Clifton Cameras Product Specification

Panasonic Lumix GX9 Digital Camera with 12-32mm Lens Kit Full Spec

TYPE   Type   Digital Single Lens Mirrorless camera

Recording media   SD Memory Card, SDHC Memory Card, SDXC Memory Card

(Compatible with UHS-I 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 / 4-stop*), Dual I.S. 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

4K PHOTO   MP4

Motion picture   AVCHD Progressive, AVCHD (Audio format: Dolby Audio 2ch)

MP4: H.264/MPEG-4 AVC (Audio format: AAC (2ch))

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) / 3328x2496(4K PHOTO)

[3:2] 5184x3456(L) / 3712x2480(M) / 2624x1752(S) / 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**   MP4**   [4K] 3840x2160   4K/30p: 100Mbps

4K/24p: 100Mbps

[Full HD] 1920x1080   FHD/60p: 28Mbps

FHD/30p: 20Mbps

[HD] 1280x720   HD/30p: 10Mbps

AVCHD** [Full HD] 1920x1080   FHD/60p: 28Mbps, 60p recording

FHD/60i: 17Mbps, 60i recording

FHD/30p: 24Mbps, 60i recording (sensor output is 30fps)

FHD/24p: 24Mbps, 24p recording

Continuous recordable time (Motion picture)**   AVCHD [FHD/60p]

Approx. 90 min (rear monitor), 80 min (LVF) with H-FS12032 / H-FS12060

AVCHD [FHD/60i]

Approx. 90 min (rear monitor), 80 min (LVF) with H-FS12032 / H-FS12060

MP4 [4K/30p]

Approx. 70 min (rear monitor), 70 min (LVF) with H-FS12032 / H-FS12060

Actual recordable time (Motion picture)** AVCHD [FHD/60p]

Approx. 45 min (rear monitor), 40 min (LVF) with H-FS12032 / H-FS12060

AVCHD [FHD/60i]

Approx. 45 min (rear monitor), 40 min (LVF) with H-FS12032 / H-FS12060

MP4 [4K/30p]

Approx. 35 min (rear monitor), 35 min (LVF) with H-FS12032 / H-FS12060

WIRELESS   Wi-Fi   IEEE 802.11b/g/n, 2412 MHz - 2462 MHz (1-11 ch), Wi-Fi / WPA / WPA2, Infrastructure mode

QR code connection / Password-less connection   Yes / Yes (ON / OFF selectable)

Bluetooth Bluetooth® v4.2 (Bluetooth Low Energy (BLE))

VIEWFINDER   Type   LCD Live View Finder (2,760k dots equivalent), Tiltable

Field of view   Approx. 100%

Magnification   Approx. 1.39x / 0.7x (35mm camera equivalent) with 50 mm lens at infinity; -1.0 m-1

Eye point Approx. 17.5 mm from eyepiece lens

Diopter adjustment -4.0 - +3.0 (dpt)

Eye sensor   Yes

FOCUS   Type   Contrast AF system

DFD technology   Yes

Post Focus   Yes

Focus Stacking   Yes

Focus mode   AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF

AF mode Face/Eye Detection / Tracking / 49-Area / Custom Multi / 1-Area / Pinpoint

(Full area touch is available)

AF detective range EV -4 - 18 (ISO100 equivalent)

Starlight AF   Yes

AF assist lamp   Yes

AF lock   Yes (AF/AE LOCK button)

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   1728-zone multi-pattern sensing system

Light metering mode   Multiple / Center Weighted / Spot

Metering range   EV 0 - 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 (Changeable to 1/3 EV step)

Exposure compensation   1/3 EV step, ±5EV (when set with the menu) (±3 EV for motion picture), ±3EV (when set with the dial)

AE lock   Yes (AF/AE LOCK button)

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: Time* (Max. 30 minutes), 1/4,000 - 60   *Bulb mode is possible with the "Image App" remote control via Bluetooth.

Electronic shutter: 1/16,000 - 1

Motion picture: 1/16,000 - 1/25

Self timer 10sec, 3 images / 2sec / 10sec

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 10 levels

White balance bracket   3 images in blue/amber axis or in magenta/green axis

PANORAMA SHOT   Yes (Standard / Wide)

BURST SHOOTING Burst speed   [Mechanical shutter]

AFS/MF: H: 9 frames/sec, M: 6 frames/sec (with Live View), L: 2 frames/sec (with Live View)   *When H-FS12032 is used.

AFF/AFC: H: 6 frames/sec, M: 6 frames/sec (with Live View), L: 2 frames/sec (with Live View)   *When H-FS12032 is used.

[Electronic shutter]

AFS/MF: H: 9 frames/sec, M: 6 frames/sec (with Live View), L: 2 frames/sec (with Live View)

AFF/AFC: H: 6 frames/sec, M: 6 frames/sec (with Live View), L: 2 frames/sec (with Live View)

Number of recordable images More than 30 images (when there are RAW files with the particular speed)

More than 100 images (when there are no RAW files)

(depending on memory card type, aspect, picture size and compression)

4K PHOTO**   Burst speed   30 frames/sec

Exif information   Yes (Each JPEG image cropped out of the 4K burst file complies with EXIF.)

Marking function   Auto / Face Priority / Motion Priority / Off (Manual) (in 4K Burst mode and 4K Burst (S/S) mode)

Loop rec function   Yes (in 4K Burst (S/S) mode)

TIME LAPSE SHOT Yes

STOP MOTION ANIMATION   Yes

FLASH   Flash type   TTL Built-in-Flash, GN6.0 equivalent (ISO200 m) / GN4.2 equivalent (ISO100 m) (Reference), Built-in Pop-up

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 1/200 second

Flash output adjustment   1/3EV step ±3EV

Flash synchronization   1st. Curtain Sync., 2nd Curtain Sync.

Synchronization for flash dimming and exposure compensation   Yes

Wireless control   Yes (When using DMW-FL200L / FL360L / FL580L (sold separately)), Wireless Channel: 1ch/2ch/3ch/4ch

SILENT MODE   Yes

REAR MONITOR   Type   TFT LCD monitor with static touch control, Tiltable monitor

Monitor size   3.0-inch (7.5cm) / 3:2 aspect

Pixels   Approx. 1,240k dots

Field of view   Approx. 100%

Monitor adjustment   Brightness, Contrast, Saturation, Red Tint, Blue Tint

LIVE VIEW   Digital zoom   2x, 4x

Extra Tele Conversion   Still image: Max. 2x

Motion picture: 2.7x (FHD), 4.0x (HD)

Other functions   Level Gauge, Real-time Histogram, Guide Lines (3 patterns), Center Marker, Highlight display (Still image / motion picture), Zebra Pattern (Still image / motion picture)

DIRECTION DETECTION FUNCTION   Yes

FUNCTION BUTTON   REC   4K Photo Mode / Post Focus / Wi-Fi / Q.MENU / Video Record / LVF/Monitor Switch / LVF/Monitor Disp. Style / AF/AE LOCK / AF-ON / Preview / One Push AE / Touch AE / Level Gauge / Focus Area Set / Zoom Control / Operation Lock / Dial Operation Switch / Photo Style / Filter Select / Aspect Ratio / Picture Size / Quality / AFS/AFF / Metering Mode / Bracket / Highlight Shadow / i. Dynamic / i. Resolution / Min. Shtr Speed / HDR / Shutter Type / Flash Mode / Flash Adjust. / Wireless Flash Setup / Ex. Tele Conv. / Digital Zoom / Stabilizer / I.S. Lock (Video) / 4K Live Cropping / Snap Movie / Motion Pic. Set / Picture Mode in Rec. / Sound Rec Level Adj. / Silent Mode / Peaking / Histogram / Guide Line / Zebra Pattern / Monochrome Live View / Constant Preview / Live View Boost / Rec Area / Step Zoom / Zoom Speed / Sensitivity / White Balance / AF Mode/MF / Drive Mode / Rec/Playback Switch / Off / Restore to Default

PLAY   Wi-Fi / LVF/Monitor Switch / Rec/Playback Switch / 4K PHOTO Play / Delete Single / Protect / Rating 1, 2, 3, 4, 5 / RAW Processing / 4K PHOTO Bulk Saving / Off / Restore to Default

PHOTO STYLE   Standard / Vivid / Natural / Monochrome / L. Monochrome / L. Monochrome D / Scenery / Portrait / Custom

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.

PLAYBACK   30-thumbnail display, 12-thumbnail display, Calendar display, Zoomed playback (Max. 16x), Slideshow (All / Picture Only / Video Only, duration & effect is selectable), Playback Mode (Normal / Picture Only / Video Only), Protect, Rating, Title Edit, Face Recognition Edit, RAW Processing, 4K PHOTO Bulk Saving, Light Composition, Sequence Composition, Clear Retouch, Text Stamp, Resize, Cropping, Rotate, Video Divide, Time Lapse Video, Stop Motion Video, Rotation Display, Picture Sort, Delete Confirmation, Creating Still Pictures from a Motion Picture

IMAGE PROTECTION / DELETE   ProtectionSingle / Multi or Cancel

Delete   Single / Multi / All / Except Rating

PRINT   Direct print   PictBridge compatible

INTERFACE   USB   USB 2.0 Micro-B

HDMI***   microHDMI TypeD / VIERA Link

Video: Auto / 4K / 1080p / 1080i / 720p / 480p

Audio: Stereo

Audio video output   No

Microphone   Stereo, Wind Noise Canceller: OFF / Standard / High

Speaker   Monaural

LANGUAGE   OSD language   Please refer to "OSD" Sheet

POWER   Battery   Li-ion Battery Pack (7.2V, 1025mAh, 7.4Wh) (Included)

USB power charging

Battery life (CIPA standard)   Approx. 260 images (rear monitor), 250 images (LVF), 900 images (Power Save LVF mode*) with H-FS12032 / H-FS12060

*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.

DIMENSIONS / WEIGHT   Dimensions (W x H x D)   124 x 72.1 x 46.8 mm / 4.88 x 2.83 x 1.84 inch (excluding protrusions)

Weight   Approx. 407g / 0.90 lb (SD card, Battery, Body)

Approx. 450g / 0.99 lb (Body only)

Approx. 517g / 1.14 lb (SD card, Battery, H-FS12032 lens included)

Approx. 660g / 1.46 lb (SD card, Battery, H-FS12060 lens included)

OPERATING ENVIRONMENT   Operating temperature   0°C to 40°C (32°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 is available for download at Panasonic website using computer connected to the Internet.

http://panasonic.jp/support/global/cs/soft/download/d_pfs10ae.html (For Windows)

   The software to process RAW file on computer is not bundled with this camera. To do this, SILKYPIX Developer Studio is available for download at Ichikawa Soft Laboratory's website using computer connected to the Internet.

http://www.isl.co.jp/SILKYPIX/english/p/ (For Windows / Mac)

Standard accessories   DC-GX9 Kit

Battery Pack, AC Adaptor, USB Connection Cable, Hot Shoe Cover, Shoulder Strap, Body Cap

DC-GX9K Kit

Battery Pack, AC Adaptor, USB Connection Cable, Hot Shoe Cover, Shoulder Strap, Lens Cap

DC-GX9M Kit

Battery Pack, AC Adaptor, USB Connection Cable, Hot Shoe Cover, Shoulder Strap, Body Cap, Lens Cap, Lens Hood, Lens Rear Cap

The DC-GX9 Operating Instructions for advanced features is available for downloaded at Panasonic LUMIX Customer Support Site using PC, smartphone or tablet connected to the Internet.