LEICA DG VARIO-ELMARIT 12-60mm / F2.8-4.0 ASPH. / POWER O.I.S. | 1/1600sec. F7.1 ISO 200 |

LEICA DG VARIO-ELMARIT 12-60mm / F2.8-4.0 ASPH. / POWER O.I.S. | 1/500sec. F4.5 ISO 800 |

Specifications

TYPE	Type		Digital Single Lens Mirrorless camera
	Recording media		SD Memory Card, SDHC Memory Card, SDXC Memory Card (Compatible with UHS-I / UHS-II UHS Speed Class 3 standard SDHC / SDXC Memory Cards)
	Image sensor size		17.3 x 13.0 mm (in 4:3 aspect ratio)
	Lens mount		Micro Four Thirds mount
IMAGE SENSOR	Type		Live MOS Sensor
	Total pixels		21.77 Megapixels
	Camera effective pixels		20.30 Megapixels
	Color filter		Primary color filter
	Dust reduction system		Supersonic wave filter
IMAGE STABILIZATION SYSTEM			Image sensor shift type (5-axis / 5-stop*), Dual I.S. (Dual I.S. 2 compatible) * Based on the CIPA standard [Yaw/Pitch direction: focusing distance f=60mm (35mm camera equivalent f=120mm), when H-FS12060 is used.
RECORDING SYSTEM	Recording file format	Still image	JPEG (DCF, Exif 2.31), RAW
		6K PHOTO* / 4K PHOTO	6K PHOTO: MP4 (H.265/HEVC, Audio format: AAC (2ch)) 4K PHOTO: MP4 (H.264/MPEG-4 AVC, Audio format: AAC (2ch))
		Motion picture	MOV: H.264/MPEG-4 AVC (Audio format: LPCM (2ch 48kHz/16-bit, 48kHz/24-bit*, 96kHz/24-bit*)) *When attaching DMW-XLR1 (sold separately). MP4: H.264/MPEG-4 AVC AVCHD Progressive, AVCHD (Audio format: Dolby Audio 2ch)
	System frequency		59.94Hz, 50.00Hz, 24.00Hz
	Aspect ratio		4:3, 3:2, 16:9, 1:1
	Image quality		RAW, RAW+Fine, RAW+Standard, Fine, Standard
	Color space		sRGB, AdobeRGB
	File size (Pixels)	Still image	[4:3] 5184x3888(L) / 3712x2784(M) / 2624x1968(S) / 4992x3744(6K PHOTO) / 3328x2496(4K PHOTO) [3:2] 5184x3456(L) / 3712x2480(M) / 2624x1752(S) / 5184x3456(6K PHOTO) / 3504x2336(4K PHOTO) [16:9] 5184x2920(L) / 3840x2160(M) / 1920x1080(S) / 3840x2160(4K PHOTO) [1:1] 3888x3888(L) / 2784x2784(M) / 1968x1968(S) / 2880x2880(4K PHOTO)
		Motion picture MOV** / 59.94Hz (High-res audio is selectable only when using the DMW-XLR1 (sold separately).)	[C4K] 4096x2160: 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM, High-Res Audio) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) [4K] 3840x2160: 59.94p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 29.97p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM, High-Res Audio) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM, High-Res Audio) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) [Full HD] 1920x1080: 59.94p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio)
		MOV** / 50.00Hz	[4K] 3840x2160: 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 25.00p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM, High-Res Audio) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) [Full HD] 1920x1080: 50.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio)
		MOV** / 24.00Hz	[C4K] 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM, High-Res Audio) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) [4K] 3840x2160: 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM, High-Res Audio) / 100Mbps (4:2:0 8-bit LongGOP) LPCM, High-Res Audio) [Full HD] 1920x1080: 24.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio)
		MP4** / 59.94Hz	[C4K] 4096x2160: 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM) [4K] 3840x2160: 59.94p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM) 29.97p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (AAC) 23.98p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (AAC) [Full HD] 1920x1080: 59.94p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 59.94p, 28Mbps (4:2:0 8-bit LongGOP) (AAC) 29.97p, 20Mbps (4:2:0 8-bit LongGOP) (AAC) 23.98p, 24Mbps (4:2:0 8-bit LongGOP) (AAC)
		MP4** / 50.00Hz	[4K] 3840x2160: 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM) 25.00p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (AAC) [Full HD] 1920x1080: 50.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 50.00p, 28Mbps (4:2:0 8-bit LongGOP) (AAC) 25.00p, 20Mbps (4:2:0 8-bit LongGOP) (AAC)
		MP4** / 24.00Hz	[C4K] 4096x2160: 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM) [4K] 3840x2160: 24.00p, 150Mbps (4:2:2 10-bit LongGOP) (LPCM) / 100Mbps (4:2:0 8-bit LongGOP) (LPCM) [Full HD] 1920x1080: 24.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 24.00p, 24Mbps (4:2:0 8-bit LongGOP) (AAC)
		AVCHD Progressive** AVCHD** 59.94Hz	[Full HD] 1920x1080: 59.94p, 28Mbps (LongGOP) (Dolby) 59.94i, 24Mbps (LongGOP) (Dolby) (Sensor output is 29.97fps) 59.94i, 17Mbps (LongGOP) (Dolby) (Sensor output is 59.94fps) 23.98p, 24Mbps (LongGOP) (Dolby)
		AVCHD 50.00Hz	[Full HD] 1920x1080: 50.00p, 28Mbps (LongGOP) (Dolby) 50.00i, 24Mbps (LongGOP) (Dolby) (Sensor output is 25.00fps) 50.00i, 17Mbps (LongGOP) (Dolby) (Sensor output is 50.00fps)
WIRELESS	Wi-Fi		IEEE 802.11a/b/g/n/ac 1-11, 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 149, 153, 157, 161, 165 ch
	Bluetooth		Bluetooth® v4.2 (Bluetooth Low Energy (BLE))
	QR Code Connection		Yes
	Password-less connection		Yes (ON / OFF selectable)
VIEWFINDER	Type		OLED Live View Finder (3,686k dots)
	Field of view		Approx. 100%
	Magnification		Approx. 1.52x / 0.76x (35mm camera equivalent) with 50 mm lens at infinity; -1.0 m^{-1}
	Eye point		Approx. 21 mm from eyepiece lens
	Eye sensor		Yes
FOCUS	Type		Contrast AF system
	Focus mode		AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF
	AF mode		Face/Eye Detection / Tracking / 225-Area / Custom Multi / 1-Area / Pinpoint (Full area touch is available) (Scalable AF frame size (by Joystick) and flexible AF position (by front/rear dial))
	AF detective range		EV -4 - 18 (ISO100 equivalent)
	AF assist lamp		Yes
	AF custom setting		AF Sensitivity, AF Area Switching Sensitivity, Moving Object Prediction
	Others		One Shot AF, Shutter AF, Half Press Release, Quick AF, Continuous AF (during motion picture recording), Eye Sensor AF, AF+MF, MF Assist, Touch MF Assist, Focus Peaking, Touch AF/AE Function, Touch Pad AF, Touch Shutter
EXPOSURE CONTROL	Light metering system		1,728-zone multi-pattern sensing system
	Light metering mode		Multiple / Center Weighted / Spot
	Metering range		EV0-18 (F2.0 lens, ISO100 equivalent)
	Exposure mode		Program AE, Aperture Priority AE, Shutter Priority AE, Manual
	ISO sensitivity (Standard output sensitivity)		Still image: Auto / Intelligent ISO / 100 (Extended) / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 (Changeable to 1/3 EV step)Creative Video Mode: Auto / 100 (Extended) / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 (Changeable to 1/3 EV step)
	Exposure compensation		1/3 EV step ±5EV (±3EV for motion picture)
WHITE BALANCE	White balance		AWB / AWBc / 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 first curtain shutter: Bulb (Max. 30 minutes), 1/2,000 - 60 Electronic shutter: 1/16,000 - 1 Motion picture: 59.94Hz: 1/16,000 - 1/30, 50.00Hz: 1/16,000 - 1/25, 23.98Hz: 1/16,000 - 1/24 (When using Synchro Scan)
	Self timer		10sec, 3 images / 2sec / 10sec
	Remote control		Remote control with Bulb function by DMW-RSL1 (sold separately)
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 in 1 EV step
	Focus Bracket		1 to 999 images, focus steps can be set in 5 levels
	White balance bracket		3 exposures in blue/amber axis or in magenta/green axis, color temperature setting
BURST SHOOTING	Burst speed		[Mechanical shutter] AFS/MF: H: 12 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/sec (with Live View) AFF/AFC: H: 9 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/sec (with Live View) [Electronic shutter] AFS/MF: H: 12 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/sec (with Live View) AFF/AFC: H: 9 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/sec (with Live View)
6K PHOTO* / 4K PHOTO	Burst speed		[6K PHOTO] 30 frames/sec [4K PHOTO] 60 frames/sec, 30 frames/sec
	Exif information		Yes (Each JPEG image cropped out of the 4K burst file complies with EXIF.)
FLASH	Flash type		TTL External Flash (sold separately)
	Flash mode		Auto*, Auto/Red-eye Reduction*, Forced On, Forced On/Red-eye Reduction, Slow Sync., Slow Sync./Red-eye Reduction, Forced Off * For iA, iA+ only.
	Synchronization speed		Less than 1/250 second
	Flash output adjustment		1/3EV step ±3EV
	Flash synchronization		1st. Curtain Sync, 2nd Curtain Sync.
	Wireless control		Yes (When using DMW-FL200L / FL360L / FL580L (sold separately)), Wireless Channel: 1ch/2ch/3ch/4ch
	Flash sync socket		Yes
REAR MONITOR	Type		TFT LCD monitor with static touch control
	Monitor size		Free-angle 3.2-inch (8.0cm) / 3:2 aspect / Wide viewing angle
	Pixels		Approx. 1,620k dots
	Field of view		Approx. 100%
	Monitor adjustment		Brightness, Contrast, Saturation, Red-Green, Blue-Yellow
LIVE VIEW	Digital zoom		2x, 4x
	Extra Tele Conversion		Still image: Max. 2x 4K PHOTO: 1.6x (4:3), 1.5x (3:2), 1.4x (16:9, 1:1) Motion picture: 2.7x (FHD), 1.4x (4K)
DIRECTION DETECTION FUNCTION			Yes
FUNCTION BUTTON	Fn1-20		
PHOTO STYLE			Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom 1, 2, 3, 4 / Cinelike D / Cinelike V / Like709* / V-LogL*/** *When Creative Video Mode is selected. **Upgrade Software Key DMW-SFU1 (sold separately) is required.
CREATIVE CONTROL			Expressive / Retro / Old Days / High Key / Low Key / Sepia / Monochrome / Dynamic Monochrome / Rough Monochrome* / Silky Monochrome* / Impressive Art / High Dynamic / Cross Process / Toy Effect / Toy Pop / Bleach Bypass / Miniature Effect** / Soft Focus* / Fantasy / Star Filter* / One Point Color / Sunshine* *For photos only. **Not available in 4:2:2 10-bit video or 4K video recording.
CREATIVE VIDEO MODE	Exposure mode		Program AE/ Aperture-Priority / Sutter-Priority / Manual Exposure
	Variable frame rate	59.94Hz	MOV/MP4(LPCM)/FHD/59.94p 2, 30, 56, 58, 60, 62, 64, 90, 120, 150, 180 fps MOV/MP4(LPCM)/4K/29.97p, AVCHD/FHD/29.97p 2, 15, 26, 28, 30, 32, 34, 45, 60 fps MOV/MP4(LPCM)/FHD/29.97p 2, 15, 26, 28, 30, 32, 34, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180 fps MOV/MP4(LPCM)/4K/23.98p, AVCHD/FHD/23.98p 2, 12, 20, 22, 24, 26, 28, 36, 48, 60 fps MOV/MP4(LPCM)/FHD/23.98p 2, 12, 20, 22, 24, 26, 28, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, 180 fps
		50.00Hz	MOV/MP4(LPCM)/FHD/50.00p 2, 25, 46, 48, 50, 52, 54, 75, 100, 150, 180 fps MOV/MP4(LPCM)/4K/25.00p, AVCHD/FHD/25.00p 2, 12, 21, 23, 25, 27, 30, 37, 60 fps MOV/MP4(LPCM)/FHD/25.00p 2, 12, 21, 23, 25, 27, 30, 37, 50, 62, 75, 87, 100, 125, 150, 175, 180 fps
		24.00Hz	MOV/MP4(LPCM)/C4K/24.00p, MOV/MP4(LPCM)/4K/24.00p 2, 12, 20, 22, 24, 26, 28, 36, 48, 60 fps MOV/MP4(LPCM)/FHD/24.00p 2, 12, 20, 22, 24, 26, 28, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, 180 fps
	Anamorphic 4K mode (4:3)	MOV** / 59.94Hz (High-res audio is selectable only when using the DMW-XLR1 (sold separately).)	3328x2496: 59.94p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio)
		MOV** / 50.00Hz	3328x2496: 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio) 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio)
		MOV** / 24.00Hz	3328x2496: 24.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM, High-Res Audio)
		MP4** / 59.94Hz	3328x2496: 59.94p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM) 29.97p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM) 23.98p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM)
		MP4** / 50.00Hz	3328x2496: 50.00p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM) 25.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM)
		MP4** / 24.00Hz	3328x2496: 24.00p, 100Mbps (4:2:0 8-bit LongGOP) (LPCM)
MOTION PICTURE FUNCTION	Master pedestal level		31 steps
	Luminance level		8-bit: 0-255 / 16-235 / 16-255 10-bit: 0-1023 / 64-940 / 64-1023
	Wave form monitor / Vectorscope		Selectable
	LUT display		LUT Monitor Display / LUT HDMI Display *Upgrade Software Key DMW-SFU1 (sold separately) is required.
	Synchro scan		Yes
	Time code		Count Up: Rec Run/Free Run selectable, Time Code Mode: Drop frame/Non-drop frame selectable (When system frequency [59.94Hz] is selected.)
	SS/Gain operation		Shutter Duration/ISO / Angle/ISO / Shutter Duration/dB
	Color bars / 1kHz test tone		Yes (SMPTE / EBU / ARIB) / Yes
	Photo style for motion picture		Cinelike D / Cinelike V / Like709* / V-LogL*/** *When Creative Video Mode is selected. **Upgrade Software Key DMW-SFU1 (sold separately) is required.
	Knee control		Yes (in Like709 mode)
INTERFACE	USB		USB Type-C, Super Speed USB3.1 GEN1
	HDMI***	Monitor-through	4:2:2 8-bit 4:2:2 10-bit (When [4K/60p] [4K/50p] mode is selected, it is not possible to record motion picture or still picture on the SD memory card in the camera unit.) Auto / C4K / 4K / 1080p Information display ON/OFF (selectable) Automatic down-conversion (4K --> 1080p only)
		Playback	HDMI TypeA / VIERA Link, Audio: Stereo 59.94Hz: Auto / 4K/60p / 4K/30p / 1080p / 1080i / 720p / 480p 50.00Hz: Auto / 4K/50p / 4K/25p / 1080p / 1080i / 720p / 576p 24.00Hz: Auto / C4K / 4K/24p / 1080p
	Remote input		φ2.5mm for remote
	External microphone input		φ3.5mm for external microphone Stereo/Lens Auto/Shotgun/Super Shotgun/ Manual is selectable when attaching DMW-MS2 (sold separately).
	Headphone output		φ3.5mm for headphone
	Microphone		Stereo, Wind Noise Canceller: OFF / Low / Standard / High / AUTO
	Speaker		Monaural
	SD card slot		Slot 1, Slot 2
LANGUAGE	OSD language		Japanese, English, German, French, Italian, Spanish, Portuguese, Chinese (Traditional), Chinese (Simplified), Thai, Arabic, Persian, Vietnamese, Hindi, Polish, Czech, Hungarian, Romanian, Netherlandic, Turkish, Finnish, Danish, Swedish, Greek, Russian, Korean
POWER	Battery		Li-ion Battery Pack (7.2V, 1860mAh, 14Wh) (included)
	Battery life (CIPA standard)		Approx. 400 images (rear monitor), 380 images (LVF), 1,000 images (Power Save LVF mode*) with H-ES12060 *Under the test conditions specified by Panasonic based on CIPA standard. When the time to get in the sleep mode is set to 3 sec.
DIMENSIONS / WEIGHT	Dimensions (W x H x D)		138.5 x 98.1 x 87.4 mm / 5.45 x 3.86 x 3.44 inch (excluding protrusions)
	Weight		Approx. 725g / 1.60 lb (SD card, Battery, Body) Approx. 645g / 1.42 lb (Body only) Approx. 1045g / 2.30 lb (SD card x 1, Battery, H-ES12060 lens included)
OPERATING ENVIRONMENT	Operating temperature		-10°C to 40°C (14°F to 104°F)
	Operating humidity		10%RH to 80%RH
STANDARD ACCESSORIES	Software		• The software to edit and playback images on computer is not bundled with this camera. To do this, PHOTOfunSTUDIO 10.0XE is available for download at Panasonic website using computer connected to the Internet. • 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.
	Standard accessories		Battery Charger (AC Cable included), Battery Pack, Body Cap, Hot Shoe Cover, Eye Cup, Flash Syncro Socket Cap, Cover for the Battery Grip Connector, USB Connection Cable, Shoulder Strap, Cable Holder, Lens Cap*, Lens Hood*, Lens Rear Cap* *Included with DC-GH5L kit, DC-GH5A kit and DC-GH5M kit.

* 6K PHOTO is a high speed burst shooting function that cuts a still image out of a 4:3 or 3:2 video footage with approx. 18-megapixel (approx. 6000 x 3000 effective pixel count) that the 6K image manages.

** About motion picture recording / 6K/4K PHOTO recording
• Use a card with SD Speed Class with "Class 4" or higher when recording motion pictures.
• Use a card with SD Speed Class with "UHS-I / UHS-II UHS Speed Class 3 (U3)" when recording motion pictures with [MP4] in [4K] or [6K/4K PHOTO].
(SD speed class is the speed standard regarding continuous writing.)
• MP4 motion pictures with [MP4] in [4K]:
- When using an SDHC memory card: You can continue recording without interruption even if the file size exceeds 4 GB, but the motion picture file will be divided and recorded/played back separately.
- When using an SDXC memory card: You can continue recording without interruption even if the file size exceeds 96 GB or 3 hours 4 minutes in length, but the motion picture file will be divided and recorded/played back separately.
• MP4 motion pictures with [MP4] in [FHD] [HD]:
- You can continue recording without interruption even if the file size exceeds 4 GB or 30 minutes in length, but the motion picture file will be divided and recorded/played back separately.
• When the ambient temperature is high or continuous recording is performed, the camera may stop the recording to protect itself. Wait until the camera cools down.

*** For [4K] video output, use an HDMI cable that has the HDMI logo on it, and that is described as"4K compatible".
• The camera may stop recording when used in lower or higher than recommended operating temperature: -10 to 40 degrees.

Tentative

Panasonic

PHOTOS. VIDEOS.
Explore New Frontiers.

CHANGING PHOTOGRAPHY G

Digital Live MOS sensor delivers the ultimate in LUMIX image quality.

Ultra high-speed DFD AF freezes the frame with stunning clarity and

5-stop, 5-axis Dual I.S.2 stabilizes the world you see.

World's first 4K/60P*1 video recording, 4:2:2*2 10-bit faithful color reproduction

and practical features support a professional workflow.

6K PHOTO*3 lets you confidently capture moments otherwise left to chance.

Explore new dimensions of photography and videography with

the LUMIX GH5 Mirrorless System Camera.

LUMIX GH5

*1 As a Digital Single Lens Mirrorless camera as of 4 January, 2017, *2 As a Interchangeable lens system camera as of 6 January, 2017, *3 6K PHOTO is a high speed burst shooting function that cuts a still image out of a 4:3 or 3:2 video footage with approx. 18-megapixel (approx. 6000 x 3000 effective pixel count) that the 6K image manages.

Highest-ever LUMIX picture quality

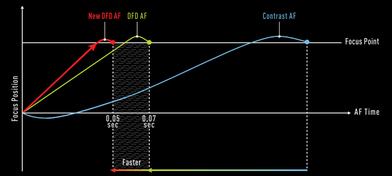
20MP MOS Sensor and New Venus Engine

The LUMIX GH5 includes a newly developed 20.3-megapixel Digital Live MOS Sensor without low-pass filter and new Venus Engine, which achieve the highest ever image quality of all LUMIX G digital cameras to date. Multipixel Luminance Generation and Intelligent Detail Processing result in natural images with stunning detail. Three-dimensional color control also allows improved color expression. Furthermore, high precision noise reduction gives a more natural stereoscopic image - even with high sensitivity shooting. These improvements, in combination with the Digital Live MOS Sensor, render truly clear images with minimum noise even in low-light and max. ISO 25600.

New AF System with Advanced DFD Technology

DFD (Depth From Defocus) technology* is further empowered by the new Venus Engine, which is capable of ultra high-speed digital signal processing at a maximum of 480 fps. By analyzing every single frame precisely, this achieves higher precision frame detection with minimum motion detection error for higher tracking tolerance against moving subjects. The combination of Contrast AF and new DFD technology achieves the industry's fastest level of auto focusing of approx. 0.05 sec** and 12 (AFS) / 9 (AFC) fps high-speed burst shooting.

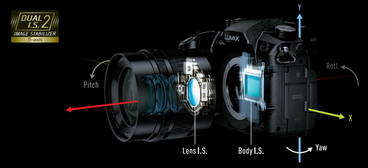
* Contrast AF with DFD Technology works only with Panasonic Micro Four Thirds lenses.
** In AFS, at wide-end with H-ES12060 (CIPA).



5-axis Dual I.S.2

The LUMIX GH5 features the new 5-axis Dual I.S.2* (image stabilizer) for more powerful and effective camera-shake suppression. Through the perfect combination of body and optical image stabilizers, conventionally uncontrollable larger movements are corrected. The LUMIX GH5 integrates a high-precision gyrosensor that controls the distribution of O.I.S / B.I.S. compensation by analyzing the focal length and shooting situation, making it possible to achieve up to 5-stop slower shutter speeds**. Intelligently balanced, this optimized shake correction is highly effective for not only wide-angle but also telephoto shooting, and even for 4K video recording.

* 5-Axis Dual I.S.2 can be used with the H-FS12060 lens and H-FS14140 lens (requires updated firmware) as of January 4, 2017. Firmware for using 5-Axis Dual I.S.2 with the H-RS100400 lens will also be released in February 2017. The newly introduced H-ES12060, H-HSA12035, H-HSA35100, H-FSA45200 and H-FSA100300 are all compatible with 5-Axis Dual I.S.2.
** Based on the CIPA standard [Yaw/Pitch direction: focusing distance f=50-140mm (35mm film camera equivalent f=100-280mm), when H-FS14140 is used.]



225-area Multi AF

In the LUMIX GH5, to provide even more precise focusing, the number of focus areas has been increased from 49 to 225. You can create any group out of the 225 focus areas and move or change its size to suit the composition you want. All focusing operations are easily controlled using the thumb-position joystick. The tracking sensitivity and speed can be adjusted depending on the subject, with custom pre-sets also possible.

■ Durable Mg Body - Splash / Dust / Freezeproof

The LUMIX GH5 is well-suited to active outdoor shooting. The frame is constructed of lightweight, durable magnesium alloy. All joints, dials and buttons are sealed to make it both splash and dustproof. It is also specially designed to tolerate freezing temperatures down to -10°C (14°F). The shutter unit is built to withstand approximately 200,000 releases and offers the highest shutter speed (max. 1/8,000 sec) to capture fast-moving subjects, or for using a high-speed lens outdoors. An external flash can be synchronized with a max. 1/250 sec shutter speed.

■ 0.76x 3,680k-dot OLED LVF/3.2" Free-angle Touch Monitor

The LUMIX GH5 boasts a Live View Finder (LVF) with an astounding high magnification ratio of approx. 1.52x / 0.76x (35mm camera equiv.). This uses a high-precision, high-speed and high-resolution 3,860K-dot OLED (Organic Light-Emitting Diode) display with 100% field of view ratio. Thanks to this high-response OLED, the LVF achieves excellent visibility with an almost imperceptible time lag and a high 10,000:1 contrast. High visibility with comfort is also enjoyed by users wearing glasses due to an eye point distance of approx. 21 mm. The 3.2-inch free-angle rear monitor in 3:2 aspect with 1,620K-dot high resolution achieves an almost 100% field of view and uses a static-type touch control system. The monitor adopts White pixels in addition to RGB (Red, Green and Blue) pixels to deliver much improved visibility, even under direct sunlight. It also tilts approx. 270-degrees up and down for easier high or low angle shooting.

■ Double SD Card Slot

The LUMIX GH5 features the first UHS-II compatible double SD card slot in the LUMIX G series. In 'Relay Recording', recording onto the second card automatically starts when the first card reaches capacity. In 'Backup Recording', the same contents are recorded on both cards simultaneously. Furthermore, with 'Allocation Recording', it is possible to select either cards in Slot 1 or Slot 2 for RAW, JPEG, 4K PHOTO, or 4K video data recording.

■ Battery Grip

The newly introduced DMW-BGGH5 battery grip is specially designed to be compatible with the LUMIX GH5 camera. Loaded with two batteries and attached to the camera this grip delivers significantly longer shooting time. Robust as well as splash / dust / freezeproof the grip is easy to grasp even when shooting vertically, perfectly complementing the LUMIX GH5 design.

Pro shooting performance for 4K video production

4K/60p Video Recording

Based on the Micro Four Thirds standard, the LUMIX GH5 body achieves a world first*, with its 4K / 60p and 4K / 50p video recording with no cropping, rendering ultra-high definition and smooth video quality with no limit to the recording time. These features meet professional quality standards.

* As a Digital Single Lens Mirrorless (DSLM) camera, as of 4 January, 2017

4K/30P 4:2:2 10-bit Internal Recording*

The LUMIX GH5 is capable of even more faithful color reproduction, with internal recording of video in 4:2:2 10-bit**. With the 20.3-megapixel Digital LiveMOS Sensor and Venus Engine handling digital signals at ultra-high speed, image quality per frame is dramatically improved. The color around edges is less jaggy, as well as being smoother, with rich color reproduction and grading. For non-linear editing and for post-production color grading, color control is also much improved.

* As an Interchangeable lens system camera, as of 4 January, 2017.
** 4:2:0 8-bit in 4K 60p/50p recording on SD Memory Card.

Without the GH5: Jagged edges / fading color

With the GH5: Smooth edges / vivid color

Features with Professional-style Expression

The Variable Frame Rate (VFR) lets you record overcranked and undercranked video, all in 4K (maximum 2.5x slower) or Full-HD (maximum 7.5x slower). In addition, the LUMIX GH5 complies with V-LogL video recording with the purchase of the optional Upgrade Software Key DMW-SFU1. Log recording offers exceptional flexibility with a wider dynamic range for color grading, V-LogL featuring log characteristics with 12 steps. Now, with the Look Up Table (LUT) in camera, you can playback graded video footage recorded in V-LogL. Furthermore, as well as the conventional CINELIKE D and CINELIKE V presets, a new 'LIKE 709' gamma - with characteristics similar to the standard used for HDTV - has been added. As such, you can shoot with rich image expression.

HDMI Output

The LUMIX GH5 can output video in 4:2:2 10-bit for every recording mode when not recording in-camera. Even while recording video to the main body, it can simultaneously output video in 4:2:2 10-bit, in virtually any recording mode*. It uses the highly versatile Type-A HDMI terminal which, thanks to a cable lock holder, is far less prone to accidental disconnecting. You can choose to output the data with the menu or OSD information when you output video to the external video monitor and without them to the external recorder.

* If using main body recording, output is 4:2:2 8-bit for 4K 60p/50p.

6K PHOTO

The new 6K PHOTO feature makes it possible to capture those special fleeting moments by extracting and singling out the most perfect frame from a 6K burst file at 30 fps (in either 4:3 or 3:2 aspect), saved as an approx. 18MP high resolution photo.

■ XLR Microphone Adaptor

When shooting video, this adaptor allows you to record high-grade stereo sound to the camera directly through a high-spec XLR microphone. High-Res recording (at 96kHz/24-bit) is also possible when shooting 4K video (MOV only). Selecting between separate MIC / LINE / condenser microphones is also possible using the input switches on the control panel.

■ Bluetooth® & Wi-Fi®

The LUMIX GH5 supports Bluetooth® 4.2 (Bluetooth® Low Energy), so that your smartphone or tablet Bluetooth connection ensures only minimal battery consumption. Once paired it is always connected so you can launch your camera anytime from your device without touching it. The Wi-Fi® connectivity of the LUMIX GH5 enables a more flexible shooting experience with easy operation, including instant image-sharing. By connecting it to a smartphone or tablet installed with "Panasonic Image App for iOS / Android" software, you can remotely control the camera to shoot, view or share images. In addition to the conventional 2.4GHz IEEE802.11b/g/n wireless standards, the LUMIX GH5 also supports the more powerful 5GHz IEEE802.11ac standard. With 5GHz your wireless transfer of photo and video data is now faster.

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■ Firmware Update Schedule

April, 2017
• Full HD 4:2:2 10-bit video recording capability.

Second half of 2017
• 400Mbps 4:2:2 10-bit All-Intra video recording in 4K 30p/25p/24p and Full HD.
• High resolution video recording in Anamorphic mode.
• Hybrid Log Gamma in Photo Style mode which enables popular 4K HDR video recording.
• USB tethering.

LEICA DG VARIO-ELMARIT
12-60mm / F2.8-4.0 ASPH. / POWER O.I.S.

- 14 Elements in 12 Groups
- Fast and Accurate Focusing
- High-quality Video Recording
- 5-axis Dual I.S.2 Compatibility

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