

Clifton Cameras Product Specification

Panasonic LUMIX S5 II X Full Spec

TYPE	Type	Digital Single Lens Mirrorless camera			
	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			
	AR (Anti Reflection) coating	Yes			
	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	JPEG (DCF, Exif 2.31), RAW			
	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.	
			4:3	5328x4000(L) / 3792x2848(M) / 2688x2016(S) / 10656x8000(XL)* / 7552x5664(LL)* *High Resolution mode.	
			16:9	6000x3368(L) / 4272x2400(M) / 3024x1704(S) / 12000x6736(XL)* / 8496x4784(LL)* *High Resolution mode.	
			1:1	4000x4000(L) / 2848x2848(M) / 2016x2016(S) / 8000x8000(XL)* / 5664x5664(LL)* *High Resolution mode.	
			65:24	6000x2208(L)	
			2:1	6000x3000(L)	
	When using APS-C/Superc 35mm lenses	3:2	3984x2656(L) / 2880x1920(M) / 2064x1376(S)		
		4:3	3536x2656(L) / 2560x1920(M) / 1840x1376(S)		
		16:9	3984x2240(L) / 2880x1624(M) / 1920x1080(S)		
1:1		2656x2656(L) / 1920x1920(M) / 1376x1376(S)			
Image quality	RAW / RAW+Fine / RAW+Standard / Fine / Standard (High Resolution mode: Combined / RAW / RAW+Fine / Fine)				
Color space	sRGB, AdobeRGB				
MOTION PICTURE	Recording file format	MOV: H.264/MPEG-4 AVC, H.265/HEVC, Apple ProRes MP4: H.264/MPEG-4 AVC, H.265/HEVC			
	Audio format	MOV: LPCM (2ch 48kHz/24-bit, 96kHz/24-bit*) (4ch 48kHz/24-bit**, 96kHz/24-bit**) MP4: AAC (2ch 48kHz/16-bit) *When attaching Ø3.5mm microphone or DMW-XLR1 (sold separately). **When attaching DMW-XLR1 (sold separately).			
	System frequency	59.94Hz / 50.00Hz / 24.00Hz			
	Image area of video	Full / APS-C / PIXEL/PIXEL			
	MOV (*1) (*2)	59.94Hz	FULL	[6K] 5952x3968 (3:2)	29.97p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
				[6K] 5952x3136	29.97p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
*HLG is			[6K] 5952x3136	29.97p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)	



selectable.	(17:9)	23.98p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
	[5.9K] 5888x3312 (16:9)	29.97p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
	[C4K] 4096x2160	29.97p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
	[4K] 3840x2160	29.97p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
	[FHD] 1920x1080	119.88p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 119.88p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 119.88p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 59.94p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 59.94p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 59.94p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 47.95p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 47.95p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 47.95p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 29.97p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 29.97p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 29.97p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p, 200Mbps (4:2:2 10-bit ALL-Intra)

					<p>(H.264/MPEG-4 AVC, LPCM) 23.98p, 100Mbps (4:2:2 10-bit LongGOP)</p> <p>(H.264/MPEG-4 AVC, LPCM) 23.98p, 100Mbps (4:2:0 10-bit LongGOP)</p> <p>(H.265/HEVC, LPCM)</p>
			<p>APS- C / PIXE L/PIX EL</p>	<p>[C4K] 4096x2160</p>	<p>59.94p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>59.94p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>59.94p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>59.94p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>47.95p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>47.95p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>47.95p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>47.95p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>29.97p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>29.97p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>29.97p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>23.98p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>23.98p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>23.98p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*External USB-SSD recording.</p>



				<p>[4K] 3840x2160</p> <p>59.94p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 59.94p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 59.94p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 59.94p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 47.95p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 47.95p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 47.95p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 47.95p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 29.97p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>
				<p>[3.3K] 3328x2496 (4:3)</p> <p>47.95p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 47.95p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 47.95p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 47.95p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 29.97p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 29.97p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 23.98p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>



			[FHD] 1920x1080	<p>119.88p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>119.88p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)*</p> <p>119.88p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)*</p> <p>59.94p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>59.94p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>59.94p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>47.95p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>47.95p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>47.95p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>29.97p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>29.97p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>29.97p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>23.98p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>23.98p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>23.98p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*When Image Area of Video is set to APS-C.</p>
	50.00Hz	FULL	[6K] 5952x3968 (3:2)	<p>25.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>
			[6K] 5952x3136 (17:9)	<p>25.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>
			[5.9K] 5888x3312 (16:9)	<p>25.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>
			[C4K] 4096x2160	<p>25.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>25.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>25.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>
			[4K] 3840x2160	<p>25.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)</p> <p>25.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)</p> <p>25.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>

				<p>[FHD] 1920x1080</p>	<p>100.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 100.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 100.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 50.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 50.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 50.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 25.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 25.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>
			<p>APS- C / PIXE L/PIX EL</p>	<p>[C4K] 4096x2160</p>	<p>50.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 50.00p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 50.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 50.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 25.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>
				<p>[4K] 3840x2160</p>	<p>50.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 50.00p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 50.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 50.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 25.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>



				<p>[3.3K] 3328x2496 (4:3)</p> <p>50.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 50.00p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 50.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 50.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 25.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>
				<p>[FHD] 1920x1080</p> <p>100.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 100.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* 100.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 50.00p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 50.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 50.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 25.00p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 25.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 25.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *When Image Area of Video is set to APS-C.</p>
	24.00Hz	FULL	<p>[6K] 5952x3968 (3:2)</p> <p>24.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>	
			<p>[6K] 5952x3136 (17:9)</p> <p>24.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>	
			<p>[5.9K] 5888x3312 (16:9)</p> <p>24.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>	
			<p>[C4K] 4096x2160</p> <p>24.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>	
			<p>[4K] 3840x2160</p> <p>24.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>	



				<p>[FHD] 1920x1080</p> <p>48.00p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 48.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 48.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 24.00p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p>
			<p>APS- C / PIXE L/PIX EL</p>	<p>[C4K] 4096x2160</p> <p>48.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 48.00p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 48.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 48.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 24.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>
				<p>[4K] 3840x2160</p> <p>48.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 48.00p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 48.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 48.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 24.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.</p>
				<p>[3.3K] 3328x2496 (4:3)</p> <p>48.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 48.00p, 600Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 48.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 48.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 24.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 150Mbps (4:2:0 10-bit LongGOP)</p>

				(H.265/HEVC, LPCM) *External USB-SSD recording.
			[FHD] 1920x1080	48.00p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 48.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 48.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 24.00p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 24.00p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM) 24.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)
ProRes (*1) (*2)	59.94Hz	FULL	[5.8K] 5776x3056 (17:9)	29.97p, 1.9Gbps (ProRes 422 HQ) / 1.3Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 1.6Gbps (ProRes 422 HQ) / 1.0Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[C4K] 4096x2160	29.97p, 972Mbps (ProRes 422 HQ) / 648Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 778Mbps (ProRes 422 HQ) / 519Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[FHD] 1920x1080	59.94p, 454Mbps (ProRes 422 HQ) / 302Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM) 29.97p, 227Mbps (ProRes 422 HQ) / 151Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM) 23.98p, 181Mbps (ProRes 422 HQ) / 121Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)
		APS- C / PIXE L/PIX EL	[C4K] 4096x2160	59.94p, 1.9Gbps (ProRes 422 HQ) / 1.3Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 29.97p, 972Mbps (ProRes 422 HQ) / 648Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 778Mbps (ProRes 422 HQ) / 519Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[3.3K] 3328x2496 (4:3)	29.97p, 913Mbps (ProRes 422 HQ) / 609Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 730Mbps (ProRes 422 HQ) / 487Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[FHD] 1920x1080	59.94p, 454Mbps (ProRes 422 HQ) / 302Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM) 29.97p, 227Mbps (ProRes 422 HQ) / 151Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM) 23.98p, 181Mbps (ProRes 422 HQ) / 121Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)

	50.00Hz	FULL	[5.8K] 5776x3056 (17:9)	25.00p, 1.6Gbps (ProRes 422 HQ) / 1.1Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[C4K] 4096x2160	25.00p, 811Mbps (ProRes 422 HQ) / 541Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[FHD] 1920x1080	50.00p, 378Mbps (ProRes 422 HQ) / 252Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM) 25.00p, 189Mbps (ProRes 422 HQ) / 126Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)
		APS-C / PIXEL/PIXEL	[C4K] 4096x2160	50.00p, 1.6Gbps (ProRes 422 HQ) / 1.1Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 811Mbps (ProRes 422 HQ) / 541Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[3.3K] 3328x2496 (4:3)	50.00p, 1.5Gbps (ProRes 422 HQ) / 1.0Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 761Mbps (ProRes 422 HQ) / 508Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[FHD] 1920x1080	50.00p, 378Mbps (ProRes 422 HQ) / 252Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM) 25.00p, 189Mbps (ProRes 422 HQ) / 126Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)
	24.00Hz	FULL	[5.8K] 5776x3056 (17:9)	24.00p, 1.6Gbps (ProRes 422 HQ) / 1.0Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[C4K] 4096x2160	24.00p, 779Mbps (ProRes 422 HQ) / 519Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[FHD] 1920x1080	24.00p, 182Mbps (ProRes 422 HQ) / 121Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)
		APS-C / PIXEL/PIXEL	[C4K] 4096x2160	24.00p, 779Mbps (ProRes 422 HQ) / 519Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[3.3K] 3328x2496 (4:3)	24.00p, 731Mbps (ProRes 422 HQ) / 487Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *External USB-SSD recording.
			[FHD] 1920x1080	24.00p, 182Mbps (ProRes 422 HQ) / 121Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)
MP4 (*1)	59.94Hz	FULL	[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	[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)			
		50.00Hz	FULL	[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	[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)		
		24.00Hz	FULL	-			
			APS-C / PIXEL	-			
		SLOW & QUICK	MOV (*1)	59.94Hz	FULL	[FHD] 1920x1080	59.94p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)** 59.94p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 29.97p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)** 29.97p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) 23.98p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**

				<p>23.98p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*Angle of view narrows if you select a frame rate with a number of frames 151 or more.</p> <p>**External USB-SSD recording.</p>
			APS-C	<p>[C4K] 4096x2160</p> <p>29.97p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>29.97p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>23.98p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>23.98p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*External USB-SSD recording.</p>
				<p>[4K] 3840x2160</p> <p>29.97p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>29.97p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>23.98p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>23.98p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*External USB-SSD recording.</p>
				<p>[FHD] 1920x1080</p> <p>59.94p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>59.94p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>29.97p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>29.97p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>23.98p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>23.98p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*Angle of view narrows if you select a frame rate with a number of frames 151 or more.</p>

				**External USB-SSD recording.
		50.00Hz	FULL	<p>[FHD] 1920x1080</p> <p>50.00p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>50.00p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>25.00p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>25.00p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*Angle of view narrows if you select a frame rate with a number of frames 151 or more.</p> <p>**External USB-SSD recording.</p>
			APS-C	<p>[C4K] 4096x2160</p> <p>25.00p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>25.00p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*External USB-SSD recording.</p>
				<p>[4K] 3840x2160</p> <p>25.00p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)*</p> <p>25.00p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*External USB-SSD recording.</p>
				<p>[FHD] 1920x1080</p> <p>50.00p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>50.00p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>25.00p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**</p> <p>25.00p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)</p> <p>*Angle of view narrows if you select a frame rate with a number of frames 151 or more.</p> <p>**External USB-SSD recording.</p>

		24.00Hz	FULL	[FHD] 1920x1080	24.00p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)** 24.00p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *Angle of view narrows if you select a frame rate with a number of frames 151 or more. **External USB-SSD recording.
			APS-C	[C4K] 4096x2160	24.00p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 24.00p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.
				[4K] 3840x2160	24.00p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 24.00p (Maximum output of sensor is 60fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *External USB-SSD recording.
				[FHD] 1920x1080	24.00p (Maximum output of sensor is 180fps)*, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)** 24.00p (Maximum output of sensor is 180fps)*, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM) *Angle of view narrows if you select a frame rate with a number of frames 151 or more. **External USB-SSD recording.
EXTERNAL USB-SSD RECORDING			Yes (ON / OFF)		
HDMI RAW DATA OUTPUT	Compatible external devices		ATOMOS HDMI field monitor/recorder "Ninja V+" *Selectable recording mode depends on the firmware version of ATOMOS Ninja V+. *Please refer to the ATOMOS website for the information on the corresponding firmware version of ATOMOS Ninja V+. *All functions may not be available depending on the situation.		
	Rec quality	59.94Hz	FULL	[5.9K] 5888x3312 (16:9)	29.97p, 12-bit (LPCM) 23.98p, 12-bit (LPCM)
			APS-C	[4.1K] 4128x2176 (17:9)	59.94p, 12-bit (LPCM) 29.97p, 12-bit (LPCM) 23.98p, 12-bit (LPCM)
				[3.5K] 3536x2656 (4:3)	29.97p, 12-bit (LPCM) 23.98p, 12-bit (LPCM)
	50.00Hz	FULL	[5.9K] 5888x3312 (16:9)	25.00p, 12-bit (LPCM)	
		APS-C	[4.1K] 4128x2176 (17:9)	50.00p, 12-bit (LPCM) 25.00p, 12-bit (LPCM)	

			[3.5K] 3536x2656 (4:3)	50.00p, 12-bit (LPCM) 25.00p, 12-bit (LPCM)	
	Audio format		LPCM (2ch 48kHz/24-bit, 96kHz/24-bit*) (4ch 48kHz/24-bit**, 96kHz/24-bit**) *When attaching Ø3.5mm microphone or DMW-XLR1 (sold separately). **When attaching DMW-XLR1 (sold separately).		
STREAMING	Wi-Fi	Protocol	RTMP / RTMPS		
		59.94Hz	[FHD] 1920x1080	59.94p, 16Mbps* / 8Mbps (H.264) *Not selectable when RTMPS is set. 29.97p, 6Mbps / 3Mbps (H.264)	
			[HD] 1280x720	59.94p, 6Mbps (H.264) 29.97p, 4Mbps (H.264)	
		50.00Hz	[FHD] 1920x1080	50.00p, 16Mbps* / 8Mbps (H.264) *Not selectable when RTMPS is set. 25.00p, 6Mbps / 3Mbps (H.264)	
			[HD] 1280x720	50.00p, 6Mbps (H.264) 25.00p, 4Mbps (H.264)	
		USB Tethering	Protocol	RTMP / RTMPS	
	59.94Hz		[4K] 3840x2160	29.97p, 12.5Mbps (H.264)	
			[FHD] 1920x1080	59.94p, 16Mbps / 8Mbps (H.264) 29.97p, 6Mbps / 3Mbps (H.264)	
			[HD] 1280x720	59.94p, 6Mbps (H.264) 29.97p, 4Mbps (H.264)	
	50.00Hz		[4K] 3840x2160	25.00, 12.5Mbps (H.264)	
			[FHD] 1920x1080	50.00p, 16Mbps / 8Mbps (H.264) 25.00p, 6Mbps / 3Mbps (H.264)	
			[HD] 1280x720	50.00p, 6Mbps (H.264) 25.00p, 4Mbps (H.264)	
	Wired LAN		Protocol	RTP / RTSP	
			59.94Hz	[4K] 3840x2160	59.94p, 50Mbps / 25Mbps (H.265)* 59.94p, 50Mbps / 25Mbps (H.264)* 29.97p, 25Mbps / 12.5Mbps (H.265) 29.97p, 25Mbps / 12.5Mbps (H.264) *When Image Area of Video is set to APS-C or PIXEL/PIXEL.
		[FHD] 1920x1080		59.94p, 20Mbps / 16Mbps (H.265) 59.94p, 16Mbps / 8Mbps (H.264) 29.97p, 12Mbps / 6Mbps (H.265) 29.97p, 6Mbps / 3Mbps (H.264)	
		[HD] 1280x720		59.94p, 6Mbps (H.264) 29.97p, 4Mbps (H.264)	
		50.00Hz	[4K] 3840x2160	50.00p, 50Mbps / 25Mbps (H.265)* 50.00p, 50Mbps / 25Mbps (H.264)* 25.00p, 25Mbps / 12.5Mbps (H.265) 25.00p, 25Mbps / 12.5Mbps (H.264) *When Image Area of Video is set to APS-C or PIXEL/PIXEL.	

			[FHD] 1920x1080	50.00p, 20Mbps / 16Mbps (H.265) 50.00p, 16Mbps / 8Mbps (H.264) 25.00p, 12Mbps / 6Mbps (H.265) 25.00p, 6Mbps / 3Mbps (H.264)
			[HD] 1280x720	50.00p, 6Mbps (H.264) 25.00p, 4Mbps (H.264)
VIEWFINDER	Type	OLED Live View Finder		
	Pixels	Approx. 3.68 million dots		
	Field of view / Magnification	Approx. 100% / Approx. 0.78x with 50 mm lens at infinity; -1.0 m ⁻¹ , when the aspect ratio is set to 3:2		
	Eye point / Diopter adjustment	Approx. 21 mm at infinity; -1.0 m ⁻¹ / -4.0 - +2.0 (dpt)		
	Eye sensor	Yes		
	Display speed	120fps / 60fps		
REAR MONITOR	Type	TFT LCD monitor with static touch control		
	Monitor size	Free-angle, 3.0-inch (7.6cm), 3:2 aspect		
	Pixels	Approx. 1.84 million dots		
	Field of view	Approx. 100%		
STATUS LCD		-		
FOCUS (*3)	Type	Phase Detection AF system / Contrast AF system		
	DFD technology	Yes		
	Focus mode	AFS (Single) / AFC (Continuous) / MF		
	AF mode	Tracking / Full Area AF / Zone (Horizontal/Vertical) / Zone / 1-Area+ / 1-Area / Pinpoint *Automatic Detection can be turned ON to switch between Human/ Face/Eye/ Animal+Human. Except when Pinpoint is set.		
	AF detectable range	EV -6 - 18 (F1.4, ISO100 equivalent, AFS)		
	AF custom setting	AF Sensitivity, AF Area Switching Sensitivity, Moving Object Prediction		
	AF assist light	Yes		
	AF lock	Set the Fn button in custom menu to AF lock		
	Focus ring control	Nonlinear / Linear (90°/ 120°/ 150°/ 180°/ 210°/ 240°/ 270°/ 300°/ 330°/ 360°/ 720°/ 1080°/ Maximum)		
	Others	AF-ON, AF-ON: Near Shift, AF-ON: Far Shift, Focus Limiter, Focus Peaking, 1-Area AF Moving Speed, AF Micro Adjustment, Continuous AF (during motion picture recording), Focus/Shutter Priority, Focus Switching for Vert/Hor, AF/AE Lock Hold, AF+MF, MF Assist, MF Guide, Focus Ring Lock, Show/Hide AF Mode, Shutter AF, Half Press Shutter, Quick AF, Eye Sensor AF, Loop Focus Frame, Enlarged Live Display (Video), Touch Shutter, Touch AF/AE Function, Touch Pad AF, Lens Focus Resum		
EXPOSURE CONTROL	Light metering system	1,728-zone multi-pattern sensing system		
	Light metering mode	Multiple / Center Weighted / Spot / Highlight Weighted		
	Metering range	EV0-18 (F2.0 lens, ISO100 equivalent)		
	Mode dial	Program AE (P) / Aperture Priority AE (A) / Shutter Priority AE (S) / Manual Exposure (M) / Creative Video (P/A/S/M)* / Slow&Quick / Custom 1, 2, 3 / Intelligent Auto *The same exposure operations as P/A/S/M mode is available.		
	Exposure compensation	1/3 EV step ±5EV (±3EV for motion picture)		



	ISO sensitivity (Standard output sensitivity)	<p>[Normal] Auto / 50* / 100-51200 / 102400* / 204800* (1/3 or 1 EV step) *Extended ISO</p> <p>[V-Log] Auto / 320* / 640-51200 (1/3 or 1 EV step) *Extended ISO</p> <p>[HLG] Auto / 400-51200 / 102400* / 204800* (1/3 or 1 EV step) *Extended ISO</p>
	Dual Native ISO	<p>[Normal] Native ISO: 100, 640 Auto: Auto / 50* / 100-51200 / 102400* / 204800* *Extended ISO Low: Auto / 50* / 100-800 *Extended ISO High: Auto / 320* / 640-51200 / 102400* / 204800* *Extended ISO</p> <p>[V-Log] Native ISO: 640, 4000 Auto: Auto / 320* / 640-51200 *Extended ISO Low: Auto / 320* / 640-5000 *Extended ISO High: Auto / 2000* / 4000-51200 *Extended ISO</p> <p>[HLG] Native ISO: 400, 2500 Auto: Auto / 400-51200 / 102400* / 204800* *Extended ISO Low: Auto / 400-3200 High: Auto / 2500-51200 / 102400* / 204800* *Extended ISO</p> <p>[Cinelike D2 / Cinelike V2] Native ISO: 200, 1250 Auto: Auto / 100* / 200-51200 / 102400* / 204800* *Extended ISO Low: Auto / 100* / 200-1600 *Extended ISO High: Auto / 640* / 1250-51200 / 102400* / 204800* *Extended ISO</p>
	AE lock	Set the Fn button in custom menu to AE lock
IMAGE STABILIZATION SYSTEM		<p>B.I.S. (5-axis / 5-stop*) *Based on the CIPA standard [Yaw/Pitch direction: focusing distance f=60mm when S-R2060 is used.] Dual I.S. 2 (6.5-stop*) *Based on the CIPA standard [Yaw/Pitch direction: focusing distance f=200mm 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 Electronic front curtain shutter: Bulb (Max. 30 minutes), 1/2,000 - 60 Electronic shutter: Bulb (Max. 60 sec), 1/8,000 - 60 Motion picture: 1/16,000 - 1/25 Creative Video M mode / MF mode: 1/16,000 - 1/2</p>
	Self timer	10sec, 3 images / 2sec / 10sec / Custom Time
	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. ± 3 EV, single/burst
	Aperture bracket		3, 5 or all positions
	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	H: 9 frames/sec (AFS/MF), 7 frames/sec (AFC) (with Live View) M: 5 frames/sec (AFS/MF) (with Live View), 5 frames/sec (AFC) (with Live View) L: 2 frames/sec (AFS/AFC/MF) (with Live View)
		Electronic shutter	SH30: 30 frames/sec (AFS/AFC/MF) H: 9 frames/sec (AFS/MF), 8 frames/sec (AFC) (with Live View) M: 5 frames/sec (AFS/MF) (with Live View), 5 frames/sec (AFC) (with Live View) L: 2 frames/sec (AFS/AFC/MF) (with Live View)
	Number of recordable images		H/M/L* RAW+JPEG: More than 200 images RAW: More than 200 images JPEG: More than 300 images *Until the burst shooting speed slows. When recording is performed under the test conditions specified by Panasonic. *When using a card with SD Speed Class with "UHS-II UHS Speed Class 3 (U3)". SH RAW / RAW+JPEG / JPEG: 200 images
FLASH	Flash type		TTL External Flash (sold separately)
	Synchronization speed		Less than 1/250 second *The guide number decreases at 1/250 second. Only when set to M mode or S mode.
	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 ± 3 EV
	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.
COLOR SETTINGS	Photo Style	Photo Style	Standard / Vivid / Natural / L. Classic Neo / Flat / Landscape / Portrait / Monochrome / L. Monochrome / L. Monochrome D / L. Monochrome S / Cinelike D2 / Cinelike V2 / Like709 / V-Log / REAL TIME LUT / Like2100 (HLG) / Like2100 (HLG) Full Range* / My Photo Style 1-4 (5-10)* *Set to ON from Show/Hide Photo Style to select.
		Picture adjustment	Contrast / Highlight / Shadow / Saturation / Color Tone / Hue / Filter Effect / Grain Effect / Color Noise / Sharpness / Noise Reduction / ISO / WB / LUT *Adjustable settings vary depending on the Photo Style mode.
	Filter		Expressive / Retro / Old Days / High Key / Low Key / Sepia / Cross Process / Bleach Bypass
	LUT Library		Vlog_709 / Set 1-10 *REAL TIME LUT in Photo Style, Apply LUT in Fn button, Apply

		LUT in RAW Processing, LUT View Assist in V-Log View Assist, LUT can be applied from these settings.
MOTION PICTURE FUNCTION	Time lapse shot	Yes
	Stop motion animation	Yes
	Live cropping	Yes (Supports cropping from 5.9K (FULL) 30p/25p/24p video to 4K/FHD sizes)
	SS/Gain operation	Shutter Duration/ISO / Angle/ISO / Shutter Duration/dB
	Luminance level	8-bit: 0-255 / 16-235 / 16-255 10-bit: 0-1023 / 64-940 / 64-1023
	Synchro scan	Yes
	Master pedestal level	31 steps
	Color bars / 1kHz test tone	Yes (SMPTE / EBU / ARIB) / Yes
	LUT view assist	Supported file types: .vlt, .cube Monitor / HDMI
	HLG view assist	Monitor (MODE1 / MODE2 / OFF) / HDMI (AUTO / MODE1 / MODE2 / OFF)
	Anamorphic desqueeze display	2.0x / 1.8x / 1.5x / 1.33x / 1.30x / OFF
	Wave form monitor / Vectorscope	Selectable
	Knee control	Yes (in Like709 mode)
Red REC frame indicator	ON / OFF	
VERTICAL POSITION INFORMATION		Still image / Motion picture (ON/OFF)
LEVEL GAUGE		Yes
FUNCTION BUTTON	REC	Exposure Comp. / Dual Native ISO / Sensitivity / White Balance / Photo Style / Apply LUT / Metering Mode / Aspect Ratio / Picture Quality / Picture Size / 1 Shot Spot Metering / Long Exposure NR / Min. Shutter Speed / 1 Shot RAW+JPG / i.Dynamic Range / Color Shading Compensation / Filter Effect / One Push AE / Touch AE / AWB Lock / Exposure Mode / Synchro Scan / AF Mode / AF Detection Setting / Detecting Subject / AF Custom Setting(Photo) / AF Custom Setting(Video) / Focus Limiter / Focus Limiter Range Set / 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 / Focus Area Set / Enlarged Live Display (Video) / Flash Mode / Flash Adjust. / Wireless Flash Setup / Drive Mode Setting / Bracketing / Silent Mode / Image Stabilizer / Shutter Type / Ex. Tele Conv. / Rec. File Format / Rec Quality / Rec Quality (My List) / Slow & Quick Setting / Time Code Display / Audio Information / Sound Rec Level Disp. / Mute Sound Input / Sound Rec Level Adj. / Sound Rec Quality / Sound Rec Level Limiter / 4ch Mic Input / XLR Mic Adaptor Setting / Sound Monitoring Channel / Image Stabilizer / E-Stabilization (Video) / Boost I.S. (Video) / Image Area of Video / Focus Transition / Live Cropping / Q.MENU / Rec/Playback Switch / Video Record / Video Record (Creative Video) / 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. Set / Video-Priority Display / 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 / WFM/Vector Scope / Anamorphic Desqueeze Display / Color Bars / Focus Ring Control / AF Micro Adjustment / Lens Information / Destination Card Slot / Wi-Fi / Fan Mode / Save to Custom Mode / No Setting / Off (Disable Press and Hold) / Restore to Default	
	PLAY	Magnify from AF Point / LUT View Assist (Monitor) / HLG View Assist (Monitor) / Anamorphic Desqueeze Display / RAW Processing / Delete Single / Protect / Rating 1, 2, 3, 4, 5 / Copy / Rec/Playback Switch / LVF/Monitor Switch / Video Record / Video Record (Creative Video) / Night Mode / Card Slot Change / Sound Monitoring Channel(Play) / Wi-Fi / Fan Mode / Send Image (Smartphone) / LUT View Assist (HDMI) / HLG View Assist (HDMI) / No Setting / Off (Disable Press and Hold) / Restore to Default	
OSD LANGUAGE		Please refer to "OSD" Sheet	
INTERFACE	USB	USB Type-C (SuperSpeed USB 10Gbps (USB 3.2 Gen2))	
	HDMI (*2)	HDMI	HDMI TypeA Audio: ON / OFF, MP4: 2ch, MOV: 2ch (When [4ch Mic Input] is set to OFF.), 4ch (When [4ch Mic Input] is set to ON.)
		Monitor-through	4:2:2 10bit (When [Rec Quality] is set to [4:2:2 10bit] or [4:2:0 10bit].) 4:2:2 8bit (When [Rec Quality] is set to [4:2:0 8bit].)
		Playback	59.94Hz: C4K/60p / C4K/30p / 4K/60p / 4K/30p / 1080/120p / 1080p / 1080i / 720p* / 480p* 50.00Hz: C4K/50p / C4K/25p / 4K/50p / 4K/25p / 1080/100p / 1080p / 1080i / 720p* / 576p* 24.00Hz: C4K/24p / 4K/24p / 1080p *Only for playback.
	Remote input		φ2.5mm
	Audio	Build-in microphone	Stereo Wind Noise Canceller: OFF / Standard / High
		External microphone / External audio device input	φ3.5mm for external microphone / external audio device MIC (Plug-in Power) / MIC / LINE Wind Cut: OFF / Low / Standard / High *When attaching 3.5mm microphone (sold separately). Special Mic: Stereo / Shotgun *When attaching DMW-MS2 (sold separately).
		XLR microphone	Yes with DMW-XLR1 (sold separately)
		4ch mic input	Yes with DMW-XLR1 (sold separately)
		Speaker	Monaural
Headphone output		φ3.5mm	



	SD card slot	Slot 1, Slot 2 SD Memory Card / SDHC Memory Card* / SDXC Memory Card* *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.
TC IN/OUT	Count up	Rec Run / Free Run
	Time code mode	Drop Frame / Non-Drop Frame (When system frequency [59.94Hz] is selected.)
	HDMI time code output	ON / OFF
FAN		Auto1 / Auto2 / Fast / Normal / Slow* / OFF** *Not selectable when the resolution is higher than C4K, or the frame rate is higher than 60p. **OFF can be set when in iA/P/A/S/M mode.
WIRELESS	Wi-Fi	2.4GHz bands (STA/AP) (IEEE802.11b/g/n) 5GHz bands (STA) (IEEE 802.11a/n/ac) Security: WPA/WPA2/WPA3 Please refer to "Wi-Fi" Sheet
	Bluetooth	Bluetooth® v5.0 (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, USB power delivery
	Battery life (CIPA standard)	Approx. 370 images, 1,250 images (Power Save LVF mode*) with S-R2060 Approx. 370 images, 1,200 images (Power Save LVF mode*) with S-S50 *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) (*1)	MP4 [4K/60p]: Approx. 90 min (APS-C), MP4 [FHD/60p]: Approx. 130 min (FULL) *When using S-R2060 / S-S50. When the battery is fully charged.
	Actual recordable time (Motion picture) (*1)	MP4 [4K/60p]: Approx. 45 min (APS-C), MP4 [FHD/60p]: Approx. 65 min (FULL) *When using S-R2060 / S-S50. When the battery is fully charged.
	Battery grip	DMW-BGS5 (sold separately)
DIMENSIONS / WEIGHT	Dimensions (W x H x D)	Approx. 134.3 x 102.3 x 90.1 mm / 5.29 x 4.03 x 3.55 inch (Body only, excluding protrusions) Approx. 134.3 x 102.3 x 157.0 mm / 5.29 x 4.03 x 6.19 inch (with S-R2060, excluding protrusions) Approx. 134.3 x 102.3 x 151.8 mm / 5.29 x 4.03 x 5.98 inch (with S-S50, excluding protrusions)
	Weight	Approx. 740g / 1.64 lb (Body, Hot Shoe Cover, Battery, SD Memory Card x 1) (excluding body cap) Approx. 657g / 1.45 lb (Body, Hot Shoe Cover) (excluding body cap)
OPERATING ENVIRONMENT	Operating temperature (*3)	0°C to 40°C (32°F to 104°F)
	Operating humidity	10%RH to 80%RH



STANDARD ACCESSORIES	Software	Recording	<p>LUMIX Tether</p> <ul style="list-style-type: none"> This software is used to control a Panasonic digital camera from a computer. 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. http://panasonic.jp/support/global/cs/soft/download/d_lumixtether.html (For Windows / Mac) <p>LUMIX Sync</p> <ul style="list-style-type: none"> This software is used to control a Panasonic digital camera from a smartphone. Check the site below to download and install the software. https://panasonic.jp/support/global/cs/dsc/ (For Android™ / iOS)
		Playback / Editing	<ul style="list-style-type: none"> 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. http://www.isl.co.jp/SILKYPIX/english/p/ (For Windows / Mac)
	Standard accessories	<p>DC-S5M2X Kit</p> <p>Body Cap, Hot Shoe Cover, Cover for the Battery Grip Connector, Shoulder Strap, Battery Pack, AC Adaptor, USB Connection Cable (A-C)</p> <p>DC-S5M2XK Kit / DC-S5M2XC Kit</p> <p>Body Cap, Hot Shoe Cover, Cover for the Battery Grip Connector, Shoulder Strap, Battery Pack, AC Adaptor, USB Connection Cable (A-C), Lens Cap, Lens Hood, Lens Rear Cap</p> <p>DC-S5M2XW Kit</p> <p>Body Cap, Hot Shoe Cover, Cover for the Battery Grip Connector, Shoulder Strap, Battery Pack, AC Adaptor, USB Connection Cable (A-C), Lens Cap x 2, Lens Hood x 2, Lens Rear Cap x 2</p> <ul style="list-style-type: none"> The Operating Instructions for advanced features is available for downloaded at Panasonic LUMIX Customer Support Site using PC, smartphone or tablet connected to the Internet. 	

(*1) About motion picture recording

- The cards that can be used for recording vary depending on the motion pictures bit rate and format type.
Motion pictures with 72Mbps or less: External USB-SSD, SD memory card with SD Speed Class with Class 10 or Video Speed Class 10 or higher
Motion pictures with 200Mbps or less: External USB-SSD, SD memory card with UHS-I / UHS-II UHS Speed Class 3 (U3) or Video Speed Class 30 or higher
Motion pictures with 400Mbps or less: External USB-SSD, SD memory card with Video Speed Class 60 or higher
Motion pictures with 600Mbps or less: External USB-SSD, SD memory card with Video Speed Class 90
Motion pictures with 800Mbps or more or ProRes: External USB-SSD
- A new file will be created to continue recording if the continuous recording time exceeds the following conditions.
Motion pictures with less than 72Mbps: 30 minutes
Motion pictures with 72Mbps or more: 3 hours 4 minutes
- A new file will be created to continue recording if the file size exceeds the following conditions.
[MP4] in [FHD]: 4GB
[MP4] in [4K]: 96GB
[MOV] in 600Mbps or less: 192GB
[MOV] in 800Mbps: 640GB
[ProRes] in [5.7K]: 640GB
- If the resolution is higher than C4K, the frame rate is higher than 60p or set to ProRes, the camera may stop the recording to protect itself. Wait until the camera cools down.

(*2) High-res audio is selectable only when attaching ϕ 3.5mm microphone or DMW-XLR1 (sold separately).

(*3) About AF

- Automatic Detection is not available for High Frame Rate video shooting above 60p (100p or 120p).
- Tracking and Automatic Detection are not available when using HDMI cable or USB connection cable for High Frame Rate video shooting (100p or 120p) above 60p.

(*4) To output motion pictures with 4K or higher, use a Premium High Speed HDMI cable (Type A - Type A plug).