

# DC-GH7 Specifications

TYPE	Type	Digital Single Lens Mirrorless camera			
	Lens mount	Micro Four Thirds mount			
	IMAGE SENSOR	Type	BSI CMOS sensor (17.3 x 13.0 mm)		
		Camera effective pixels / Total pixels	Approx. 25.2 megapixels / Approx. 26.5 megapixels		
		AR (Anti Reflection) coating	Yes		
Aspect ratio / Color filter		4:3 / Primary color filter			
	Dust reduction system	Image sensor shift type			
LATITUDE		13+ stops (V-Log) (Sensor output is 60fps or less) 12+ stops (V-Log) (Sensor output is 61fps or higher)			
STILL IMAGE	Recording file format	JPEG (DCF, Exif 3.0), RAW			
	Aspect ratio	4:3 / 3:2 / 16:9 / 1:1			
	File size (Pixels)	4:3	5776x4336(L) / 4096x3072(M) / 2944x2208(S) / 1920 x 1440(XS) / 11552x8672(XL)* / 8192x6144(LL)* *High Resolution Mode.		
		3:2	5776x3848(L) / 4096x2728(M) / 2944x1960(S) / 1920x1280(XS) / 11552x7696(XL)* / 8192x5464(LL)* *High Resolution Mode.		
		16:9	5776x3248(L) / 4096x2304(M) / 2944x1656(S) / 1920x1080(XS) / 11552x6496(XL)* / 8192x4608(LL)* *High Resolution Mode.		
	1:1	4336x4336(L) / 3072x3072(M) / 2208x2208(S) / 1440x1440(XS) / 8672x8672(XL)* / 6144x6144(LL)* *High Resolution Mode.			
	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, Apple ProRes RAW MP4: H.264/MPEG-4 AVC, H.265/HEVC			
	Audio format	4ch Audio Recording: OFF	MOV Linear format: LPCM (2ch stereo 48kHz/24-bit, 96kHz/24-bit) Float format*: LPCM (2ch stereo 48kHz/32-bit, 96kHz/32-bit) *When attaching Φ3.5mm microphone or DMW-XLR2 (sold separately). **When attaching DMW-XLR2 (sold separately). MP4 Linear format: AAC (2ch stereo 48kHz/16-bit)		
		4ch Audio Recording: XLR*	MOV Linear format: LPCM (4ch monaural 48kHz/24-bit) Float format: LPCM (4ch monaural 48kHz/32-bit) *When attaching DMW-XLR2 (sold separately).		
		4ch Audio Recording: XLR*+Camera	MOV Linear format: LPCM (4ch monaural 48kHz/24-bit, 96kHz/24-bit)** *When attaching DMW-XLR2 (sold separately). **When attaching Φ3.5mm microphone or DMW-XLR2 (sold separately).		
	System frequency	59.94Hz / 50.00Hz / 24.00Hz			
	Image area of video	FULL / PIXEL/PIXEL			
	Log recording	V-Log			
	Proxy	ON / OFF Proxy Rec Quality: H / M / L Real Time LUT (Proxy): ON / OFF *When the following functions are being used, proxy recording is not available: [MP4], [Rec Quality] exceeding a resolution of C4K, [Rec Quality] with [4:3] or [3:2] aspect ratio, [Rec Quality] with a high frame rate video, [HDMI RAW Data Output], and [Streaming].			
	MOV (*1) (*2) (*3)	59.94Hz	[5.8K] 5760x4320 (4:3)	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)* *Image Area of Video is set to FULL during this recording mode.	
			[5.7K] 5728x3024 (17:9)	59.94p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 47.95p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 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)* *Image Area of Video is set to FULL during this recording mode.	
			[4.4K] 4352x3264 (4:3)	59.94p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 47.95p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.	
			[C4K] 4096x2160 [4K] 3840x2160	119.88p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)** 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 (L)) (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)* 59.94p, 150Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, 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 (L)) (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)* 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, 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)* 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video on a USB-SSD.	
			[FHD] 1920x1080	239.76p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**/** 239.76p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)**/** 239.76p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)**/** 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)* 59.94p, 50Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* 59.94i, 100Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 59.94i, 50Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, 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)* 29.97p, 25Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 100Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 23.98p, 25Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **Image Area of Video is set to FULL during this recording mode. ***An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video on a USB-SSD.	
			50.00Hz	[5.8K] 5760x4320 (4:3)	25.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
				[5.7K] 5728x3024 (17:9)	50.00p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 25.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
[4.4K] 4352x3264 (4:3)				50.00p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.	
[C4K] 4096x2160 [4K] 3840x2160				100.00p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)** 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 (L)) (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)* 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, 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)* 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video on a USB-SSD.	

		[FHD] 1920x1080	200.00p, 800Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)**/* 200.00p, 200Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)**/* 200.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)**/* 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)* 50.00p, 50Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* 50.00i, 100Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 50.00i, 50Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, 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)* 25.00p, 25Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **Image Area of Video is set to FULL during this recording mode. ***An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video on a USB-SSD.
24.00Hz		[5.8K] 5760x4320 (4:3)	24.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
		[5.7K] 5728x3024 (17:9)	48.00p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 24.00p, 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
		[4.4K] 4352x3264 (4:3)	48.00p, 300Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to PIXEL/PIXEL during this recording mode.
		[C4K] 4096x2160 [4K] 3840x2160	120.00p, 300Mbps (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)* 24.00p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video on a USB-SSD.
		[FHD] 1920x1080	120.00p, 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)** 120.00p, 150Mbps (4:2:2 10-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)** 120.00p, 150Mbps (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)* 24.00p, 25Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video on a USB-SSD.
MP4 (*1) (*2)	59.94Hz	[4K] 3840x2160	59.94p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, AAC) 29.97p, 72Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, AAC) 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (H.264/MPEG-4 AVC, AAC) 23.98p, 72Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, 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)
		[4K] 3840x2160	50.00p, 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, AAC) 25.00p, 72Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, AAC) 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)
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ProRes (*1) (*3)	59.94Hz	[5.7K] 5728x3024 (17:9)	29.97p, 4.2Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 29.97p, 2.8Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 29.97p, 1.9Gbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 29.97p, 1.3Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 3.3Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 23.98p, 2.2Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 23.98p, 1.5Gbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 1.0Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Image Area of Video is set to FULL during this recording mode. **Software that supports Apple ProRes RAW is required to edit RAW video recorded. **A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut. <a href="https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/">https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/</a>
		[C4K] 4096x2160	59.94p, 4.2Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 59.94p, 2.8Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 59.94p, 1.9Gbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 59.94p, 1.3Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 29.97p, 2.1Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 29.97p, 1.4Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 29.97p, 972Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 29.97p, 648Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 1.7Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 23.98p, 1.1Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 23.98p, 778Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 519Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **Image Area of Video is set to PIXEL/PIXEL during this recording mode. **Software that supports Apple ProRes RAW is required to edit RAW video recorded. **A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut. <a href="https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/">https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/</a>
		[FHD] 1920x1080	59.94p, 454Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 59.94p, 302Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 29.97p, 227Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 29.97p, 151Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 181Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 23.98p, 121Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available.
		[5.7K] 5728x3024 (17:9)	25.00p, 3.5Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 25.00p, 2.3Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 25.00p, 1.6Gbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 1.1Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Image Area of Video is set to FULL during this recording mode. **Software that supports Apple ProRes RAW is required to edit RAW video recorded. **A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut.
		[C4K] 4096x2160	50.00p, 3.5Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 50.00p, 2.4Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 50.00p, 1.6Gbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 50.00p, 1.1Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 1.8Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/* 25.00p, 1.2Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/* 25.00p, 811Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 541Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **Image Area of Video is set to PIXEL/PIXEL during this recording mode. **Software that supports Apple ProRes RAW is required to edit RAW video recorded. **A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut. <a href="https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/">https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/</a>
[FHD] 1920x1080	50.00p, 378Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 50.00p, 252Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 189Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 25.00p, 126Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available.		

		24.00Hz	[5.7K] 5728x3024 (17:9)	24.00p, 3.3Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)** 24.00p, 2.2Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)** 24.00p, 1.5Gbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 24.00p, 1.0Gbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Image Area of Video is set to FULL during this recording mode. **Software that supports Apple ProRes RAW is required to edit RAW video recorded. **A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut.
			[C4K] 4096x2160	24.00p, 1.7Gbps (ProRes RAW HQ) (H.264/MPEG-4 AVC, LPCM)**/** 24.00p, 1.1Gbps (ProRes RAW) (H.264/MPEG-4 AVC, LPCM)**/** 24.00p, 779Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 24.00p, 519Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available. **Image Area of Video is set to PIXEL/PIXEL during this recording mode. ***Software that supports Apple ProRes RAW is required to edit RAW video recorded. ***A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut.
			[FHD] 1920x1080	24.00p, 182Mbps (ProRes 422 HQ) (H.264/MPEG-4 AVC, LPCM)* 24.00p, 121Mbps (ProRes 422) (H.264/MPEG-4 AVC, LPCM)* *Proxy video recording is available.
VARIABLE FRAME RATE	MOV (*1) (*2)	59.94Hz	[5.7K] 5728x3024 (17:9)	29.97p (Maximum output of sensor is 60fps), 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 23.98p (Maximum output of sensor is 60fps), 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[C4K] 4096x2160 [4K] 3840x2160	59.94p (Maximum output of sensor is 120fps), 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 29.97p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 29.97p (Maximum output of sensor is 120fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 23.98p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 23.98p (Maximum output of sensor is 120fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video of 61fps or higher on a USB-SSD.
			[FHD] 1920x1080	59.94p (Maximum output of sensor is 240fps), 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 59.94p (Maximum output of sensor is 300fps), 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 29.97p (Maximum output of sensor is 240fps), 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 29.97p (Maximum output of sensor is 300fps), 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 23.98p (Maximum output of sensor is 240fps), 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 23.98p (Maximum output of sensor is 300fps), 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Maximum output of sensor is 120fps when Image Area of Video is set to PIXEL/PIXEL. *An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video of 61fps or higher on a USB-SSD.
		50.00Hz	[5.7K] 5728x3024 (17:9)	25.00p (Maximum output of sensor is 60fps), 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[C4K] 4096x2160 [4K] 3840x2160	50.00p (Maximum output of sensor is 120fps), 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 25.00p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM) 25.00p (Maximum output of sensor is 120fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video of 61fps or higher on a USB-SSD.
			[FHD] 1920x1080	50.00p (Maximum output of sensor is 240fps), 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 50.00p (Maximum output of sensor is 300fps), 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 25.00p (Maximum output of sensor is 240fps), 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 25.00p (Maximum output of sensor is 300fps), 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Maximum output of sensor is 100fps when Image Area of Video is set to PIXEL/PIXEL. *An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video of 61fps or higher on a USB-SSD.
		24.00Hz	[5.7K] 5728x3024 (17:9)	24.00p (Maximum output of sensor is 60fps), 200Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[C4K] 4096x2160 [4K] 3840x2160	24.00p (Maximum output of sensor is 120fps), 150Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* 24.00p (Maximum output of sensor is 60fps), 400Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)** *An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video of 61fps or higher on a USB-SSD. **External USB-SSD recording.
			[FHD] 1920x1080	24.00p (Maximum output of sensor is 240fps), 200Mbps (4:2:2 10-bit ALL-Intra) (H.264/MPEG-4 AVC, LPCM)* 24.00p (Maximum output of sensor is 300fps), 100Mbps (4:2:0 10-bit LongGOP) (H.265/HEVC, LPCM)* *Maximum output of sensor is 120fps when Image Area of Video is set to PIXEL/PIXEL. *An AC Adaptor DMW-AC11 (optional) and DC Coupler DMW-DCC18 (optional) are required to record video of 61fps or higher on a USB-SSD.
HDMI RAW DATA OUTPUT	Compatible external devices			Blackmagic Video Assist 5" 12G HDR, Blackmagic Video Assist 7" 12G HDR *DaVinci Resolve or DaVinci Resolve Studio is required to play back and DaVinci Resolve Studio to edit Blackmagic RAW data. *Please refer to the Blackmagic Design website for the information on the corresponding firmware version of Blackmagic Video Assist 5" 12G HDR and Blackmagic Video Assist 7" 12G HDR. *All functions may not be available depending on the situation. *When recording in C4K 120p/100p or 5.7K 60p/50p, constant bitrate 5:1 or less is recommended for SSD recording and 8:1 or less for SD card recording.  ATOMOS devices "Ninja V" / "Ninja V+" / "Ninja" / "Ninja Ultra" / "Shogun" / "Shogun Ultra" / "Shogun Connect" *All functions may not be available depending on the situation. *Please check here for compatible firmware versions of external recorders. <a href="https://panasonic.jp/support/global/cs/dsc/connect/index.html">https://panasonic.jp/support/global/cs/dsc/connect/index.html</a> **"Ninja V" "Ninja" "Shogun" does not support some RAW video data. *Software that supports Apple ProRes RAW is required to edit RAW video recorded. *A LUT (Lookup table) exclusively designed for RAW video is available on the following customer support website to make the same color grading as V-Log/V-Gamut. <a href="https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/">https://panasonic.jp/support/global/cs/dsc/download/lut/s1h_raw_lut/</a>
	Rec quality	NTSC (59.94Hz)	[5.8K] 5760x4320 (4:3)	29.97p, 12-bit (LPCM)* 23.98p, 12-bit (LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[5.7K] 5728x3024 (17:9)	59.94p, 12-bit (LPCM)* 29.97p, 12-bit (LPCM)* 23.98p, 12-bit (LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[4.4K] 4352x3264 (4:3)	59.94p, 12-bit (LPCM)* *Image Area of Video is set to PIXEL/PIXEL during this recording mode.
			[C4K] 4096x2160 (17:9)	119.88p, 12-bit (LPCM)* 59.94p, 12-bit (LPCM)* 29.97p, 12-bit (LPCM)* 23.98p, 12-bit (LPCM)* *Image Area of Video is set to PIXEL/PIXEL during this recording mode.
		PAL (50.00Hz)	[5.8K] 5760x4320 (4:3)	25.00p, 12-bit (LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[5.7K] 5728x3024 (17:9)	50.00p, 12-bit (LPCM)* 25.00p, 12-bit (LPCM)* *Image Area of Video is set to FULL during this recording mode.
			[4.4K] 4352x3264 (4:3)	50.00p, 12-bit (LPCM)* *Image Area of Video is set to PIXEL/PIXEL during this recording mode.
			[C4K] 4096x2160 (17:9)	100.00p, 12-bit (LPCM)* 50.00p, 12-bit (LPCM)* 25.00p, 12-bit (LPCM)* *Image Area of Video is set to PIXEL/PIXEL during this recording mode.
	Audio format			4ch Audio Recording: OFF Linear format: LPCM (2ch stereo 48kHz/24-bit, 96kHz/24-bit) Float format**: LPCM (2ch stereo 48kHz/32-bit, 96kHz/32-bit) *When attaching $\Phi$ 3.5mm microphone or DMW-XLR2 (sold separately). **When attaching DMW-XLR2 (sold separately).
				4ch Audio Recording: XLR* Linear format: LPCM (4ch monaural 48kHz/24-bit) Float format: LPCM (4ch monaural 48kHz/32-bit) *When attaching DMW-XLR2 (sold separately).
				4ch Audio Recording: XLR*+Camera Linear format: LPCM (4ch monaural 48kHz/24-bit, 96kHz/24-bit)** *When attaching DMW-XLR2/XLR1 (sold separately). **When attaching $\Phi$ 3.5mm microphone or DMW-XLR2 (sold separately).
EXTERNAL USB-SSD RECORDING				Yes (ON / OFF)
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	25.00p, 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 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 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. 1.6x / 0.8x (35mm camera equivalent) with 50 mm lens at infinity; -1.0 m <sup>-1</sup> , when the aspect ratio is set to 4:3		
	Eye point / Diopter adjustment	Approx. 21 mm at infinity; -1.0 m <sup>-1</sup> / -4.0 - +2.0 (dpt)		
	Eye sensor	Yes		
	Display speed	120fps / 60fps		
REAR MONITOR	Type	TFT LCD monitor with static touch control		
	Monitor size	Tilt free-angle, 3.0-inch (7.6cm), 3:2 aspect		
	Pixels	Approx. 1.84 million dots		
	Field of view	Approx. 100%		
FOCUS (*4)	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 / Animal / Car / Motorcycle / Train / Airplane. Except when Pinpoint is set.		
	AF detectable range	EV -4 - 18 (F2.0, 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) *When a compatible lens is attached.		
	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, AF-Point Scope, 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 Resume		
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)* / Custom 1, 2, 3, 4 / 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)	Still image	[Normal] Auto / 50 (Extended ISO) / 100-25600  [V-Log] Auto / 125 (Extended ISO) / 500-12800  *Switchable between 1/3 or 1 EV step.	
		Motion picture	[Normal] Sensor output is 60fps or less (Base ISO 100): Auto / 50 (Extended ISO) / 100-12800 Sensor output is 61fps or higher (Base ISO 100): Auto / 50 (Extended ISO) / 100-3200 / 4000-12800 (Extended ISO)  [V-Log] Sensor output is 60fps or less (Base ISO 500): Auto / 125-400 (Extended ISO) / 500-12800 Sensor output is 61fps or higher (Base ISO 250): Auto / 125-200 (Extended ISO) / 250-3200 / 4000-12800 (Extended ISO)  [Hybrid Log Gamma] Sensor output is 60fps or less (Base ISO 250): Auto / 250-12800 Sensor output is 61fps or higher (Base ISO 250): Auto / 250-3200 / 4000-12800 (Extended ISO)  *Switchable between 1/3 or 1 EV step.	
	ISO Auto	Still image	[Normal] Minimum: 100-12800 Max: Auto / 200-25600  [V-Log] Minimum: 500-6400 Max: Auto / 800-12800	
		Motion picture	[Normal] Minimum: Sensor output is 60fps or less: 100-6400 Sensor output is 61fps or higher: 100-1600 Max: Sensor output is 60fps or less: Auto / 200-12800 Sensor output is 61fps or higher: Auto / 200-3200 / 6400 (Extended ISO)  [V-Log] Minimum: Sensor output is 60fps or less: 500-6400 Sensor output is 61fps or higher: 250-1600 Max: Sensor output is 60fps or less: Auto / 800-12800 Sensor output is 61fps or higher: Auto / 400-3200 / 6400 (Extended ISO)  [Hybrid Log Gamma] Minimum: Sensor output is 60fps or less: 250-6400 Sensor output is 61fps or higher: 250-1600 Max: Sensor output is 60fps or less: Auto / 400-12800 Sensor output is 61fps or higher: Auto / 400-3200 / 6400 (Extended ISO)	
	Synchro scan	Still image / Motion picture		
	AE lock	Set the Fn button in custom menu to AE lock		
IMAGE STABILIZATION SYSTEM		B.I.S. (5-axis / 7.5-stop*) *Based on the CIPA standard [Yaw/Pitch direction: focusing distance f=60mm (35mm camera equivalent f=120mm) when H-ES12060 is used.]  Dual I.S. 2 (7.5-stop**) **Based on the CIPA standard [Yaw/Pitch direction: focusing distance f=140mm (35mm camera equivalent f=280mm) when H-FSA14140 is used.]		
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	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), 1/32,000 - 60 Motion picture: 1/25,000 - 1/25 Creative Video M mode / MF mode: 1/25,000 - 1/8		
	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		Yes		
	White balance bracket		3 images in blue/amber axis or in magenta/green axis, color temperature setting		
BURST SHOOTING	Burst speed	Mechanical shutter	H: 14 frames/sec (AFS/MF), 10 frames/sec (AFC) (with Live View) M: 6 frames/sec (AFS/AFC/MF) (with Live View) L: 2 frames/sec (AFS/AFC/MF) (with Live View)		
		Electronic front curtain shutter	H: 14 frames/sec (AFS/MF), 9 frames/sec (AFC) (with Live View) M: 6 frames/sec (AFS/AFC/MF) (with Live View) L: 2 frames/sec (AFS/AFC/MF) (with Live View)		
		Electronic shutter	SH75: 75 frames/sec (AFS/MF) SH60: 60 frames/sec (AFS/AFC/MF) SH20: 20 frames/sec (AFS/AFC/MF) SH75 PRE: 75 frames/sec (AFS/MF) SH60 PRE: 60 frames/sec (AFS/AFC/MF) SH20 PRE: 20 frames/sec (AFS/AFC/MF) H: 14 frames/sec (AFS/MF), 9 frames/sec (AFC) (with Live View) M: 6 frames/sec (AFS/AFC/MF) (with Live View) L: 2 frames/sec (AFS/AFC/MF) (with Live View)		
	Number of recordable images		H/M/L* RAW+JPEG: More than 170 images**, More than 165 images*** RAW: More than 215 images**, More than 200 images*** JPEG: More than 260 images**, More than 250 images***  SH RAW / RAW+JPEG : 190 images JPEG: 190 images***  *Until the burst shooting speed slows. When recording is performed under the test conditions specified by Panasonic. **When using a card with CFexpress Type B ***When using a card with SD Speed Class with "UHS-II UHS Speed Class 3 (U3)".		
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 ±3EV		
	Synchronization speed		Less than 1/250 second		
	Wireless control		Yes (When using DMW-FL200L / FL360L / FL580L (sold separately)), Wireless Channel: 1ch/2ch/3ch/4ch		
	Flash sync socket		Yes		
CROP ZOOM			Still image / Motion picture		
COLOR SETTINGS	Photo Style	Photo Style	Standard / Vivid / Natural / L. Classic Neo / Flat / Landscape / Portrait / Monochrome / L. Monochrome / L. Monochrome D / L. Monochrome S / LEICA Monochrome / Cinelike D2 / Cinelike V2 / Like709 / V-Log / REAL TIME LUT / Hybrid Log Gamma / 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		Supported file types: .vlt, .cube Vlog_709 / Set 1-39 (Set 1-3: Sample LUT) *REAL TIME LUT in Photo Style, Apply LUT in Fn button, Apply LUT in RAW Processing, LUT View Assist in Log View Assist, LUT can be applied from these settings.		
MOTION PICTURE FUNCTION	Time lapse shot		Yes		
	Stop motion animation		Yes		
	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		
	Master pedestal level		31 steps		
	Color bars / Test tone		Yes (SMPTE / EBU / ARIB) / Yes		
	LUT view assist		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)		
	Other functions		Red REC Frame Indicator, Streaming Blue Frame Indicator		
	VERTICAL POSITION INFORMATION			Still image / Motion picture (ON/OFF)	
	LEVEL GAUGE			Yes	
FUNCTION BUTTON	REC		Exposure Comp. / 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 / Filter Effect / One Push AE / Touch AE / AWB Lock / Exposure Mode / Synchro Scan (Video) / AF Mode / AF Detection Setting / Detecting Subject / AF Custom Setting (Photo) / AF Custom Setting (Video) / Focus Limiter / Focus Limiter Range Set / Focus Peaking / Focus Frame 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 / Enlarged Live Display (Video) / Flash Mode / Flash Adjust. / Wireless Flash Setup / Drive Mode Setting / Bracketing / Silent Mode / Image Stabilizer / Shutter Type / Crop Zoom (Photo) / Live View Composite / Rec. File Format / Rec Quality / Rec Quality (My List) / Variable Frame Rate / Proxy Recording / Time Code Display / Audio Information / Sound Rec Level Disp. / Mute Sound Input / Sound Rec Level Adj. / Sound Rec Quality / Sound Rec Level Limiter / 4ch Audio Recording / XLR Mic Adaptor Setting / Sound Monitoring Channel / Image Stabilizer / E-Stabilization (Video) / Boost I.S. (Video) / Image Area of Video / Crop Zoom (Video) / Focus Transition / Live Cropping / Live Cropping Settings / Q.MENU / Rec/Playback Switch / Video Record / Video Record (Creative Video) / LVF/Monitor Switch / 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 / Zoom Control / Step Zoom / Zoom Speed / Lens Information / Destination Card Slot / Streaming / REAL TIME LUT / 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® (USB 10Gbps)		
	HDMI (*5)	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].) 4K/120p / 4K/100p Down Convert: Auto / C4K/4K / 1080p / 1080i / OFF		
		Playback	59.94Hz: 8K/30p* / C4K/120p / C4K/60p / C4K/30p / 4K/120p / 4K/60p / 4K/30p / 1080/120p / 1080p / 1080i / 720p** / 480p** 50.00Hz: 8K/25p* / C4K/100p / C4K/50p / C4K/25p / 4K/100p / 4K/50p / 4K/25p / 1080/100p / 1080p / 1080i / 720p** / 576p** 24.00Hz: 8K/24p* / C4K/120p / C4K/24p / 4K/120p / 4K/24p / 1080/120p / 1080p *Only for still image playback. **Only for playback.		
	Remote input	Audio		ø2.5mm	
		Build-in microphone		Stereo Wind Noise Canceller: OFF / Standard / High	
			External microphone / External audio device input		ø3.5mm for external microphone / external audio device MIC (Plug-in Power) / MIC / LINE Wind Cut: OFF / Low / Standard / High *When attaching ø3.5mm microphone. Special Mic: Stereo / Shotgun *When attaching DMW-MS2 (sold separately).
			XLR microphone		Yes with DMW-XLR2 (sold separately)
			4ch mic input		Yes with DMW-XLR2 (sold separately)
	Speaker		Monaural		
Headphone output		ø3.5mm			
Card slot			Slot 1: CFexpress Card (CFexpress Type B) Slot 2: SD Memory Card / SDHC Memory Card* / SDXC Memory Card* *Compatible with UHS-II/UHS-III UHS Speed Class 3 standard SDHC/SDXC Memory Cards and UHS-II Video Speed Class 90 standard SDXC Memory Cards.		
TC IN/OUT	TC IN/OUT		Yes with BNC Converter Cable (bundled)		
	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		
	External TC setting		TC Synchronization / TC Output Reference		
FAN			Auto1 / Auto2 / Fast / Normal / Slow / OFF* *OFF can be set when in iA/P/A/S/M mode.		
LAMP			Tally Lamp (front/rear) / Card Access Light / Power Indicator / Charging Light/Network Connection Light		
WIRELESS	Wi-Fi		2.4GHz bands (STA/AP) (IEEE802.11b/g/n) 5GHz bands (STA/AP) (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)	When using CFexpress Card	Approx. 330 images, 750 images (Power Save LVF mode*) with H-ES12060 / DMW-BLK22 Approx. 350 images, 800 images (Power Save LVF mode*) with H-FS12060 / DMW-BLK22 *Using a Nextorage CFexpress Type B card. 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.		
		When using SD memory card	Approx. 360 images, 850 images (Power Save LVF mode*) with H-ES12060 / DMW-BLK22 Approx. 380 images, 900 images (Power Save LVF mode*) with H-FS12060 / DMW-BLK22 *Using a Nextorage SDXC memory card. 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.		
		When using external USB-SSD	Approx. 280 images with H-ES12060 / DMW-BLK22 Approx. 290 images with H-FS12060 / DMW-BLK22 *Using a Samsung external SSD (T9_2TB). Under the test conditions specified by Panasonic based on CIPA standard.		
	Continuous recordable time (Motion picture) (*1)	When using CFexpress Card	MP4 [4K/60p]: Approx. 90 min with H-ES12060 / H-FS12060 MP4 [FHD/60p]: Approx. 100 min with H-ES12060 / H-FS12060		
When using SD memory card		MP4 [4K/60p]: Approx. 90 min with H-ES12060 / H-FS12060 MP4 [FHD/60p]: Approx. 100 min with H-ES12060 / H-FS12060			

		When using external USB-SSD	MP4 [4K/60p]: Approx. 80 min with H-ES12060 / H-FS12060 MP4 [FHD/60p]: Approx. 90 min with H-ES12060 / H-FS12060
	Actual recordable time (Motion picture) (*1)	When using CFexpress Card	MP4 [4K/60p]: Approx. 45 min with H-ES12060 / H-FS12060 MP4 [FHD/60p]: Approx. 50 min with H-ES12060 / H-FS12060
		When using SD memory card	MP4 [4K/60p]: Approx. 45 min with H-ES12060 / H-FS12060 MP4 [FHD/60p]: Approx. 50 min with H-ES12060 / H-FS12060
		When using external USB-SSD	MP4 [4K/60p]: Approx. 40 min with H-ES12060 / H-FS12060 MP4 [FHD/60p]: Approx. 45 min with H-ES12060 / H-FS12060
DIMENSIONS / WEIGHT		Dimensions (W x H x D)	Approx. 138.4 x 100.3 x 99.6 mm / 5.45 x 3.95 x 3.92 inch (Body only, excluding protrusions) Approx. 138.4 x 100.3 x 142.0 mm / 5.45 x 3.95 x 5.59 inch (with H-FS12060, excluding protrusions) Approx. 138.4 x 100.3 x 157.0 mm / 5.45 x 3.95 x 6.18 inch (with H-ES12060, excluding protrusions)
	Weight	Approx. 805g / 1.77 lb (Body, Hot Shoe Cover, Battery, SD Memory Card x 1) (excluding body cap) Approx. 721g / 1.59 lb (Body, Hot Shoe Cover) (excluding body cap)	
OPERATING ENVIRONMENT	Operating temperature		-10°C to 40°C (14°F to 104°F)
	Operating humidity		10%RH to 80%RH
STANDARD ACCESSORIES	Software	Recording	LUMIX Lab / LUMIX Sync · This software is used to control a Panasonic digital camera from a smartphone. Check the site below to download and install the software. <a href="https://panasonic.jp/support/global/cs/dsc/">https://panasonic.jp/support/global/cs/dsc/</a> (For Android™ / iOS)  LUMIX Tether · 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. <a href="http://panasonic.jp/support/global/cs/soft/download/d_lumixtether.html">http://panasonic.jp/support/global/cs/soft/download/d_lumixtether.html</a> (For Windows / Mac)
		Playback / Editing	· 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 Adwaa'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-GH7 Kit Battery Pack, Battery Charger, BNC Converter Cable, Shoulder Strap, Body Cap, Eye Cup, Hot Shoe Cover, Flash Synchro Socket Cap  DC-GH7L Kit / DC-GH7M Kit Battery Pack, Battery Charger, BNC Converter Cable, Shoulder Strap, Body Cap, Eye Cup, Hot Shoe Cover, Flash Synchro Socket Cap, Lens Cap, Lens Hood, Lens Rear Cap  · 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: CFexpress card, SD memory card with SD Speed Class with Class 10 or Video Speed Class 10 or higher  
Motion pictures with 200Mbps or less: CFexpress card, 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: CFexpress card, SD memory card with Video Speed Class 60 or higher  
Motion pictures with 600Mbps or less: CFexpress card, SD memory card with Video Speed Class 90  
Motion pictures with 800Mbps or more, variable frame rate with ALL-Intra, or ProRes: CFexpress card

- 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) Hybrid Log Gamma is selectable in [4:2:2 10bit] or [4:2:0 10bit].

(\*3) High-res audio is selectable only when attaching  $\Phi$ 3.5mm microphone or DMW-XLR2 (sold separately).

(\*4) About AF  
- Automatic Detection is not available for High Frame Rate video shooting above 60p.  
- Tracking and Automatic Detection are not available when using HDMI cable or USB connection cable for High Frame Rate video shooting above 60p.

(\*5) To output motion pictures with 4K or higher, use a Premium High Speed HDMI cable (Type A - Type A plug).