

Panasonic



THE ONE FOR YOU

CHANGING PHOTOGRAPHY



GH5 / GH5S



G9 / G90 / G80



GX9 / GX80



GX880

LUMIX G BROCHURE 2019

LUMIX



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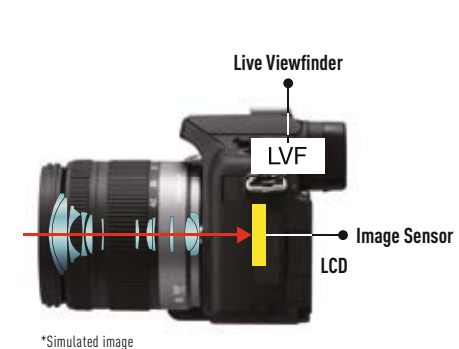
LUMIX G series

A NEW LEVEL OF FREEDOM.

You could say that's what makes LUMIX G cameras so successful. These mirrorless interchangeable-lens models (DSLMs) have dispelled the myth that only complicated single lens reflex systems (DSLRs) can offer perfect picture quality, as well as the idea that only chunky bodies guarantee top performance.

That's because, in actual fact, eliminating the bulky single lens reflex Viewfinder is a plus. It makes way for what's really important: more picture quality, more precision, more handiness. It's a future technology that's perfect for a constantly evolving society.

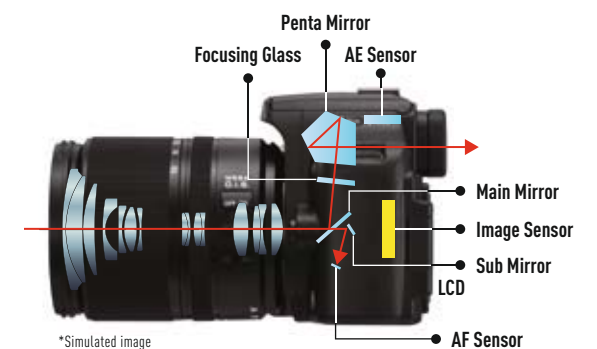
The LUMIX G system offers the right camera for everyone's needs. Take pictures wherever you are and whenever you want. The way you want.



LUMIX G SERIES

LUMIX G DSLM

- + **Live Viewfinder** for real time image preview
- + **Mobility:** compact and lightweight system
- + **Autofocus:**
 - + Touch focus via display
 - + Fast Live View autofocus using Viewfinder and monitor
 - + Flexible focus points
 - + Precision autofocus for taking videos
- + **Silent shooting**



CONVENTIONAL DSLR

CONVENTIONAL DSLR

- Optical Viewfinder does not show picture preview or settings
- Mobility: bulky and heavy system
- Autofocus:
 - No Touch Focus via display
 - Slow autofocus in Live View
 - Fixed focus points
 - Slow autofocus when shooting videos
- Sounds cannot be switched off

FLEXIBLE SYSTEM



FIND THE ONE FOR YOU

It would be odd if the digital revolution simply passed photography by. And it hasn't: purely digital and mirrorless interchangeable-lens systems (DSLM) are the stars of the photographic universe, free of the analogue heritage of complicated single lens reflex systems (DSLR).

Why be an old-fashioned photographer when you can be modern? Discover pioneering photography and find precisely the LUMIX G that suits you. And take a look at our numerous interchangeable lenses. A new level of freedom is within reach.



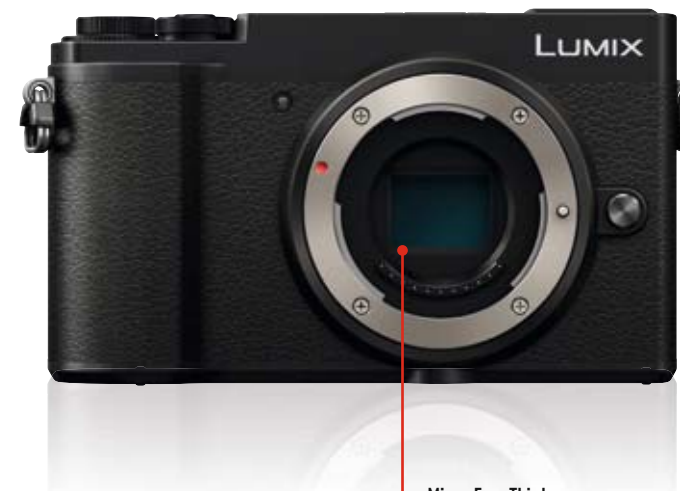
THE HEART OF PICTURE QUALITY

LUMIX G cameras boast extraordinary picture quality and crystal-clear shots. There are many reasons for this, and one of them is the Live MOS sensor. Interacting with high-quality optics and a powerful processor, it lays the foundation for brilliant photographs.

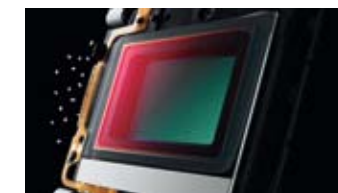
Size matters? Yes, but not only size. What is crucial is that sensor size, system set-up and image processing all match up. It is this interplay which has been optimised in the LUMIX G models. The result is that more and more photographers appreciate the modern aspects of our mirrorless system and use LUMIX G cameras for taking great shots.

Resolutions of up to 20.3 megapixels guarantee detailed picture quality. Clean colours also speak for themselves, as do balanced transitions without loss of resolution. And colour and luminance noise? It's effectively prevented even at high ISO ratings. So you can snap away without a care even in low light conditions.

Give free rein to your creativity – the Live MOS sensor gives you plenty of leeway and guarantees fantastic shots.



Micro-Four Thirds sensor with 21.3 mm diameter



Ultrasound dust illumination
Dust it down: the fully automatic Supersonic Wave Filter is integrated into LUMIX G models. It utilises 80,000 vibrations per second to sweep away particles such as dust and dirt from the sensor. This means you can change your lens without worrying and still achieve unblemished pictures.

PERFECT CONTROL

FEEL FREE

DUAL I.S.

This technology is the first to combine image stabilising features in the lens and the sensor to better compensate for camera shake. Many LUMIX G lenses are already equipped with optical image stabilisers, which allows every LUMIX G camera to take more stabilised images especially in telephoto shots. In G9, GH5 and G80 the DUAL I.S. 2 (5-Axis) achieves even better photography results and shake-free shots. The astonishing power of the 5-axis Body I.S. corrects shake for all lenses, including classic lenses not equipped with O.I.S.



Conventional Image Stabilisation



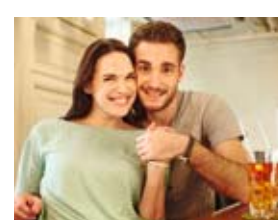
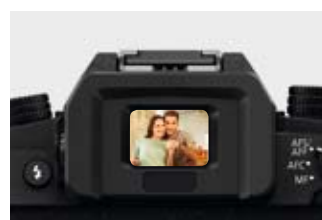
DUAL Image Stabilisation

LIVE VIEWFINDER

Do not like to do things by halves? Then you're in the best company. LUMIX G's motto is: do things properly, or don't do them at all. Take the Viewfinder for instance. Because the image comes straight from the sensor, our Viewfinder is called Live Viewfinder (LVF) and shows precisely the field of view that the lens is currently capturing. They show it properly, in other words.

The LUMIX G is a true perfectionist in other ways as well. It displays every image effect and the results of white balance, colour effects, lighting and many other functions. Another benefit:

Unlike single lens reflex, when you focus manually, sections of the image are enlarged in the Viewfinder allowing you to concentrate on what's important, so you don't need to take your camera away from your eye to check settings.



LUMIX G
100 % field of view



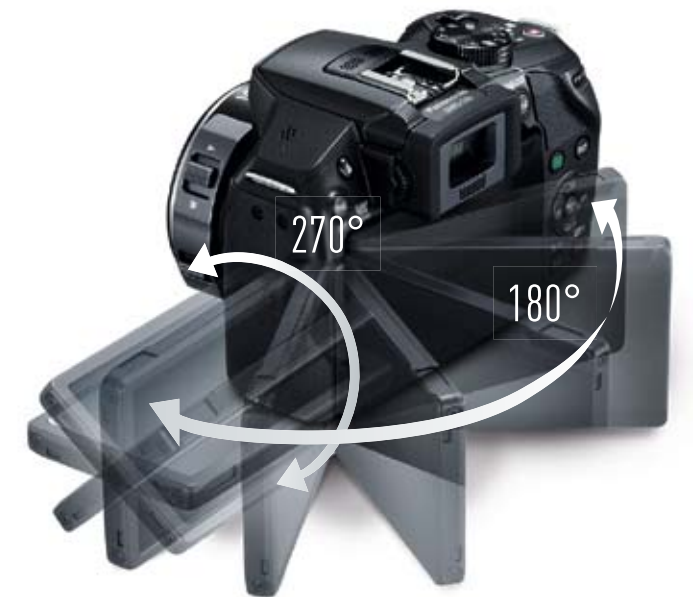
DSLR
<100 % field of view

LUMIX G BENEFITS

- + Effectively prevents shaky images
- + 100 % field of view
- + All image effects shown
- + The white balance and EV correction are immediately visible
- + Aspect ratios 4:3, 3:2, 1:1, 16:9 can be shown
- + Focus assist when focusing manually

FREEDOM FOR NEW WAYS OF LOOKING AT THINGS

Get a new angle on your pictures. LUMIX G cameras are equipped with a flexible* display on the backside. While others have to bend to get creative shots, you get the perfect image straight in the box. Selfie, low angle or overhead shots – you can turn the LUMIX G whichever way you want and you'll always capture the perfect picture.



Selfie shots

A tiltable display is a true eye-opener when it comes to the popular selfie format. Because you can move it around the way you want, you'll find it easier to put yourself in the picture. No more limits on your creativity. You're free to do it yourselfie...



Low angle shots

Thanks to a vertically pivoting display you no longer have to go down on your knees to capture something small at eye-level. You'll soon discover how much fun it can be to take macro photos.



Overhead shots

For your next overhead shots you won't have to climb onto a chair or ladder to see the picture in your Viewfinder. Instead you've got a folding display. So while you stay firmly on the ground you can see things from a bird's-eye perspective. Clever, don't you think?



Display Guard – never get another scratch

Nothing is more annoying than getting a scratch on your display. Fortunately it won't happen to you now. After filming or photographing, simply fold in the LUMIX G display. Forewarned is forestalled.

LUMIX G BENEFITS

- + Shoot from any angle
- + All settings are shown directly
- + Intuitive Touch operation via the touchscreen

*Free-angle display: GH5, GH5S, G9, G90, G80; Tilttable display: GX9, GX80, GX800

IN FOCUS

FOCUS ON THE TINIEST DETAILS

Frame up, focus, shoot – in some situations you’ve got to be quick otherwise you’ll miss the ideal picture. LUMIX G cameras have a super fast and precise autofocus. How does it work?

While DSLR cameras still work with a separate autofocus sensor – which can easily produce inaccuracies – the LUMIX G sensor performs autofocus as well. That’s how LUMIX G cameras achieve superb results in video and photography.

DEPTH FROM DEFOCUS (DFD) TECHNOLOGY – PRECISION AND CLARITY, ONLY QUICKER

The Depth from Defocus (DFD) technology achieves optimised focus within a split of a second. To achieve this, Panasonic has further developed its contrast autofocus.

The processor calculates the distance from the subject from two as-yet unfocused images with different depths of focus. Working together with the LUMIX G lens, the camera will then calculate the correct distance, focus on it and perform fine-tuning.



LUMIX G BENEFITS

- + Fast and precise autofocus
- + No delay in Live View
- + Focus anywhere in the image
- + Intuitive focusing by using the touchscreen

TOUCH DISPLAY – GET IN TOUCH WITH INTUITIVE OPERATION

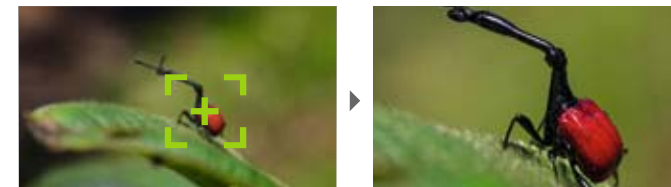
Do you share our vision that a camera should be complex but not complicated? That’s why every LUMIX G model has a big touchscreen. It gives you a complete overview, and operating it is wonderfully intuitive.

Focus on details of your picture or make use of our practical autofocus tracking – this feature follows your subject as it moves. Oh yes, and you can shoot using the display as well. One touch is enough – and click.



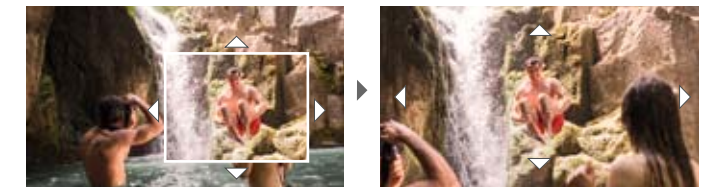
SEE FREE

AUTOFOCUS MODES – OVERVIEW



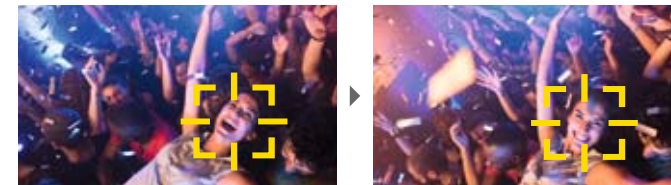
Pinpoint AF

Select spot autofocus from the menu and tap the area of the image area you want to focus on. Next, enlarge the picture to define exactly where you want to focus. Now all you have to do is shoot.



Manual focusing

Focusing can be done automatically or manually. Manual fine focusing is also possible in autofocus mode. Either way, a moveable touchscreen focus assist (picture in picture) makes precision focusing easier.



AF tracking

When this function is active, autofocus will follow the details of the subject which you have touched. This is especially useful when shooting a video.



1-Area / 49-Area AF

In 1 field mode, the autofocus focuses on an area of the field of view. In 49 field AF, the LUMIX G automatically selects one or more of 49 fields.



Face / Eye detection

Your LUMIX G doesn’t just recognise faces. With a tap of the finger the camera can also focus on details – now even eye recognition is possible.



Focus peaking – the ultimate focus test

The new LUMIX G helps you wherever it can – including when you focus manually. The edges of the picture area you have selected are highlighted in colour on the display so that you can see straight away whether the right details are in focus. Now that’s what we call a good photographic assistant...

HIGH RESOLUTION IN 4K

4K

4K RESOLUTION – THE KEY TO PERFECT VIDEOS

Feel for a great documentary? Then why not film one yourself? You can record 4K videos in up to 3840 x 2160 pixels and 60 frames per second. We know that the ultra-clear video quality of LUMIX G cameras will bowl you over from the very first scene. With its intuitive operation and extraordinary professionalism, the LUMIX G will make you a star director in a flash.

Choose between formats like MOV, MP4 and AVCHD as well as lots of different frame rates. Pros will love the fact that the GH5/GH5S can even show pictures on an external monitor or send them to a hard drive in real time using a HDMI cable while you shoot.

LUMIX G BENEFITS: 4K VIDEO

- + Higher resolution, sharper images on TVs
- + Video editing with lots of benefits: Full HD cut-out from 4K image, subject tracking, zooming, balancing skew horizons



But all the other LUMIX G models are great at shooting movies, too – just like you. Simply press the Direct Video button and they take brilliant 4K picture quality videos almost by themselves.

An intelligent automatic mode immediately recognises the situation and selects a suitable image program. Stop limiting your creativity – the LUMIX G certainly doesn't.



4K Resolution
Whether you watch videos or edit your own, 4K offers the sharpest viewing experience you have ever had. 4K Ultra HD resolution achieves four times the quality of Full HD. That means more details, more colours and more depth of focus.



MOVE FREE



4K / 6K PHOTO – CAPTURE THE PERFECT MOMENT

4K isn't just attractive to filmmakers, this revolutionary quality also offers new possibilities to photographers. Its high-resolution allows you to extract high quality still images and save them as JPEGs. With frame rates of up to 60 frames per second, you can be sure to capture that perfect moment.

The 6K PHOTO mode that comes with 30 frames per second allows you to capture the perfect moments at a stunning 18-megapixel high-resolution JPEG.

LUMIX G BENEFITS: 4K / 6K PHOTO

- + Extract a still image from 30 or 60 frames
- + **Faster frame** rate than in burst shooting
- + Never miss a **perfect moment**

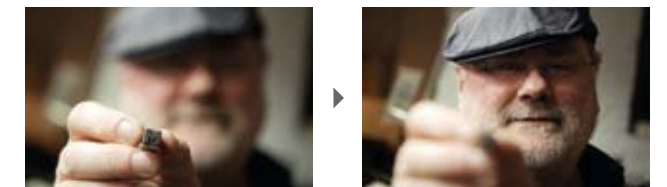
LUMIX G BENEFITS: POST FOCUS

- + Select the ideal focal plane, **later on after shooting**
- + More **creative freedom** and perfect photographs

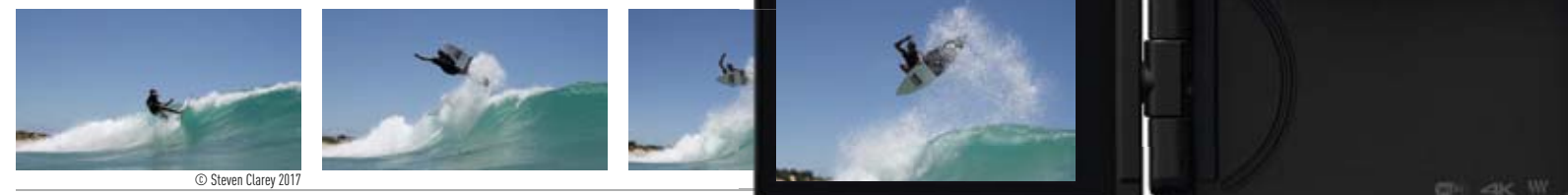
POST FOCUS – SHOOT NOW, FOCUS LATER

The Post Focus feature allows you to focus on any number of different areas of an image – even after the picture has been taken. Serial exposures in 4K resolution are taken at 30 images per second, and the focus moves through as many as 49 areas with different focal points – from near to far. After that you simply touch the area you want to focus on and the image is focused automatically. As soon as the focused and unfocused areas of the image are the way you want them, you can save the shot as a separate photograph.

That means you can decide later about where your focal plane (or planes) should lie. This feature also provides assurance when photographing difficult subjects, such as macro shots.



Post Focus
Focused up front or further back? Post Focus opens up completely new possibilities.



© Steven Clarey 2017

LUMIX | Ambassadors

On the following pages you can discover stunning images taken by our LUMIX Ambassadors showcasing their creative skills who benefit from all the functions and features of Panasonic's LUMIX G range of cameras.



LUMIX GH5
Jon Bryant



LUMIX GX9
Viviana Galletta



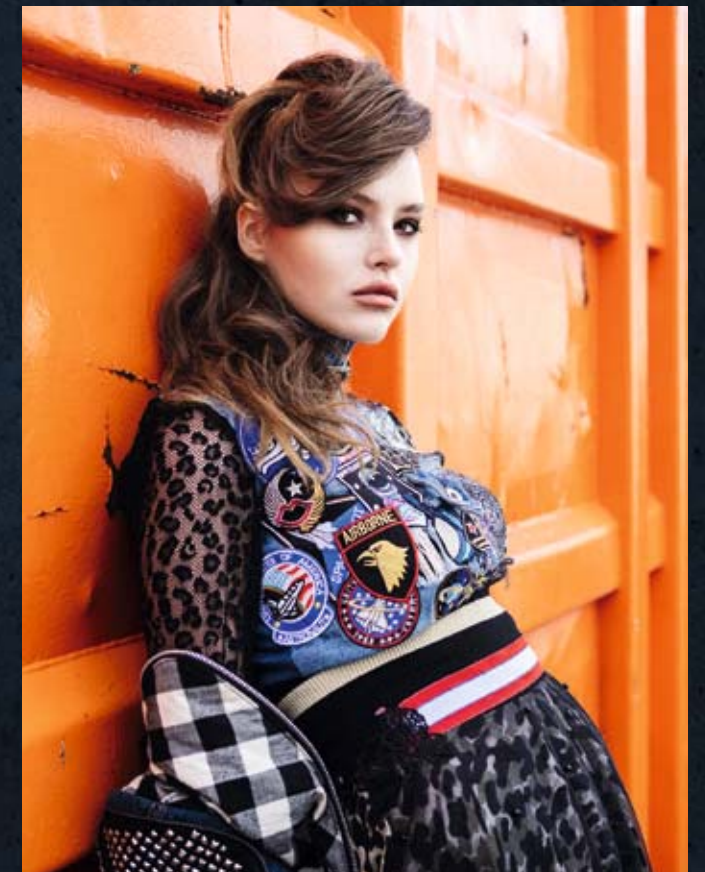
LUMIX G9
Joakim Odelberg



LUMIX GH5
Steven Clarey



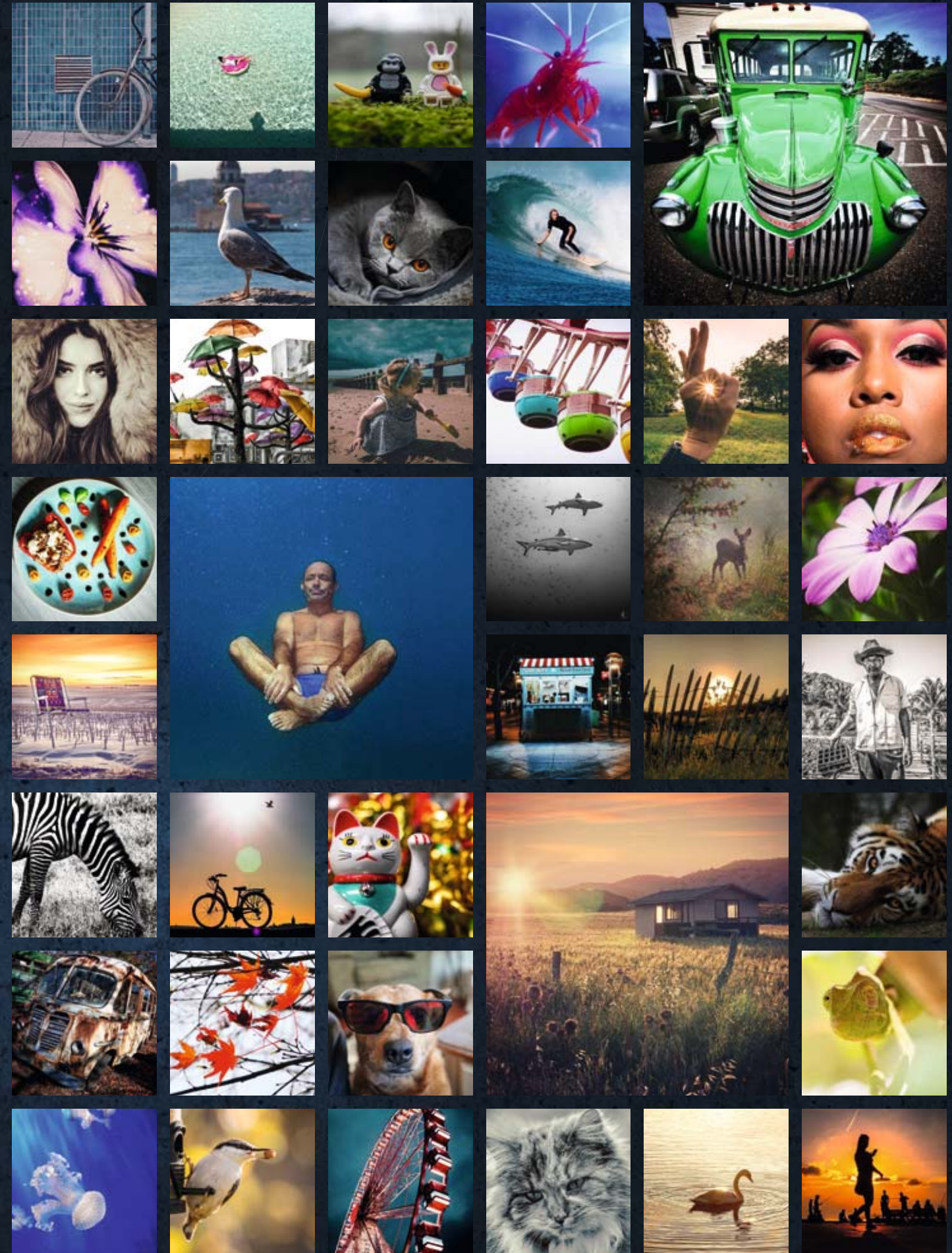
LUMIX GH5
Olivier Lavielle



LUMIX G9
Martin Duerr

@LUMIX

Get inspired by stunning photos taken with LUMIX cameras. Tag your images on Instagram with @lumix and camera model name (i.e. #lumixg90) and lens name (i.e. #hfsa14140) to be featured.



GH5
THE ONE
WINNING AWARDS

PAGE 20-21



G80
THE ONE
FOR THE ADVENTURE

PAGE 28-29



GH5S
THE ONE
MOVING FILMMAKING FORWARD

PAGE 22-23



GX9
THE ONE
WITH TRUE CREATIVE VISION

PAGE 30-31



G9
THE ONE
THAT CATCHES EVERYTHING

PAGE 24-25



GX80
THE ONE
CAPTURING LIFE ON THE MOVE

PAGE 32-33



G90
THE ONE
EXPLORING THE WORLD

PAGE 26-27



GX880
THE ONE
MATCHING YOUR STYLE

PAGE 34-35



GH5

FOR PROFESSIONAL 4K VIDEO AND PHOTO REQUIREMENTS

Say Hello to the LUMIX GH5. It has all it needs for ambitious photographers and film makers.

THE ONE WINNING AWARDS

CHANGING PHOTOGRAPHY

TECHNICAL HIGHLIGHTS OF THE LUMIX GH5

- 20.3 MP Digital Live MOS sensor – without low pass filter
- DUAL I.S.2 (5-axis) – combining body and lens stabilisation
- Perfect rendering – internal 4:2:2 10-bit 4K Video recording
- 4K Video – unlimited 4K Video recording in 50p/60p
- Professional Connectors – full-sized HDMI port, optional battery grip and XLR mic adaptor
- Depth from Defocus (DFD) Autofocus – fast and precise
- 6K & 4K PHOTO – extract up to 18 MP JPEG from video
- Free-angle Touchscreen – 8 cm large display with 1.6 MP
- Splash-, dust- and freezeproof – built to withstand
- Live Viewfinder (LVF) – perfectly frame your shots
- Smart storage – Dual S.D. card slot



4K 60p / 50p Smooth Quality Video



The LUMIX GH5 takes professional shooting performance to another level with high-precision, silky smooth 4K 60p/50p (QFHD 4K: 3840 x 2160 / MOV or MP4) video recording capability. Faster frame rates mean excellent motion compensation plus you can slow down footage inside your video editing timeline without losing detail.

Ultra Fast Motion Detection & Focus



Panasonic's innovative DFD (Depth From Defocus) technology is constantly evolving and its just got even better. DFD allows the LUMIX GH5 to calculate focal lens movement by comparing depth of field values of two images at incredibly high speed. A newly adopted motion detector accurately tracks fast moving subjects, enabling smooth motion recording.

Never Miss A Shot with 6K / 4K PHOTO



Shoot with unlimited burst, then choose and extract the exact frames you want to keep. The new 6K PHOTO mode at 30fps allows you to capture the perfect moments at a stunning approx. 18-megapixel high-resolution. The Ultra-high-speed 4K PHOTO mode at 60fps freezes even faster motion which is simply not possible in conventional cameras.

The LUMIX GH5 in brief



Available in the following colours

- 1: External mic-in 2: HDMI Type-A connector 3: OLED Viewfinder 4: Free-angle 8 cm LCD touchscreen 5: Joystick Controller 6: Thumb control dial
- 7: Hot shoe 8: Index finger dial 9: Wi-Fi access indicator 10: Direct access buttons for white balance ISO setting and exposure compensation

GH5S

THE SHAPE OF THINGS TO COME

The LUMIX GH5S is the one for filmmakers. Supporting video recording in the highest 4K quality without cropping, and a high sensitivity 10.2 Megapixel MOS sensor, it produces simply stunning films, whenever inspiration strikes.

THE ONE MOVING FILMMAKING FORWARD

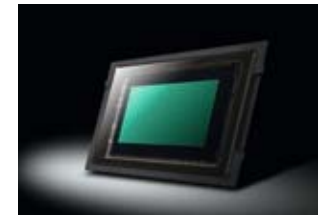
CHANGING PHOTOGRAPHY

TECHNICAL HIGHLIGHTS OF THE LUMIX GH5S

- 10.2 MP High Sensitivity Digital Live MOS sensor
- Video recording in multi-aspect formats incl. Cinema 4K
- V-LogL pre-installed
- Perfect rendering – internal 4:2:2 10-bit 4K Video recording
- 4K HDR – 4K Video in Hybrid Log Gamma format
- Professional Connectors – full-sized HDMI port, TC in / out
- Depth from Defocus (DFD) Autofocus – fast and precise
- 4K PHOTO – extract up to 18 MP JPEG from video
- Free-angle Touchscreen – 8 cm large display with 1.6 MP
- Splash-, dust- and freezeproof – built to withstand
- Live Viewfinder (LVF) – perfectly frame your shots
- Smart storage – Dual S.D. card slot



High Sensitivity Sensor



Designed exclusively for the LUMIX GH5S, the new Digital Live MOS sensor offers 10.28 effective megapixels and a significantly higher photoreceptive surface per pixel, delivering an ultra-wide dynamic range. Dual Native ISO, a technology found in broadcast video cameras, takes you to the ISO51200 / Extended ISO204800 level for ultra-sensitive video capture with impressively low noise.

C4K / 4K 60p / 50p Smooth Quality Video



The LUMIX GH5S takes professional shooting performance to another level with high-precision, silky smooth 4K 60p / 50p video recording capability. Faster frame rates mean excellent motion compensation plus you can slow down footage inside your video editing timeline without any loss of detail.

TC IN / OUT Terminal



The time code can be synchronized with an external device by using the bundled BNC conversion cable. This enables more comfortable image production for movies and documentaries, where multiple cameras are essential.

The LUMIX GH5S in brief



Available in the following colours



- 1: External mic-in 2: HDMI Type-A connector 3: OLED Viewfinder 4: Free-angle 8 cm LCD touchscreen 5: Joystick Controller 6: Thumb control dial
7: Hot shoe 8: Direct access buttons for white balance ISO setting and exposure compensation 9: Index finger dial 10: Wi-Fi access indicator 11: TC IN / OUT Terminal

G9

BECAUSE SPEED MATTERS

In the wild, nature moves fast, so our advanced High Speed Burst Mode locks in the blink of an eye and tracks continuously at 20fps RAW. Alternatively, 6K PHOTO lets you select moments from films as stunning 18-megapixel stills. And as the LUMIX G9 packs all this innovation into a splash-proof, streamlined body.

THE ONE THAT CATCHES EVERYTHING

CHANGING PHOTOGRAPHY

TECHNICAL HIGHLIGHTS OF THE LUMIX G9

- 20.3 MP Digital Live MOS sensor – without low pass filter
- DUAL I.S.2 (5-axis) – up to 6.5-stop
- Burst Shooting – shot up to 60 frames per second in RAW
- 80 MP High Resolution Mode
- 4K Video – 4K Video recording in 50p / 60p
- Large Status LCD and Joystick – instant and intuitive control
- Depth from Defocus (DFD) Autofocus – fast and precise
- 6K & 4K PHOTO – extract up to 18 MP JPEG from video
- Free-angle Touchscreen – 8 cm large display with 1.6 MP
- Splash-, dust- and freezeproof – built to withstand
- Live Viewfinder (LVF) – perfectly frame your shots
- Smart storage – Dual S.D. card slot



80 MP High Resolution Mode



If you're looking to capture larger imagery, for art printing for example, then the camera's high-resolution mode means you can shoot Raw+ JPEG images up to 80 MP in size.

Burst Mode



New DFD Autofocus with Burst Mode means nothing comes between you and the shot. Featuring advanced tracking performance with 20fps in continuous AFC mode, the focus locks in just 0.04 seconds and tracks motion continuously.

Status LCD



With the status display on top of the illuminated LUMIX G9 you have instant access to all your settings at one glance. Perfect when settings need frequent adjustment.

The LUMIX G9 in brief



- 1: OLED Viewfinder 2: Double SD Slot 3: Free-angle 8 cm LCD touchscreen 4: Drive Mode Dial 5: Eye Sensor 6: Joystick
- 7: Thumb control dial 8: Mode dial 9: Hot shoe 10: Status LCD 11: Shutter button

Available in the following colours



G90

GET THE BEST OUT OF PHOTO AND VIDEO

When starting off to an exciting journey, the LUMIX G90 is the perfect companion. With the combination of water & dust resistance, highest image quality, advanced video features and a supreme sensor, the LUMIX G90 will capture every adventure in stunning detail.

THE ONE EXPLORING
THE WORLD

CHANGING PHOTOGRAPHY

TECHNICAL HIGHLIGHTS OF THE LUMIX G90

- 20.3 MP Live MOS sensor – for super image quality
- DUAL I.S.2 (5-axis) – combining body and lens stabilisation
- Unlimited 4K Video – essentials for dramatic and expressive videos
- V-LogL pre-installed
- 4K PHOTO – never miss the perfect moment
- Depth from Defocus (DFD) Autofocus – fast and precise
- Live Viewfinder (LVF) – perfectly frame your shots
- Free-angle Touchscreen – 7.5 cm display with 1.2 MP
- Splash- and dustproof – uncompromising in every situation



Advanced Video Options



The G90 features a variety of essential functions for video enthusiasts and vloggers like unlimited 4K 25p recording, pre-installed V-LogL, FHD High Speed Video at 60/90/120 fps, and headphone & microphone socket for professional sound – to name just a few.

High resolution Live MOS Sensor



Images taken with the G90 will be crisp and clear full of details thanks to the 20.3 MP Live MOS sensor without low pass filter. The combination of removing the LPF and the high performance of the Venus Engine result in highest image quality including excellent colour reproduction.

OLED Viewfinder and touchscreen



Like a bit of clarity? 2.4 million pixels in the G90's OLED Live Viewfinder will help you get it. The free-angle backside OLED display ensures that when you seek, you also find. The reproduced image automatically switches between the Live Viewfinder and display by means of an eye sensor. As you can see, the G90 adjusts itself to you in every sense.

The LUMIX G90 in brief



Available in the following colours



- 1: Headphone output; 2: HDMI connector; 3: External mic-in; 4: Free-angle 7.5 cm LCD touchscreen; 5: OLED Viewfinder; 6: Direct access buttons for white balance, ISO setting and exposure compensation

G80

THE ONE FOR THE ADVENTURE

When life's adventures take you places, you need a camera that can keep up. Perfect for outdoor shooting, the DUAL Image Stabiliser helps you take crisper, clearer images in difficult or fast-moving environments, while the splash and dust proofed compact body and kit lens allow for huge flexibility wherever your trip takes you.

THE ONE FOR THE ADVENTURE

CHANGING PHOTOGRAPHY

TECHNICAL HIGHLIGHTS OF THE LUMIX G80

- 16 MP Live MOS Sensor – without low pass filter
- DUAL I.S.2 (5-axis) – combining body and lens stabilisation
- 4K Video – recording in ultra high res
- 4K PHOTO – never miss the perfect moment
- Post Focus – shoot now, focus later
- Depth from Defocus (DFD) Autofocus – fast and precise
- Free-angle Touchscreen – 7.5 cm large display with 1.04 MP
- Live Viewfinder (LVF) – perfectly frame your shots
- Splash- and dustproof – uncompromising in every situation



DUAL Image Stabiliser



The LUMIX G80 integrates DUAL I.S.2 (Image Stabiliser)*1, combining body and lens stabilisation to gain more powerful handshake correction and compensating your shots up to 5 F-Stops*2. The 5-axis stabilisation works in both wide and telephoto photography and motion picture recording including 4K Video.

*1 DUAL I.S.2 available with lens firmware upgrade.
*2 Based on the CIPA standard.

4K PHOTO



The 4K PHOTO feature on the LUMIX G80 allows you to capture the perfect moment by selecting a frame from a video sequence (shot at 30fps) in camera, and saving it as an individual high-res image. Simply shoot, select and save, to make those fleeting moments unmissable in every sense.

Splash- and dustproof



Rugged enough to withstand even the most challenging environments, the LUMIX G80 boasts a splash / dustproof body and kit lens. With the latest features condensed into a compact and mobile design, it gives you the flexibility and freedom to never stop exploring.

The LUMIX G80 in brief



1: Popup flash release 2: OLED Viewfinder 3: Free-angle 7.5 cm LCD touchscreen 4: Thumb control dial 5: Hot shoe 6: Mode dials 7: Index finger dial

Available in the following colours



GX9

FOR 4K EXCELLENCE AND CONSTANT READINESS

The new LUMIX GX9 combines incredible image quality with an impressively compact design. Its tiltable viewfinder helps to capture unique perspectives while the 20.3 MP sensor and the DUAL Image Stabilisation guarantee head-turning image quality while creative in-camera effects add an artistic flourish to your photography.

THE ONE WITH TRUE CREATIVE VISION

CHANGING PHOTOGRAPHY



TECHNICAL HIGHLIGHTS OF THE LUMIX GX9

- 20 MP Live MOS sensor – for outstanding picture quality
- DUAL I.S. – combining body and lens stabilisation
- 4K Video – for the very best detailed clarity
- 4K PHOTO – never miss the perfect moment
- Depth from Defocus (DFD) Autofocus – fast and precise
- Tiltable Live Viewfinder (LVF) – perfectly frame your shots
- Tiltable Touchscreen – 7.5 cm large display with 1.24 MP



Image is Everything



The GX9 features a 20.3 MP Sensor without low pass filter, offering the best picture quality in its class. The smallest of details can be captured revealing its stunning beauty.

Shoot from Every Angle



A tiltable Live Viewfinder gives you the freedom to explore more original perspectives and find your unique view on the world, shooting from any angle with ease and comfort.

Achieve the perfect look



The GX9 gives you complete creative control, letting you experiment with professional looking artistic effects. Try its "L. Monochrome D" photo style filter for classic black and white photos.

The LUMIX GX9 in brief



1: Tiltable LCD Viewfinder 2: Tiltable 7.5 cm LCD touchscreen 3: Thumb control dial 4: Hot shoe 5: Video record button 6: Mode dial 7: Index finger dial

Available in the following colours



GX80

CAPTURING LIFE ON THE MOVE

When searching the streets for inspiration, the LUMIX GX80 reacts as quickly as you do. DUAL Image Stabiliser helps you take crisper, clearer images in difficult or fast-moving environments, while the Post Focus function gives you the freedom to choose the focus point even after you have taken the shot.

THE ONE CAPTURING LIFE ON THE MOVE

CHANGING PHOTOGRAPHY



TECHNICAL HIGHLIGHTS OF THE LUMIX GX80

- 16 MP Live MOS Sensor – without low pass filter
- DUAL I.S. (5-axis) – combining body and lens stabilisation
- 4K Video – recording in ultra high res
- 4K PHOTO – never miss the perfect moment
- Post Focus – shoot now, focus later
- Depth from Defocus (DFD) Autofocus – fast and intuitive focusing
- Tilttable Touchscreen – 7.5 cm large display with 1.04 MP
- Live Viewfinder (LVF) – perfectly frame your shots



4K PHOTO



Our 4K PHOTO feature lets you capture the perfect moment by selecting a frame from a video sequence (shot at 30fps) in camera, and saving it as an individual high-res image. Simply shoot, select and save, to make those fleeting moments unmissable in every sense.

DUAL Image Stabiliser



Ideal for capturing life on the go, the LUMIX GX80 integrates DUAL I.S. combining body and lens stabilisation to gain more powerful handshake correction and compensating your shots. The 5-axis DUAL I.S. works in both wide and telephoto photography and motion picture recording including 4K Video.

Tilttable display



Thanks to its tilttable LCD display on the backside of the camera, you can control your shots and set focus without looking through the viewfinder. This makes the camera perfect for unnoticed street photography.

The LUMIX GX80 in brief



1: LCD Viewfinder 2: Tilttable 7.5 cm LCD touchscreen 3: Thumb control dial 4: Hot shoe 5: Video record button 6: Mode dial 7: Index finger dial

Available in the following colours



GX880

LOTS OF PERFORMANCE IN A SMALL PACKAGE

Whether you're shooting on the streets nearby or composing a landscape abroad, the GX880 lets you look as good as the pictures you take.

THE ONE MATCHING
YOUR STYLE

CHANGING PHOTOGRAPHY



TECHNICAL HIGHLIGHTS OF THE LUMIX GX880

- 16 MP Live MOS Sensor – without low pass filter
- Depth from Defocus (DFD) Autofocus – fast and precise
- Wi-Fi Connection & Easy Upload – for instant posting
- 4K Video – recording in ultra high definition
- 4K PHOTO – never miss the perfect moment
- Advanced Selfie Functions – including Night Mode Selfie and 4k PHOTO Selfie
- 180° Tilttable Touchscreen – intuitive operation and easy handling



Big image sensor



Some like sunshine, others like dusk and candlelight. But the GX880 likes every kind of light. A 16-megapixel Live MOS Sensor without low pass filter keeps track of every single detail – even when you're filming. It's a revelation for high-end photography.

Wi-Fi and Easy Upload



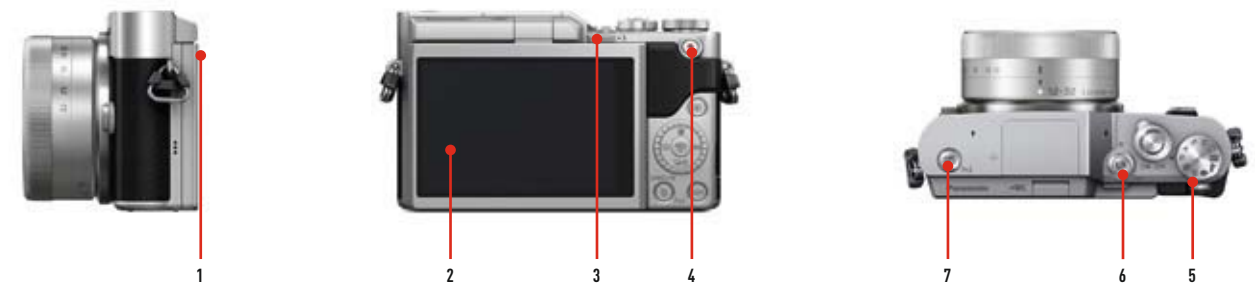
Put your next post online with ease and inspire your followers. With Wi-Fi connectivity, you can instantly upload and share your pictures on social media using the 'Panasonic Image App' on your smartphone or tablet.

Selfie Modes



Get the perfect selfie in stunning quality with a 180 degree tiltable screen and advanced selfie functions, including hands-free modes (Face Shutter, Buddy Shutter and Jump Snap) and the new Beauty Retouch, Panorama Selfie and Background Control features. You can even use 4K PHOTO in selfie mode to capture awesome selfies in action at 30 frames per second.

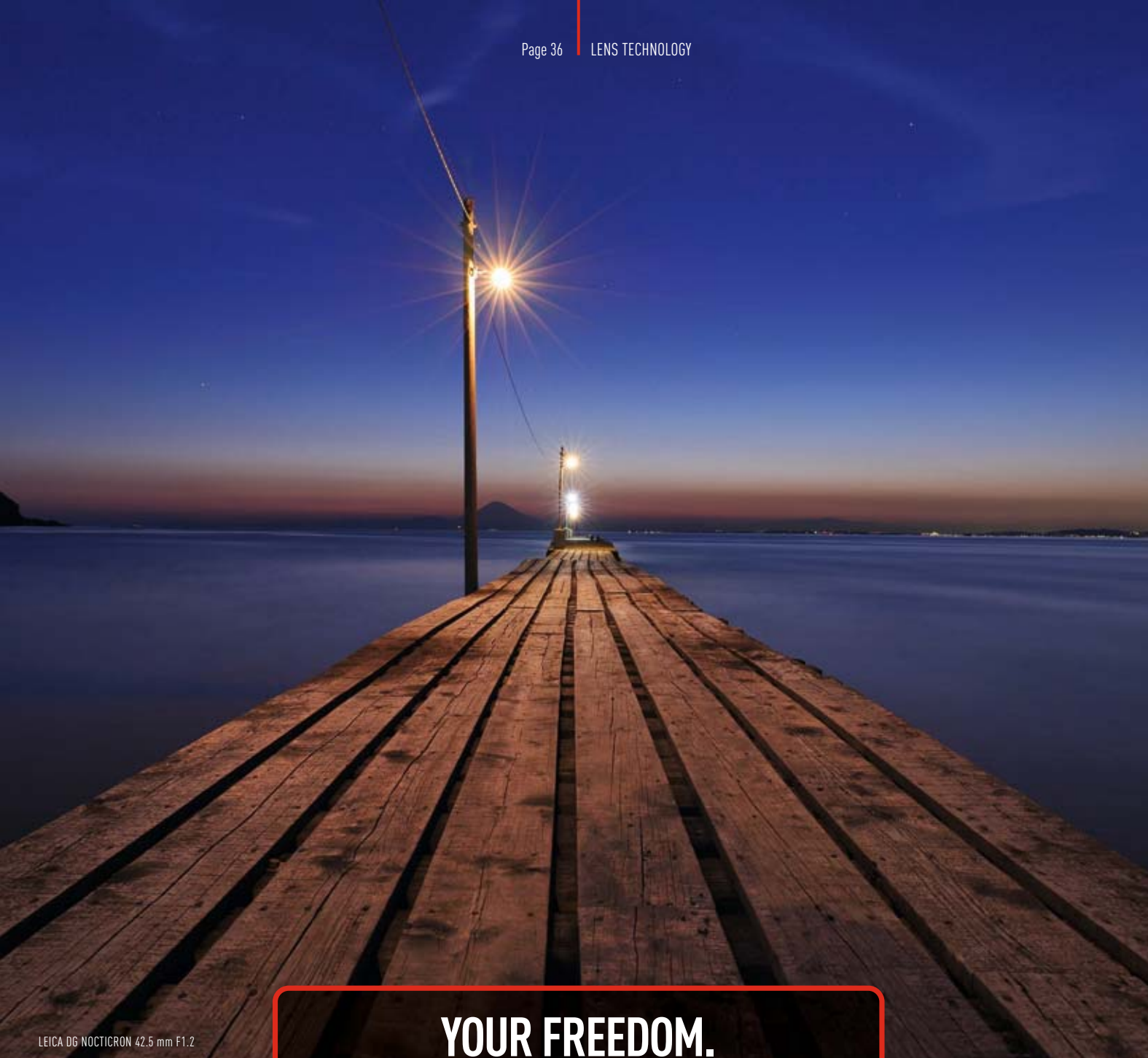
The LUMIX GX880 in brief



Available in the following colours



1: Live Viewfinder 2: Tilttable 7.5 cm LCD touchscreen 3: Flash release button 4: Video record button 5: Mode dial 6: 4K PHOTO mode button 7: Second Shutter for Selfies



**YOUR FREEDOM.
OUR LENSES.**

CHANGING PHOTOGRAPHY

There's no such a thing as one single lens for every occasion. But there are lenses for every kind of application. LUMIX G has precisely the lens you need. Conventional LEICA DG or compact LUMIX G 'X' lenses – you're sure to find what you are looking for.

The **MICRO-FOUR-THIRDS** standard makes things much easier. These lenses weigh very little indeed but they don't impair light intensity or quality. Free of burden, you can enjoy everything professional photography has to offer. You can completely redefine what flexibility means to you.

That special moment has arrived, the time is just right – so capture it with a LUMIX G lens. Discover the thrilling vicissitudes of photography and the ideal LUMIX G companion to deal with them.

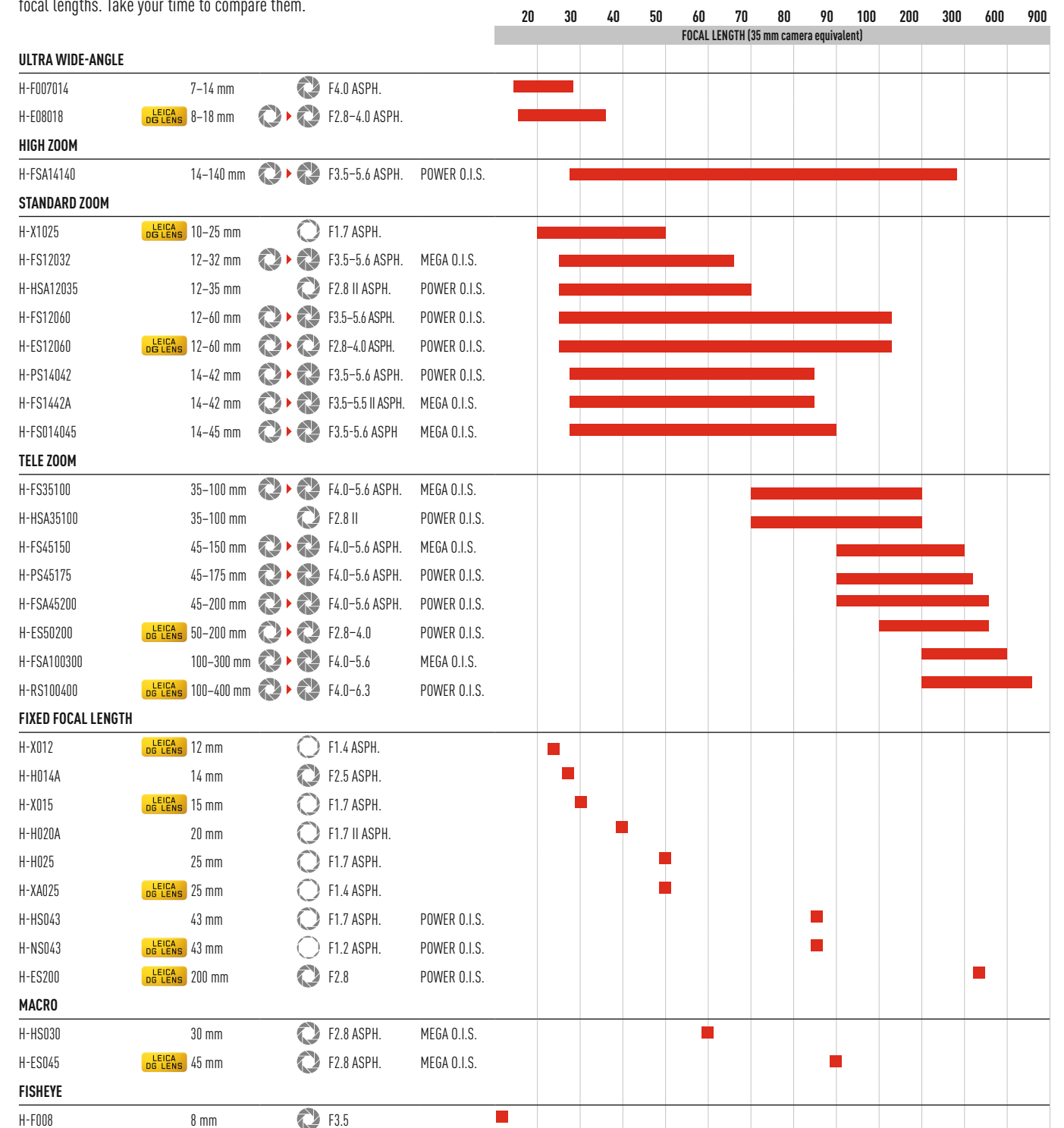
LEICA DG NOCTICRON 42.5 mm F1.2

LENSES



LENSES AND THEIR FOCAL LENGTHS – A COMPARISON

To help you find your way around, here is a list of all our lenses and their focal lengths. Take your time to compare them.



LENS TECHNOLOGY



IF YOU'RE LOOKING FOR LENS DIVERSITY, YOU'LL LOVE PANASONIC

LUMIX G has got what you're looking for. We offer a total of 31 lenses, ranging from the traditional LEICA DG lenses, to our, super-compact LUMIX G 'X' lenses, all the way to standard lenses. Whatever equipment you need, we can offer it to you.



LEICA DG LENSES

If you're looking for ultimate quality then you'll opt for LEICA. Their aspherical lenses and specialised, multi-treated surfaces comply with the rigorous standards of LEICA Camera AG.

The sophisticated design of these lenses produces brilliant clarity all the way to the edges, while reproducing lines with precision and avoiding the kind of distortions that usually occur in wide-angle photography. That means ideal conditions for top-level images without reflections or scatter-losses.

LEICA is a registered trademark of LEICA Microsystems IR GmbH. ELMARIT is a registered brand name of LEICA Camera AG. LEICA DG lenses are manufactured in compliance with quality standards certified by LEICA Camera AG, and using LEICA measurement instruments and quality assurance systems.

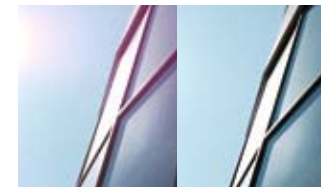
PERFORMANCE LIES IN THE DETAILS

HIGH-END LENSES FOR PICTURE-PERFECT RESULTS

When you develop a lens, the smallest of details matter. That's why the very highest quality standards are applied in the production of LUMIX G and LEICA lenses. All of our lenses are manufactured using a production system developed by Panasonic. From manufacture, to quality control, to packaging, we work

exclusively in clean-room environments to guarantee absolute flawlessness. We have also developed a dedicated instrument for final approval: the 'UA3P' conducts objective and numerical assessments with extreme precision. This allows us to check the lenses for criteria such as colour coating and flaring effects.

Three steps to the outstanding LUMIX G lens



Multi-coating

The multi-coating process functions like a sealant. In a multi-coating procedure, nanostructures which suppress the formation of shadows and glare are applied to the lens. This is especially useful on lenses with pronounced curvature (such as wide-angle lenses) whose curved exterior is subject to incident light from all kinds of angles. The coating simply screens out such interference.



Nano surface coating

Put an end to troublesome reflections – the nano surface coating developed by Panasonic applies a special, ultra-thin film to the lens. This reduces bothersome reflections across the entire light spectrum and eliminates effects such as ghosting. That means crystal-clear pictures even if you're photographing a light source in the dark.



Aspherical lenses

Panasonic lenses offer outstanding picture quality in a small format. The secret lies in their aspherical design. A single aspherical lens has the same effect as multiple spherical lenses, but requires less space and weighs less as well. Panasonic has perfected this sophisticated production process and applies it in a wide range of lenses.

POWERZOOM LENSES – LITTLE POWERHOUSES

LUMIX G Powerzoom lenses are ahead of their time – the Pancake and Tele Powerzoom lens have a fully automatic motor incorporated into drive the zoom, and the Tele Powerzoom has manual zoom as well. Because the lever for operating the Powerzoom is located on the lens itself, zooming is almost automatic.

This has benefits, especially when filming: for example you can determine the speed of the zoom so that you can capture subjects precisely even when zooming slowly. Or you can use the step-by-step zoom function to close in elegantly on the position you require. Now you can also focus quickly using a lever on the Pancake Powerzoom, and using the ring on the Tele Powerzoom. And you can monitor all of this in full size on your LCD display.

IMAGE STABILISER – BRINGING BALANCE TO YOUR PHOTOGRAPHY

LUMIX G lenses have a good sense of balance because of their built-in image stabilisers. They immediately eliminate the kind of minor movements and vibrations that can so easily happen in photography.

But you won't notice any of it happening. In the end, you will be able to enjoy levelled horizons and wonderfully crisp images. You and your LUMIX G will have everything in a steady hand.



LUMIX G LENSES

LUMIX G Lenses with MICRO-FOUR-THIRDS mount make things much easier. These lenses weigh very little and provide superior image quality at the same time.



ULTRA WIDE-ANGLE

PAGE 42



HIGH ZOOM

PAGE 43



STANDARD ZOOM

PAGE 44-45



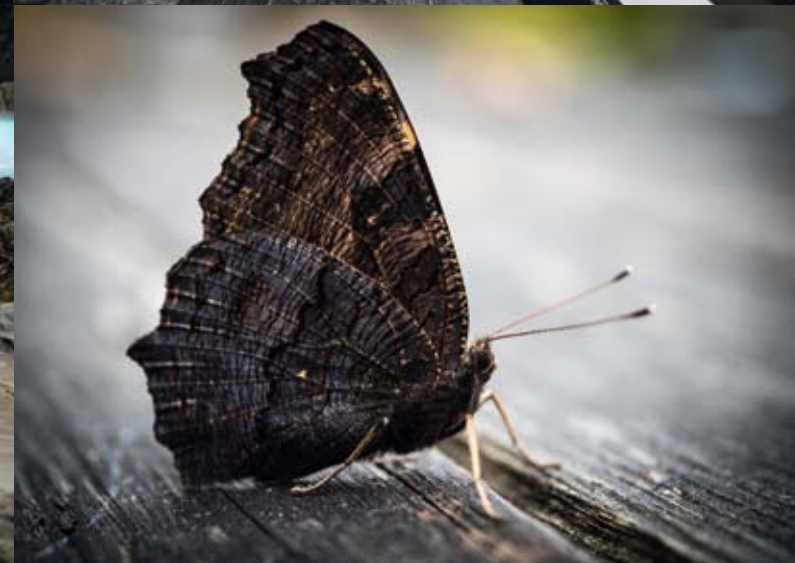
TELE ZOOM

PAGE 46-47



FIXED FOCAL LENGTH

PAGE 48-50



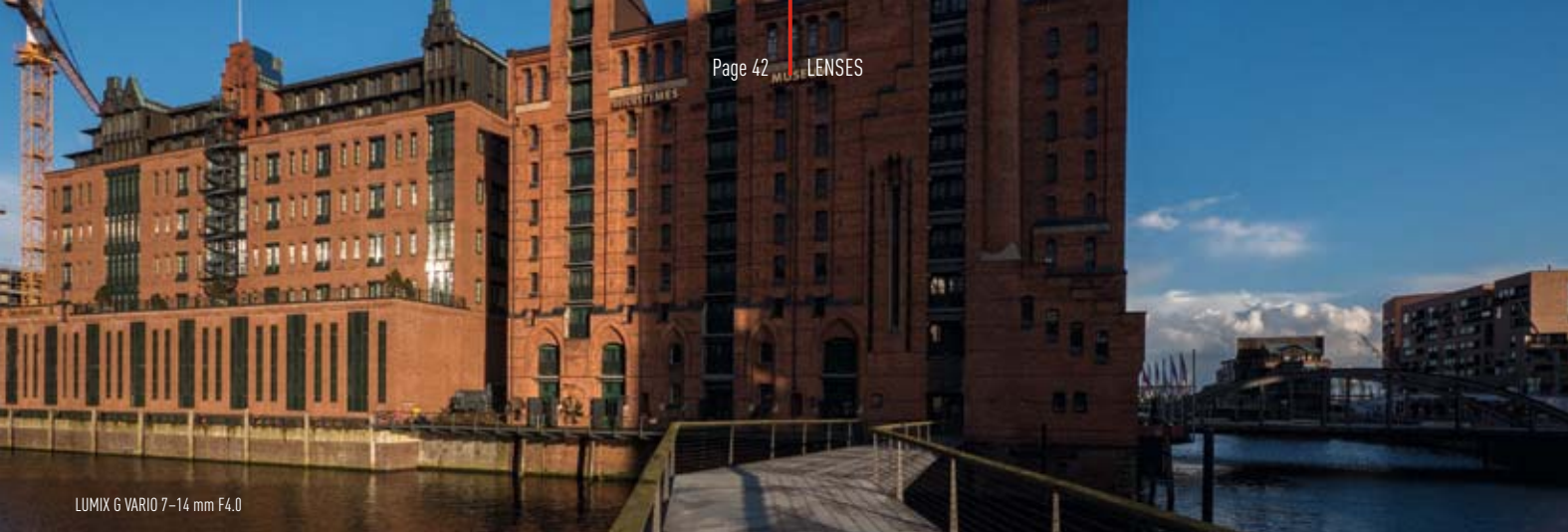
MACRO

PAGE 51



FISHEYE

PAGE 52



LUMIX G VARIO 7-14 mm F4.0

ULTRA WIDE-ANGLE

When you find yourself in a breathtaking landscape and wish to capture the moment, this compact lens will enable you to do so. A picture angle of 114° diagonal maximum facilitates fantastic shots.



LUMIX G VARIO 14-140 mm F3.5-5.6 ASPH.

HIGH ZOOM

Creativity requires freedom. That's what the High Zoom lens offers you. Its 28 to 280 mm range (35 mm equivalent) will inspire your creativity and is complemented perfectly by an ultra-fast, high-precision autofocus system.



Available in the following colours



H-F007014 | LUMIX G VARIO | 7-14 MM | F4.0 ASPH.

- Picture angle:** 114°-75°
- Closest focusing distance:** 0.25 m
- Max. magnification:** 0.08× (= 0.15× equivalent)
- Lens construction:** 16 elements in 12 groups
- Dimensions:** ø 70 × 83.1 mm
- Weight:** 300g



Available in the following colours



H-E08018 | LEICA DG VARIO-ELMARIT | 8-18 MM | F2.8-4.0 ASPH

- Picture angle:** 107°-62°
- Closest focusing distance:** 0.23 m
- Max. magnification:** 0.12× (= 0.24× equivalent)
- Lens construction:** 15 elements in 10 groups
- Dimensions:** ø 73.4 × 88 mm
- Weight:** 315g



Available in the following colours



H-FSA14140 | LUMIX G VARIO | 14-140 MM | F3.5-5.6 ASPH. | POWER O.I.S.

- Picture angle:** 75°-8.8°
- Closest focusing distance:** 0.3 m
- Max. magnification:** 0.25× (= 0.5× equivalent)
- Lens construction:** 14 elements in 12 groups
- Filter size:** 58 mm
- Dimensions:** ø 67 × 75 mm; Weight: 265g



STANDARD ZOOM

These lenses are fantastic for experimenting with angle of view, focal length, perspective and depth of focus. They offer enormous flexibility.



LUMIX G VARIO 12-35 mm F2.8

NEW



Available in the following colours



H-X1025 | LEICA DB VARIO-SUMMILUX | 10-25 MM | F1.7 ASPH.

Picture angle: 94°-47°
Closest focusing distance: 0.28 m
Max. magnification: 0.14× (= 0.28× equivalent)
Lens construction: 17 elements in 12 groups
Filter size: 77 mm
Dimensions: ø 87.6 × 128 mm; Weight: 690g



Available in the following colours



H-HSA12035 | LUMIX G X VARIO | 12-35 MM | F2.8 II ASPH. | POWER O.I.S.

Picture angle: 84°-34°
Closest focusing distance: 0.25 m
Max. magnification: ca. 0.17× (= 0.34× equivalent)
Lens construction: 14 elements in 9 groups
Filter size: 58 mm
Dimensions: ø 67.6 × 73.8 mm; Weight: 305g



Available in the following colours



H-FS12032 | LUMIX G VARIO | 12-32 MM | F3.5-5.6 ASPH. | O.I.S.

Picture angle: 84°-37°
Closest focusing distance: 0.2 m
Max. magnification: ca. 0.13× (= 0.26× equivalent)
Lens construction: 8 elements in 7 groups
Filter size: 37 mm
Dimensions: ø 55.5 × 24 mm; Weight: 70g



Available in the following colours



H-ES12060 | LEICA DG VARIO-ELMARIT | 12-60 MM | F2.8-4.0 ASPH. | POWER O.I.S. H-FS12060 | LUMIX G VARIO | 12-60 MM | F3.5-5.6 ASPH. | POWER O.I.S.

Picture angle: 84°-20°
Closest focusing distance: 0.2 m
Max. magnification: 0.17× (= 0.34× equivalent) // 0.27× (= 0.54× equivalent)
Lens construction: 14 elements in 12 groups // 11 elements in 9 groups
Filter size: 62 mm // 58 mm
Dimensions: ø 68.4 × 86 mm; Weight: 320g // ø 66 × 71 mm; Weight: 210g



*1 Only H-ES12060, *2 H-FS12060 only Splash / Dust Proof.



Available in the following colours



H-FS1442A | LUMIX G VARIO | 14-42 MM | F3.5-5.6 II ASPH. | MEGA O.I.S.

Picture angle: 75°-29°
Closest focusing distance: 0.2 m
Max. magnification: 0.17× (= 0.34× equivalent)
Lens construction: 9 elements in 8 groups
Filter size: 46 mm
Dimensions: ø 56 × 49 mm; Weight: 110g



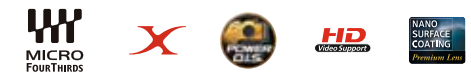
Available in the following colours



H-PS14042 | LUMIX G X VARIO PZ | 14-42 MM | F3.5-5.6 ASPH. | POWER O.I.S.

Picture angle: 75°-29°
Closest focusing distance: 0.2 m
Max. magnification: ca. 0.17× (= 0.34× equivalent)
Lens construction: 9 elements in 8 groups
Filter size: 37 mm
Dimensions: ø 61 × 26.8* mm; Weight: 95g

* Lens retracted.



Available in the following colours



H-FS014045 | LUMIX G VARIO | 14-45 MM | F3.5-5.6 ASPH. | O.I.S.

Picture angle: 75°-27°
Closest focusing distance: 0.3 m
Max. magnification: 0.17× (= 0.34× equivalent)
Lens construction: 12 elements in 9 groups
Filter size: 52 mm
Dimensions: ø 60 × 60 mm; Weight: 195g



TELE ZOOM

Sports journalism, wildlife shots, people photography...
With their wide focal length range and low weight, these lenses offer the full package.



LUMIX G VARIO 45-150 mm F4.0-5.6



H-HSA35100 | LUMIX G X VARIO | 35-100 MM | F2.8 II | POWER O.I.S.

Picture angle: 34°-12°
Closest focusing distance: 0.85 m
Max. magnification: 0.1× (= 0.2× equivalent)
Lens construction: 18 elements in 13 groups
Filter size: 58 mm
Dimensions: ø 67.4 × 99.9 mm; Weight: 357g

Available in the following colours



H-FS35100 | LUMIX G VARIO | 35-100 MM | F4.0-5.6 ASPH. | O.I.S.

Picture angle: 34°-12°
Closest focusing distance: 0.9 m
Max. magnification: 0.11× (= 0.22× equivalent)
Lens construction: 12 elements in 9 groups
Filter size: 46 mm
Dimensions: ø 55.5 × 50 mm; Weight: 135g

Available in the following colours



H-FS45150 | LUMIX G VARIO | 45-150 MM | F4.0-5.6 ASPH. | O.I.S.

Picture angle: 27°-8.2°
Closest focusing distance: 0.9 m
Max. magnification: 0.17× (= 0.34× equivalent)
Lens construction: 12 elements in 9 groups
Filter size: 52 mm
Dimensions: ø 62 × 73 mm; Weight: 200g

Available in the following colours



1.4 / 2.0× TELE-CONVERTER
COMPATIBLE



Available in the following colours



H-ES50200 | LEICA DG VARIO-ELMARIT | 50-200 MM | F2.8-4.0 | POWER O.I.S.

Picture angle: 24°-6.2°
Closest focusing distance: 0.75 m
Max. magnification: 0.25× (= 0.5× equivalent)
Lens construction: 21 elements in 15 groups
Filter size: 67 mm
Dimensions: ø 76 × 132 mm; Weight: 655g



Available in the following colours



H-PS45175 | LUMIX G X VARIO PZ | 45-175 MM | F4.0-5.6 ASPH. | POWER O.I.S.

Picture angle: 27°-7.1°
Closest focusing distance: 0.9 m
Max. magnification: ca. 0.2× (= 0.40× equivalent)
Lens construction: 14 elements in 10 groups
Filter size: 46 mm
Dimensions: ø 61.6 × 90 mm; Weight: 210g



Available in the following colours



H-FSA45200 | LUMIX G VARIO | 45-200 MM | F4.0-5.6 | POWER O.I.S. H-FSA100300 | LUMIX G VARIO | 100-300 MM | F4.0-5.6 | POWER O.I.S.

Picture angle: 27°-6.2° // 12°-4.1°
Closest focusing distance: 1.0 m // 1.5 m
Max. magnification: ca. 0.19× (= 0.38× equivalent) // 0.21× (= 0.42× equivalent)
Lens construction: 16 elements in 13 groups // 17 elements in 12 groups
Filter size: 52 mm // 67 mm
Dimensions: ø 70 × 100 mm // ø 73.6 × 126 mm; Weight: 370g // 520g



Available in the following colours



H-RS100400 | LEICA DG VARIO-ELMAR | 100-400 MM | F4.0-6.3 ASPH. | POWER O.I.S.

Picture angle: 12°-3.1°
Closest focusing distance: 5.0 m
Max. magnification: 0.25× (= 0.50× equivalent)
Lens construction: 20 elements in 13 groups
Filter size: 72 mm
Dimensions: ø 83 × 171.5 mm; Weight: 985g



FIXED FOCAL LENGTH

With their high luminosity fixed focal lengths, accurate focusing and high contrast, these lenses will unlock a universe of visual creativity to you and achieve professional illustration quality at the same time.



LEICA DG NOCTICRON 42.5 mm F1.2



LEICA DG SUMMILUX 15 mm F1.7



LEICA DG SUMMILUX 15 mm F1.7 ASPH.



Available in the following colours



H-X012 | LEICA DG SUMMILUX | 12 MM | F1.4 ASPH.

Picture angle: 84°
Closest focusing distance: 0.2 m
Max. magnification: 0.11× (= 0.22× equivalent)
Lens construction: 15 elements in 12 groups (2 asphärische, 1 ED, 2 UED)
Splash and dust proof
Filter size: 62 mm
Dimensions: ø 70 × 70 mm, Weight: 335g



Available in the following colours



H-X015 | LEICA DG SUMMILUX | 15 MM | F1.7 ASPH.

Picture angle: 72°
Closest focusing distance: 0.2 m
Max. magnification: 0.1× (= 0.2× equivalent)
Lens construction: 9 elements in 7 groups
Filter size: 46 mm
Dimensions: ø 57.5 × 36 mm, Weight: 115g



Available in the following colours



H-H014A | LUMIX G | 14 MM | F2.5 ASPH.

Picture angle: 75°
Closest focusing distance: 0.18 m
Max. magnification: 0.10× (= 0.20× equivalent)
Lens construction: 6 elements in 5 groups
Filter size: 46 mm
Dimensions: ø 55.5 × 20.5 mm, Weight: 55g



Available in the following colours



H-H025 | LUMIX G | 25 MM | F1.7 ASPH.

Picture angle: 47°
Closest focusing distance: 0.25 m
Max. magnification: ca. 0.14× (= 0.28× equivalent)
Lens construction: 8 elements in 7 groups
Filter size: 46 mm
Dimensions: ø 60.8 × 52 mm, Weight: 125g



Available in the following colours



H-H020A | LUMIX G | 20 MM | F1.7 II ASPH.

Picture angle: 57°
Closest focusing distance: 0.2 m
Max. magnification: 0.13× (= 0.25× equivalent)
Lens construction: 7 elements in 5 groups
Filter size: 46 mm
Dimensions: ø 63 × 25.5 mm, Weight: 87g



Available in the following colours



H-XA025 | LEICA DG SUMMILUX | 25 MM | F1.4 ASPH.

Picture angle: 47°
Closest focusing distance: 0.3 m
Max. magnification: 0.11× (= 0.22× equivalent)
Lens construction: 9 elements in 7 groups
Filter size: 46 mm
Dimensions: ø 63 × 54.5 mm, Weight: 200g



FIXED FOCAL LENGTH

Fixed focal lengths give your creativity wings. Let light intensity and optical interpretation inspire you, and take perfect portraits.



LEICA DG NOCTICRON 42.5 mm F1.2

MACRO

These macro lenses bring outstanding image results within reach, even if your subject is very close at hand and they can cope with image ratios of up to 1:1.



LUMIX G MACRO 30 mm F2.8

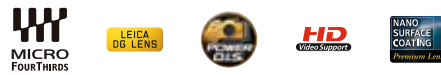


Available in the following colours



H-NS043 | LEICA DG NOCTICRON | 42.5 MM | F1.2 ASPH. | POWER O.I.S.

Picture angle: 29°
Closest focusing distance: 0.5 m
Max. magnification: 0.1× (= 2.0× equivalent)
Lens construction: 14 elements in 11 groups
Filter size: 67 mm
Dimensions: ø 74 × 76.8 mm; Weight: 425g



Available in the following colours



H-HS043 | LUMIX G | 42.5 MM | F1.7 ASPH. | POWER O.I.S.

Picture angle: 29°
Closest focusing distance: 0.31 m
Max. magnification: 0.2× (= 0.4× equivalent)
Lens construction: 10 elements in 8 groups
Filter size: 37 mm
Dimensions: ø 74 × 50 mm; Weight: 130g



1.4× TELE-CONVERTER INCLUDED

2.0× TELE-CONVERTER COMPATIBLE



Available in the following colours



H-ES200 | LEICA DG ELMARIT | 200 MM | F2.8 | POWER O.I.S.

Picture angle: 6.2°
Closest focusing distance: 1.15 m
Max. magnification: 0.2× (= 0.4× equivalent)
Lens construction: 15 elements in 13 groups
Splash, dust and freeze proof
Filter size: 77 mm
Dimensions: ø 87.5 × 174 mm; Weight: 1245g



Available in the following colours



H-ES045 | LEICA DG MACRO-ELMARIT | 45 MM | F2.8 ASPH. | O.I.S.

Picture angle: 27°
Closest focusing distance: 0.15 m
Max. magnification: 1.0× (= 2.0× equivalent)
Lens construction: 14 elements in 10 groups
Filter size: 46 mm
Dimensions: ø 63 × 62.5 mm; Weight: 225g



Available in the following colours



H-HS030 | LUMIX G MACRO | 30 MM | F2.8 ASPH. | O.I.S.

Picture angle: 40°
Closest focusing distance: 0.105 m
Max. magnification: 1.0× (= 2.0× equivalent)
Lens construction: 9 elements in 9 groups
Filter size: 46 mm
Dimensions: ø 63 × 63.5 mm; Weight: 180g





LUMIX G FISHEYE 8 mm F3.5

FISHEYE

Can't get everything in? Welcome to the fisheye lens. With an outstanding picture angle of 180 degrees there's plenty of scope for your creative ideas.



Available in the following colours



H-F008 | LUMIX G FISHEYE | 8 MM | F3.5

Picture angle: 180°

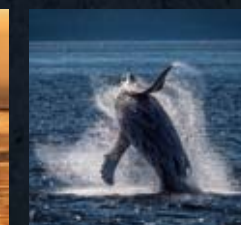
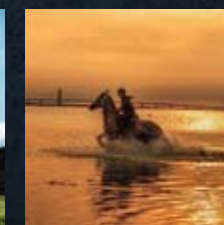
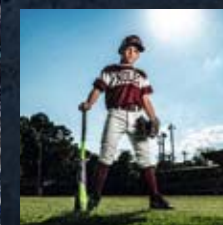
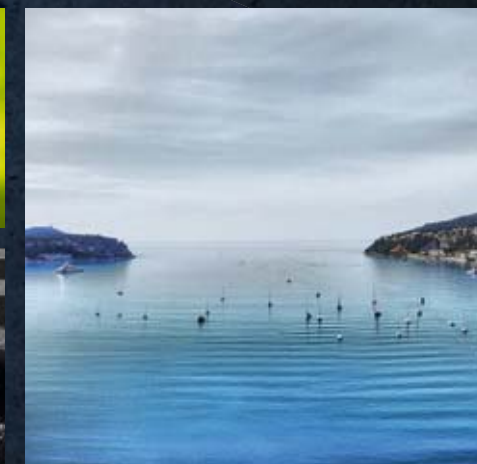
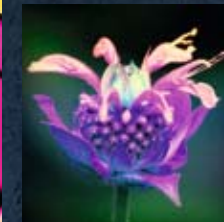
Closest focusing distance: 0.1 m

Max. magnification: 0.20x (= 0.40x equivalent)

Lens construction: 10 elements in 9 groups

Filter: filter film holder on the back 22 x 22 mm

Dimensions: ø 60.7 x 51.7 mm; Weight: 165g



ACCESSORIES

Genuine Panasonic LUMIX G accessories offer you everything you need to complete your photographic equipment, from external flashes, to extra batteries, to cable releases.



DMW-FL580L
Wireless control



DMW-FL360L
Wireless control



DMW-FL200L



VW-LED1
LED video light

EXTERNAL FLASH UNITS

Provide the perfect lighting, even when shooting close-up subjects in the dark.



DMW-LPL46E
Polarising filter available as DMW-LPLA37, DMW-LPL46E, DMW-LPL52E and DMW-LPL62E



DMW-LND46E
ND filter available as DMW-LND46E and DMW-LND52E



DMW-LMC46E
MC filter available as DMW-LMC46E, DMW-LMC52E and DMW-LMCH62E

FILTERS

Protect your lenses and accentuate the visual impression of your images with Panasonic filters.



DMW-MS2E
Stereo Shotgun Microphone



DMW-MS1E
Stereo directional Microphone



VW-VMS10
Stereo Microphone

MICROPHONE

Microphones allow you to record ambient sound in much higher quality and from a greater distance away.



DMW-BLF19E
(GH5 / GH5S / G9)



DMW-BLC12E
(G90 / G80)



DMW-BLG10E
(GX9 / GX80)



DMW-BLH7E
(GX880)

BATTERIES

Panasonic batteries simply provide better performance and safety. Discover them for yourself.



microSD Cards 8 / 16 / 32 GB (SMGA)
4K Video support (100mbps)
UHS Speed Class 1



SD Cards 16 / 32 GB (SDUC)
4K Video support (240mbps)
UHS Speed Class 3



SD Cards 32 / 64 / 128 GB (SDUD)
4K Video support (240mbps)
UHS Speed Class 3



SD Cards 64 / 128 GB (SDZA)
Video Speed Class 90 (V90)
UHS Speed Class 3

MEMORY CARDS

Nothing happens without them – Panasonic SD cards are the memory of your LUMIX G camera. Choose from 16, 32, 64 and 128 GB.



DMW-PS10



DMW-PM10



DMW-PB10

BAGS

Our LUMIX G bags are functional and very stylish.



DMW-BGG1
(G80)



DMW-BGG9
(G9)



DMW-BGGH5
(GH5 / GH5S)

BATTERY GRIP

Our battery grip with shutter release offers improved control in portrait mode as well as more staying power.



DMW-RSL1

CABLE RELEASE

If you want to take long exposure shots on a tripod, a cable release helps guarantee that your images won't blur.



DMW-XLR1

MICROPHONE ADAPTER

The DMW-XLR1 enables high-grade stereo recording with an attached XLR microphone (2 channels - left and right) for professional video production. Hi-Res sound recording at 96kHz / 24bit is also selectable.



DMW-EC5
(GX9)



DMW-EC4
(G9)



DMW-EC3
(GX8)

EYECUP

We've got it covered – with the eyecup you'll always enjoy a perfect view of your subject.



DMW-TC14



DMW-TC20

TELE CONVERTER

Tele converter extend the focal length by factor 1.4 or factor 2.0.



DMW-ZL1

ZOOM LEVER

Zoom in and out easily and smoothly when shooting videos – it's child's play with our optional zoom lever.

TECHNICAL SPECIFICATIONS

LUMIX DC-GH5

LUMIX DC-GH5S

LUMIX DC-G9

LUMIX DC-G90

IMAGE SENSOR			
Total pixels / Effective pixels	21.77 / 20.3 Megapixels	11.93 / 10.28 Megapixels	21.77 / 20.33 Megapixels
Image Stabilization System	• (5-axis), DUAL I.S 2	–	• (5-axis / 6.5-stop), DUAL I.S.2
RECORDING SYSTEM			
Recording file format	Still image: JPEG (DCF, Exif 2.31), RAW Motion picture: MOV (Audio format: LPCM), MPC (Audio format: AAC 2ch) AVCHD (Audio format: Dolby Audio 2ch)	Still image: JPEG (DCF, Exif 2.31), RAW (14-bit / 12-bit) Motion picture: MOV: H.264 / MPEG-4 AVC (Audio format: LPCM) MP4: H.264 / MPEG-4 AVC, H.265 / HEVC AVCHD Progressive, AVCHD	Still image: JPEG (DCF, Exif 2.31), RAW; 6K PHOTO: MP4 (H.265 / HEVC, Audio format: AAC (2ch)) 4K PHOTO: MP4 (H.264 / MPEG-4 AVC, Audio format: AAC (2ch)) Motion picture: MP4: H.264 / MPEG-4 AVC (Audio format: LPCM (2ch 48kHz / 16-bit), AAC (2ch)); AVCHD Progressive, AVCHD (Audio format: Dolby Audio 2ch)
Aspect ratio	4:3, 3:2, 16:9, 1:1	4:3, 3:2, 16:9, 1:1	4:3, 3:2, 16:9, 1:1
Colour space	sRGB, AdobeRGB	sRGB, AdobeRGB	sRGB, AdobeRGB
Still image size	[4:3] 5184 × 3888(L) / 3712 × 2784(M) / 2624 × 1968(S) / 4992 × 3744 / 3328 × 2496 [3:2] 5184 × 3456(L) / 3712 × 2480(M) / 2624 × 1752(S) / 5184 × 3456 / 3504 × 2336 [16:9] 5184 × 2920(L) / 3840 × 2160(M) / 1920 × 1080(S) / 3840 × 2160 [1:1] 3888 × 3888(L) / 2784 × 2784(M) / 1968 × 1968(S) / 2880 × 2880	[4:3] 3680 × 2760(L) / 2592 × 1944(M) / 1824 × 1368(S) / 3328 × 2496(4K PHOTO) [3:2] 3840 × 2560(L) / 2736 × 1824(M) / 1920 × 1280(S) / 3504 × 2336(4K PHOTO) [16:9] 4016 × 2256(L) / 2816 × 1584(M) / 1920 × 1080(S) / 3840 × 2160(4K PHOTO) [1:1] 2752 × 2752(L) / 1936 × 1936(M) / 1360 × 1360(S) / 2880 × 2880(4K PHOTO)	[4:3] 5184 × 3888(L) / 3712 × 2784(M) / 2624 × 1968(S) / 10368 × 7776(XL) * / 7296 × 5472(LL) * / 4992 × 3744(4K PHOTO) / 3328 × 2496(4K PHOTO) [3:2] 5184 × 3456(L) / 3712 × 2480(M) / 2624 × 1752(S) / 10368 × 6912(XL) * / 7296 × 4864(LL) * / 5184 × 3456(4K PHOTO) / 3504 × 2336(4K PHOTO) [16:9] 5184 × 2920(L) / 3840 × 2160(M) / 1920 × 1080(S) / 10368 × 5832(XL) * / 7296 × 4104(LL) * / 3840 × 2160(4K PHOTO) [1:1] 3888 × 3888(L) / 2784 × 2784(M) / 1968 × 1968(S) / 7776 × 7776(XL) * / 5472 × 5472(LL) * / 2880 × 2880(4K PHOTO) *High Resolution Mode.
Motion picture size	MOV e.g. [CAK] 4096 × 2160, 23.98p, 150Mbps / [4K] 3840 × 2160, 59.94p, 150Mbps / [Full HD] 1920 × 1080, 59.94p, 200Mbps *available in 59.94Hz / 50.00Hz / 24.00Hz AVCHD e.g. [Full HD] * 1920 × 1080, 59.94p, 28Mbps *available in 59.94Hz / 50.00Hz MP4 / MOTION-JPEG e.g. [CAK] 4096 × 2160, 59.94p, 150Mbps [4K] 3840 × 2160, 59.94p, 150Mbps [Full HD] * 1920 × 1080, 59.94p, 200Mbps *available in 59.94Hz / 50.00Hz / 24.00Hz	e.g. [CAK] 4096 × 2160, 59.94p, 150Mbps / [4K] 3840 × 2160, 59.94p, 150Mbps / [Full HD] 1920 × 1080, 59.94p, 200Mbps *available in 59.94Hz / 50.00Hz / 24.00Hz e.g. [Full HD] * 1920 × 1080, 59.94p, 28Mbps *available in 59.94Hz / 50.00Hz e.g. [CAK] 4096 × 2160, 59.94p, 150Mbps [4K] 3840 × 2160, 59.94p, 150Mbps [Full HD] * 1920 × 1080, 59.94p, 200Mbps *available in 59.94Hz / 50.00Hz / 24.00Hz	– [Full HD] 1920 × 1080, 50p: 28Mbps / 50i: 24Mbps / 50i: 17Mbps [4K] 3840 × 2160, 59.94p / 50p: 150Mbps [4K] 3840 × 2160, 29.97p / 25p / 23.98p: 100Mbps [Full HD] 1920 × 1080, 59.94p / 50p: 28Mbps [Full HD] 1920 × 1080, 29.97p / 25p: 20Mbps [Full HD] 1920 × 1080, 30p / 25p: 20Mbps
FOCUS			
Type	Contrast AF system (DFD)	Contrast AF system (DFD)	Contrast AF system (DFD)
Focus Mode	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF
AF Mode	Face / Eye Detection / Tracking / Z25-Area / Custom Multi / 1-Area / Pinpoint	Face / Eye Detection / Tracking / Z25-Area / Custom Multi / 1-Area / Pinpoint	Face / Eye Detection / Tracking / Z25-Area / Custom Multi / 1-Area / Pinpoint
EXPOSURE CONTROL			
Light metering mode	Multiple / Center Weighted / Spot	Multiple / Center Weighted / Spot	Multiple / Center Weighted / Spot
Exposure mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	Program AE, Aperture Priority AE, Shutter Priority AE, Manual
ISO 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)	Still image: Auto / Intelligent ISO / 80 * / 100 * / 160 / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 / 51200 / 102400 * / 204800 * (Changeable to 1/3 EV step) *Extended ISO Creative Video Mode: Auto / 80 * / 100 * / 160 / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 / 51200 / 102400 * / 204800 * (Changeable to 1/3 EV step) *Extended ISO	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)	1/3 EV step, ±5EV (±3EV for motion picture)	1/3 EV step, ±5EV (±3EV for motion picture)
AE lock	• (AF / AE LOCK button)	• (AF / AE LOCK button)	• (AF / AE LOCK button)
AE bracket	3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. ±3 EV, single / burst	3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. ±3 EV, single / burst	3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. ±3 EV, single / burst
WHITE BALANCE			
White balance settings	AWB / AWBc / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting 1, 2, 3, 4	AWB / AWBc / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting 1, 2, 3, 4	AWB / AWBc / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting 1, 2, 3, 4
White balance adjustment	Blue / Amber bias, Magenta / Green bias	Blue / Amber bias, Magenta / Green bias	Blue / Amber bias, Magenta / Green bias
Photo Style	Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom 1, 2, 3, 4 / Cinelike D / Cinelike V / Like709 * / Hybrid Log Gamma * / ***** / V-Log * / ** *When Creative Video Mode is selected. **Upgrade Software Key DMW-SFU1 (sold separately) is required.	Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom 1, 2, 3, 4 / Cinelike D / Cinelike V / Like709 / Hybrid Log Gamma * / V-Log. *When Creative Video Mode is selected.	Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom 1, 2, 3, 4 / Cinelike D / Cinelike V Standard / Vivid / Natural / Monochrome / L. Monochrome D / Scenery / Portrait / Custom / Cinelike D / Cinelike V / V-Log.
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)	Still image: Bulb (Max. 30 minutes), 1/8,000–60 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)	Still image: Bulb (Max. 30 minutes), 1/8,000–60 Electronic first curtain shutter: Bulb (Max. 30 minutes), 1/2,000–60 Electronic shutter: 1/32,000–1; Motion picture: 1/16,000–1/25
Remote Control	Remote control with Bulb function by DMW-RSL1 (sold separately)	Remote control with Bulb function by DMW-RSL1 (sold separately)	Remote control with Bulb function by DMW-RSL1 (sold separately)
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)	[14-bit] AFS / MF: H: 11 frames / sec, M: 6 frames / sec (with Live View), L: 2 frames / sec (with Live View) *When H-ES12060 is used. AFF / AFC: H: 7 frames / sec (with Live View), M: 5 frames / sec (with Live View), L: 2 frames / sec (with Live View) *When H-ES12060 is used. [12-bit] AFS / MF: H: 12 frames / sec, M: 7 frames / sec (with Live View), L: 2 frames / sec (with Live View) *When H-ES12060 is used. AFF / AFC: H: 8 frames / sec (with Live View), M: 6 frames / sec (with Live View), L: 2 frames / sec (with Live View) *When H-ES12060 is used.	Mechanical shutter / Electronic first curtain 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 (with Live View), M: 7 frames / sec (with Live View), L: 2 frames / sec (with Live View). Electronic shutter: AFS/MF: SH2: 60 frames / sec, SH1: 20 frames / sec, H: 12 frames / sec, M: 7 frames / sec (with Live View), L: 2 frames / sec (with Live View), AFF/AFC: SH2: 20 frames / sec, SH1: 20 frames / sec, H: 9 frames / sec (with Live View), M: 7 frames / sec (with Live View), L: 2 frames / sec (with Live View) *When H-ES12060 is used.
Number of recordable images	More than 60 images (when there are RAW files with the particular speed) (TBD) More than 600 images (when there are no RAW files)	More than approx. 60 images (when there are RAW files with the particular speed.) More than approx. 600 images (when there are no RAW files and using a card with SD Speed Class with "UHS-II UHS Speed Class 3 (U3)" (depending on memory card size, battery power, picture size, and compression)	[RAW] More than approx. 60 images (when there are RAW files with the particular speed.) More than approx. 600 images (when there are no RAW files and using a card with SD Speed Class with "UHS-II UHS Speed Class 3 (U3)" (depending on memory card size, battery power, picture size, and compression) [SH2/SH1] Approx. 50 images (depending on memory card size, battery power, picture size, and compression)
6K PHOTO / 4K PHOTO Mode	6K PHOTO: 30 frames / sec 4K PHOTO: 60 & 30 frames / sec	4K PHOTO: 60 & 30 frames / sec	6K PHOTO: 30 frames / sec 4K PHOTO: 60 & 30 frames / sec
FLASH			
Flash type	TTL External Flash (sold separately)	TTL External Flash (sold separately)	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.	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.	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.
Synchronisation speed	Less than 1/250 second	Less than 1/250 second	Less than 1/250 second
Flash output adjustment	1/3EV step, ±3EV	1/3EV step, ±3EV	1/3EV step, ±3EV
Hot shoe	•	•	•
OPERATION			
Rear monitor	TFT LCD monitor with static touch control, Free-angle 3.2-inch (8.0 cm) / 3:2 aspect / Wide viewing angle, Approx. 1620k dots, Approx. 100% Field of view	TFT LCD monitor with static touch control, Free-angle 3.2-inch (8.0 cm) / 3:2 aspect / Wide viewing angle, Approx. 1620k dots, Approx. 100% Field of view	TFT LCD monitor with static touch control, Free-angle 3.0-inch (7.5 cm) / 3:2 aspect / Wide viewing angle, Approx. 1040k dots, Approx. 100% Field of view
Viewfinder	OLED Live View Finder (3,680k dots)	OLED Live View Finder (3,680k dots)	OLED Live View Finder (3,680k dots)
Wi-Fi	Wi-Fi2.4GHz (STA/AP) [IEEE802.11b/g/n/ac] 5GHz Wi-Fi is not available in some countries.	Wi-Fi2.4GHz (STA/AP) [IEEE802.11b/g/n]; Wi-Fi5GHz (STA) [IEEE 802.11a/n/ac] *5GHz Wi-Fi is not available in some countries.	Wi-Fi2.4GHz (STA/AP) [IEEE802.11b/g/n]; Wi-Fi5GHz (STA) [IEEE 802.11a/n/ac] *5GHz Wi-Fi is not available in some countries.
Dust- / Splash- / Freezeproof	• / • / •	• / • / •	• / • / •
INTERFACE			
Recording media	SD Memory Card, SDHC Memory Card, SDXC Memory Card	SD Memory Card, SDHC Memory Card, SDXC Memory Card (Compatible with UHS-I / UHS-II UHS Speed Class 3 standard SDHC / SDXC Memory Cards and UHS-II Video Speed Class 60 standard SDXC Memory Cards)	SD Memory Card, SDHC Memory Card, SDXC Memory Card (Compatible with UHS-I / UHS-II UHS Speed Class 3 standard SDHC / SDXC Memory Cards)
USB	USB Type-C, Super Speed USB3.1 GEN1	USB Type-C, Super Speed USB3.1 GEN1	USB 3.0 Micro-B, SuperSpeed USB 3.0 GEN1
HDMI	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	Monitor-through: 4:2:2 10-bit (When [Rec Quality] is set to [4:2:2 10bit] or when [Rec Quality] is set to [CAK / 60p] / [CAK / 50p] / [4K / 60p] / [4K / 50p] and [4K / 60p Bit Mode] / [4K / 50p Bit Mode]) is set to [4:2:2 10bit]. When [CAK / 60p] / [CAK / 50p] / [4K / 60p] / [4K / 50p] mode is selected in [Rec Quality], it is not possible to record motion picture or still picture on the SD memory card in the camera unit.)	HDMI TypeA / VIERA Link Video: Auto / 4K / 50p / 4K / 25p / 1080p / 1080i / 720p / 576p Audio: Stereo; Monitor-through: 4:2:2 8bit (Except for [4K / 60p] / [4K / 50p]) / 4:2:0 8bit
Battery Grip	DMW-BGGH5 (optional)	DMW-BGGH5 (optional)	DMW-BGG9 (optional)
Ext. Mic in / Headphone out	Ø 3.5 mm / Ø 3.5 mm	Ø 3.5 mm / Ø 3.5 mm	Ø 3.5 mm / Ø 3.5 mm
POWER			
Battery	DMW-BLF19 Li-ion Battery Pack (7.2V, 1860mAh, 14Wh) [Included]	DMW-BLF19 Li-ion Battery Pack (7.2V, 1860mAh, 14Wh) [Included]	DMW-BLF19 Li-ion Battery Pack (7.2V, 1860mAh, 14Wh) [Included]
Battery Life (CIPA standard)**	Approx. 410 images (rear monitor), 400 images (LVF), 1,000 images (Power Save LVF mode*) with H-FS12060 Approx. 410 images (rear monitor), 390 images (LVF), 1,000 images (Power Save LVF mode*) with H-BSA12035 Approx. 400 images (rear monitor), 380 images (LVF), 1,000 images (Power Save LVF mode*) with H-ES12060	Approx. 440 images (rear monitor), 410 images (LVF), 1,300 images (Power Save LVF mode*) with H-FS12060	Approx. 400 images (rear monitor), 380 images (LVF), 920 images (Power Save LVF mode*) with H-FS12060 Approx. 380 images (rear monitor), 360 images (LVF), 890 images (Power Save LVF mode*) with H-ES12060
Dimensions (W × H × D)	138.5 × 98.1 × 87.4 mm / 5.45 × 3.86 × 3.44 inch (excluding protrusions)	138.5 × 98.1 × 87.4 mm / 5.45 × 3.86 × 3.44 inch (excluding protrusions)	136.9 × 97.3 × 91.6 mm / 5.39 × 3.83 × 3.61 inch (excluding protrusions)
Weight	Approx. 725g / 1.60 lb (SD card, Battery, Body)	Approx. 660g / 1.46 lb (SD card ×1, Battery, Body)	Approx. 658g / 1.45 lb (SD card ×1, Battery, Body)
* About motion picture recording			
** Shooting conditions: 23 °C at 50% air humidity, LCD on, with SD card; shooting begins 30 sec. after switching on the camera; shot taken every 30 sec., every other shot with flash, change between wide angle and telephoto after each shot; camera switched off after every ten shots (long enough for battery temperature to drop).			

TECHNICAL SPECIFICATIONS

	LUMIX DMC-G80	LUMIX DC-GX9	LUMIX DMC-GX80	LUMIX DC-GX880
IMAGE SENSOR				
Total pixels / Effective pixels	16.84 / 16.00 Megapixels	21.77 / 20.33 Megapixels	16.84 / 16.00 Megapixels	16.84 / 16.00 Megapixels
Image Stabilization System	• (5-axis), DUAL I.S. 2	• (5-axis / 4-stop), DUAL I.S.	• (5-axis), DUAL I.S.	-
RECORDING SYSTEM				
Recording file format	Still image: JPEG (DCF, Exif 2.3), RAW, MP0 Motion picture: AVCHD (Audio format: Dolby Digital 2ch) MP4 (Audio format: AAC 2ch)	Still image: JPEG (DCF, Exif 2.3), RAW; 4K PHOTO: MP4 (Specs tbc.) Motion picture: AVCHD Progressive, AVCHD (Audio format: Dolby Audio 2ch) MP4: H.264 / MPEG-4 AVC (Audio format: AAC 2ch)	Still image: JPEG (DCF, Exif 2.3), RAW, MP0 Motion picture: MP4 (Audio format: AAC 2ch), AVCHD (Audio format: Dolby Digital 2ch)	Still image: JPEG (DCF, Exif 2.3), RAW, MP0 4K PHOTO: MP4 Motion picture: AVCHD (Audio format: Dolby Audio 2ch), MP4 (Audio format: AAC 2ch)
Aspect ratio	4:3, 3:2, 16:9, 1:1	4:3, 3:2, 16:9, 1:1	4:3, 3:2, 16:9, 1:1	4:3, 3:2, 16:9, 1:1
Colour space	sRGB, AdobeRGB	sRGB, AdobeRGB	sRGB, Adobe RGB	sRGB, Adobe RGB
Still image size	[4:3] 4592 × 3448(L) / 3232 × 2424(M) / 2272 × 1704(S) / 1824 × 1368 [3:2] 4592 × 3064(L) / 3232 × 2160(M) / 2272 × 1520(S) / 1824 × 1216 [16:9] 4592 × 2584(L) / 3840 × 2160(M) / 1920 × 1080(S) / 1824 × 1024 [1:1] 3424 × 3424(L) / 2416 × 2416(M) / 1712 × 1712(S) / 1712 × 1712	[4:3] 5184 × 3888(L) / 3712 × 2784(M) / 2624 × 1968(S) / 3328 × 2496(4K PHOTO) [3:2] 5184 × 3456(L) / 3712 × 2480(M) / 2624 × 1752(S) / 3904 × 2336(4K PHOTO) [16:9] 5184 × 2920(L) / 3840 × 2160(M) / 1920 × 1080(S) / 3840 × 2160(4K PHOTO) [1:1] 3888 × 3888(L) / 2784 × 2784(M) / 1968 × 1968(S) / 2880 × 2880(4K PHOTO)	[4:3] 4592 × 3448 (L) / 3232 × 2424 (M) / 2272 × 1704 (S) / 1824 × 1368 [3:2] 4592 × 3064 (L) / 3232 × 2160 (M) / 2272 × 1520 (S) / 1824 × 1216 [16:9] 4592 × 2584 (L) / 3840 × 2160 (M) / 1920 × 1080 (S) / 1824 × 1024 [1:1] 3424 × 3424 (L) / 2416 × 2416 (M) / 1712 × 1712 (S) / 1712 × 1712	[4:3] 4592 × 3448(L) / 3232 × 2424(M) / 2272 × 1704(S) [3:2] 4592 × 3064(L) / 3232 × 2160(M) / 2272 × 1520(S) [16:9] 4592 × 2584(L) / 3840 × 2160(M) / 1920 × 1080(S) [1:1] 3424 × 3424(L) / 2416 × 2416(M) / 1712 × 1712(S)
Motion picture size	AVCHD [Full HD] 1920 × 1080, 50p: 28Mbps [Full HD] 1920 × 1080, 50i: 17Mbps [Full HD] 1920 × 1080, 50p / 24p: 24Mbps MP4 / MOTION-JPEG [4K] 3840 × 2160, 30p / 25p / 24p: 100Mbps [Full HD] 1920 × 1080, 60p / 50p: 28Mbps [Full HD] 1920 × 1080, 30p / 25p: 20Mbps [HD] 1280 × 720, 30p / 25p: 10Mbps	[Full HD] 1920 × 1080, 50p: 28Mbps [Full HD] 1920 × 1080, 50i: 17Mbps [Full HD] 1920 × 1080, 25p / 24p: 24Mbps [4K] 3840 × 2160, 30p / 25p / 24p: 100Mbps [Full HD] 1920 × 1080, 60p / 50p: 28Mbps [Full HD] 1920 × 1080, 30p / 25p: 20Mbps [HD] 1280 × 720, 30p / 25p: 10Mbps	[Full HD] 1920 × 1080, 50p: 28Mbps [Full HD] 1920 × 1080, 50i: 17Mbps [Full HD] 1920 × 1080, 25p / 24p: 24Mbps [4K] 3840 × 2160, 25p / 24p: 100Mbps [Full HD] 1920 × 1080, 50p: 28Mbps [Full HD] 1920 × 1080, 25p: 20Mbps [HD] 1280 × 720, 25p: 10Mbps	[Full HD] 1920 × 1080, 50p: 28Mbps [Full HD] 1920 × 1080, 50i: 17Mbps [Full HD] 1920 × 1080, 25p / 24p: 24Mbps [4K] 3840 × 2160, 30p / 25p / 24p: 100Mbps [Full HD] 1920 × 1080, 60p / 50p: 28Mbps [Full HD] 1920 × 1080, 30p / 25p: 20Mbps [HD] 1280 × 720, 30p / 25p: 10Mbps
FOCUS				
Type	Contrast AF system (DFD)	Contrast AF system (DFD)	Contrast AF system (DFD)	Contrast AF system (DFD)
Focus Mode	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF	AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF
AF Mode	Face / Eye Detection / Tracking / 49-Area / Custom Multi / 1-Area / Pinpoint	Face / Eye Detection / Tracking / 49-Area / Custom Multi / 1-Area / Pinpoint	Face / Eye Detection / Tracking / 49-Area / Custom Multi / 1-Area / Pinpoint	Face / Eye Detection / Tracking / 49-Area / Custom Multi / 1-Area / Pinpoint [Full area touch is available]
EXPOSURE CONTROL				
Light metering mode	Multiple / Center Weighted / Spot	Multiple / Center Weighted / Spot	Multiple / Center Weighted / Spot	1728-zone multi-pattern sensing system
Exposure mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	Program AE, Aperture Priority AE, Shutter Priority AE, Manual
ISO sensitivity	Auto / Intelligent ISO / 100 (Extended) / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 (Changeable to 1/3 EV step) (Up to ISO6400 in motion picture recording) (ISO Auto in M mode)	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)	Auto / Intelligent ISO / 100 (Extended) / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 (Changeable to 1/3 EV step) (Up to ISO6400 in motion picture recording) (ISO Auto in M mode)	Auto / Intelligent ISO / 100 (Extended) / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 (Changeable to 1/3 EV step) (Up to ISO3200 in motion picture recording)
Exposure compensation	1 / 3 EV step, ±5EV (±3EV for motion picture)	1 / 3 EV step, ±5EV (±3EV for motion picture)	1 / 3 EV step, ±5EV (±3EV for motion picture)	1 / 3 EV step, ±5 / EV (±3 / EV for motion picture)
AE lock	• (AF / AE LOCK button)	• (AF / AE LOCK button)	• (AF / AE lock button)	Set the Fn button in custom menu to AE lock
AE bracket	3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. ±3 EV, single / burst	3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. ±3 EV, single / burst	3, 5, 7 frames in 1/3, 2/3 or 1 EV Step, Max. ± 3 EV, single / burst	3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. ±3 EV, single / burst
WHITE BALANCE				
White balance settings	Auto / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting	AWB / AWBc / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting 1, 2, 3, 4	Auto / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting	Auto / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colour temperature setting
White balance adjustment	Blue / Amber bias, Magenta / Green bias	Blue / Amber bias, Magenta / Green bias	Blue / Amber bias, Magenta / Green bias	Blue / Amber bias, Magenta / Green bias
Photo Style	Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom / CineLike D* / CineLike V* *When Creative Video Mode is selected.	Standard / Vivid / Natural / Monochrome / L. Monochrome / D. Monochrome / Scenery / Portrait / Custom	Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom	Standard / Vivid / Natural / Monochrome / L. Monochrome / Scenery / Portrait / Custom
SHUTTER				
Shutter Speed	Still image: Bulb (Max. 2 minutes), 1 / 4,000–60; Motion picture: 1 / 16,000–1 / 30; Electronic shutter: 1 / 16,000–1: Electronic first curtain shutter: 1 / 2,000–60	tentative: Still image: Time* (Max. 30 minutes), 1 / 4,000–60; Electronic shutter: 1 / 16,000–1: Motion picture: 1 / 16,000–1 / 25	Still image: Time (Max. 2 minutes), 1 / 4,000–60; Motion picture: 1 / 16,000–1 / 25; Electronic shutter: 1 / 16,000–1	Still image: Time (Max. 60 second), 1 / 16,000–60 (Shutter type Auto) Motion picture: 1 / 16,000–1 / 25
BURST SHOOTING				
Burst speed	Mechanical shutter: H: 9 frames / sec (with AFS), H: 6 frames / sec (with AFC) M: 6 frames / sec (with Live View), L: 2 frames / sec (with Live View) Electronic shutter: SH: 40 frames / sec, H: 10 frames / sec (with AFS), H: 6 frames / sec (with AFC) M: 6 frames / sec (with Live View), L: 2 frames / sec (with Live View)	Mechanical 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) 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) *When H-FS12032 is used.	Mechanical shutter: H: 8 frames / sec (with AFS), 6 frames / sec (with AFC), M: 6 frames / sec (with Live View), L: 2 frames / sec (with Live View); Electronic shutter: SH: 40 frames / sec, H: 10 frames / sec (with AFS), 6 frames / sec (with AFC), M: 6 frames / sec (with Live View), L: 2 frames / sec (with Live View)	[Mechanical shutter] AFS: H: 5.8 frames / sec, M: 4 frames / sec (with Live View), L: 2 frames / sec (with Live View) AFC: H: 5 frames / sec (in 1-area-focusing AF mode), M: 5 frames / sec (with Live View), L: 2 frames / sec (with Live View) [Electronic shutter] AFS: H: 10 frames / sec, M: 4 frames / sec (with Live View), L: 2 frames / sec (with Live View) 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 45 images (when there are RAW files with the particular speed) More than 300 images (when there are no RAW files)	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)	More than 13 images (when there are RAW files with the particular speed) More than 100 images (when there are no RAW files)	More than 15 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)
6K PHOTO / 4K PHOTO Mode	4K PHOTO: 30 frames / sec	4K PHOTO: 30 frames / sec	4K PHOTO: 30 frames / sec	4K PHOTO: 30 frames / sec
FLASH				
Flash type	TTL Built-in-Flash, GN9.0 equivalent (ISO200-m) / GN6.2 equivalent (ISO100-m), Built-in Pop-up (Reference)	TTL Built-in-Flash, GN6.0 equivalent (ISO200-m) / GN4.2 equivalent (ISO100-m) (Reference), Built-in Pop-up	TTL Built-in-Flash, GN6.0 equivalent (ISO200-m) / GN4.2 equivalent (ISO100-m), Built-in Pop-up (Reference)	TTL Built-in-Flash, GN5.6 equivalent (ISO200-m) / GN4.0 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.	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.	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.	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.
Synchronisation speed	Less than 1 / 200 second	Less than 1 / 200 second	Less than 1 / 160 second	Less than 1 / 50 second
Flash output adjustment	1 / 3EV step, ±3EV	1 / 3EV step, ±3EV	1 / 3EV step, ±3EV	1 / 3EV step, ±2EV
Hot shoe	•	•	•	-
OPERATION				
Rear monitor	TFT LCD monitor with static touch control, Free-angle 3-inch (7.5cm) / 3:2 aspect / Wide viewing angle, Approx. 1,040k dots, Approx. 100% Field of view	TFT LCD monitor with static touch control, Tilttable 3.0-inch (7.5 cm) / 3:2 aspect / Wide viewing angle, Approx. 1240k dots, Approx. 100% Field of view	TFT LCD monitor with static touch control, Tilttable 3-inch (7.5 cm) / 3:2 aspect / Wide viewing angle, Approx. 1040k dots, Approx. 100% Field of view	TFT LCD monitor with static touch control, Tilttable monitor, 3.0-inch (7.5cm) / 3:2 aspect, Approx. 1,040k dots, Approx. 100% Field if view
Viewfinder	OLED Live Viewfinder (2,360k dots)	LCD Live Viewfinder (2,760k dots equivalent)	LCD Live Viewfinder (2,765k dots equivalent)	-
Wi-Fi	IEEE 802.11b / g / n, 2412 MHz–2462 MHz (1–11 ch), Wi-Fi / WPA / WPA2, Infrastructure mode	IEEE 802.11b / g / n, 2412 MHz–2462 MHz (1–11 ch), Wi-Fi / WPA / WPA2, Infrastructure mode	IEEE 802.11b / g / n, 2412 MHz–2462 MHz (1–11 ch), Wi-Fi / WPA / WPA2, Infrastructure mode	IEEE 802.11b / g / n, 2412 MHz–2462 MHz (1–11 ch), Wi-Fi / WPA / WPA2, Infrastructure mode
Dust- / Splash- / Freezeproof	• / • / -	-	-	-
INTERFACE				
Recording media	SD Memory Card, SDHC Memory Card, SDXC Memory Card	SD Memory Card, SDHC Memory Card, SDXC Memory Card (Compatible with UHS-I UHS Speed Class 3 standard SDHC / SDXC Memory Cards)	SD Memory Card, SDHC Memory Card, SDXC Memory Card	microSD Memory Card, microSDHC Memory Card, microSDXC Memory Card
USB	USB 2.0 Micro-B	USB 2.0 Micro-B	USB 2.0 Micro-B	USB 2.0 Micro-B
HDMI	microHDMI TypeD / WIERA Link: Video: Auto / 4K / 1080p / 1080i / 720p / 576p Audio: Stereo; Monitor-through: 4:2:2/8-bit	microHDMI TypeD / WIERA Link Video: Auto / 4K / 1080p / 1080i / 720p / 576p Audio: Stereo	microHDMI TypeD / WIERA Link: Video: Auto / 4K / 1080p / 1080i / 720p / 576p; Audio: Stereo	microHDMI TypeD / WIERA Link: Video: Auto / 4K / 1080p / 1080i / 720p / 576p; Audio: Stereo
Battery Grip	DMW-BGG1 (optional)	-	-	-
Ext. Mic in / Headphone out	Ø 3.5 mm / -	- / -	- / -	- / -
POWER				
Battery	DMW-BLG12 Li-ion Battery Pack (7.2V, 1200mAh, 8.7Wh) (Included)	DMW-BLG10 Li-ion Battery Pack (7.2V, 1025mAh, 7.4Wh) (Included)	DMW-BLG10 Li-ion Battery Pack (7.2V, 1025mAh, 7.4Wh) (Included)	Li-ion Battery Pack (7.2V, 680mAh, 4.9Wh) (Included) USB power charging
Battery life (CIPA standard)**	Approx. 330 images (rear monitor), 320 images (LVF) with H-FS12060 (18D) Approx. 320 images (rear monitor), 310 images (LVF) with H-FS14140 (18D)	Approx. 260 images (rear monitor), 250 images (LVF), 900 images (Power Save LVF mode*) with H-FS12032 Approx. 260 images (rear monitor), 240 images (LVF), 860 images (Power Save LVF mode*) with H-H020A *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.	Approx. 290 images (rear monitor), 270 images (LVF) with H-FS12032 / H-FS35100 Approx. 280 images (rear monitor), 260 images (LVF) with H-H020A / H-FS14140	Approx. 210 images with H-FS12032 / H-FS35100
Dimensions (W × H × D)	128.4 × 89 × 74.3 mm / 5.06 × 3.50 × 2.93 inch (excluding protrusions)	124 × 72.1 × 46.8 mm / 4.88 × 2.83 × 1.84 inch (excluding protrusions)	122 × 70.6 × 43.9 mm / 4.80 × 2.78 × 1.73 inch (excluding protrusions)	106.5 × 64.6 × 33.3 mm / 4.2 × 2.55 × 1.32 inch (excluding protrusions)
Weight	Approx. 505g / 1.11 lb (SD card, Battery, Body)	Approx. 450g / 0.90 lb (SD card, Battery, Body)	Approx. 426g / 0.94 lb (SD card, Battery, Body)	Approx. 270g / 0.60 lb (microSD card, Battery, Body)

* About motion picture recording

** Shooting conditions: 23 °C at 50% air humidity, LCD on, with SD card; shooting begins 30 sec. after switching on the camera; shot taken every 30 sec., every other shot with flash, change between wide angle and telephoto after each shot; camera switched off after every ten shots (long enough for battery temperature to drop).

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