

## LUMIX 4K Digital Camera LX10 with 20 Megapixel 1-inch Sensor, 3X 24-72mm F/1.4-2.8 LEICA DC VARIO-SUMMILUX Lens, Tiltable LCD and Lens Control Ring – Black DMC-LX10K

• Metrics

- o Dimensions (W x H x D) 105.5 x 60 x 42 mm
- o Dimensions (W x H x D) (4.15 x 2.36 x 1.65 inch)
- Weight Approx. 310 g with Battery and SD Memory Card (0.68 lb)
- Weight Approx. 280 g without Battery and SD Memory Card (0.62 lb)

• Optics

- Pixels
- o Camera Effective Pixels 20.1 Megapixels
- Sensor
- Sensor Size / Total Pixels / Filter 1-inch High Sensitivity MOS Sensor / 20.9 Total Megapixels / Primary Cc Filter
- o Lens
- o Aperture F1.4 2.8 / 9 Diaphragm Blades (F1.4 11.0 (W), F2.8 11.0 (T))
- o Optical Zoom 3x
- Focal Length f = 8.8 26.4mm
- o Focal Length (26 78mm in 35mm equiv. in 4:3)
- Focal Length (24 72mm in 35mm equiv. in 3:2)
- o Focal Length (25 75mm in 35mm equiv. in 16:9)
- Focal Length (31 93mm in 35mm equiv. in 1:1)
- Focal Length (36 108mm in 35mm equiv. in 4:3 4K PHOTO recording)
- Focal Length (36 108mm in 35mm equiv. in 3:2 4K PHOTO recording)
- Focal Length (36 108mm in 35mm equiv. in 16:9 4K PHOTO recording)
- Focal Length (38 114mm in 35mm equiv. in 1:1 4K PHOTO recording)
- Focal Length (25 75mm in 35mm equiv. in 16:9 video recording / O.I.S. Off / Level Shot function Off)

- o Focal Length (27 81mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function Off)
- Focal Length (30 90mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function On)
- Focal Length (36 108mm in 35mm equiv. in 4K video recording)
- Extra Optical Zoom (EZ) 4.2x (3:2 / 10M (M)), 6x (3:2 / 5M (S))
- Intelligent Zoom 6x
- Lens LEICA DC VARIO-SUMMILUX
- Lens 11 elements in 9 groups
- Lens (4 aspherical lenses (dual-sided aspherical surfaces) / 2 aspherical ED lenses (dual-sided aspherical surfaces) / 1 UHR lens)
- Optical Image Stabilizer 5-Axis HYBRID O.I.S. +\*
- Optical Image Stabilizer \* 5-Axis compensation works in video recording except for 4K video or high-spec video recording.
- Digital Zoom Max. 4x (When Digital Zoom is used simultaneously with Intelligent Zoom, you can only inc the zoom ratio up to 2x.)
- o Focus
- Focusing Area Normal: Wide 30 cm infinity / Tele 30 cm infinity
- o Focusing Area AF Macro / MF / Intelligent Auto / Motion Picture: Wide 3 cm infinity / Tele 30 cm infin
- o AF Assist Lamp Yes (On / Off)
- Focus AF / AF Macro / Macro Zoom \* Each available with AFS (Single) / AFF (Flexible) / AFC (Continuo MF
- Focus Quick AF, Continuous AF (during motion picture recording), Touch AF/AE Function, Touch Shutte
   Assist, Touch MF Assist, AF+MF, Focus Peaking, One Shot AF (Set the Fn button in custom menu to AF-C
   Low Light AF, Starlight AF
- o Post Focus Yes
- Focus Stacking Yes
- o AF Metering Face/Eye Detection / Tracking / 49-area / Custom Multi / 1-area / Pinpoint
- AF Metering (Full area touch is available)
- o Shutter
- Shutter Speed [Still Image] Approx. 60 1/4,000 sec (Mechanical Shutter)
- Shutter Speed [Still Image] Approx. 1 1/16,000 sec (Electronic Shutter)
- o Shutter Speed [Still Image] Time (Approx. 120 sec)
- Shutter Speed [Motion Picture] Approx. 1/30 1/16,000 sec
- Shutter Speed [Motion Picture] Approx. 1/25 1/16,000 sec (in 24p recording)
- Shutter Speed [Motion Picture] Approx. 1/2 1/16,000 sec (Creative Video M Mode / MF Mode)
- Finder
- Viewfinder -

## Recording

- File
- File Format Still Image: JPEG (DCF/Exif2.3) / RAW, DPOF

- File Format Motion Picture: AVCHD Progressive, AVCHD, MP4
- Recording Modes
- o Mode Dial / Mode Button N/A
- Mode Dial Intelligent Auto, P, A, S, M, Creative Video, C (Custom), Panorama Shot, Scene Guide, Creative Control
- Creative Control mode Expressive, Retro, Old Days, High Key, Low Key, Sepia, Monochrome, Dynamic Monochrome, Rough Monochrome, Silky Monochrome, Impressive Art, High Dynamic, Cross Process, To Effect, Toy Pop, Bleach Bypass, Miniature Effect, Soft Focus, Fantasy, Star Filter, One Point Color, Sunsh (22 filters)
- Still Image Scene Guide Clear Portrait, Silky Skin, Backlit Softness, Clear in Backlight, Relaxing Tone, Sv Child's Face, Distinct Scenery, Bright Blue Sky, Romantic Sunset Glow, Vivid Sunset Glow, Glistening Wa Clear Nightscape, Cool Night Sky, Warm Glowing Nightscape, Artistic Nightscape, Glittering Illumination Handheld Night Shot, Clear Night Portrait, Soft Image of a Flower, Appetizing Food, Cute Dessert, Freezo Animal Motion, Clear Sports Shot, Monochrome
- Continuous Shooting Mode (Approx.) [AFS] SH: 50 frames/sec\*, H: 10 frames/sec, M: 7 frames/sec (with live View), L: 2 frames/sec (with Live View)
- o [AFC] H: 6 frames/sec, M: 6 frames/sec (with Live View), L: 2 frames/sec (with Live View)
- \* Electronic shutter only.
- o 4K Photo Mode (\*2) 4K Burst: 30 frames/sec, max. 15 min
- o 4K Photo Mode (\*2) 4K Burst (S/S): 30 frames/sec, max. 15 min
- o 4K Photo Mode (\*2) 4K Pre-Burst: 30 frames/sec, approx. 2 sec
- o 4K Photo Mode (\*2) (Depending on memory card size and battery power)
- 4K Photo Mode (\*2) Exif Information: Yes
- 4K Photo Mode (\*2) Marking Function: Yes (in 4K Burst (S/S) mode)
- Motion Picture Recording (\*2)
- o 4K Video 3840 x 2160 pixels, 30p (4K: 100Mbps / MP4) (Sensor Output is 30fps) (AAC)
- o 4K Video 3840 x 2160 pixels, 24p (4K: 100Mbps / MP4) (Sensor Output is 24fps) (AAC)
- o HD Video 1920 x 1080 pixels, 60p (FHD: 28Mbps / AVCHD) (Sensor Output is 60fps) (Dolby)
- o HD Video 1920 x 1080 pixels, 24p (FHD: 24Mbps / AVCHD) (Sensor Output is 24fps) (Dolby)
- o HD Video 1920 x 1080 pixels, 60i (FHD: 24Mbps / AVCHD) (Sensor Output is 30fps) (Dolby)
- o HD Video 1920 x 1080 pixels, 60i (FHD: 17Mbps / AVCHD) (Sensor Output is 60fps) (Dolby)
- o HD Video 1920 x 1080 pixels, 60p (FHD: 28Mbps / MP4) (Sensor Output is 60fps) (AAC)
- o HD Video 1920 x 1080 pixels, 30p (FHD: 20Mbps / MP4) (Sensor Output is 30fps) (AAC)
- o HD Video 1280 x 720 pixels, 30p (HD: 10Mbps / MP4) (Sensor Output is 30fps) (AAC)
- o STD Video N/A
- High Speed Video 1920 x 1080 pixels, 30p (FHD: MP4) (Sensor Output is 120fps)
- o Continuous Recordable Time (Motion Pictures)
- AVCHD N/A
- o MP4 N/A

- Actual recordable Time (Motion Pictures)
- AVCHD N/A
- o MP4 N/A
- o Continuous Recordable Time (Motion Pictures) (\*2)
- AVCHD FHD/60p: Approx. 70 min
- o AVCHD FHD/60i: Approx. 70 min
- o MP4 4K/30p: Approx. 60 min
- o MP4 FHD/60p: Approx. 70 min
- Actual recordable Time (Motion Pictures) (\*2)
- AVCHD FHD/60p: Approx. 35 min
- o AVCHD FHD/60i: Approx. 35 min
- o MP4 4K/30p: Approx. 30 min
- MP4 FHD/60p: Approx. 35 min
- Exposure Parameters
- Exposure Program AE, Aperture Priority AE, Shutter Priority AE, Manual
- Exposure Compensation 1/3 EV step, +/-5 EV (+/-3 EV for motion picture)
- o Auto (AE) Bracketing N/A
- Light Metering Intelligent Multiple / Center Weighted / Spot
- o ISO Sensitivity Still Image: Auto / i.ISO / 80\* / 100\* / 125 / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 256
- ISO Sensitivity Motion Picture: Auto / 125 / 200 / 400 / 800 / 1600 / 3200 / 6400
- ISO Sensitivity (Changeable to 1/3 EV step)
- ISO Sensitivity \* Extended ISO
- o Picture Quality
- Still Picture Recording [4:3] 4864x3648 (17.5M) (L) / 3456x2592 (9M) (M) / 2432x1824 (4.5M) (S)
- Still Picture Recording [3:2] 5472x3648 (20M) (L) / 3888x2592 (10M) (M) / 2736x1824 (5M) (S)
- o Still Picture Recording [16:9] 5472x3080 (17M) (L) / 3840x2160 (8M) (M) / 1920x1080 (2M) (S)
- o Still Picture Recording [1:1] 3648x3648 (13.5M) (L) / 2592x2592 (6.5M) (M) / 1824x1824 (3.5M) (S)
- Image Quality RAW / RAW+Fine / RAW+Standard / Fine / Standard
- White Balance Auto / Daylight / Cloudy / Shade / Incandescent / Flash / White Set1 / White Set2 / White Set4 / Color Temperature
- White Balance (2-axis adjustable)
- o Photo Style Standard, Vivid, Natural, Monochrome, Scenery, Portrait, Custom
- Picture Adjustment Contrast, Sharpness, Noise Reduction, Saturation\*, Color Tone\*\*, Filter Effect\*\*
- Picture Adjustment \* Except for Monochrome mode. \*\* For Monochrome mode only.
- Bracket
- AE Bracket 3, 5, 7 images in 1/3, 2/3 or 1 EV step, Max. +/-3 EV

	• Aperture Bracket 3, 5 or all positions in 1 EV step
	o Focus Bracket 1 to 999 images, focus steps can be set in 5 levels
	<ul> <li>White Balance Bracket 3 exposures in blue/amber axis or in magenta/green axis</li> </ul>
	o Other
	o Digital Red Eye Correction (Red-Eye Removal) Yes (On / Off)
	• GPS -
	∘ Wi-FI IEEE 802.11b/g/n
	o Wi-FI 2412 MHz - 2462 MHz (1-11 ch)
	• Wi-FI WPA / WPA2
	• Wi-FI Infrastructure Mode / WPS
	• NFC -
	o Zoom in Motion Picture Yes
	• Self Timer 2 sec / 10 sec / 10 sec (3 images)
	• Self Shot Mode Yes
Playback	o Display
	<ul> <li>Playback Mode All, Slideshow, Filtering Play (Picture Only, Video Only, 4K PHOTO, Post Focus, Categor Selection, Favorite), Calendar</li> </ul>
	• Thumbnails / Zoomed Playback 12,30-thumbnails / Yes
	o Set Favorites / Rotate Image Yes / Yes
	• Show Histogram/ Show Highlights Yes / Yes
	• DPOF Print Setting / Set Protection Yes / Yes
	o Edit
	o Retouch Clear Retouch
	o RAW Processing Yes
	• Resize/ Cropping Yes / Yes
	• Copy / Title Edit / Text Stamp N/A
	o Title Edit / Text Stamp Yes / Yes
	o Video Divide Yes
	• Creating Still Pictures from a Motion Picture N/A
	• PictBridge Support Single / Multi / All / DPOF / Favorites
• Setup	o OSD language Japanese, English, German, French, Italian, Spanish, Polish, Chinese (Traditional)
Others	o Monitor
	• LCD Monitor 3.0" (7.5cm) TFT Screen LCD Display (1040k dots), Tiltable monitor
	• LCD Monitor Static Touch Control

- o LCD Monitor Field of View: Approx. 100%, Wide Viewing-angle, AF Coating
- o Flash
- Built- in- Flash Auto\*, Auto/Red-eye Reduction\*, Forced On, Forced On/Red-eye Reduction, Slow Sync., Sync./Red-eye Reduction, Forced Off \* For iA, iA+ mode only.
- Built- in- Flash 0.5 12.1m (Wide / ISO Auto), 0.3 6.0m (Tele / ISO Auto)
- o Media
- o Recording Media SD Memory Card, SDHC Memory Card, SDXC Memory Card
- Recording Media (Compatible with UHS-I UHS Speed Class 3 standard SDHC / SDXC Memory Cards)
- Built- in- Memory -
- o Audio
- o Microphone / Speaker Stereo / Mono
- o Interface
- Interface microHDMI typeD (\*3), USB2.0 Micro-B
- o Power
- o Power Li-ion Battery Pack (7.2V, 680mAh, 4.9 Wh) (Included)
- Power USB Power Charging
- o Battery life (Approx.) 260 images (CIPA Standard) (\*1)
- o Standard Package
- Included Software The software to process RAW file on PC is not bundled with DMC-LX10. To do this, SILKYPIX Developer Studio is available for download at Ichikawa Soft Laboratory's website using PC connected to the Internet.
- Included Software The DMC-LX10 Operating Instructions for advanced features is available for downloaded at Panasonic LUMIX Customer Support Site using PC, smartphone or tablet connected to the Internet.
- Included Software The software for PC is not bundled with DMC-LX10. Please use the software preinstalled to the PC or other general image viewing software to browse pictures.
- o Standard Accessories Battery Pack, AC Adaptor, USB Cable, Hand Strap

## NOTES

- NOTE \*1
- NOTE Recording conditions by CIPA standard
- NOTE Temperature: 23 oC (73.4 oF) / Humidity: 50%RH when monitor is on.
- o NOTE Using a Panasonic SDHC Memory Card
- NOTE Using the supplied battery.
- NOTE Starting recording 30 seconds after the camera is turned on. (When the optical image stabilizer function is set to [ON].)
- NOTE Recording once every 30 seconds with full flash every second recording.
- NOTE Rotating the zoom lever from Tele to Wide or vice versa in every recording.
- NOTE The number of recordable pictures varies depending on the recording interval time.

- o NOTE If the recording interval time becomes longer, the number of recordable pictures decreases.
- NOTE CIPA is an abbreviation of [Camera & Imaging Products Association].
- NOTE \*2
- o NOTE Use a card with SD Speed Class with "Class 4" or higher when recording motion pictures.
- NOTE Use a card with SD Speed Class with "UHS-I Speed Class 3 (U3)" when recording motion picture [MP4] in [4K] or [4K PHOTO].
- NOTE (SD speed class is the speed standard regarding continuous writing.)
- NOTE Recording stops when the continuous recording time exceeds 29 minutes and 59 seconds with [AV in [FHD/60p] [FHD/60i].
- NOTE Recording stops when the continuous recording time exceeds 15 minutes with [MP4] in [4K].
- NOTE When using an SDHC memory card: You can continue recording without interruption even if the size exceeds 4 GB but the motion picture file will be divided and recorded/played back separately.
- o NOTE When using an SDXC memory card: You can record a motion picture in a single file.
- NOTE Recording stops when the continuous recording time exceeds 29 minutes and 59 seconds with [MI [FHD/60p] and High Speed motion pictures.
- NOTE You can continue recording without interruption even if the file size exceeds 4 GB, but the motio picture file will be divided and recorded/played back separately.
- NOTE MP4 motion pictures with [MP4] in [FHD/30p] [HD]: You can continue recording without interru
  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.
- NOTE These are standard times taken at a temperature of 23 oC (73.4 oF) and a humidity of 50%RH.
- NOTE The time available for recording varies depending on the environment, the interval between recordings, and the manner of use.
- NOTE Actual recordable time is the time available for recording when repeating actions such as switchir power supply [ON] / [OFF], starting/stopping recording, zoom operation etc.
- o NOTE \*3
- NOTE For [4K] video output, use an HDMI cable that has the HDMI logo on it, and that is described as"4 compatible".

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