

## Clifton Cameras Product Specification

### Panasonic Lumix S5 Mirrorless Digital Camera Body Full Spec

TYPE	Type		Digital Single Lens Mirrorless camera			
	Recording media		SD Memory Card / SDHC Memory Card / SDXC Memory Card  Slot 1: Compatible with UHS-I/UHS-II UHS Speed Class 3 standard SDHC/SDXC Memory Cards and UHS-II Video Speed Class 90 standard SDXC Memory Cards.  Slot 2: Compatible with UHS-I UHS Speed Class 3 standard SDHC/SDXC Memory Cards.			
	Lens mount		L-Mount			
IMAGE SENSOR	Type		35mm full-frame (35.6mm x 23.8mm) CMOS sensor			
	Camera effective pixels / Total pixels		24.20 megapixels / 25.28 megapixels			
	Aspect ratio / Color filter		3:2 / Primary color filter			
	Dust reduction system		Image sensor shift type			
LATITUDE			14+ stops (V-Log)			
STILL IMAGE	Recording file format	Still image		JPEG (DCF, Exif 2.31), RAW, HLG Photo (CTA-2072)		
		6K PHOTO** / 4K PHOTO**		6K PHOTO: MP4 (H.265/HEVC, Audio format: AAC (2ch)) 4K PHOTO: MP4 (H.264/MPEG-4 AVC, Audio format: AAC (2ch)) Extracted still images: JPEG (DCF, Exif 2.31)		
	Aspect ratio		4:3 / 3:2 / 16:9 / 1:1 / 65:24 / 2:1			
	File size (Pixels)	When using full-frame lenses	3:2	6000x4000(L) / 4272x2848(M) / 3024x2016(S) / 12000x8000(XL)* / 8496x5664(LL)* *High Resolution Mode. 5184x3456(6K PHOTO) / 3504x2336(4K PHOTO) / 5984x4000(HLG PHOTO, Full-Res.) / 3232x2160(HLG PHOTO, 4K-Res.)		
			4:3	5328x4000(L) / 3792x2848(M) / 2688x2016(S) / 10656x8000(XL)* / 7552x5664(LL)* *High Resolution Mode. 4992x3744(6K PHOTO) / 3328x2496(4K PHOTO) / 5312x3984(HLG PHOTO, Full-Res.) / 2880x2160(HLG PHOTO, 4K-Res.)		
			16:9	6000x3368(L) / 4272x2400(M) / 3024x1704(S) / 12000x6736(XL)* / 8496x4784(LL)* *High Resolution Mode. 3840x2160(4K PHOTO) / 5888x3312(HLG PHOTO, Full-Res.) / 3840x2160(HLG PHOTO, 4K-Res.)		
			1:1	4000x4000(L) / 2848x2848(M) / 2016x2016(S) / 8000x8000(XL)* / 5664x5664(LL)* *High Resolution Mode. 2880x2880(4K PHOTO) / 4000x4000(HLG PHOTO, Full-Res.) / 2144x2144(HLG PHOTO, 4K-Res.)		
			65:24	6000x2208(L)		
			2:1	6000x3000(L)		
			When using APS-	3:2	3984x2656(L) / 2880x1920(M) / 2064x1376(S) / 3504x2336(4K PHOTO)	

	C/Super 35mm lenses	4:3	3536x2656(L) / 2560x1920(M) / 1840x1376(S) / 3328x2496(4K PHOTO)		
		16:9	3984x2240(L) / 2880x1624(M) / 1920x1080(S) / 3840x2160(4K PHOTO)		
		1:1	2656x2656(L) / 1920x1920(M) / 1376x1376(S) / 2880x2880(4K PHOTO)		
	Image quality		RAW / RAW+Fine / RAW+Standard / Fine / Standard		
Color space		sRGB, AdobeRGB			
MOTION PICTURE	Recording file format		MOV: H.264/MPEG-4 AVC, H.265/HEVC (Audio format: LPCM (2ch 48kHz/16-bit)) MP4: H.264/MPEG-4 AVC, H.265/HEVC (Audio format: AAC (2ch))		
	Switch NTSC / PAL		Yes (NTSC (59.94Hz) / PAL(50.00Hz))		
	MOV**	NTSC (59.94Hz)	Full-frame	[4K] 3840x2160	29.97p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 23.98p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.
				[FHD] 1920x1080	59.94p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 29.97p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 23.98p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.
		APS-C / Pixel by Pixel	[4K] 3840x2160	59.94p, 200Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, LPCM) *HLG is selectable. 59.94p, 150Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 23.98p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.	
			[Anamorphic 4K] 3328x2496 (4:3)	29.97p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 23.98p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.	
[FHD] 1920x1080			59.94p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 29.97p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 23.98p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.		



	PAL (50.00Hz)	Full-frame	[4K] 3840x2160	25.00p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.	
			[FHD] 1920x1080	50.00p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 25.00p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.	
			APS-C / Pixel by Pixel	[4K] 3840x2160	50.00p, 200Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, LPCM) *HLG is selectable. 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.
			[Anamorphic 4K] 3328x2496 (4:3)	50.00p, 200Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, LPCM) *HLG is selectable. 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.	
			[FHD] 1920x1080	50.00p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable. 25.00p, 100Mbps (4:2:2 10-bit LongGOP)* / 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) *HLG is selectable.	
	MP4**	NTSC (59.94Hz)	Full-frame	[4K] 3840x2160	29.97p, 72Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 23.98p, 72Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)
				[FHD] 1920x1080	59.94p, 28Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 29.97p, 20Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 24Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)
			APS-C / Pixel by Pixel	[4K] 3840x2160	59.94p, 100Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 29.97p, 72Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 23.98p, 72Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)

				[FHD] 1920x1080	59.94p, 28Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 29.97p, 20Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 24Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)	
			PAL(50.00 Hz)	Full-frame	[4K] 3840x2160	25.00p, 72Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)
					[FHD] 1920x1080	50.00p, 28Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 25.00p, 20Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)
			APS-C / Pixel by Pixel	[4K] 3840x2160	50.00p, 100Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 25.00p, 72Mbps (4:2:0 10-bit LongGOP)* (H.265/HEVC, AAC) *HLG is selectable. 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)	
				[FHD] 1920x1080	50.00p, 28Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 25.00p, 20Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC)	
SLOW & QUICK	MP4**	NTSC (59.94Hz)	Full-frame	[FHD] 1920x1080	59.94p, 28Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 29.97p, 20Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 24Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 1, 2, 5, 10, 15, 30, 60, 100, 120, 150*, 180* fps *Angle of view narrows if you select a frame rate with a number of frames 180. The AF mode switches to MF when the frame rate is set to of 150 fps or more.	
				APS-C / Pixel by Pixel	[4K] 3840x2160	29.97p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 1, 2, 5, 10, 15, 30, 60 fps
				PAL (50.00Hz)	Full-frame	[FHD] 1920x1080
		APS-C / Pixel by Pixel	[4K] 3840x2160			25.00p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 1, 2, 5, 10, 15, 30, 60 fps
			[FHD] 1920x1080			50.00p, 28Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 25.00p, 20Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 1, 2, 5, 10, 15, 30, 60, 100, 120, 150*, 180* fps *Angle of view narrows if you select a frame rate with a number of frames 180. The AF mode switches to MF when the frame rate is set to of 150 fps or more.
		VIEWFINDER	Type		OLED Live View Finder	
Pixels			Approx. 2.36 million dots			

	Field of view / Magnification		Approx. 100% / Approx. 0.74x with 50 mm lens at infinity; -1.0 m <sup>-1</sup> , when the aspect ratio is set to 3:2
	Eye point / Diopter adjustment		Approx. 20 mm at infinity; -1.0 m <sup>-1</sup> / -4.0 - +4.0 (dpt)
	Eye sensor		Yes
	Display speed		120fps / 60fps
	Display time lag		Approx. 0.005sec
REAR MONITOR	Type		TFT LCD monitor with static touch control
	Monitor size		Free-angle, 3.0-inch (7.5cm), 3:2 aspect
	Pixels		Approx. 1.84 million dots
	Field of view		Approx. 100%
FOCUS	Type		Contrast AF system
	DFD technology		Yes
	Focus mode		AFS (Single) / AFC (Continuous) / MF
	AF mode		Auto Detection (Face, Eye, Body, Animal) / Tracking / 225-Area / Zone (Vertical/Horizontal) / Zone (Square) / Zone (Oval) / 1-Area+ / 1-Area / Pinpoint / Custom 1, 2, 3 (Full area touch is available) (Scalable AF frame size and flexible AF position)
	AF detective range		EV -6 - 20 (F1.4, ISO100 equivalent, AFS)
	AF custom setting		AF Sensitivity, AF Area Switching Sensitivity, Moving Object Prediction
	AF assist lamp		Yes
	AF lock		Set the Fn button in custom menu to AF lock
	Post Focus / Focus Stacking		Yes / Yes
	Others		AF-ON, AF-ON: Near Shift, AF-ON: Far Shift, Shutter AF, Half Press Release, Focus/Shutter Priority, Quick AF, Continuous AF (during motion picture recording), Eye Sensor AF, AF-Point Scope Setting, AF+MF, MF Guide, MF Assist, Touch MF Assist, Focus Peaking, Touch AF/AE Function, Touch Pad AF, Touch Shutter, Focus Switching for Vert/Hor, Focus Ring Lock, Show/Hide AF Mode, 1-Area AF Moving Speed, Loop Movement Focus Frame, AFC Start Point (225-Area), Lens Focus Resume, Focus Ring Control
	EXPOSURE CONTROL	Light metering system	
Light metering mode		Multiple / Center Weighted / Spot / Highlight Weighted	
Metering range		EV0-18 (F2.0 lens, ISO100 equivalent)	
Exposure mode		Program AE / Aperture Priority AE / Shutter Priority AE / Manual Exposure	
ISO sensitivity (Standard output sensitivity)		Auto / 50* / 100 / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 / 51200 / 102400* / 204800* (Changeable to 1/3 EV step) *Extended ISO	

	Dual Native ISO		<p>[Normal] Native ISO: 100, 640 Auto: Auto / 50* / 100-51200 / 102400* / 204800* *Extended ISO</p> <p>[V-Log] Native ISO: 640, 4000 Auto: Auto / 320* / 640-51200 *Extended ISO</p> <p>[HLG] Native ISO: 400, 2500 Auto: Auto / 400-51200 / 102400* / 204800* *Extended ISO</p> <p>[Cinelike D2 / Cinelike V2] Native ISO: 200, 1250 Auto: Auto / 100* / 200-51200 / 102400* / 204800* *Extended ISO</p>
	Exposure compensation		1/3 EV step $\pm 5$ EV ( $\pm 3$ EV for motion picture)
	AE lock		Set the Fn button in custom menu to AE lock
IMAGE STABILIZATION SYSTEM			<p>Image sensor shift type (5-axis / 5.0-stop*) *Based on the CIPA standard [Yaw/Pitch direction: focusing distance <math>f=60</math>mm when S-R2060 is used.]</p> <p>Dual I.S. (6.5-stop* Dual I.S. 2 compatible) *Based on the CIPA standard [Yaw/Pitch direction: focusing distance <math>f=200</math>mm when S-E70200 is used.]</p>
WHITE BALANCE	White balance		AWB / AWBc / AWBw / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Color temperature setting 1, 2, 3, 4
	White balance adjustment		Blue/Amber bias, Magenta/Green bias
	Color temperature setting		2500-10000K in 100K
SHUTTER	Type		Focal-plane shutter
	Shutter speed		<p>Still image: Bulb (Max. 30 minutes), 1/8,000 - 60</p> <p>Electronic front curtain shutter: Bulb (Max. 30 minutes), 1/2,000 - 60</p> <p>Electronic shutter: Bulb (Max. 60 sec), 1/8,000 - 60</p> <p>Motion picture: 1/16,000 - 1/25</p> <p>Creative Video M mode / MF mode: 1/16,000 - 1/2</p>
	Self timer		10sec, 3 images / 2sec / 10sec
	Remote control		Remote control by DMW-RS2 (sold separately)
	Silent mode / Shutter type		Yes / Yes (Auto / Mechanical / Electronic front curtain / Electronic / Electronic+NR)
BRACKET	AE bracket		3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. $\pm 3$ EV, single/burst
	Aperture bracket		3, 5 or all positions in 1 EV step
	Focus bracket		1 to 999 images, focus steps can be set in 10 levels
	White balance bracket		3 images in blue/amber axis or in magenta/green axis, color temperature setting
BURST SHOOTING	Burst speed	Mechanical shutter / Electronic front curtain shutter	<p>AFS/MF: H: 7 frames/sec, M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)</p> <p>AFC: H: 5 frames/sec (with Live View), M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)</p>
		Electronic shutter	AFS/MF: H: 7 frames/sec, M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)

		AFC: H: 5 frames/sec (with Live View), M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)
	Number of recordable images	RAW / RAW+JPEG: More than 24 images JPEG: More than 999 images (When using a card with SD Speed Class with "UHS-II UHS Speed Class 3 (U3)" inserted into card slot 1.) * When recording is performed under the test conditions specified by Panasonic.
6K PHOTO** / 4K PHOTO**	Burst speed	6K PHOTO: 30 frames/sec 4K PHOTO: 60 frames/sec, 30 frames/sec
	Exif information	Yes (Each JPEG image cropped out of the 6K/4K burst file complies with EXIF.)
FLASH	Flash type	TTL External Flash (sold separately)
	Flash mode	Auto* / Auto/Red-eye Reduction* / Forced On / Forced On/Red-eye Reduction / Slow Sync. / Slow Sync./Red-eye Reduction / Forced Off *For iA only.
	Flash synchronization	1st Curtain Sync, 2nd Curtain Sync.
	Flash output adjustment	1/3EV step $\pm 3$ EV
	Synchronization speed	Less than 1/250 second *The guide number decreases at 1/250 second. Only when set to M mode or S mode.
	Wireless control	Yes (When using DMW-FL200L / FL360L / FL580L (sold separately)), Wireless Channel: 1ch/2ch/3ch/4ch
EXTRA TELE CONVERSION		2.0x (EX S) (When using full-frame lenses), 1.9x (EX S) (When using APS-C / Super 35mm lenses), 1.4x (EX M) *Only for still image recording.
PHOTO STYLE	Photo Style	Standard / Vivid / Natural / Flat / Landscape / Portrait / Monochrome / L. Monochrome / L. Monochrome D / Cinelike D2 / Cinelike V2 / Like709 / V-Log / Standard (HLG) / Monochrome (HLG) / Like2100 (HLG) / My Photo Style 1-10
	Picture adjustment	Contrast / Highlight / Shadow / Saturation / Color Tone / Hue / Filter Effect / Grain Effect / Sharpness / Noise Reduction / ISO / WB *Adjustable settings vary depending on the Photo Style mode.
FILTER		Expressive / Retro / Old Days / High Key / Low Key / Sepia / Monochrome / Dynamic Monochrome / Rough Monochrome* / Silky Monochrome* / Impressive Art / High Dynamic / Cross Process / Toy Effect / Toy Pop / Bleach Bypass / Miniature Effect / Soft Focus* / Fantasy / Star Filter* / One Point Color / Sunshine* *For photos only.
MOTION PICTURE FUNCTION	Luminance level	8-bit: 0-255 / 16-235 / 16-255 10-bit: 0-1023 / 64-940 / 64-1023
	Wave form monitor	Yes
	LUT display	LUT View Assist (Monitor) / LUT View Assist (HDMI)
	Time code	Count Up: Rec Run/Free Run selectable, Time Code Mode: Drop frame/Non-drop frame selectable (When NTSC (59.94Hz) is selected.)
	Knee control	Yes (in Like709 mode)

FUNCTION BUTTON	REC		<p>Exposure Comp. / Sensitivity / White Balance / Photo Style / Metering Mode / Aspect Ratio / Picture Quality / Picture Size / HLG Photo / High Resolution Mode / 1 Shot Spot Metering / Long Exposure NR / Min. Shutter Speed / 1 Shot RAW+JPG / i.Dynamic Range / Filter Effect / One Push AE / Touch AE / Exposure Mode / AF Mode / AF Custom Setting(Photo) / AF Custom Setting(Video) / Focus Peaking / Focus Peaking Sensitivity / 1-Area AF Moving Speed / Focus Ring Lock / AE LOCK / AF LOCK / AF/AE LOCK / AF-ON / AF-ON: Near Shift / AF-ON: Far Shift / AF-Point Scope / Focus Area Set / Flash Mode / Flash Adjust. / Wireless Flash Setup / Drive Mode / 1 Shot "6K/4K PHOTO" / Bracketing / Silent Mode / Image Stabilizer / Shutter Type / Ex. Tele Conv. / Live View Composite / Post-Focus / Motion Pic. Rec File Format / Motion Pic. Rec Quality / Slow &amp; Quick Setting / Time Code Display / Sound Rec Level Disp. / Sound Rec Level Adj. / Sound Rec Level Limiter / Special Mic. Directivity Adjust / Image Stabilizer / E-Stabilization (Video) / Boost I.S. (Video) / Image Area of Video / Live Cropping / Q.MENU / Rec / Playback Switch / Video Record / LVF/Monitor Switch / Operation Lock / Dial Operation Switch / Preview / Preview Aperture Effect / Constant Preview / Level Gauge / Histogram / Luminance Spot Meter / Frame Marker / Photo Grid Line / Live View Boost / Monochrome Live View / Night Mode / LVF/Monitor Disp. Style / Photo/Video Preview / Zebra Pattern / LUT View Assist (Monitor) / LUT View Assist (HDMI) / LUT Select / HLG View Assist(Monitor) / HLG View Assist (HDMI) / Sheer Overlay / I.S. Status Scope / Waveform Monitor / Anamorphic Desqueeze Display / Focus Ring Control/ Zoom Control / Destination Card Slot / Wi-Fi / No Setting / Restore to Default</p>
	PLAY		<p>Magnify from AF Point / LUT View Assist (Monitor) / HLG View Assist (Monitor) / Anamorphic Desqueeze Display / RAW Processing / 6K/4K PHOTO Bulk Saving / Delete Single / Protect / Rating 1, 2, 3, 4, 5 / Copy / Rec/Playback Switch / LVF/Monitor Switch / Video Record / Night Mode / Card Slot Change / Wi-Fi / Send Image (Smartphone) / LUT View Assist (HDMI) / HLG View Assist (HDMI) / 6K/4K Photo Play / No Setting / Off (Disable Press and Hold) / Restore to Default</p>
LEVEL GAUGE			Yes
OSD LANGUAGE			Please refer to "OSD" Sheet
PRINT			PictBridge compatible
INTERFACE	USB		SuperSpeed USB 3.1 Gen1 Type-C
	HDMI***	Monitor-through	<p>When a mode other than [4K/60p]/[4K/50p] is selected for [Picture Quality]: 4:2:2 10bit, 4:2:2 8bit, 4:2:0 8bit</p> <p>When [4K/60p]/[4K/50p] mode is selected in [Rec Quality]: 4:2:2 10bit*, 4:2:0 8bit    *When 4:2:2 10bit mode is selected, it is not possible to record motion picture or still picture on the memory card in the camera unit.</p> <p>Info Display: ON / OFF (selectable)</p>



		HLG View Assist (HDMI): AUTO / MODE1 / MODE2 / OFF (selectable)
	Playback	microHDMI TypeD / VIERA Link, Audio: Stereo NTSC (59.94Hz): Auto / 4K/60p / 4K/30p / 1080p / 1080i / 720p / 480p PAL (50.00Hz): Auto / 4K/50p / 4K/25p / 1080p / 1080i / 720p / 576p
	Remote input	φ2.5mm
	External microphone / external audio device input	φ3.5mm for external microphone / external audio device MIC (Plug-in Power) / MIC / LINE is selectable. Stereo/Lens Auto/Shotgun/Super Shotgun/Manual is selectable when attaching DMW-MS2 (sold separately).
	Headphone output	φ3.5mm
	Microphone	Stereo, Wind Noise Canceller: OFF / Low* / Standard / High *When attaching DMW-MS2 (sold separately).
	XLR microphone	Yes with DMW-XLR1 (sold separately)
	Speaker	Monaural
	SD card slot	SD Memory Card, SDHC Memory Card, SDXC Memory Card Slot 1: Compatible with UHS-I/UHS-II UHS Speed Class 3 standard SDHC/SDXC Memory Cards and UHS-II Video Speed Class 90 standard SDXC Memory Cards. Slot 2: Compatible with UHS-I UHS Speed Class 3 standard SDHC/SDXC Memory Cards.
WIRELESS	Wi-Fi	2.4GHz (STA/AP) (IEEE802.11b/g/n) 5GHz (STA) (IEEE 802.11a/n/ac) *5GHz Wi-Fi is not available in some countries. Please refer to "Wi-Fi" Sheet
	Bluetooth	Bluetooth® v4.2 (Bluetooth Low Energy (BLE))
DUST AND SPLASH RESISTANT*		Yes. *Dust and Splash Resistant does not guarantee that damage will not occur if this camera is subjected to direct contact with dust and water.
POWER	Battery	Li-ion Battery Pack (7.2V, 2200mAh, 16Wh) (bundled) USB power supply, USB power charging
	Battery life (CIPA standard)	Approx. 440 images (rear monitor), 470 images (LVF), 1,500 images (Power Save LVF mode*) with S-R2060 *Under the test conditions specified by Panasonic based on CIPA standard. When the time to get in the sleep mode is set to 1 sec.
	Continuous recordable time (Motion picture)**	MP4 [4K/60p]: Approx. 110 min (APS-C, Pixel by Pixel) (LVF), 110 min (APS-C, Pixel by Pixel) (rear monitor) *When using S-R2060. When the battery is fully charged. MOV [4K/60p/4:2:0 10-bit/LongGOP]: Approx. 100 min (APS-C, Pixel by Pixel) (LVF), 110 min (APS-C, Pixel by Pixel) (rear monitor) *When using S-R2060. When the battery is fully charged.

	Actual recordable time (Motion picture)**		MP4 [4K/60p]: Approx. 55 min (APS-C, Pixel by Pixel) (LVF), 55 min (APS-C, Pixel by Pixel) (rear monitor) *When using S-R2060. When the battery is fully charged. MOV [4K/60p/4:2:0 10-bit/LongGOP]: Approx. 50 min (APS-C, Pixel by Pixel) (LVF), 55 min (APS-C, Pixel by Pixel) (rear monitor) *When using S-R2060. When the battery is fully charged.
	Battery grip		DMW-BGS5 (sold separately)
DIMENSIONS / WEIGHT	Dimensions (W x H x D)		Approx. 132.6 x 97.1 x 81.9 mm / 5.22 x 3.82 x 3.22 inch (excluding protrusions)
	Weight		Approx. 714g / 1.58 lb (SD Memory Card x 1, Battery, Body) Approx. 630g / 1.39 lb (Body only)
OPERATING ENVIRONMENT	Operating temperature		0°C to 40°C (32°F to 104°F)
	Operating humidity		10%RH to 80%RH
STANDARD ACCESSORIES	Software	Recording	LUMIX Tether · This software is used to control a Panasonic digital camera from a PC. It allows you to change various settings of the camera, perform remote recording, and save remotely recorded images to the PC. Check the site below to download and install the software. <a href="http://panasonic.jp/support/global/cs/soft/download/d_lumix tether.html">http://panasonic.jp/support/global/cs/soft/download/d_lumix tether.html</a> (For Windows / Mac)
		Playback / Editing	□ The software to edit and playback images on computer is not bundled with this camera. To do this, PHOTOfunSTUDIO 10.1PE is available for download at Panasonic website using computer connected to the Internet. <a href="https://panasonic.jp/support/global/cs/soft/download/d_pfs101pe.html">https://panasonic.jp/support/global/cs/soft/download/d_pfs101pe.html</a> (For Windows) □ The software to process RAW file on computer is not bundled with this camera. To do this, SILKYPIX Developer Studio is available for download at Ichikawa Soft Laboratory's website using computer connected to the Internet. <a href="http://www.isl.co.jp/SILKYPIX/english/p/">http://www.isl.co.jp/SILKYPIX/english/p/</a> (For Windows / Mac)
	Standard accessories		DC-S5 Kit Body Cap, Hot Shoe Cover, Cover for the Battery Grip Connector, Shoulder Strap, Battery Pack, Battery Charger, AC Adaptor, USB Connection Cable (A-C)  DC-S5K Kit Body Cap, Hot Shoe Cover, Cover for the Battery Grip Connector, Shoulder Strap, Battery Pack, Battery Charger, AC Adaptor, USB Connection Cable (A-C), Lens Cap, Lens Hood, Lens Rear Cap  □ The DC-S5 Operating Instructions for advanced features is available for downloaded at Panasonic LUMIX Customer Support Site using PC, smartphone or tablet connected to the Internet.

\*\*\* About motion picture recording / 6K PHOTO/4K PHOTO recording

- 6K PHOTO is a high speed burst shooting function that cuts a still image out of a 4:3 or 3:2 video footage with approx. 18-megapixel (approx. 6000 x 3000 effective pixel count) that the 6K image manages.
- Use a card with SD Speed Class with "Class 4" or higher when recording motion pictures in [MP4 (under 28Mbps)].
- Use a card with SD Speed Class with "UHS-I / UHS-II UHS Speed Class 3 (U3)" when recording motion pictures with [MP4] in [4K], [MOV], [S&Q], [6K PHOTO] or [4K PHOTO].  
(SD speed class is the speed standard regarding continuous writing.)
- Recording stops when the continuous recording time exceeds 30 minutes in [4K/60p] [4K/50p] [4K-A/50p] [4K/4:2:2 10-bit] [4K-A/4:2:2 10-bit] [4K/4:2:0 10-bit] [4K-A/4:2:0 10-bit] [S&Q].
- Recording stops when the continuous recording time exceeds 15 minutes in [6K PHOTO] [4K PHOTO].
- MP4 motion pictures with [MP4] in [4K]:
  - When using an SDHC memory card: You can continue recording without interruption even if the file size exceeds 4 GB or 30 minutes, but the motion picture file will be divided and recorded/played back separately.
  - When using an SDXC memory card: You can continue recording without interruption even if the file size exceeds 96 GB or 3 hours 4 minutes in length, but the motion picture file will be divided and recorded/played back separately.
- MP4 motion pictures with [MP4] in [FHD]:
  - You can continue recording without interruption even if the file size exceeds 4 GB or 30 minutes in length, but the motion picture file will be divided and recorded/played back separately.
- MOV motion picture with [MOV]
  - When using an SDHC memory card: You can continue recording without interruption even if the file size exceeds 4 GB or 30 minutes, but the motion picture file will be divided and recorded/played back separately.
  - When using an SDXC memory card: You can continue recording without interruption even if the file size exceeds 96 GB or 3 hours 4 minutes in length, but the motion picture file will be divided and recorded/played back separately.
- 4:2:2 10-bit recording is a recording mode for film production and the video needs to be processed on PC.  
The original video cannot be played on standard TV, Blu-ray Disc™ recorder and Blu-ray Disc™ player.  
It may cause problems such as freezing when played on these devices.
- When the ambient temperature is high or continuous recording is performed, the camera may stop the recording to protect itself. Wait until the camera cools down.

\*\*\* For [4K/60p] [4K/50p] video output, use an HDMI2.0 cable that has the HDMI logo on it, and that is described as "4K compatible".