Continuous, Servo AF), Manual Focus

Viewfinders

Optical Viewfinder
Not available

LCD Monitor
3.0-inch Tilt, Capacitive Touch Panel LCD with wide viewing angle (3:2)

LCD Pixels
Approx. 1.04 million dots

LCD Coverage
Approx. 100%

Aperture and Shutter

Maximum Aperture
f/1.8 (W), f/2.8 (T)

Shutter Speed
1-1/2000 sec.
15*-1/2000 sec. (in Tv mode)
250*?1/2000 sec. (in M mode)

*30-1.3 sec is available only at ISO 125-3200, 250-40 sec. is available only at ISO 125.

Exposure Control

Sensitivity
Auto*, ISO 125/160/200/250/320/400/500/640/800/1000/1250/1600/2000/2500/3200/ 4000/5000/6400/8000/10000/12800 (When in P mode)

*Optimal ISO speed is automatically set depending on the shooting mode.

Light Metering Method
Evaluative*, Center-weighted average, Spot**
* Facial brightness is evaluated (Face Detect AE) in Face Detect.
** Fixed to Center, linked to AF frame

Exposure Control Method
Manual Exposure, Program Shift, Safety Shift, AE Lock

Exposure Compensation
Still Images: ±3 stops in 1/3-stop increments
Videos: ±3 stops in 1/3-stop increments (not available during shooting)

White Balance

White Balance Control
Auto, Day Light, Shade, Cloudy, Tungsten, Fluorescent, Fluorescent H, Flash, Underwater, Custom 1, Custom 2, Multi-area White Balance, White Balance Correction (Underwater mode), White Balance Correction

Flash

Built-in Flash
Auto, Flash, On, Slow Synchro, Flash Off

• Facial brightness is also evaluated in Face Detect
Flash Range
1.6 ft. (50 cm) -23 ft. (7.0 m) (W), 1.3 ft. (40 cm) - 13 ft. (4.0 m) (T)
Image brightness may diminish depending on the shooting distance

Recycling Time
10 seconds or less (battery voltage: 3.7 V)

Flash Exposure Compensation
±2 stops in 1/3-stop increments

Shooting Specifications

Shooting Modes
C, M, Av, Tv, P, Hybrid Auto, Auto, Creative Shot, SCN[*1], Creative Filters[*2], Movie[*3]

• Shooting movies is done with the movie button
[*1] Portrait, Smart Shutter[*4], Star[*5], Handheld Night Scene, Underwater, Snow, Fireworks
[*2] High Dynamic Range, Nostalgic, Fisheye Effect, Miniature Effect, Toy Camera Effect, Background Defocus, Soft Focus, Monochrome, Super Vivid, Poster Effect
[*3] Standard, Manual (Movie), iFrame Movie
[*4] Smile, Wink Self-timer, Face Self-timer
[*5] Star Portrait, Star Nightscape, Star Trails, Star Time-Lapse Movie
Photo Effects
My Colors Off, Vivid, Neutral, Sepia, Black & White, Positive Film, Lighter Skin Tone, Darker Skin Tone, Vivid Blue, Vivid

Green, Vivid Red, Custom Color*

*Adjustment of contrast sharpness, saturation, red, green, blue and skin tone are available

Self Timer
Approx. 10-sec. delay/approx. 2-sec. delay/custom*

*Delay time (0-15 sec. (in one-second increments), 20/25/30 sec.) and number of shots (1-10 shots (in one-shot increments)) can be specified.

Wireless Control
Not available

Continuous Shooting

1. Normal: Approx. 6.5 shots/sec (in AUTO and P modes)
2. AF: Approx. 4.4 shots/sec. (in P mode)
3. LV: Approx. 4.4 shots/sec. (in P mode)

- Under conditions where the flash does not fire automatically.
- Differs depending on the zoom position.
  *1 Using an 8 GB, UHS-I compatible memory card that meets Canon's testing standards. The number of shots changes depending on subjects, brands of memory cards, etc. Shooting in RAW (including RAW+JPEG) is excluded.

Image Storage

Storage Media
SD/SDHC/SDXC and UHS-I Memory Cards

File Format
Design rule for Camera File system, DPOF (Version 1.1) compliant

Image Recording Format
Superfine / Fine

JPEG Compression Mode
Still Image: Exif. 2.3 (JPEG), RAW (12 bit, CR2 (Canon Original))
Video: MP4 (Image: MPEG-4 AVC/H.264; Audio: MPEG-4 AAC-LC (Stereo))

Number of Recording Pixels
Still Images:

1. 16:9 - Large: 5472 x 3080; Medium 1: 4320 x 2432; Medium 2: 1920 x 1080; Small: 720 x 408;
2. 3:2 - Large: 5472 x 3648, Medium 1: 4320 x 2880, Medium 2: 2304 x 1536, Small: 720 x 480
3. 4:3 - Large: 4864 x 3648, Medium 1: 3840 x 2880, Medium 2: 2048 x 1536, Small: 640 x 480
4. 1:1 - Large: 3648 x 3648; Medium 1: 2880 x 2880; Medium 2: 1536 x 1536; Small: 480 x 480
5. 4:5 - Large: 2912 x 3648; Medium 1: 2304 x 2880; Medium 2: 1232 x 1536; Small: 384 x 480;

Videos:
Full HD 1920 x 1080: 60 fps[*4] / 30 fps[*2]
Full HD iFrame: 1920 x 1080: 30 fps[*2]
Full HD Star Time-Lapse Movie: 1920 x 1080: 15 fps[*3] / 30 fps[*2]
HD 1280 x 720: 30 fps[*2]
640 x 480: 30 fps[*2]
Miniature Effect: 1280 x 720: 6 fps[*1] / 3 fps[*1] / 1.5 fps[*1]
Miniature Effect: 640 x 480: 6 fps[*1] / 3 fps[*1] / 1.5 fps[*1]
Digest Movie: 1280 x 720: 30 fps

[*1] Playback frame rate is 30 fps[*2].
[*2] Actual frame rate is 29.97 fps.

[3] Actual frame rate is 14.985 fps.
[4] Actual frame rate is 59.94 fps.

Number of Recordable Images

Image data

		16:9			3:2			4:3		
		File Size (KB)	8 GB	32 GB	File Size (KB)	8 GB	32 GB	File Size (KB)	8 GB	32 GB
Large (L)	SF	7,919	985	3,980	9,174	852	3,441	8,154	958	3,871
	F	4,935	1,574	6,354	5,640	1,379	5,568	5,013	1,554	6,273
Medium 1 (M1)	SF	5,164	1,506	6,081	5,910	1,320	5,329	5,253	1,479	5,971
	F	3,304	2,338	9,441	3,707	2,098	8,472	3,295	2,361	9,531
Medium 2 (M2)	SF	1,095	6,822	27,537	1,819	4,234	17,091	1,617	4,723	19,064
	F	604	12,280	49,567	1,002	7,442	30,040	890	8,469	34,184
Small (S)	SF	239	27,291	110,150	281	24,562	99,135	250	27,291	110,150
	F	143	40,937	165,225	169	35,089	141,622	150	40,937	165,225
RAW	RAW	22,938	340	1,379	22,844	342	1,385	22,787	342	1,386

		1:1			4:5		
		File Size (KB)	8 GB	32 GB	File Size (KB)	8 GB	32 GB
Large (L)	SF	6,116	1,272	5,136	4,883	1,594	6,436
	F	3,760	2,063	8,330	3,002	2,585	10,434
Medium 1 (M1)	SF	3,940	1,964	7,930	3,286	2,361	9,531
	F	2,472	3,108	12,548	2,072	3,721	15,020
Medium 2 (M2)	SF	1,213	6,297	25,418	973	7,675	30,979
	F	668	11,164	45,061	536	13,645	55,074
Small (S)	SF	188	35,089	141,622	150	40,937	165,225
	F	113	49,125	198,271	90	61,406	247,838
RAW	RAW	22,674	344	1394	22,606	345	1,398

Note: SF=Superfine / F=Fine
• The approximate number of images recordable on memory cards other than the above can be calculated by using the above figures as a reference and extrapolating accordingly.

Time of Recordable Movies

Movie data

	iFrame Movie	Miniature Effect						Star Time-Lapse Movie	
	Full HD:1920 x 1080	HD: 1280 x 720			640 x 480			Full HD: 1920x 1280	
	30 fps[1]	5x	10x	20x	5x	10x	20x	15 fps[3][5]	30 fps[1][5]

		6 fps*[2]	3 fps*[2]	1.5 fps*[2]	6 fps*[2]	3 fps*[2]	1.5*[2] fps		
Movie Size (KB/sec.)	4,898	195	98	49	73	37	18	7	3
8GB	26 min. 22 sec.	10 hrs. 42 min. 58 sec.	20 hrs. 34 min. 24 sec.	38 hrs. 15 min. 35 sec.	26 hrs. 45 min. 37 sec.	48 hrs. 27 min. 58 sec.	82 hrs. 18 min. 04 sec.	145 hrs. 30 min. 01 sec.	189 hrs. 46 min. 59 sec.
32GB	1 hr. 46 min. 33 sec.	43 hrs. 17 min. 23 sec.	83 hrs. 06 min. 30 sec.	154 hrs. 33 min. 09 sec.	108 hrs. 05 min. 38 sec.	195 hrs. 46 min. 14 sec.	332 hrs. 26 min. 26 sec.	587 hrs. 28 min. 48 sec.	766 hrs. 11 min. 28 sec.

	Other			
	Full HD: 1920 x 1080		**HD: 1280 x 720**	**640 x 480**
	60 fps*[4]	**30 fps*[1]**	**30 fps*[1]**	**30 fps*[1]**
Movie size (KB/sec.)	4,288	2,945	992	382
8GB	30 min. 03 sec.	43 min. 29 sec.	2 hrs. 03 min. 55 sec.	5 hrs. 14 min. 34 sec.
32GB	2 hrs. 01 min. 27 sec.	2 hrs. 55 min. 43 sec.	8 hrs. 20 min. 32 sec.	21 hrs. 10 min. 38 sec.

*[1] Actual frame rate is 29.97 fps.
[2] Playback frame rate is 30 fps[1].
*[3] Actual frame rate is 14.985 fps.
*[4] Actual frame rate is 59.94 fps.
*[5] Only with shooting interval of 30 sec.

Playback Specifications

Playback Modes File
Stills & Videos:
Auto Rotate, Index Continuous Display, Image Advance (Transition Effects, Scroll Display), Rotate, Favorites, My Category, Smart Shuffle, Group Playback, Slideshow , Erase, Resume, Protect

Still Images:
Single, Index, Magnification (2-10x), Switch to other images while zoomed, Information Display, Photobook Setup, Cropping, Resize, My Colors, Face ID Info, Histogram, RGB Histogram, Location Information, Overexposure Warning

Videos:
Normal Playback, Pause, Slow Motion, Skip Backward, Previous Frame, Next Frame, Skip Forward, Erase Clip, Editing, Movie Transcoding

Erasing Specifications

Erase Modes
Select Image, Select Range, Select All Images

• The image data in the memory card stored with the Design rule for Camera File systems formate can be erased (however, protected images cannot be erased).
• Using the Movie editing function, sections of the movie can be deleted.
• RAW+JPEG images can be erased individually.

Interfaces

Video Out
Analog: NTSC or PAL, Digital: HDMI (HDMI™ micro connector)

Audio Out
Stereo

Other
SD memory card slot; direct connection to Canon SELPHY, PIXMA Photo Printers & PictBridge compatible printers

Power Source
Battery Pack NB-13L, AC Adapter Kit ACK-DC110

Shooting Capacity
Approx. 210 shots
Approx. 310 shots with ECO Mode

Playback Time
Approx. 4 hours

Physical Specifications

Operating Temperature
32-104°F/0-40°C

Operating Humidity
10-90%

Dimensions (W x H x D)
4.06 x 2.38 x 1.59 in. / 103.0 x 60.4 x 40.4 mm

Weight
10.7 oz. / 304 g (CIPA standard)
9.84 oz. / 279 g (camera only)

*Image processing may cause a decrease in the number of pixels.
** Compatible with iOS versions 6.0/6.1/7.0/7.1, Android smartphone versions 2.3.3/4.0/4.1/4.2/4.3/4.4 and Android tablet versions 4.0/4.1/4.2/4.3/4.4. Data charges may apply.
*** Compatible with Android devices version 4.0 or later.
† Prices and specifications subject to change without notice. Actual prices are determined by individual dealers and may vary.