

New-Generation System Cameras

LUMIX G™
MICRO SYSTEM



Panasonic

New-Generation System Cameras

LUMIX G™ MICRO SYSTEM

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LUMIX G2

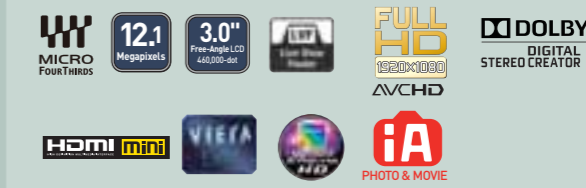


DMC-G2 Micro System Digital Camera

- LUMIX G Micro System - Interchangeable Lens Digital Camera
- Touch-screen Operation with Free-angle LCD and Contrast AF System
- Dual Full-Time Live View for LCD and LVF
- 12.1 Megapixel Live MOS Sensor and Intelligent Resolution Technology
- My Colour Mode - Peripheral Defocus Mode and Motion Picture P Mode
- HD Movie in AVCHD Lite and HDMI Capability Featuring VIERA Link
- LUMIX G Vario 14-42mm (28-84mm, 35mm equivalent)/F3.5-5.6 ASPH/MEGA O.I.S (Supplied in single and twin lens kit)
- LUMIX G Vario 45-200mm (90-400mm 35mm equivalent)/F4.0-5.6/Mega O.I.S (Supplied in twin lens kit)

Approx. On a single battery charge when using the LCD. According to the CIPA Standard with the LUMIX G VARIO 14-42mm/F3.5-5.6 ASPH/MEGA O.I.S.

LUMIX GH1



DMC-GH1 Micro System Digital Camera

- LUMIX G Micro System - Interchangeable Lens Digital Camera
- Full-HD Movie recording in AVCHD Format
- 12.1 Megapixel Live MOS Sensor and Venus Engine HD
- Free angle LCD and contrast AF System
- High-performance Kit lens for outstanding HD movies (LUMIX G VARIO HD 14-140mm [28-280mm, 35mm equivalent]/F4.0-5.8 ASPH/MEGA O.I.S.
- Creative Movie mode to enjoy the freedom of manual settings
- iA (Intelligent Auto) Mode with Face Recognition

LUMIX G10

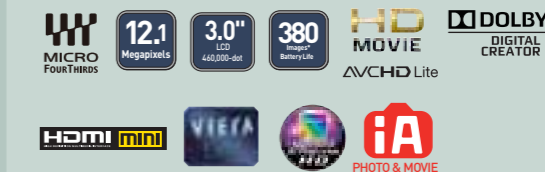


DMC-G10 Micro System Digital Camera

- LUMIX G Micro System - Interchangeable Lens Digital Camera
- Dual Full-Time Live View for LCD and LVF
- High Speed Contrast AF System
- 12.1 Megapixel Live MOS Sensor and Intelligent Resolution Technology
- My Colour Mode - Peripheral Defocus Mode and Motion Picture P Mode
- HD Movie (Motion JPEG) and HDMI Capability Featuring VIERA Link
- LUMIX G Vario 14-42mm (28-84mm, 35mm equivalent)/F3.5-5.6 ASPH/MEGA O.I.S (Supplied in single and twin lens kit)
- LUMIX G Vario 45-200mm (90-400mm 35mm equivalent)/F4.0-5.6/Mega O.I.S (Supplied in twin lens kit)

Approx. On a single battery charge when using the LCD. According to the CIPA Standard with the LUMIX G VARIO 14-42mm/F3.5-5.6 ASPH/MEGA O.I.S.

LUMIX GF1



DMC-GF1 Micro System Digital Camera

- LUMIX G Micro System - Interchangeable Lens Digital Camera
- 12.1 Megapixel Live MOS Sensor and Venus Engine HD
- HD Movie -AVCHD Lite and Motion Picture P Mode
- Artistic photos with My Colour Mode
- iA (Intelligent Auto) Mode with Face Recognition
- LUMIX G 20mm (40mm, 35mm equivalent)/F1.7 ASPH or LUMIX G Vario 14-45 (28-90mm equivalent)/F3.5-5.6 ASPH/Mega O.I.S.

Approx. On a single battery charge when using the LCD. According to the CIPA Standard with the LUMIX G VARIO 14-42mm/F3.5-5.6 ASPH/MEGA O.I.S.

Truly **Touching** Moments

Compact cameras are convenient, but sometimes you want to get more creative. Digital SLR cameras can be difficult to handle and operate.

Now there's a new-generation system camera that gives you both stunning images and super-easy operation – the LUMIX G2.

The world's smallest and lightest* system camera, the remarkable LUMIX G2 lets you capture exquisite images in all kinds of shooting situations. You can make many of the settings by simply touching the LCD. You're ready to shoot in an instant. And with iA mode, you get great shots every time. You can use the compact LUMIX G2 to shoot high-quality HD movies, too.

Beautiful shots, easy-touch operation.

With the LUMIX G2, a world of inspiring images is right at your fingertips.

*For an interchangeable lens system camera with movable LCD as of March 7, 2010.

LUMIX G2



A Touch Is All It Takes: An Entirely New Kind of System Camera Shooting

Just Touch the Screen to Shoot

The DMC-G2 is the world's first* system camera with touch-control shooting. Just touch the LCD to indicate the subject and the DMC-G2 focuses on it instantly. Choose from four AF modes (listed below) to match the conditions. You can also operate the auto focus and shutter release at the same time with just a touch, for a completely new way to shoot. *For an interchangeable lens system camera as of March 7, 2010.

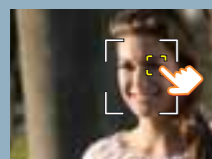
AF Tracking

Touch the screen, and the DMC-G2 locks on and automatically "tracks" the subject as it moves, adjusting the focus settings for best results.



1-area AF

This mode lets you focus on the subject in any part of the LCD – just touch the screen to point it out. You can also freely change the size of the AF frame.



1-area AF in Face Detection

This mode will point the auto focus to a selected location while detecting faces in the image. It lets you capture creative shots by, for example, focusing on a flower in front of a person, or directing the focus to a person's eyes.



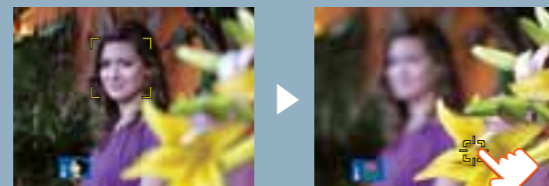
Multi-area AF

The camera divides the 23 AF areas into nine groups. When you select one of the groups, the camera automatically selects the optimal area from within that group. The cursor lets you display only the part that is within the selected range.

Use Touch Operation in iA Mode

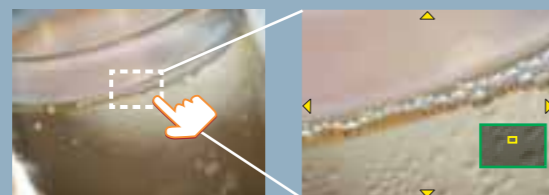


In iA (Intelligent Auto) mode, simply touch the subject on the LCD and the DMC-G2 automatically selects the optimal scene mode.



Touch Operation Makes Manual Focusing Easier Too

When you're in manual focus mode, touch an image on the LCD and the DMC-G2 shows you a blown-up view of that image instantly. This makes it easier to check that you've got a sharp focus.



Adjust the Exposure Meter with a Touch

You can adjust the exposure compensation by sliding your finger on the aperture and shutter speed settings in the exposure meter shown on the LCD. The range in which appropriate exposure is not possible is shown in red, so you can intuitively grasp the corresponding aperture and shutter speed combinations.

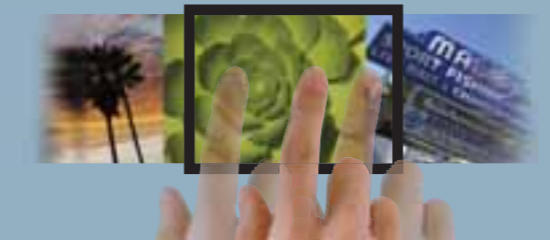
Quick Menu for Instant Settings – Just Touch the Screen

A touch is all it takes to make a variety of settings, including photo size, ISO sensitivity and white balance. You spend less time fiddling with the camera and more time getting great shots.



Touch-Operated Playback Too

A variety of touch-control operations make playback quick, easy and more fun. For example, with Touch-Scroll Playback you simply slide your finger across the LCD to scroll through images. And with Touch-Zoom Playback, you can simply touch a part of the image to enlarge it to as much as 16x.



Other Settings Are Touch-Easy Too

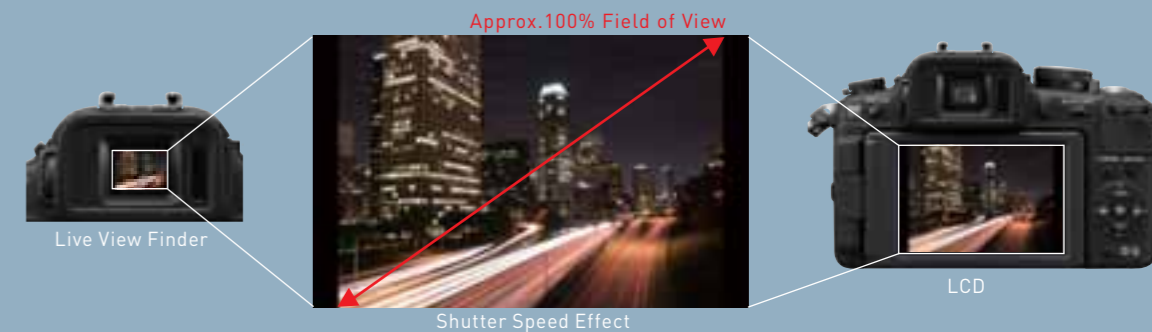
- Touch operation allows easy, intuitive white balance and colour temperature adjustment.
- Touch the LCD to set the Film mode while viewing colour hues and other image characteristics.
- To improve framing accuracy, move the vertical and horizontal guidelines with a touch.
- If the histogram is blocking your view, simply drag it to another part of the screen.

Double Live View for Easy, Accurate Shooting

Use Full-Time Live View with Both the LCD and the Live View Finder



Full-Time Live View works with both the LCD and the Live View Finder. This means that, no matter which way you shoot, you see – before you shoot – how adjusting the exposure compensation, white balance, aperture and even the shutter speed will affect the image. On the G2, both the LCD and the Live View Finder boast true Full-Time Live View capability. The Live View Finder has large, approximately 1.4x (0.7x*) magnification and an approximate 100% field of view. This combines with 1,440,000-dot equivalent resolution to make it easy to get the exact image that you see through the lens. *35mm camera equivalent.



3.0-Inch Free-Angle LCD with High 460,000-Dot Resolution

The large 3.0-inch LCD rotates 180° horizontally and 270° vertically, making it easy for you to capture dynamic shots from extreme angles without getting into an awkward position. And when the lighting around you changes, the LCD backlighting level automatically changes too, so you get comfortable, easy-on-the-eyes viewing at all times.



Low angle shots near ground level



Tripod shots without having to crouch

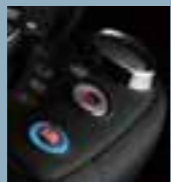


High angle shots over a crowd

Photos and HD Movies with All the Beauty You Can Imagine

□ Capture Magnificent Shots with a Single Press of the iA Button

With the DMC-G2 you're always ready for those sudden, spur-of-the-moment photo opportunities. Just press the dedicated iA button and aim the camera at your subject. The DMC-G2 automatically determines the most suitable Scene mode and helps correct blurring, focus, and brightness problems to capture great photos.



Face Recognition

This function recognises the faces of up to three people that have been registered in the camera and displays the names on the LCD. The DMC-G2 then optimises the focus and exposure of the recognised faces and captures them clearly and beautifully. *Turn the Face Recognition item on and register subjects with a full-face portrait on the shooting menu in advance. Refer to the back page for details.

AF Tracking

Once you focus on your subject, AF Tracking automatically and continuously tracks it and keeps it in focus – even if it moves – until you press the shutter release.

Intelligent Exposure

The camera corrects the brightness in parts of the image that are too dark due to insufficient lighting, backlighting or use of the flash.

Intelligent Scene Selector

This function automatically selects the most suitable Scene mode for the situation – Portrait, Night Portrait, Scenery, Night Scenery, Close-up or Sunset.

Face Detection AF/AE

This function determines if there are any faces in the image and adjusts the focus and exposure to capture them correctly.

Intelligent ISO Control

If the subject moves as you shoot, it automatically adjusts the ISO sensitivity and shutter speed to help prevent subject blur.

MEGA O.I.S. (Optical Image Stabiliser)

Gyrosensors built into the lens detect hand-shake and an O.I.S. lens shifts to compensate, assisting you in getting clear, beautiful, blur-free photos.

*Some functions in iA mode will not be available depending on the lens that is mounted.

□ My Colour Mode: For More Creative Shooting

With both photos and HD movies, My Colour Mode makes it easy to capture creative images. Just aim the camera and select any of seven preset effects, including Silhouette, Expressive, Pure and others, while checking the image in Live View. The Custom setting lets you adjust the colour, brightness and saturation to your liking, to further expand your creative palette.



Expressive
A pop art style image effect that emphasises the colour.



Pure
An image effect that uses a cool, bright light to give a feeling of freshness.



Retro
A soft image effect that gives the appearance of tarnished photos and HD movies.



Dynamic art
An impressive image effect that turns dark areas to bright areas with appropriate brightness, together with enhancements on colours.



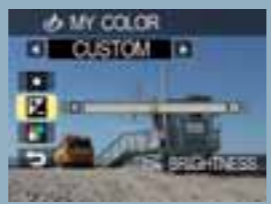
Elegant
An image effect that creates a tranquil atmosphere and projects a feeling of stateliness.



Silhouette
An image effect that enhances a subject in the shade as a black silhouette by utilising the background colours of the sky, sunset, etc.



Monochrome
An image effect that captures the subject using tones characteristic of black and white photos and HD movies, with a whisper of colour.



Custom
The colour, brightness, and saturation can be adjusted according to your preferences.

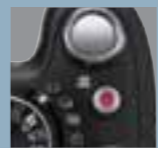
HD Movies with Superb Quality



□ Shooting an HD Movie Is Now as Easy as Pressing a Button



The hybrid DMC-G2 lets you take both high-quality photos and HD movies. You can shoot breathtaking HD (1280 x 720) movies in AVCHD Lite (MPEG-4 AVC/H.264). You can record for a longer time without running out of memory because AVCHD Lite stores less data than Motion JPEG while maintaining stunning image clarity and detail. A dedicated button on the top lets you instantly start recording movies while shooting photos, without having to make any extra settings. *AVCHD Lite™ and "AVCHD Lite" logos are trademarks of Panasonic Corporation and Sony Corporation.



□ Motion Picture P Mode: For Beautiful, Softly Focused Shots



Motion Picture P mode makes it extremely easy to shoot beautiful HD movies. You can freely set the degree of soft focusing in the background to capture rich, emotionally expressive HD movie images.



□ iA Mode: Beautiful HD Movies with Point-and-Shoot Ease



Select iA mode and the DMC-G2 automatically activates a host of advanced functions and technologies – listed below – that make it easy to capture beautiful HD movies.

AF Tracking

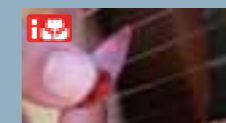
The camera locks on the subject and follows it around, keeping it in sharp focus and properly exposed. It keeps tracking even if the subject turns to the side.

Intelligent Scene Selector

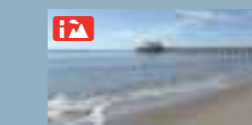
It senses the shooting conditions and selects the scene setting (Portrait, Scenery, Close-up, or Low Light) that will provide the best results.



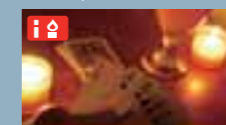
Portrait



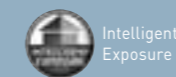
Close-up



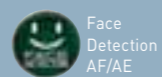
Scenery



Low Light



Intelligent Exposure



Face Detection AF/AE

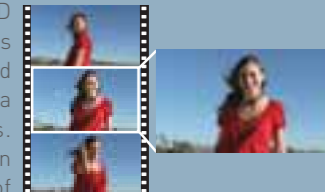


MEGA O.I.S. (Optical Image Stabiliser)

*Some functions in iA mode will not be available depending on the lens that is mounted.

□ Cut Out Beautiful Still Images from Your Movies

While shooting an HD movie, simply press the shutter button and the camera shoots a photo as it records. In addition, you can cut out a number of frames during playback of an HD movie to produce high-quality photos. This makes sure that you don't miss those decisive moments with either photos or movies, or both.



□ Versatile Functions for More HD Movie Fun

- Make more expressive movies with Film mode, by choosing from six colours and three monochrome shades.
- You can also shoot movies in Motion JPEG format, which is well suited to PC playback.
- Dolby® Digital Creator records dynamic, true-to-life audio that brings out the power of the HD images. •Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- Video Divide lets you divide a single video into two parts, splitting it at any point you desire.





Beautiful Images,
Superb Performance

Advanced Technology Packs Higher Image Quality into a Smaller, Lighter Body

12.1-Megapixel Live MOS Sensor:
Higher Image Quality, Lower Power Consumption

The DMC-G2's 4/3-type 12.1-megapixel Live MOS sensor offers the best of both worlds – the superior image quality of a CCD sensor, and the lower power consumption of a CMOS sensor. This sensor is also advantageous for photo and movie recording with its high S/N, thanks to an advanced circuit structure that is unaffected by the noise generated in each of the circuits. It results in clear images even when taken at high ISO sensitivity.



The High-Speed, High-Performance Venus Engine HD II

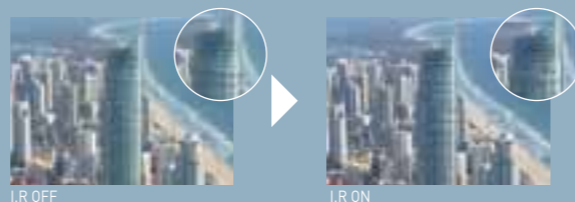
The Venus Engine HD II incorporates two CPUs. This not only boosts image processing speed, it also helps achieve an exceptional noise-reduction performance. Also, the two CPUs allow long-time movie recording in AVCHD Lite while maintaining low power consumption. And the Venus Engine HD II features a new circuit that makes Intelligent Resolution Technology possible too.



Intelligent Resolution Technology
Brings Out the Detail



In iA mode, the DMC-G2 automatically identifies parts with outlines, detailed texture areas and soft gradation areas, and optimises the edge emphasis on the outlines and detailed texture areas while using the Venus Engine noise reduction process to make the soft gradation areas smoother. You can capture stunning images with details you've never seen before in both photo and movie recording.



Dust Reduction System Protects the Image Sensor

If dust or other foreign matter gets inside the camera when you're changing lenses, it could cling to the image sensor and show up as a spot in photos. The DMC-G2 helps eliminate this possibility by placing a Supersonic Wave Filter in front of the Live MOS sensor. Vibrating around 50,000 times per second, the filter repels dust and other particles. This keeps the image sensor clean at all times and eliminates the need for cumbersome maintenance procedures.



The Fun Doesn't End When You're Done Shooting for the Day

HD Photos and HD Movies with ViEa Link Networking



The DMC-G2 & DMC-G10 are equipped with an HDMI output terminal for direct transmission of digital image and sound signals. Just connect to an HDTV using a single HDMI mini cable (optional). It's also easy to enjoy slideshows in which both photos and movies are played according to the recorded timeline. If you have a ViEa TV, you can control the camera's playback functions with ViEa's remote control unit.

•HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

Easy HD Image Viewing with the SD Card Slot



Simply take the SDXC/SDHC/SD Memory Card from the DMC-G2 or DMC-G10 and slip it into the card slot of a ViEa or Blu-ray Disc™ player, and you're ready to view HD images. For even greater impact and entertainment fun, you can add background music and image effects to your image slideshows. •To play movies recorded in the Motion JPEG format, you need the included AV cable.

PHOTOfunSTUDIO 5.0 HD Edition Makes Photo and Movie Editing Easy



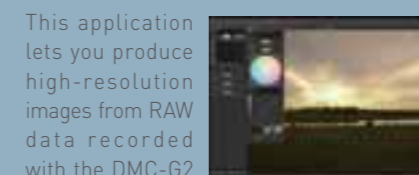
Featuring a helpful, intuitive interface, this software makes it easy to create dramatic slideshows with your favorite combination of photos and movies with background music, together with a variety of cool effects. You can also convert a slideshow containing both photos and movies directly into MPEG-2 format and save it onto a DVD. And you can easily create panoramic photos and upload movies onto YouTube™. It does all the work for you, so you can just sit back and enjoy the fantastic photos and movies you shot. •YouTube is a trademark of Google Inc.

PHOTOfunSTUDIO 5.0 HD Edition System Requirements

PC	Windows® 7: IBM® PC/AT compatible PC having Intel® Pentium® III 1 GHz or higher CPU (including compatible CPU), Windows Vista® / IBM® PC/AT compatible PC having Intel® Pentium® III 800 MHz or higher CPU (including compatible CPU), Windows® XP: IBM® PC/AT compatible PC having Intel® Pentium® III 500 MHz or higher CPU (including compatible CPU) Recommended environment for AVCHD / AVCHD Lite motion picture function: Intel® Core™ 2 Duo 2.16 GHz / Pentium® D 3.2 GHz or higher (when playing back the motion pictures) / Intel® Core™ 2 Quad 2.6 GHz or higher (when editing motion pictures) The minimum environment for AVCHD / AVCHD Lite motion picture function (environment which can be played back for 2 frames/seconds): Intel® Pentium® III 1 GHz or higher
OS (Preinstalled)	Microsoft® Windows® 7 Starter / Home Basic / Home Premium / Professional / Ultimate, Microsoft® Windows® Vista Home Basic / Home Premium / Business / Ultimate (Service Pack 1 or later), Microsoft® Windows® XP Home Edition / Professional (Service Pack 2 or later)
RAM	Windows® 7: 1 GB or more, Windows Vista®: 512 MB or more, Windows® XP: 512 MB or more *1 GB or more for AVCHD / AVCHD Lite motion picture function
Display	High Colour (16 bit) or more (32 bit or more recommended), Desktop resolution of 1024 x 768 pixels or more (1280 x 1024 or more recommended) Windows® 7: Graphics card complying with DirectX® 10, Windows Vista®: Graphics card complying with DirectX® 10, Windows® XP: Graphics card complying with DirectX® 9.0c DirectDraw® overlay support, PCI Express™ x16 is recommended
Free hard disk space	Ultra DMA-100 or higher, 450 MB or more for installing software •When writing to DVD, twice the amount of free space as the disc is necessary. If the compression setting is enabled, errors will occur during recording. Clear the check for (Compress this drive to save disk space) in (Properties) for the hard disk drive.
Necessary software	Windows® 7: DirectX® 10, Windows Vista®: DirectX® 10, Windows® XP: DirectX® 9.0c*/.NET framework 2.0 *If you install the software in a PC that is not compatible with DirectX® 9.0c, the PC may stop operating properly. If you are unsure if your PC is compatible, contact the maker. SQL Server Compact 3.5, Internet Explorer® 6.0 or more, QuickTime Player 7.6.5 or more

•Even if the system requirements mentioned in these operating instructions are fulfilled, some personal computers cannot be used. •The operation of this software will not be guaranteed when fonts other than English fonts are selected and used. •This software may not run properly on user-built computers. •This software cannot be used on Microsoft® Windows® 3.1, Windows® 95, Windows® 98, Windows® 98SE, Windows® Me, Windows NT® and Windows® 2000. •Operation is not guaranteed on Microsoft® Windows Vista® Enterprise, Windows® 7 Enterprise, Windows® XP Media Center Edition, Tablet PC Edition and not compatible with 64 bit operation systems. •Operation in XP mode on Windows® 7 is not guaranteed. •Operation on an upgraded OS is not guaranteed. •Multi-boot environment is not supported. •This software does not support the multi-monitor environments. •Only the system administrator can install or uninstall this software. •Log on with an administrator account or standard user account before using this software. You cannot use this software with a guest account. •When PHOTOfunSTUDIO is running, energy conserving functions such as Windows screen savers, sleep or automatic display cannot be used. •If the settings for the size of characters in the screen settings dialogue box in Windows is larger than the standard size, some buttons may be displayed off-screen and cannot be operated. In this case, restore the character size to standard size. •When 2 or more USB devices are connected to a PC, or when devices are connected through USB hubs or by using extension cables, proper operation is not guaranteed. •Operation on Windows Vista® / Windows® 7 Ultimate with the user interface set to other languages using the Multi-language User Interface (MUI) function is not guaranteed. •For an SDHC Memory Card (4 GB to 32 GB) or an SDXC Memory Card (48 GB to 2 TB), a reader/writer that supports the respective card will be required. •Only AVCHD / AVCHD Lite motion pictures that were created with the following can be handled: this software, or digital cameras that had this software supplied with it.

SILKYPIX® Developer Studio 3.1 SE Adjusts RAW Images Any Way You Want Them



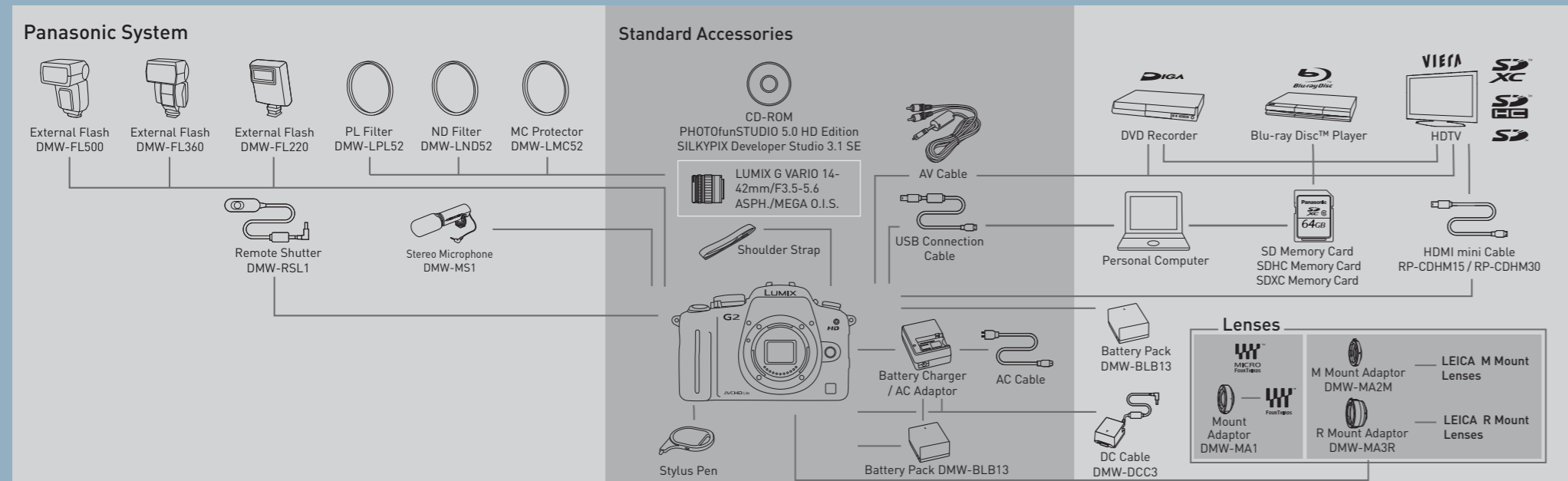
This application lets you produce high-resolution images from RAW data recorded with the DMC-G2 or DMC-G10. In addition to adjusting the exposure and white balance, it lets you perform advanced colour conversions, correct lens aberrations, and eliminate noise in dark areas of the image.

SILKYPIX® Developer Studio 3.1 SE System Requirements

	Windows	Macintosh
Operating System	Microsoft® Windows® 7 / Vista / XP *Authority of an Administrator is necessary for installation in Windows® 7, Vista or XP.	Apple® Mac® OS X v10.6 / v10.5 / v10.4
CPU	Intel Pentium® processor-based PC or compatible computer (Pentium 4 or later is recommended) **Multi-core processor ready Intel® Core™ 17, i5, Core 2 Quad, Core 2 Duo, AMD Phenom™ II X4, Phenom™ X4, etc.]	Intel processor / Power PC
Internal Ram memory	2 GB is recommended.	
HDD(available space)	Please reserve at least 100 MB of space. Depending upon the amount of photographs and data you would like to save, a considerable amount of space is necessary. (1 photograph will use around 10 MB)	
VIDEO	XGA (1024 x 768), Full Colour (24 bit or higher)	The Display supporting screen resolution more than XGA (1024 x 768) is necessary. The Display and the Graphics card that colour indication more than 16bit is possible. (24bit colour)
OTHERS	Keyboard, mouse, or equivalent devices.	

•System administrator (Administrator) privileges are necessary when installing this software on Windows® 7, Vista or XP. •This software cannot be used on 64-bit OS. •The personal computer must be connected to the Internet for user registration.

DMC-G2 System Chart



•Some functions of DMC-G2 cannot be used when mounting the Four Thirds lenses with the Mount Adaptor DMW-MA1, the LEICA M or R lenses with the Mount Adaptor DMW-MA2M or DMW-MA3R. •Leica is a registered trademark of Leica Microsystems IR GmbH. •When a lens that does not support the Contrast AF function is mounted, operation will automatically switch to manual focus. •Confirm the operation information of compatible lenses at Customer Support <http://panasonic.jp/support/global/cs/dsc>. •The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.jp/support/global/cs/info/battery.html>. •The SDXC/SDHC Memory Card can be used only if their logos are indicated on the equipment or in the operation manual. It cannot be used with equipment that supports only the SD Memory Card.

DMC-G2 Main Parts and Controls



Photos and HD Movies with All the Beauty You Can Imagine

iA Capture Magnificent Shots with a Single Press of the iA Button



With the DMC-G10 you're always ready for those sudden, spur-of-the-moment photo opportunities. Just press the dedicated iA button and aim the camera at your subject. The DMC-G10 automatically determines the most suitable Scene mode and helps correct blurring, focus, and brightness problems to capture great photos.



My Colour Mode: For More Creative Shooting

With both photos and HD movies, My Colour Mode makes it easy to capture creative images. Just aim the camera and select any of seven preset effects, including Silhouette, Expressive, Pure and others, while checking the image in Live View. The Custom setting lets you adjust the colour, brightness and saturation to your liking, to further expand your creative palette.

Double Live View for Easy, Accurate Shooting

LVF Use Full-Time Live View with Both the LCD and the Live View Finder



Full-Time Live View works with both the LCD and the Live View Finder. This means that, no matter which way you shoot, you see – before you shoot – how adjusting the exposure compensation, white balance, aperture and even the shutter speed will affect the image. On the DMC-G10, both the LCD and the Live View Finder boast true Full-Time Live View capability. The Live View Finder has large, approximately 1.04x (0.57x*) magnification and an approximate 100% field of view. This combines with 202,000-dot equivalent resolution to make it easy to get the exact image that you see through the lens. *35mm camera equivalent.

3.0-Inch LCD with High 460,000-Dot Resolution

The large 3.0-inch LCD has 100% Field of View and a wide viewing angle that allows you to frame photos from a number of angles and when the lighting around you changes, the LCD backlighting level automatically changes too, so you get comfortable, easy-on-the-eyes viewing at all times.



HD Movies with Superb Quality

Shooting an HD Movie Is Now as Easy as Pressing a Button



The DMC-G10 can record motion images in high-definition (1,280 x 720 pixels at 30 fps in Motion JPEG format). You can enjoy recording HD motion images taking maximum advantage of the lens' descriptiveness and interchangeability or the large sensor size. The DMC-G10 can also record motion images in WVGA (848 x 480 pixels at 30 fps), VGA (640 x 480 pixels at 30 fps) and QVGA (320 x 240 pixels at 30 fps).

• QuickTime Motion JPEG. • Some lens movement sounds may be recorded. • In Motion Picture Mode, the length of recording time depends on the capacity of the SD/SDHC/SDXC Memory Card. [Up to the equivalent of 2 GB per motion-image recording.] • Use a card with SD Speed Class* with "Class 6" or higher when recording motion images. * SD speed class is the speed standard regarding continuous writing. • SDHC Memory Cards and SDXC Memory Cards can be used only in equipment that is compatible with their respective formats. • If the computer being used does not support SDXC Memory Cards, a message prompting you to format may appear. [Doing so will cause recorded images to be erased so do not choose to format.] If the card is not recognised, please refer to the below support site. <http://panasonic.net/avc/sdcard/information/SDXC.html>



Motion Picture P Mode: For Beautiful, Softly Focused Shots



Motion Picture P mode makes it extremely easy to shoot beautiful HD movies. You can freely set the degree of soft focusing in the background to capture rich, emotionally expressive HD movie images.



iA Mode: Beautiful HD Movies with Point-and-Shoot Ease



Select iA mode and the DMC-G10 automatically activates a host of advanced functions and technologies – that make it easy to capture beautiful HD movies.

12.1-Megapixel Live MOS Sensor: Higher Image Quality, Lower Power Consumption

The DMC-G10's 4/3-type 12.1-megapixel Live MOS sensor offers the best of both worlds – the superior image quality of a CCD sensor, and the lower power consumption of a CMOS sensor. This sensor is also advantageous for photo and movie recording with its high S/N, thanks to an advanced circuit structure that is unaffected by the noise generated in each of the circuits. It results in clear images even when taken at high ISO sensitivity.

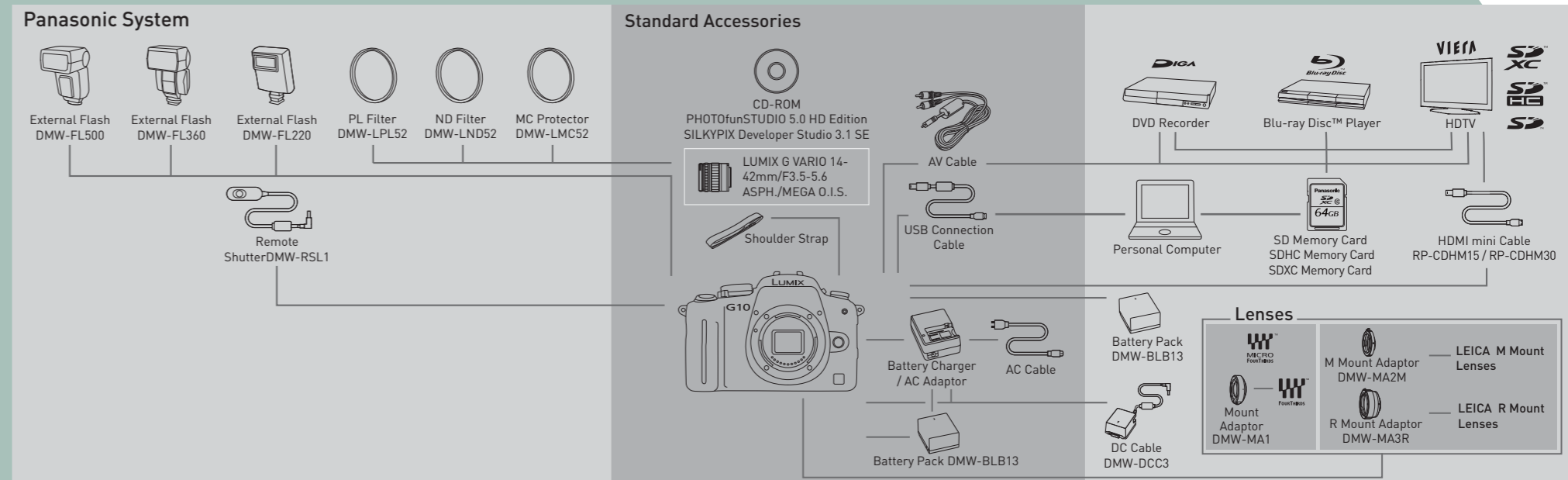


The High-Speed, High-Performance Venus Engine HD II

The Venus Engine HD II incorporates two CPUs. This not only boosts image processing speed, it also helps achieve an exceptional noise-reduction performance. Also, the two CPUs allow long-time movie recording in AVCHD Lite while maintaining low power consumption. And the Venus Engine HD II features a new circuit that makes Intelligent Resolution Technology possible too.



DMC-G10 System Chart



•Some functions of DMC-G10 cannot be used when mounting the Four Thirds lenses with the Mount Adaptor DMW-MA1, the LEICA M or R lenses with the Mount Adaptor DMW-MA2M or DMW-MA3R. •Leica is a registered trademark of Leica Microsystems IR GmbH. •When a lens that does not support the Contrast AF function is mounted, operation will automatically switch to manual focus. •Confirm the operation information of compatible lenses at Customer Support <http://panasonic.jp/support/global/cs/dsc> (English). •The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.jp/support/global/cs/info/battery.html> •The SDXC/SDHC Memory Card can be used only if their logos are indicated on the equipment or in the operation manual. It cannot be used with equipment that supports only the SD Memory Card.

DMC-G10 Main Parts and Controls





You can view sample movies taken with the DMC-GH1 at the following website. <http://panasonic.net/avc/lumix/systemcamera/gms/gh1/movie.html>

LUMIX G VARIO 7-14mm / F4.0 ASPH. 1/1000 sec, F6.3, ISO100



LUMIX GH1

Shoot HD movies with single-lens-reflex photo quality.

Full-HD Movie Recording in AVCHD **AVCHD**

With the DMC-GH1, shooting incredible photos is only part of the fun. You can also shoot beautiful, richly detailed movies in Full-HD (high-definition) (1920 × 1080) at 24 frames per second, or smooth HD (1280 × 720) movies at 60 frames per second in AVCHD format (MPEG-4/H.264) with continuous auto focus.* You can record for a longer time without running out of memory because AVCHD stores less data than Motion JPEG while maintaining stunning image clarity and detail. A separate button on the back lets you instantly start recording movies while shooting photos, without having to make any extra settings. *Full-HD (1920 × 1080) movies are output by the image sensor at 24p (NTSC)/25p (PAL), and recorded at 60i (NTSC)/50i (PAL). HD (1280 × 720) movies are output and recorded by the image sensor at 60p (NTSC)/50p (PAL). •AVCHD* and the "AVCHD" logo are trademarks of Panasonic Corporation and Sony Corporation.



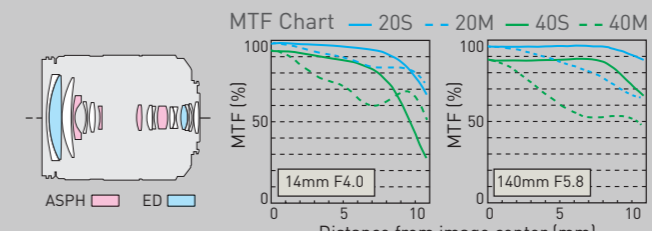
Full-HD (1920 × 1080) at 24 frames per second faithfully shows every detail.



HD (1280 × 720) at 60 frames per second smoothly and carefully reproduces moving subjects.

LUMIX G VARIO HD 14-140mm/F4.0-5.8 ASPH./MEGA O.I.S. for Outstanding HD Movies **HD**

This kit lens boasts a focal length of 28-280mm (35mm camera equivalent) and supports a continuous auto focus function that works for both photos and movies. The aperture adaptively adjusts to each scene, letting you capture the kind of delicate, softly focused movies that only a digital interchangeable lens camera can produce. Thanks to a silence design that helps suppress lens drive noise, the DMC-GH1 with its new kit lens records sounds with amazing clarity. This kit lens also incorporates MEGA O.I.S. (Optical Image Stabiliser) that helps eliminate blurring from hand-shake.



For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



H-VS014140



Enjoy the Freedom of Manual Settings in Creative Movie Mode

The DMC-GH1 gives you more creative freedom. It lets you adjust the aperture and shutter speed any way you like when shooting movies. Aperture control is convenient when there are several subjects at different distances and you want them each to stand out. Changing the shutter speed brings special effects to movies, which is especially effective when shooting fast-moving subjects. Creative Movie mode gives you a wider range of expression to explore, and lets you shoot movies with full manual control.

Aperture Control



Deep depth of field



Shallow depth of field

Shutter Speed Control



Slow shutter



Fast shutter

Highly creative expression lets you shoot movies exactly the way you want.

Audio Quality that Further Enhances Your HD Movies



The DMC-GH1 also comes with the high-quality stereo sound of Dolby® Digital Stereo Creator, the global standard for superior audio recording. The stereo microphone on the upper body records dynamic, true-to-life stereo sounds that bring out all the power of your HD movies.



*Dolby and the double-D symbol are trademarks of Dolby Laboratories.

Wind Cut Function Reduces Background Wind Noise

The Wind Cut function blocks out most of the noise from background wind. This lets you shoot movies with clear sound and minimal wind noise, even on breezy days and in places like mountaintops and beaches.

External Stereo Microphone for Outstanding Sound Quality

For more creative sound recording, an optional stereo microphone (DMW-MS1) is available. Ambient sounds can be clearly recorded in higher quality and from greater distances.



iA Mode: Beautiful HD Movies with Point-and-Shoot Ease



Just set the DMC-GH1 to iA mode, then aim and shoot. The iA mode does all the rest. It automatically determines the most suitable Scene mode and helps correct blurring, focus, and brightness problems for bright, sharply focused HD movies.



Intelligent Scene Selector

This function senses the shooting conditions and selects the scene setting (Normal, Portrait, Close-up, Scenery, and Low Light) that will provide the best results.



Face Detection AF/AE

This function detects faces anywhere in the frame and automatically chooses the optimal focus and exposure. It detects a maximum of 15 faces at once, and automatically readjusts the settings if their positions change.



Intelligent Exposure

Intelligent Exposure prevents blown highlights and blocked shadows by detecting the intensity of the ambient light and adjusting the exposure accordingly.



MEGA O.I.S. (Optical Image Stabiliser)

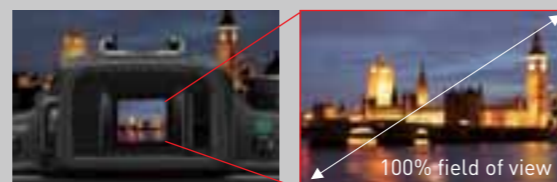
This function, which is built into the kit lens, detects and compensates for blurring caused by hand-shake.

*Some functions in iA mode will not be available depending on the lens that is mounted.

Full-Time Live View and Live View Finder: See How the Image Will Turn Out Before You Shoot



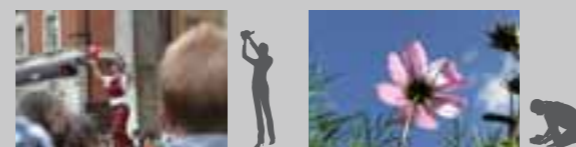
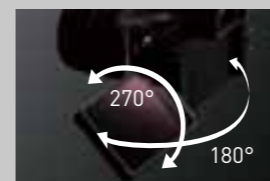
Live View lets you see – before you shoot – how adjusting the exposure compensation, white balance, aperture and even the shutter speed will affect the image. On the DMC-GH1, both the LCD and the Live View Finder boast true Full-Time Live View capability. The Live View Finder has large, 1.4x (0.7x*) magnification and a 100% field of view. This combines with 1,440,000-dot equivalent resolution to make it easy to get the exact image that you see through the lens. *35mm camera equivalent



Catch precisely the photos you want, with either manual or auto control.

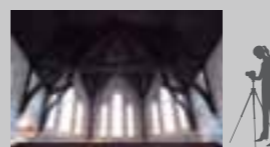
3.0-Inch Free-Angle LCD with High 460,000-Dot Resolution

The large 3.0-inch LCD rotates 180° horizontally and 270° vertically, making it easy for you to capture dynamic shots from extreme angles without getting into an awkward position. And when the lighting around you changes, the LCD backlighting level automatically changes too, so you get comfortable, easy-on-the-eyes viewing at all times.



High angle shots over a crowd.

Low angle shots near ground level.



Tripod shots without having to crouch.

The Multi-Aspect Ratio Capability Maximises the Pixels in Any Aspect Ratio

Using only 12.1 megapixels of the total 14.0-megapixel Live MOS sensor allows the DMC-GH1 to offer a multi-aspect ratio capability. This lets you shoot using a 4:3 or 3:2 aspect ratio, or the 16:9 ratio that is optimal for HDTV playback, while maintaining the same angle of view. Unique compositions are possible using a 1:1 aspect ratio*.

* The Multi-aspect function doesn't support the 1:1 aspect ratio

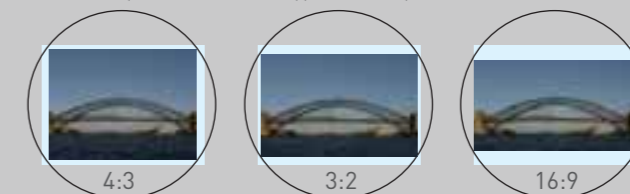


Image circle Sensor area

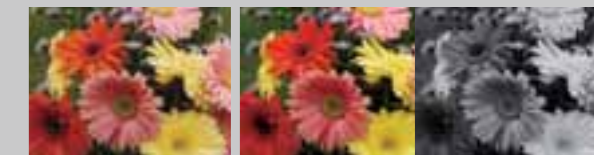
My Colour Mode Puts You in Control of the Colour

In My Colour Mode you can freely adjust the colour, brightness and saturation parameters, while checking the Full-Time Live View image to see how those adjustments affect the photo. This makes it easier and more fun to create interesting, expressive photos. Adjust the settings that best suit the shooting conditions and your expressive intent, and then enjoy your own photography.



Film Mode – To Capture Photos with a Special Mood or Expressiveness

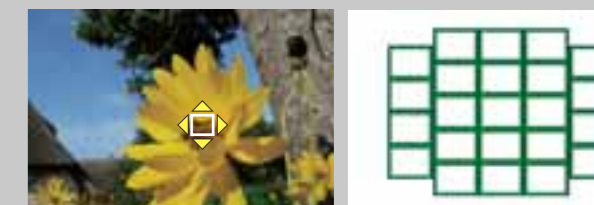
Much like changing the film type in a film camera, you can enjoy a wide range of expression based on six colour modes and three monochromatic modes. When the multi-film mode is selected, you can record pictures having up to three different effects with each press of the shutter button.



Smooth Vibrant Dynamic B&W

Fast and Accurate Advanced Contrast AF

The advanced contrast AF function is not only accurate and easy to use, but also very fast. You can choose from a wide range of AF modes, including multi-point AF with up to 23 focus points, 1-area AF in which the size and position of the focus point can be selected, Face Detection, and AF Tracking.



Versatile 1-area AF for finer focusing precision

23 AF areas cover more of the frame
*All 23 AF areas are not simultaneously displayed.

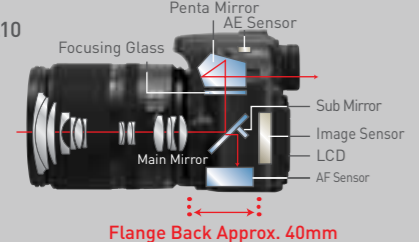
The technology behind this remarkable HD image quality.

Micro Four Thirds: the Mirror-Less Body with Movie Recording Capability



The DMC-GH1 adopts the Micro Four Thirds System standard, developed as an extended version of the Four Thirds Standard for digital camera systems. By using this standard and developing a camera body that eliminates the mirror box and optical viewfinder unit, Panasonic was able to improve both usability and mobility. Two new additional signal contacts in the mount enable the high-speed data processing that is required for movies, and allows you to switch easily between shooting photos and movies with natural, intuitive operation. •Micro Four Thirds™ and Micro Four Thirds Logo marks are trademarks or registered trademarks of Olympus Imaging Corporation, in Japan, the United States, the European Union and other countries.

Four Thirds:DMC-L10 (Mirror Structure)

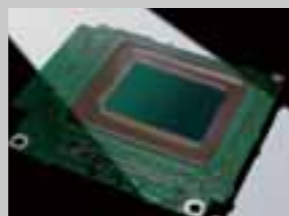


Micro Four Thirds:DMC-GH1 (Mirror-Less Structure)



Newly Developed 12.1-Megapixel Live MOS Sensor

The DMC-GH1's 4/3-type Live MOS sensor with 12.1 megapixels is capable of high-speed 4-channel readout to support Full-HD movie recording. This sensor is also advantageous for photo recording with its high S/N, thanks to a new circuit structure that is unaffected by the noise generated in each of the circuits. It results in clear images even when taken at high ISO sensitivity. The multi-aspect ratio function of the sensor allows photos to be taken using a 4:3, 3:2 or 16:9 aspect ratio, all with the same angle of view.



The High-Speed, High-Performance Venus Engine HD

The Venus Engine HD incorporates two CPUs. This not only boosts image processing speed, it also helps achieve an exceptional noise-reduction performance. Also, the two CPUs of the Venus Engine HD allow long-time movie recording in AVCHD format while maintaining low power consumption. And the Venus Engine HD features HDMI output too.



Dust Reduction System Protects the Image Sensor

If dust or other foreign matter gets inside the camera when you're changing lenses, it could cling to the image sensor and show up as a spot in photos. The DMC-GH1 helps eliminate this possibility by placing a Supersonic Wave Filter in front of the Live MOS sensor. Vibrating around 50,000 times per second, the filter repels dust and other particles. This keeps the image sensor clean at all times and eliminates the need for cumbersome maintenance procedures.



Four Thirds Adaptability – Multiplying Photographic Possibilities

The DMC-GH1 can be fitted with a mount adaptor DMW-MA1 (optional) that allows the use of a wide variety of high-performance Four Thirds lenses, including Leica D lenses.* Unleash your creative possibilities, for example, by using a premium fast lens to capture photos and movies with a beautiful, softly focused background, and an ultra-powerful zoom to pull distant wildlife right up close. Or, fisheye lens creating extraordinarily artistic effects. *Lenses other than LUMIX G lenses cannot use the AF Tracking, AFc (Auto Focus Continuous) or Continuous AF functions. Also, when a lens that does not support the Contrast AF function is mounted, operation will automatically switch to manual focus. Confirm the operation information of compatible lenses at Customer support <http://panasonic.jp/support/global/cs/dsc> •Four Thirds™ and Four Thirds Logo marks are trademarks or registered trademarks of Olympus Imaging Corporation, in Japan, the United States, the European Union and other countries.



An entirely new viewing style made possible by advanced digital technology.

HD Photos and HD Movies with ViErA Link Networking



The DMC-GH1 & DMC-GF1 are equipped with an HDMI output terminal for direct transmission of digital image and sound signals. Just connect the camera to an HDTV using a single HDMI mini cable (optional). It's also easy to enjoy slideshows in which both photos and movies are played according to the recorded timeline. If you have a ViErA TV, you can control the camera's playback functions with ViErA's remote control unit. •HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.



Easy HD Image Viewing with the SD Card Slot



Simply take the SDHC/SD Memory Card from the DMC-GH1 or DMC-GF1 and slip it into the card slot of a Panasonic ViErA or Blu-ray Disc™ player, and you're ready to view HD images. For even greater impact and entertainment fun, you can add background music and image effects to your still-image slideshows. *To play movies recorded in the Motion JPEG format, you need the included AV cable or a video cable.



Included Software

PHOTOfunSTUDIO 3.1 HD Edition Makes Photo and Movie Editing Easy

AVCHD movies can be transferred to a PC from an SDHC/SD Memory Card or via the USB cable to view or edit them. You can also make a DVD disc from AVCHD files by converting them to MPEG-2. The software makes it easy and fun to edit or organise a collection of photos. It features a Face Recognition function that recognizes the faces in the photos stored in your PC and lets you sort them by face. The sophisticated interface also allows you to enjoy emotion-packed slideshows with a variety of effects and music. And motion images can be directly uploaded to YouTube™. •YouTube is a trademark of Google Inc.



SILKYPIX® Developer Studio 3.0 SE Adjusts RAW Images Any Way You Want Them

The DMC-GH1 and DMC-GF1 record original image data in RAW file format, which allows images to be developed according to your intention. A number of highly advanced functions can be applied to these RAW images by using the SILKYPIX® Developer Studio 3.0 SE software utility, with its unique combination of high resolution and extraordinary colour separation.



PHOTOfunSTUDIO 3.1 HD Edition System Requirements

	Windows® 2000/XP	Windows Vista®
PC	IBM® PC/AT compatible personal computer having Intel® Pentium® III 500MHz or higher CPU (including compatible CPU)	IBM® PC/AT compatible personal computer having Intel® Pentium® III 800MHz or higher CPU (including compatible CPU)
OS (Preinstalled)	Recommended environment for AVCHD motion picture function Intel® Core™ 2 Duo 2.6 GHz or higher (when playing back the motion picture) Intel® Core™ 2 Quad 2.6 GHz or higher (when editing motion pictures) The minimum environment for AVCHD motion picture function (environment which can be played back for 2 frames/seconds) Intel® Pentium® III 1 GHz or higher	Microsoft® Windows® 2000 Professional / Microsoft® Windows® XP Professional / Microsoft® Windows® XP Home Edition / Microsoft® Windows® Vista® Ultimate / Microsoft® Windows® Vista® Business / Microsoft® Windows® Vista® Home Premium / Microsoft® Windows® Vista® Home Basic
Display	High Colour (16bit) or more (32 bit or more recommended) Desktop resolution of 1024 x 768 pixels or more (1280 x 1024 pixels or more recommended)	Graphics card complying with DirectX® 9.0c
RAM	256MB or more (1 GB or more for AVCHD motion picture function)	512MB or more
Free hard disk space	Ultra DMA-100 or higher 450 MB or more for installing software •When writing to DVD, twice the amount of free space as the disc is necessary.	DirectX® 10
Necessary software	DirectX® 9.0c •If you install the software in a PC that is not compatible with DirectX® 9.0c, the PC may stop operating properly. If you are unsure if your PC is compatible, contact the maker. NET Framework 2.0	DirectX® 10
Drive	QuickTime 6.3 or later (required for playback of MOV file) Internet Explorer 6.0 or more	CD-ROM drive (required to install this program) •A compatible drive and media are required for DVD writing
Sound	Windows compatible sound device	
Interface	USB port (Hi-Speed USB (USB2.0))	
Other requirements	Mouse or equivalent pointing device	

•Even if the system requirements mentioned in these operating instructions are fulfilled, some personal computers cannot be used. •The operation of this software will not be guaranteed when fonts other than English fonts are selected and used. •This software may not run properly on user-built computers. •This software cannot be used on Microsoft Windows® 3.1, Windows® 95, Windows® 98, Windows® 98SE, Windows® Me, Windows NT® and Macintosh. •Operation is not guaranteed on Microsoft® Windows Vista® Enterprise, Windows® XP Media Center Edition, Tablet PC Edition and not compatible with 64 bit operation systems. •Operation on an upgraded OS is not guaranteed. •Operation on an OS other than the one pre-installed is not guaranteed. •Multi-boot environment is not supported. •This software does not support the multi-monitor environments. •Only the system administrator can install or uninstall this software. •Log on with an administrator account or standard user account before using this software. You cannot use this software with a guest account. •If the settings for the size of characters in the screen settings dialogue box in Windows are larger than the standard size, some buttons may be displayed off-screen and cannot be operated. In this case, restore the font size to standard size.

SILKYPIX® Developer Studio 3.0 SE System Requirements

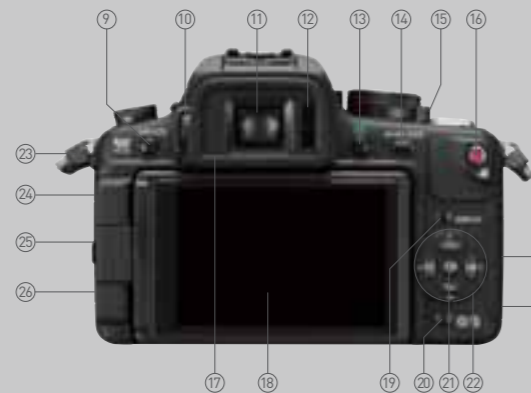
	Windows	Macintosh
PC	Intel® Pentium® compatible processors (Pentium 4 or higher recommended) Multi-core processor ready (Intel Core Duo, Pentium D, AMD Athlon 64 X2, etc.)	PowerPC® G4 or its dual-processor (G5 or later recommended) Supported Intel Core Duo and Universal Binary
OS	Windows® Me, Windows® 2000, Windows® XP, Windows Vista® (The Windows® 2000/XP/Windows Vista® recommended)	Mac OS X v10.2 (v10.3 or later recommended)
Display	XGA (1024 x 768) and Full-Colour (24 bits) or more	Display that supports a resolution of 1024 x 768 or more. Display and video card capable of displaying 16bit colour or more. (24bit colour or more recommended)
RAM	512MB (1GB or more recommended) (1GB or more if using Windows Vista®)	512MB (1GB or more recommended)
Free hard disk space	100MB or more free space (required for installation and activation) A large amount of free disk space is required depending on the development data or storage of images after development. (1 photograph will use around 10MB)	
Drive	CD-ROM drive (required to install this program)	
Other requirements	Keyboard, mouse, or equivalent input device	

•System administrator (Administrator) privileges are necessary when installing this software on Windows® 2000, Windows® XP or Windows Vista®. •This software cannot be used on 64-bit OS. •The personal computer must be connected to the Internet for user registration.

DMC-GH1 Main Parts and Controls



- ① Flash
- ② Sensor
- ③ Self-timer indicator / AF assist lamp
- ④ Lens release button
- ⑤ Lens lock pin
- ⑥ Mount
- ⑦ Lens fitting mark
- ⑧ Front dial
- ⑨ [LVF/LCD] button
- ⑩ Diopter adjustment dial
- ⑪ Viewfinder
- ⑫ Eye sensor

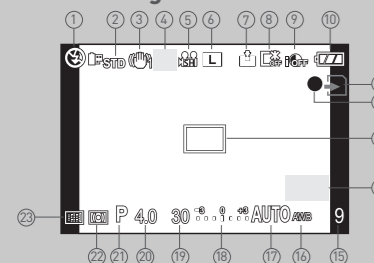


- ⑬ Playback button
- ⑭ [AF/AE LOCK] button
- ⑮ Camera ON/OFF switch
- ⑯ Motion picture button
- ⑰ Eye cup
- ⑱ LCD monitor
- ⑲ [DISPLAY] button
- ⑳ Delete button / Preview button
- ㉑ [MENU/SET] button
- ㉒ Cursor buttons
- ▲ / ISO ▼ / Function button
- ◀ / AF mode ▶ / WB



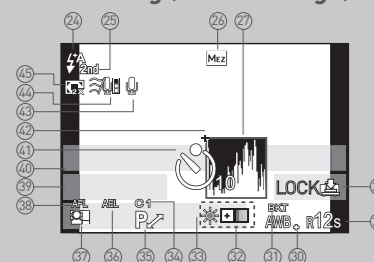
- ⑳ Shoulder strap eyelet
- ㉑ [MIC/REMOTE] socket
- ㉒ [HDMI] socket
- ㉓ [AV OUT/DIGITAL] socket
- ㉔ Card door
- ㉕ DC cable cover
- ㉖ Focus distance reference mark
- ㉗ Focus mode dial
- ㉘ Flash open lever
- ㉙ Hot shoe
- ㉚ Mode dial
- ㉛ Status indicator
- ㉜ [Q.MENU] button
- ㉝ [FILM MODE] button
- ㉞ Shutter button
- ㉟ Stereo microphone
- ㊱ Drive mode lever
- Single Auto bracket
- Burst Self-timer

In recording



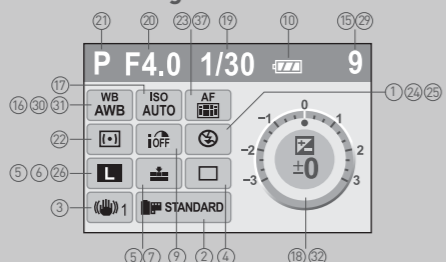
- ① Flash mode
- ② Film mode
- ③ Optical image stabiliser / Jitter alert
- ④ Single¹
- ⑤ Burst
- ⑥ Auto bracket
- ⑦ Self-timer
- ⑧ REC MODE / Recording quality
- ⑨ Picture size
- ⑩ Quality
- ⑪ Card [displayed only during recording]
- ⑫ Recording state [Flashes red.] / Focus [Lights green.]
- ⑬ AF area
- ⑭ Dial operation guide / Elapsed recording time
- ⑮ Number of recordable pictures^{*3}
- ⑯ White balance
- ⑰ ISO sensitivity
- ⑱ Exposure Compensation value / Manual exposure assistance
- ⑲ Shutter speed
- ⑳ Aperture value
- ㉑ Recording mode
- ㉒ Metering mode
- ㉓ AF mode

In recording (after settings)



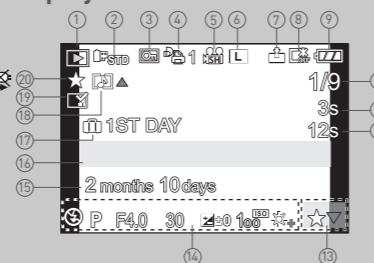
- ⑳ Flash output adjustment
- ㉑ 2nd curtain synchro
- ㉒ Extended Optical Zoom
- ㉓ Histogram
- ㉔ Travel date
- ㉕ AF tracking operation
- ㉖ Available recording time^{*3} : R8m30s
- ㉗ White balance fine adjustment
- ㉘ AE lock
- ㉙ My Colour Mode Adjustment
- ㉚ Current date and time / Travel destination setting^{*2,4}

LCD recording information



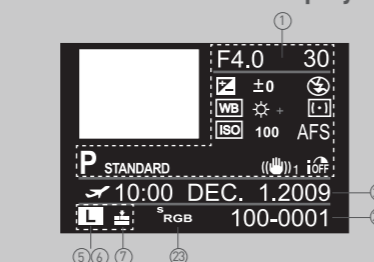
- ① Custom settings
- ② Program Shift
- ③ AE lock
- ④ Face recognition
- ⑤ AF lock
- ⑥ Age^{*2,5} / Location^{*2,4}
- ⑦ Name^{*2,5} / Number of days that have passed since the departure date^{*2,4}
- ⑧ Self-timer^{*6}
- ⑨ Spot metering target
- ⑩ Audio recording
- ⑪ WIND CUT
- ⑫ Digital zoom

In playback



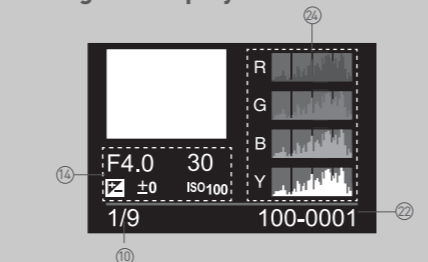
- ① Playback mode
- ② Film Mode
- ③ Protected picture
- ④ Number of prints
- ⑤ REC MODE / Recording quality
- ⑥ Picture size
- ⑦ Quality
- ⑧ LCD mode
- ⑨ Battery indication
- ⑩ Picture number / Total pictures
- ⑪ Elapsed playback time : R8m30s
- ⑫ Motion picture recording time : 8m30s
- ⑬ Favourites settings
- ⑭ Recording information^{*7}
- ⑮ Age
- ⑯ Name / Location / Title
- ⑰ Number of days that have passed since the departure date
- ⑱ Audio playback
- ⑲ Stamped with text indication
- ⑳ Favourites
- ㉑ Cable disconnection warning icon
- ㉒ Recorded date and time / Travel destination setting
- ㉓ Folder/File number^{*7}
- ㉔ Colour space^{*7}
- ㉕ Histogram

Detailed information display



- ① Custom settings
- ② Program Shift
- ③ AE lock
- ④ Face recognition
- ⑤ AF lock
- ⑥ Age^{*2,5} / Location^{*2,4}
- ⑦ Name^{*2,5} / Number of days that have passed since the departure date^{*2,4}
- ⑧ Self-timer^{*6}
- ⑨ Spot metering target
- ⑩ Audio recording
- ⑪ WIND CUT
- ⑫ Digital zoom

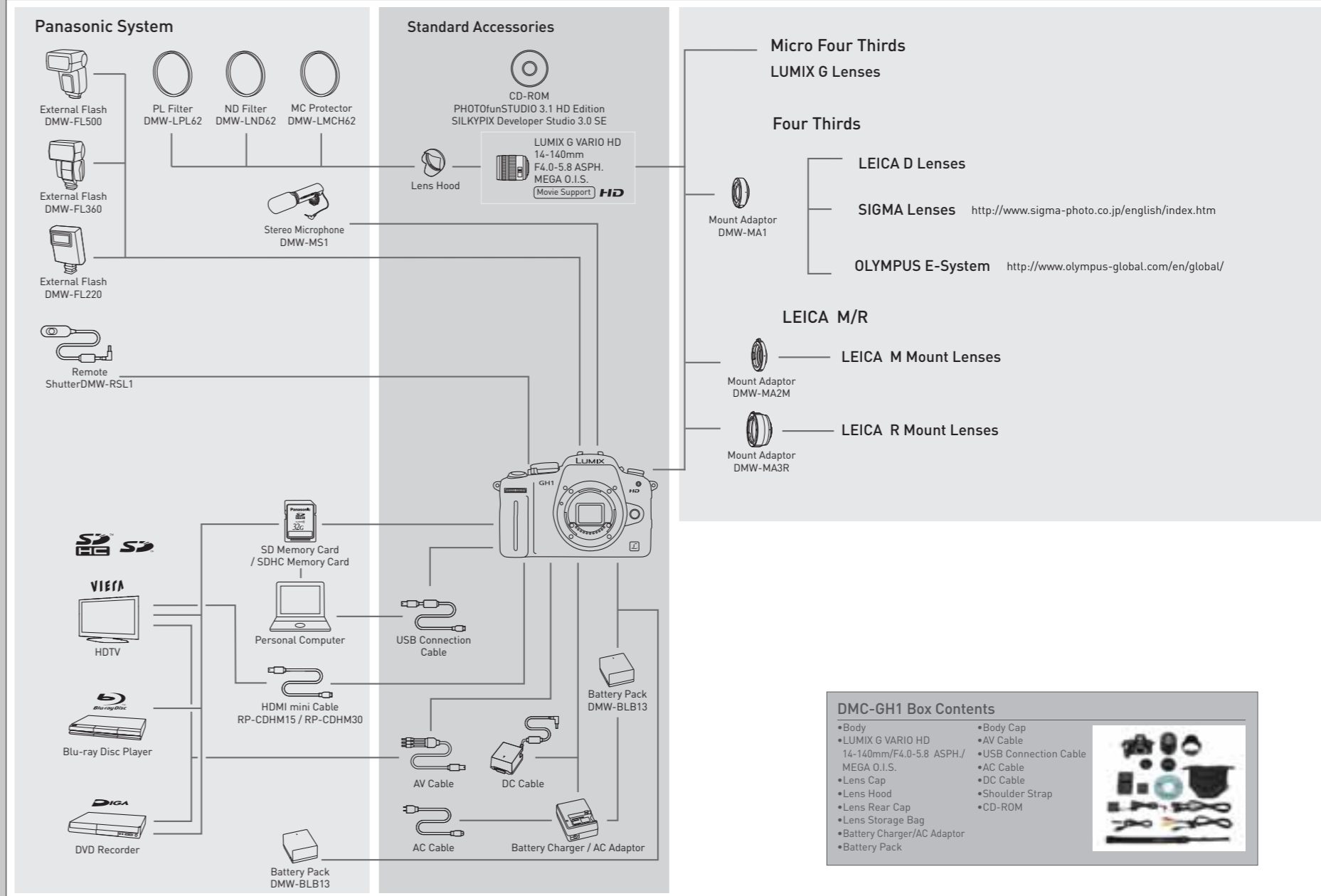
Histogram display



- ⑭ F4.0
- ⑮ 30
- ⑯ ISO100
- ⑰ 1/9
- ⑱ 100-0001
- ⑲ R
- ⑳ G
- ㉑ B
- ㉒ Y

*1 Only displayed in the LCD recording information window. *2 Only displayed in the LCD monitor. *3 It is possible to switch the display between the number of recordable pictures and available recording time with the [REMAININGDISP.] setting in the [CUSTOM MENU] menu. In displays other than the LCD recording information display, it will display [9999] when the number of recordable pictures exceeds 10000. *4 This is displayed for about 5 seconds when the camera is turned on, after setting the clock and after switching from playback mode to recording mode. *5 This is displayed for about 5 seconds when this unit is turned on in [BABY1]/[BABY2] or [PET] in Scene Mode. *6 This is displayed during countdown. *7 This is not displayed for motion pictures recorded in [AVCHD].

DMC-GH1 System Chart



DMC-GH1 Box Contents

- Body
- LUMIX G VARIO HD 14-140mm/F4.0-5.8 ASPH./MEGA O.I.S.
- Lens Cap
- Lens Hood
- Lens Rear Cap
- Lens Storage Bag
- Battery Charger/AC Adaptor
- Battery Pack
- Body Cap
- AV Cable
- USB Connection Cable
- AC Cable
- DC Cable
- Shoulder Strap
- CD-ROM



•Some functions of DMC-GH1 cannot be used when mounting the Four Thirds lenses with the Mount Adaptor DMW-MA1, the LEICA M or R lenses with the Mount Adaptor DMW-MA2M or DMW-MA3R. •Leica is a registered trademark of Leica Microsystems IR GmbH. •When a lens that does not support the Contrast AF function is mounted, operation will automatically switch to manual focus. •Confirm the operation information of compatible lenses at Customer Support <http://panasonic.jp/support/global/cs/dsc> •For detailed information about the lenses made by SIGMA, OLYMPUS and LEICA, please see each company's website. •The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.jp/support/global/cs/info/battery.html> •The SDHC Memory Card can be used only if the SDHC logo is indicated on the equipment or in the operation manual. It cannot be used with equipment that supports only the SD Memory Card.



LUMIX GF1

My Colour Mode Puts You in Control of Your Colours

Naturally you want your photos to be unique. My Colour Mode on the DMC-GF1 lets you control each and every photo with eight unique preset modes in all, including a colourful Expressive mode, a soft and moody Pure mode, and a Custom mode that lets you adjust the colour, brightness, and saturation just the way you want them. You can dramatically change the images of even familiar subjects to express your own creativity.



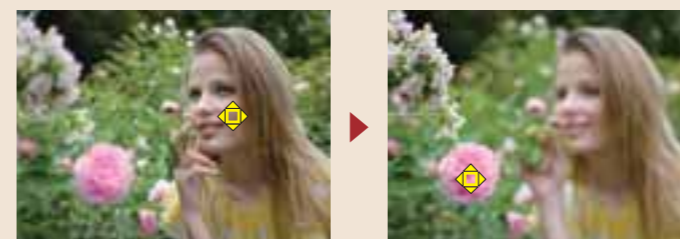
Let the Exposure Meter Guide You

The degree of aperture and shutter speed that can be changed within a suitable exposure range are indicated in the on-screen meter display. The range in which appropriate exposure is not possible is shown in red, so you can intuitively grasp the corresponding aperture and shutter speed combinations.



A Peripheral Defocus Mode Gives You the Soft Focus of an Interchangeable Lens

The DMC-GF1 automatically adjusts the focus to match the AF area you positioned while gently defocusing the foreground and background to emphasise the subject. You don't have to change the aperture yourself to take photos with the highly attractive soft focus effect of an SLR camera.



Full-Time Live View: See How the Image Will Turn Out Before You Shoot


The DMC-GF1's Full-Time Live View lets you see in the LCD how adjusting the exposure, white balance, aperture and even the shutter speed will affect the shot. This makes it easier to capture a special shot or particular kind of image without shooting again and again.





Shutter Speed Effect


iA Mode Helps Prevent Shooting Mistakes in a Variety of Situations


Turn a dial to select iA mode, and the DMC-GF1 automatically activates a host of advanced functions and technologies – described below – that make it easy to capture beautiful, clear shots 


 **Face Recognition**
This function recognises the faces of subjects that have been registered in the camera and displays the names of up to three people. The DMC-GF1 then optimises the focus and brightness of the registered faces. *Turn Face Recognition item ON and register the person with a full-face portrait on the shooting menu in advance. Refer to back page for details.

 **AF Tracking**
Once you've focused on a subject, AF Tracking keeps the subject in focus – even if it moves – until you press the shutter release.

 **Intelligent Exposure**
The camera can correct the brightness in parts of the image that are too dark due to insufficient lighting, backlighting or use of the flash.

 **Intelligent Scene Selector**
The camera automatically selects whichever of five Scene modes – Portrait, Night Portrait, Scenery, Night Scenery, and Macro – best suits the situation.

 **Face Detection AF/AE**
The camera detects when there are faces in the frame and adjusts the focus and exposure to capture them properly. This allows you to shoot beautiful portraits without any hassle.

 **Intelligent ISO Control**
If the subject moves as you snap the shot, the camera automatically adjusts the ISO sensitivity and shutter speed to help prevent subject blur.

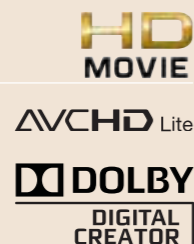
 **MEGA O.I.S. (Optical Image Stabiliser)**
Gyrosensors built into the lens detect hand-shake and an O.I.S. shifts to compensate. Assisting you in getting those clear, beautiful, blur-free photos.
*Some functions in iA mode will not be available depending on the lens that is mounted.



Extended HD Movie Recording with SLR Quality

The hybrid DMC-GF1 lets you take both high-quality photos and HD movies. You can shoot breathtaking HD (1280 × 720) movies in AVCHD Lite format (MPEG-4/H.264) backed by the high sound quality of Dolby Digital Creator. And you can record for a longer time without running out of memory because AVCHD Lite stores less data than Motion JPEG while maintaining stunning image clarity and detail. A dedicated button on the top lets you instantly start recording movies while shooting photos, without having to make any extra settings.

•“AVCHD Lite” and “AVCHD Lite” logos are trademarks of Panasonic Corporation and Sony Corporation. •Dolby and the double-D symbol are trademarks of Dolby Laboratories.



Produce Original HD Movies

My Colour mode and Scene mode can also be used to record movies. And Motion Picture P mode lets you change the aperture for more creative HD movie recording.



iA Mode: Beautiful HD Movies with Point-and-Shoot Ease

Select iA mode, and the DMC-GF1 automatically activates a host of advanced functions and technologies – listed below – that make it easy to capture beautiful HD movies.



Intelligent Scene Selector



Face Detection AF/AE



Intelligent Exposure



MEGA O.I.S. (Optical Image Stabiliser)

*Some functions in iA mode will not be available depending on the lens that is mounted.



12.1-Megapixel Live MOS Sensor: Higher Image Quality, Lower Power Consumption

The 4/3-type 12.1-megapixel Live MOS sensor featured in the DMC-GF1 offers the best of both worlds – the superior image quality of a CCD sensor, and the lower power consumption of a CMOS sensor. This sensor is also advantageous for photo and movie recording with its high S/N, thanks to a new circuit structure that is unaffected by the noise generated in each of the circuits. It results in clear images even when taken at high ISO sensitivity.



The High-Speed, High-Performance Venus Engine HD

The Venus Engine HD incorporates two CPUs. This not only boosts image processing speed, it also helps achieve an exceptional noise-reduction performance. Also, the two CPUs of the Venus Engine HD allow long-time movie recording in AVCHD Lite format while maintaining low power consumption. And the Venus Engine HD features HDMI output too.



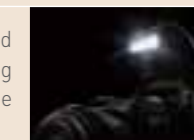
Dust Reduction System Protects the Image Sensor

If dust or other foreign matter gets inside the camera when you're changing lenses, it could cling to the image sensor and show up as a spot in photos. The DMC-GF1 helps eliminate this possibility by placing a Supersonic Wave Filter in front of the Live MOS sensor. Vibrating around 50,000 times per second, the filter repels dust and other particles. This keeps the image sensor clean at all times and eliminates the need for cumbersome maintenance procedures.



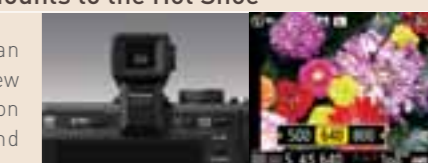
A Built-In Flash in a Stylish Body

The built-in flash is normally concealed inside the body and out of sight. A single touch pops the flash up for easy shooting anytime you want. You can also adjust the light intensity in the range of ±2 EV at 1/3 EV steps to match your subject.



An Optional Live View Finder Mounts to the Hot Shoe

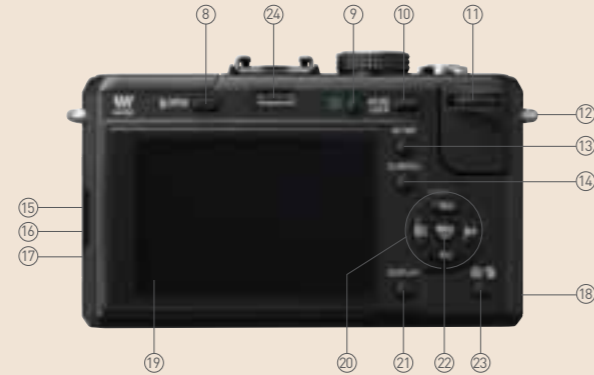
You can equip the DMC-GF1 with an optional 202,000-dot equivalent Live View Finder (LVF) featuring a magnification of approximately 1.04x (0.52x*) and 100% field of view. Because it displays the same information as the LCD, it is effectively used in situations where the LCD is difficult to see, such as under bright sunlight. The LVF is also handy for low-angle shots because it can be tilted vertically from 0 to 90 degrees. *35 mm camera equivalent.



DMC-GF1 Main Parts and Controls



- ① Self-timer indicator / AF assist lamp
- ② Sensor
- ③ Flash
- ④ Lens fitting mark
- ⑤ Mount
- ⑥ Lens lock pin
- ⑦ Lens release button
- ⑧ Flash open button
- ⑨ Playback button
- ⑩ [AF/AE LOCK] button
- ⑪ Rear dial
- ⑫ Shoulder strap eyelet



- ⑬ [AF/MF] button
- ⑭ [Q.MENU] button
- ⑮ [REMOTE] socket
- ⑯ [HDMI] socket
- ⑰ [AV OUT/DIGITAL] socket
- ⑱ DC cable cover
- ⑲ LCD monitor
- ⑳ Cursor buttons
- ㉑ / ISO
- ㉒ / AF mode
- ㉓ / Function button
- ㉔ / WB
- ㉕ [DISPLAY] button
- ㉖ [MENU/SET] button
- ㉗ Delete button
- ㉘ Preview button
- ㉙ [Live View Finder] socket
- ㉚ Speaker



- ㉔ Drive mode lever
- ㉕ Single
- ㉖ Burst
- ㉗ Auto Bracket
- ㉘ Self-timer
- ㉙ Shutter button
- ㉚ Hot shoe
- ㉛ Microphone
- ㉜ Mode dial
- ㉝ Camera ON/OFF switch
- ㉞ Status indicator
- ㉟ Motion picture button

Box Contents

[DMC-GF1C Kit]

- Body
- LUMIX G 20mm/F1.7 ASPH.
- Lens Cap
- Lens Rear Cap
- Lens Storage Bag
- Battery Charger/AC Adaptor
- Battery Pack
- Body Cap
- Hot Shoe Cover
- AV Cable
- USB Connection Cable
- AC Cable
- CD-ROM

[DMC-GF1K Kit]

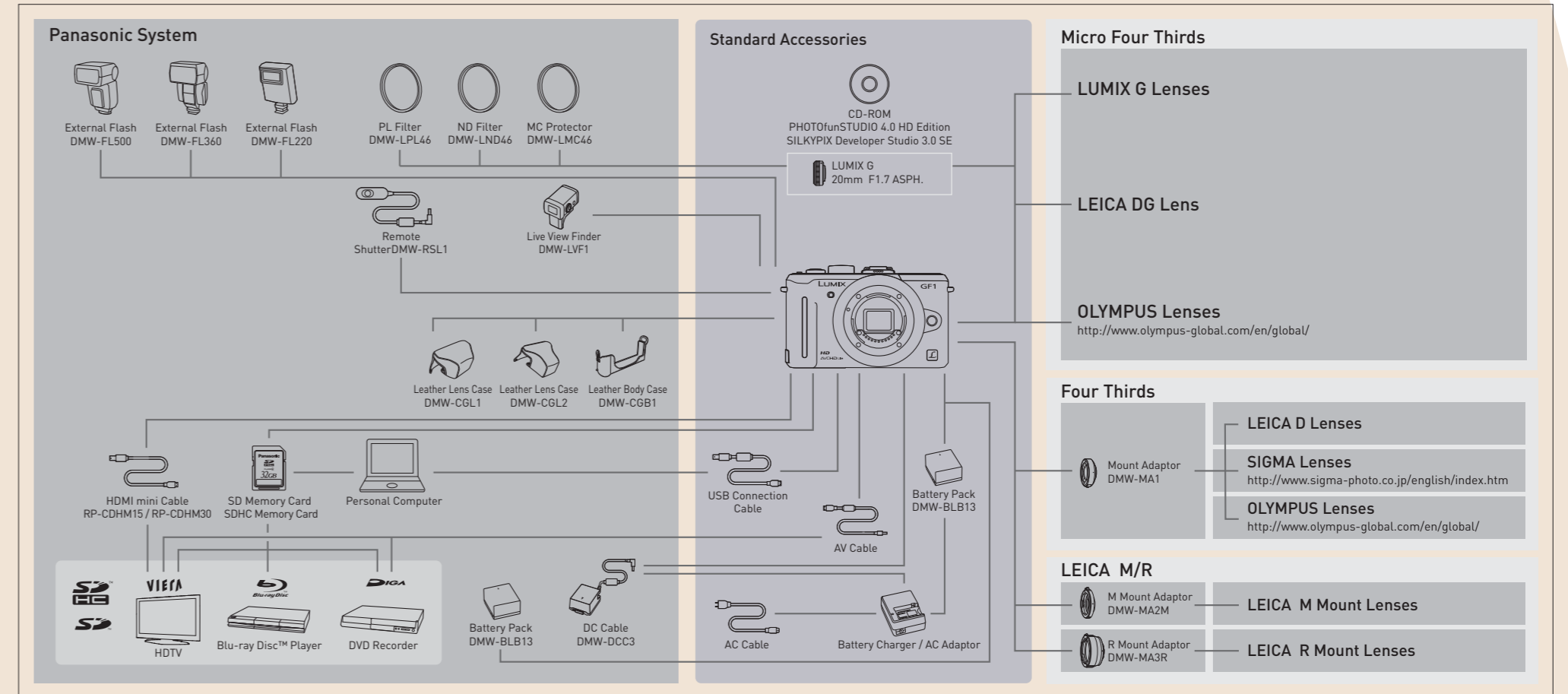
- Body
- LUMIX G VARIO 14-45mm/F3.5-5.6 ASPH./MEGA O.I.S.
- Lens Cap
- Lens Hood
- Lens Rear Cap
- Lens Storage Bag
- Battery Charger/AC Adaptor
- Battery Pack
- Body Cap
- Hot Shoe Cover
- AV Cable
- USB Connection Cable
- AC Cable
- CD-ROM

Battery Life When Recording HD Motion Pictures (Approx.)

	LUMIX G 20mm/F1.7 ASPH.	LUMIX G VARIO 14-45mm/F3.5-5.6 ASPH./MEGA O.I.S.
Continuous Recording Time	3 h 30 min	2 h 50 min
Actual Recording Time	1 h 50 min	1 h 40 min

•These are standard times taken at a temperature of 23°C (73.4°F) and a humidity of 50%. •The time available for recording varies depending on the environment, the interval between recordings, and the manner of use. •Actual recordable time is the time available for recording when repeating actions such as switching the power supply [ON]/[OFF], starting/stopping recording, zoom operation etc. •The length of recording time depends on the capacity of the SDHC/SD Memory Card. (Up to the equivalent of 2 GB per motion-picture recording.)

DMC-GF1 System Chart



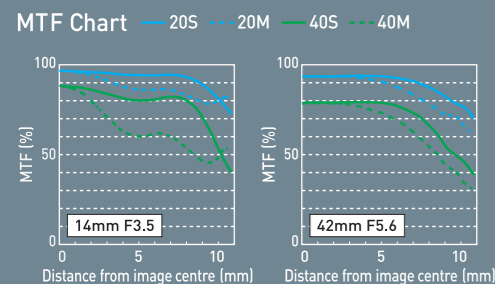
•Some functions of DMC-GF1 cannot be used when mounting the Four Thirds lenses with the Mount Adaptor DMW-MA1, the LEICA M or R lenses with the Mount Adaptor DMW-MA2M or DMW-MA3R. •Leica is a registered trademark of Leica Microsystems IR GmbH. •ELMARIT is a registered trademark of Leica Camera AG. •When a lens that does not support the Contrast AF function is mounted, operation will automatically switch to manual focus. •Confirm the operation information of compatible lenses at Customer Support <http://panasonic.jp/support/global/cs/dsc> (English). •For detailed information about the lenses made by SIGMA, OLYMPUS and LEICA, please see each company's website. •The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website: <http://panasonic.jp/support/global/cs/info/battery.html> •The SDHC Memory Card can be used only if the SDHC logo is indicated on the equipment or in the operation manual. It cannot be used with equipment that supports only the SD Memory Card.



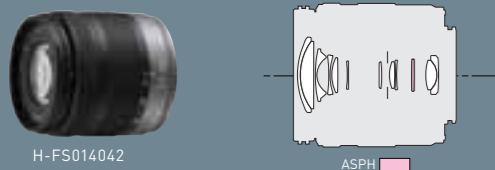
STANDARD ZOOM

LUMIX G VARIO 14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S.

This lens features built-in O.I.S. (Optical Image Stabiliser) and covers a focal distance of 28mm to 84mm (35mm camera equivalent). A multi-coating process on each lens minimises ghosts and flaring, so you capture clear, beautiful images in every shooting situation – from simple snapshots to family portraits to scenic landscape shots.

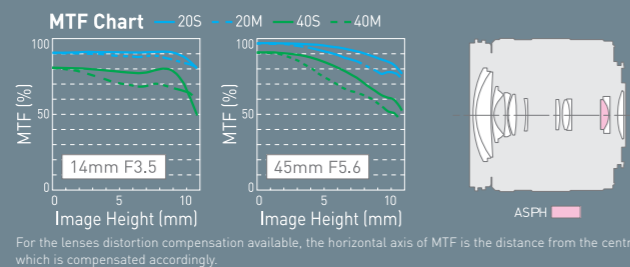


For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



LUMIX G VARIO 14-45mm/F3.5 - 5.6 ASPH./ MEGA O.I.S.

From casual snapshots to personal portraits to sweeping landscapes, this versatile zoom lens provides beautiful results in a wide range of shooting situations. It covers the standard focal range of 28 to 90 mm (35 mm equivalent). The aspheric lens element also improves optical performance by minimising distortion even at the 28 mm wide end.

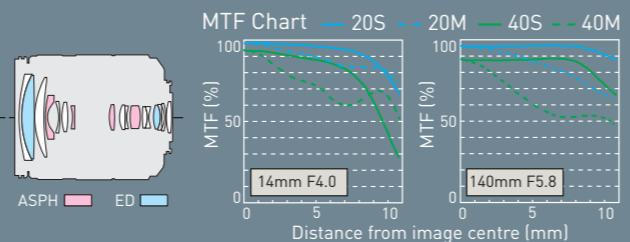


For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



LUMIX G VARIO HD 14-140mm/F4.0-5.8 ASPH./ MEGA O.I.S. for Outstanding HD Movies **HD**

This kit lens boasts a focal length of 28-280mm (35mm camera equivalent) and supports a continuous auto focus function that works for both photos and movies. The aperture adaptively adjusts to each scene, letting you capture the kind of delicate, softly focused movies that only a digital interchangeable lens camera can produce. Thanks to a silence design that helps suppress lens drive noise, the DMC-GH1 with its new kit lens records sounds with amazing clarity. This kit lens also incorporates MEGA O.I.S. (Optical Image Stabiliser) that helps eliminate blurring from hand-shake.



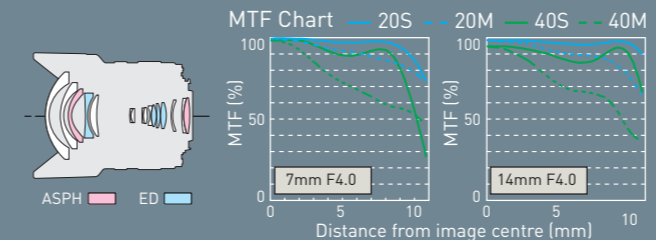
For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



WIDE

LUMIX G VARIO 7-14mm/F4.0 ASPH. with an Ultra Wide Angle Range in a Compact Size

In spite of its impressive wide-angle zoom range of 14-28mm (35mm camera equivalent), this lens is surprisingly compact and lightweight for casual on-the-go use. Taking advantage of its wide, 114-degree angle of view, you can easily fit subjects into the frame even when shooting indoors where the distance is limited. The world looks extraordinary when viewed through the new lens, allowing photos and movies to be recorded with a uniquely rich perspective.



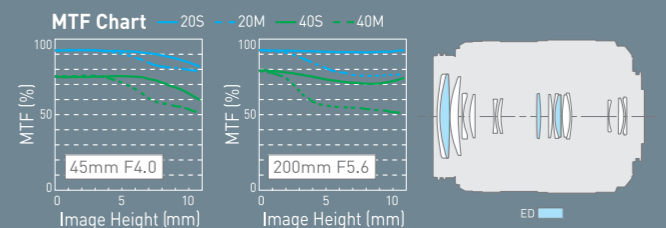
For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



TELEPHOTO

LUMIX G VARIO 45-200mm/F4.0 - 5.6/ MEGA O.I.S.

Covering from 90 to 400 mm (35 mm equivalent), this telephoto zoom lens lets you capture crisp, blur-free shots when shooting sports events and other distant subjects while achieving minimum aberration at all focal length, high-contrast representation and high colour reproduction by implementing 3 ED (extra-low-dispersion) lens elements.



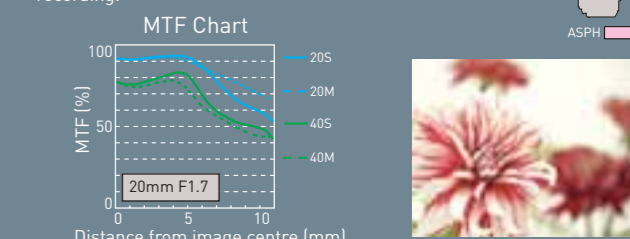
For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



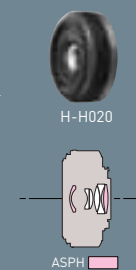
SINGLE FOCAL LENGTH

Ultra-Portable Pancake Lens: LUMIX G 20mm/F1.7 ASPH.

This bright F1.7/20mm (35mm camera equivalent: 40mm) fixed focus lens produces bright photos with a dramatic soft focus even in dimly lit locations. Its compact, easy-to-carry size is also ideal for capturing everyday scenes and snapshots. *This lens uses a lens drive system to enable a compact and bright F1.7. As a result of this, operating sounds are recorded when auto-focusing during motion picture recording.



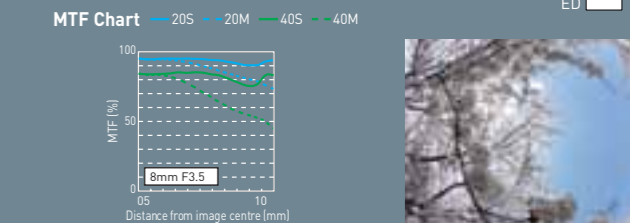
For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



FISHEYE

LUMIX G FISHEYE 8mm/F3.5

The world's smallest and lightest* digital interchangeable fisheye lens, has a focal distance of 16mm (35mm equivalent) and offers a 180° diagonal angle of view, for a distinctive perspective and unique distortion effect. Comprising of 10 lenses in 9 groups, the new lens system is amazingly compact. *For a digital interchangeable fisheye lens as of June 1, 2010.



For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



Use Leica and Four Thirds Lenses

By mounting a separately purchased lens adaptor to the DMC-G2, any of more than 20 available Leica M/R lenses or 30 Four Thirds lenses can be used with the Micro Four Thirds System standard DMC-G2. Even Four Thirds lenses that do not support Contrast AF can be used, with auto focus (AFS only) operation.*
*Please confirm the operation information of compatible lenses at Customer Support <http://panasonic.jp/support/global/cs/dsc>

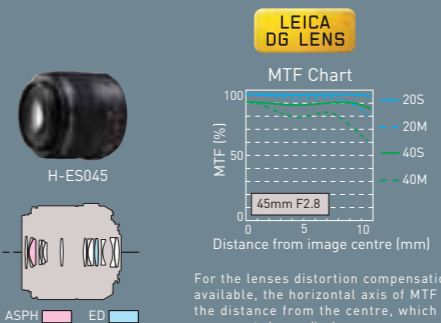


•LEICA is a registered trademark of Leica Microsystems IR GmbH. ELMARIT is a registered trademark of Leica Camera AG. The LEICA DG lenses are manufactured using measurement instruments and quality assurance systems that have been certified by Leica Camera AG based on the company's quality standards. •Four Thirds™ and Micro Four Thirds™, and Four Thirds and Micro Four Thirds Logo marks are trademarks or registered trademarks of Olympus Imaging Corporation, in Japan, the United States, the European Union and other countries.

MACRO

LEICA DG MACRO-ELMARIT 45mm/F2.8 ASPH./MEGA O.I.S.

This F2.8 45mm (35mm camera equivalent: 90mm) macro lens with built-in Optical Image Stabiliser lets you take close-ups that capture your subjects in their actual size (35mm camera equivalent: approx. 2x). It also greatly boosts mobility by serving as a medium-length telephoto lens for portraits, telephoto snapshots and landscapes.



For the lenses distortion compensation available, the horizontal axis of MTF is the distance from the centre, which is compensated accordingly.



Optional Accessories - All Models

<p>Mount Adaptor</p> <p>DMW-MA1 DMW-MA2M DMW-MA3R</p>	<p>PL Filter</p> <p>DMW-LPL46 DMW-LPL52 DMW-LPL62</p>	<p>ND Filter</p> <p>DMW-LND46 DMW-LND52 DMW-LND62</p>	<p>MC Protector</p> <p>DMW-LMC46 DMW-LMC52 DMW-LMC62</p>	<p>External Flash</p> <p>DMW-FL220 DMW-FL360 DMW-FL500</p>	<p>SD / SDHC Memory Card</p> <p>High Speed Super High Speed</p> <p>32 GB*: RP-SDQ32G 16 GB*: RP-SDW16G 24 GB*: RP-SDQ24G 8 GB*: RP-SDW08G 16 GB*: RP-SDP16G 4 GB*: RP-SDW04G 8 GB*: RP-SDP08G 4 GB*: RP-SDP04G 2 GB*: RP-SDP02G</p> <p>*1 GB = 1 billion bytes. Usable capacity will be less.</p>
<p>Remote Shutter</p> <p>DMW-RSL1</p>	<p>Battery Pack</p> <p>DMW-BLB13</p>	<p>HDMI mini Cable</p> <p>RP-CDHM15 (1.5 m) RP-CDHM30 (3.0 m)</p>			

•For more details on the optional accessories that are available please go to www.panasonic.com.au

Number of Recordable Still Pictures (Approx.)

Aspect ratio	4:3													
Picture size	L :4000 x 3000 pixels (12 million pixels)				M :2816 x 2112 pixels (5.9 million pixels)				S :2048 x 1536 pixels (3.1 million pixels)					
Quality	S		M		L		S		M		L			
Card	8GB	1168	2315	371	440	2097	4092	432	480	4911	9445	490	514	544
	12GB	1762	3493	559	664	3165	6173	651	724	7408	14248	739	776	821
	16GB	2351	4660	747	886	4222	8235	869	966	9882	19006	986	1035	1095
	32GB	4719	9350	1499	1779	8471	16520	1744	1939	19825	38127	1978	2078	2198

Aspect ratio	3:2													
Picture size	L :4128 x 2752 pixels (11.4 million pixels)				M :2928 x 1952 pixels (5.7 million pixels)				S :2064 x 1376 pixels (2.8 million pixels)					
Quality	S		M		L		S		M		L			
Card	8GB	1208	2383	391	465	2097	4092	453	507	5338	10233	522	548	579
	12GB	1823	3595	590	702	3165	6173	684	765	8052	15435	788	826	873
	16GB	2433	4796	787	937	4222	8235	913	1020	10742	20590	1051	1102	1165
	32GB	4881	9623	1580	1880	8471	16520	1832	2047	21549	41304	2109	2212	2338

Aspect ratio	16:9													
Picture size	L :4352 x 2448 pixels (10.7 million pixels)				M :3072 x 1728 pixels (5.3 million pixels)				S :1920 x 1080 pixels (2.1 million pixels)					
Quality	S		M		L		S		M		L			
Card	8GB	1245	2454	413	494	2134	4161	480	539	7222	13644	571	593	620
	12GB	1879	3703	624	746	3220	6278	724	814	10895	20581	861	894	935
	16GB	2507	4940	832	996	4295	8374	966	1085	14534	27454	1149	1193	1247
	32GB	5030	9911	1671	1998	8618	16800	1939	2178	29155	55073	2305	2394	2503

Aspect ratio	1x1													
Picture size	L :2992 x 2992 pixels (9.0 million pixels)				M :2112 x 2112 pixels (4.5 million pixels)				S :1504 x 1504 pixels (2.3 million pixels)					
Quality	S		M		L		S		M		L			
Card	8GB	1563	3068	482	568	3507	6821	581	632	6637	12280	631	660	697
	12GB	2358	4629	727	857	5291	10290	877	954	10011	18523	952	995	1052
	16GB	3146	6176	970	1143	7058	13726	1170	1273	13355	24708	1270	1328	1403
	32GB	6312	12390	1947	2294	14160	27535	2348	2554	26791	49565	2548	2664	2816

DMC-G2 / DMC-G10 Specifications

		DMC-G2	DMC-G10	
TYPE	Type	Digital interchangeable lens system camera		
	Recording media	SD Memory card, SDHC Memory card, SDXC Memory card		
IMAGE SENSOR	Image sensor size	17.3 x 13.0 mm (in 4:3 aspect ratio)		
	Lens mount	Micro Four Thirds mount		
	Type	Live MOS Sensor		
	Total pixels	12.1 Megapixels		
	Camera effective pixels	12.1 Megapixels		
	Colour filter	Primary colour filter		
	Dust reduction system	Supersonic wave filter		
	Recording file format	Still Image: JPEG (DCF, Exif 2.21), RAW, DPOF compatible Still Image with Audio: JPEG (DCF, Exif 2.21) + QuickTime		
	Aspect ratio	4:3, 3:2, 16:9, 1:1		
	Image quality	RAW, RAW+Fine, RAW+Standard, Fine, Standard		
RECORDING SYSTEM	Colour space	sRGB, Adobe RGB		
	Still Image	[4:3] 4000 x 3000 (L), 2816 x 2112 (M), 2048 x 1536 (S)		
	File size (Pixels)	Motion Image	AVCHD	[3:2] 4000 x 2672 (L), 2816 x 1880 (M), 2048 x 1360 (S) [16:9] 4000 x 2248 (L), 2816 x 1584 (M), 1920 x 1080 (S)
			NTSC	[4:3] VGA: 640 x 480, 30fps / QVGA: 320 x 240, 30fps
			PAL	[4:3] VGA: 640 x 480, 30fps / QVGA: 320 x 240, 30fps
	Continuous recordable time (Motion images)	AVCHD Lite with picture quality set to [SH]: Approx. 180 min with H-FS014042 / Approx. 160 min with H-FS045200	-	
		Motion JPEG with picture quality set to [HD]: Approx. 180 min with H-FS014042 / Approx. 160 min with H-FS045200	-	
	Actual recordable time (Motion images)	AVCHD Lite with picture quality set to [SH]: Approx. 100 min with H-FS014042 / Approx. 90 min with H-FS045200	-	
	VIEWFINDER	Type	Live View Finder (1,440,000 dots equivalent)	
		Field of view	Approx. 100%	
FOCUS	Magnification	Approx. 1.4x / 0.7x (35mm camera equivalent) with 50mm lens at infinity, -1.0 m ⁻¹	Approx. 1.04x / 0.52x (35mm camera equivalent) with 50mm lens at infinity, -1.0 m ⁻¹	
	Eye point	Approx. 17.5mm from eyepiece		
EXPOSURE CONTROL	Eye point adjustment	-4.0 ~ +4.0 m ⁻¹		
	Auto eye sensor	Yes		
	Type	Contrast AF system		
	Focus mode	AFS / AFC / MF		
	AF mode	Face detection / AF Tracking / 23-area-focusing / 1-area-focusing		
	AF detectable range	EV 0-18 (F3.5 lens, ISO 100)		
	AF assist lamp	YES		
	AF lock	AF/AE LOCK button or Shutter button halfway pressed in AFS mode		
	Others	Touch shutter, Pre AF (Quick AF / Continuous AF), Touch MF Assist (5x, 10x), MF Assist (5x, 10x)		
	Light metering system	144-zone multi-pattern sensing system		
WHITE BALANCE	Light metering mode	Intelligent Multiple / Centre Weighted / Spot		
	Metering range	EV 0-18 (F2.0 lens, ISO 100)		
	Exposure mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual		
	ISO sensitivity (Standard Output Sensitivity)	Auto / 100 / 200 / 400 / 800 / 1600 / 3200 / 6400 / Intelligent ISO		
	Exposure compensation	1/3EV Step ±3EV		
	AE lock	AF / AE LOCK button or Shutter button halfway pressed		
	AE bracket	3.5, 7 frame, in 1/3 or 2/3 EV Step, ±2 EV		
	White balance	Auto / Daylight / Cloudy / Shade / Halogen / Flash / White Set 1 / 2 / Colour temperature setting		
	White balance adjustment	Blue / amber bias, Magenta / green bias		
	Colour temperature setting	2500-10000K in 100K		
SHUTTER	White balance bracket	3 exposures in blue / amber axis or in magenta / green axis		
	Type	Focal-plane shutter		
	Shutter speed	Still Images: 1/4000 - 60 and Bulb (up to approx. 4 minutes)		
	Self timer	2 sec / 10 sec / 10 sec 3 images		
	Remote control	Remote control with bulb function by DMW-RSL1 (Optional)		
	Still Image SCN mode	Portrait (Normal / Soft Skin / Outdoor / Indoor / Creative) / Scenery (Normal / Nature / Architecture / Creative) / Sports (Normal / Outdoor / Indoor / Creative) / Close-up (Flower / Food / Objects / Creative) / Night Portrait (Night Portrait / Night Scenery / Illuminations / Creative) / SCN (Sunset / Party / Baby 1 / 2 / Pet / Peripheral Defocus)		
	Portrait (Normal / Soft Skin) / Scenery (Normal / Nature / Architecture / Creative) / Close-up (Flower / Food / Objects / Creative) / Low-light / SCN (Sunset/Party/Portrait)	Portrait (Normal / Soft Skin) / Scenery (Normal / Nature / Architecture / Creative) / Close-up (Flower / Food / Objects / Creative) / Low-light / SCN (Sunset/Party/Portrait)		
	Movie SCN mode	-		
	Movie SCN mode	-		

		DMC-G2	DMC-G10
MY COLOUR MODE	My Colour Mode	[Still Image & Movie] Expressive / Retro / Pure / Elegant / Monochrome / Dynamic Art / Silhouette / Custom (Colour / Brightness / Saturation / adjustable)	
	BURST SHOOTING	[Still Image only] Expressive / Retro / Pure / Elegant / Monochrome / Dynamic Art / Silhouette Custom (Colour / Brightness / Saturation / adjustable)	
BUILT-IN-FLASH	Burst speed	7 images (when there are RAW files with the particular speed) Unlimited consecutive shooting (when there are no RAW files)	
	Number of recordable images	[Depending on memory card size, battery power, picture size, and compression]	
LCD MONITOR	Type	TTL Built-in-Flash, (GN1) equivalent (ISO 100/m), Built-in Pop-up	
	Flash mode	Auto, Auto / Red-eye Reduction, Forced On, Forced Off / Red-eye Reduction, Slow Sync., Slow Sync. / Red-eye Reduction, Forced Off	
	Synchronisation speed	Less than 1/160 second	
	Flash output adjustment	1/3EV Step ±2EV	
	Flash synchronisation	1st. Curtain Sync, 2nd Curtain Sync.	
	Hot shoe	TTL Auto with FL220 / FL360 / FL500 (Optional)	
	Type	Low temperature Polycrystalline TFT LCD with Touch panel	
	Monitor size	Free-angle 3.0 inch / 3:2 Aspect / Wide viewing angle	
	Pixels	460K dots	
	Field of view	Approx. 100%	
Monitor adjustment	Brightness [7 levels], Colour [7 levels]		
LCD mode	Off / Auto Power LCD / Power LCD		
LIVE VIEW	Digital zoom	2x, 4x	
	Extra optical zoom	Still image: Max. 2x (Not effective with L size recording. Magnification ratio depends on the recording pixels and aspect ratio.) Motion image: 3.1x (SH / H / L in AVCHD Lite and HD / WVGA in Motion JPEG), 4.2x (VGA / QVGA in Motion JPEG)	Still image: Max. 2x (Not effective with L size recording. Magnification ratio depends on the recording pixels and aspect ratio.) Motion image: 3.1x (HD / WVGA), 4.2x (VGA / QVGA)
FILM MODE	Other functions	Guide Lines (3 patterns) Real-time Histogram	
	Colour	Standard / Dynamic / Nature / Smooth	
PLAYBACK	Black and white	Standard / Dynamic / Smooth	
	Others	My Film / My Film2 / Multi Film	
IMAGE PROTECTION / ERASE	Protection	Single / Multi or Cancel	
	Erase	Single / Multi / All / Except Favorite	
PRINT	Direct print	PictBridge compatible (Print size, Layout, Date setting is selectable)	
	USB	USB 2.0 High Speed	
INTERFACE	HDMI	miniHDMI TypeC Video: Auto / 1080i / 720p / 480p / 576p in PAL system Audio: Stereo / Monaural	miniHDMI TypeC Video: Auto / 1080i / 720p / 480p / 576p in PAL system Audio: Monaural
	Audio video output	*Check the website of the Panasonic sales company in your country or region for details on the products that are available in your market.	
LANGUAGE	Remote / External microphone input	Ø2.5mm stereo mini jack	
	Built-in microphone	Monaural, Wind-cut: Off / Low / Standard / High	
POWER	Speaker	YES	
	Battery	English, German, French, Italian, Spanish, Polish, Czech, Hungarian, Russian, Chinese (Traditional, Chinese (Simplified), Dutch, Thai, Korean, Turkish, Portuguese, Arabic, Persian, Japanese, Swedish, Danish, Finnish *Check the website of the Panasonic sales company in your country or region for details on the OSD languages on the products that are available in your market.	English, German, French, Italian, Spanish, Polish, Czech, Hungarian, Russian, Chinese (Traditional, Chinese (Simplified), Dutch, Thai, Korean, Turkish, Portuguese, Arabic, Persian, Japanese, Swedish, Danish, Finnish *Check the website of the Panasonic sales company in your country or region for details on the OSD languages on the products that are available in your market.
DIMENSIONS / WEIGHT	Battery life (CIPA standard*)	Approx. 360 images (LCD), Approx. 390 images (LVF) with H-FS014042 Approx. 340 images (LCD), Approx. 370 images (LVF) with H-FS045200	Approx. 380 images (LCD), Approx. 410 images (LVF) with H-FS014042 Approx. 350 images (LCD), Approx. 380 images (LVF) with H-FS045200
	Dimensions (W x H x D)	124 x 83.6 x 74 mm / 4.89 x 3.29 x 2.91 in (excluding protrusions)	124 x 83.6 x 74 mm / 4.89 x 3.29 x 2.91 in (excluding protrusions)
OPERATING ENVIRONMENT	Shutter speed	Approx. 593 g / 20.92 oz (SD card, Battery, 14-42 mm lens included) Approx. 810 g / 28.57 oz (SD card, Battery, 45-200 mm lens included) Approx. 371 g / 13.09 oz (Body only)	
	Weight	Approx. 558 g / 19.68 oz (SD card, Battery, 14-42 mm lens included) Approx. 775 g / 27.33 oz (SD card, Battery, 45-200 mm lens included) Approx. 336 g / 11.85 oz (Body only)	
STANDARD ACCESSORIES	Operating temperature	0°C to 40°C (32°F to 104°F)	
	Operating humidity	10% to 80%	
SOFTWARE	Operating temperature	0°C to 40°C (32°F to 104°F)	
	Operating humidity	10% to 80%	
Standard accessories	Software	PHOTOunSTUDIO 5.0 HD Edition PHOTOunSTUDIO 5.0 Developer Studio 3.1 SE QuickTime™ USB Driver	
	Battery	Battery Charger/AC Adaptor, Battery Pack, Body Cap, AV Cable, USB Connection Cable, AC Cable, Shoulder Strap, Stylus pen, CD-ROM	Battery Charger/AC Adaptor, Battery Pack, Body Cap, AV Cable, USB Connection Cable, AC Cable, Shoulder Strap, CD-ROM

LUMIX G VARIO 14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S. Specifications

Lens Construction	12 elements in 9 groups (1 Aspherical lens)
Mount	Micro Four Thirds mount
Digital Image Stabiliser	Yes
Focal Length	14.1mm to 42mm (35mm camera equivalent 28mm to 84mm)
Aperture Type	7 diaphragm blades / Circular aperture diaphragm
Aperture	F3.5 (Wide) - F5.6 (Tele)
Minimum Aperture	F22
Closest Focusing Distance	0.3 m / 1 ft
Maximum Magnification	Approx. 0.16x / 0.32x (35mm camera equivalent)
Diagonal Angle of View	75° (W) - 29° (T)
Filter Size	Ø52mm / 2.05 in
Max. Diameter	Ø60.6mm / 2.39 in
Overall Length	Approx. 63.6mm / 2.50 in (from the tip of the lens to the base side of the lens mount)
Weight	Approx. 165 g / 5.82 oz
Standard Accessories	Lens Cap, Lens Hood, Lens Rear Cap, Lens Storage Bag

Battery Life When Recording HD Motion Pictures (Approx.) DMC-G2

	AVCHD (SH mode) / Motion JPEG (HD mode)	LUMIX G VARIO 14-42mm / F3.5-5.6 ASPH. / MEGA O.I.S.	LUMIX G VARIO 45-200mm / F4.0-5.6 / MEGA O.I.S.
Continuous Recording Time		3h	2 h 40 min
Actual Recording Time		1 h 40 min	1 h 30 min

*These are standard times taken at a temperature of 23°C (73.4°F) and a humidity of 50%. *The time available for recording varies depending on the environment, the interval between recordings, and the manner of use. *Actual recordable time is the time available for recording when repeating actions such as switching the power supply (ON/OFF), starting/stopping recording, zoom operation etc. *The length of recording time depends on the capacity of the SDXC/SDHC/SD Memory Card. (Up to the equivalent of 2 GB per motion-picture recording.)

Partial restrictions on using Panasonic digital video cameras to play AVCHD Lite motion images recorded with the G2. *AVCHD Lite motion images recorded with the image quality set to SH/H/L mode (1280 x 720) cannot be played on AVCHD-compatible digital video cameras. *AVCHD motion images recorded with AVCHD-compatible digital video cameras cannot be played on the G2. *More detailed information is available on our support site: <http://panasonic.jp/support/global/cs/dsc>

*Shooting conditions: 23°C with 50% humidity; LCD on; Using a Panasonic SD Memory Card (S12MB). Using the supplied battery; Using the supplied lens; Starting recording 30 seconds after the camera is turned on [When the optical image stabiliser is set to [Mode]]; Recording once every 30 seconds with full fill ash every second recording; Turning the camera off every 10 recordings; The number of recordable images decreases in Auto Power LCD mode or Power LCD mode. CIPA is an abbreviation of "Camera & Imaging Products Association".

*About the performance of Face Recognition function
Recognition performance varies greatly depending on shooting conditions, i.e., according to factors such as angles, facial expression and lighting, so operation under all conditions cannot be guaranteed. Because the camera searches for faces that are similar to registered faces, there are cases where the faces are not correctly recognised when the registered image and the shooting image varies much. When facial characteristics are similar, particularly between parents and their children or brothers and sisters, the camera may not distinguish the faces.

*AVCHD Lite motion images recorded onto an SD Memory Card or a DVD disc cannot be played from a device that does not support the AVCHD standard. *The "AVCHD Lite" and "AVCHD Lite" logos are trademarks of Panasonic Corporation and Sony Corporation. AVCHD is a high-definition (HD) digital video recording / playback format jointly established by Panasonic Corporation and Sony Corporation. AVCHD Lite is a subset of the AVCHD format for HD digital video cameras with HD video recording restricted to 720P. The new "AVCHD Lite" logo and the "AVCHD Lite" license are restricted to devices within the AVCHD Video Camera category. Digital camera models added to the AVCHD Video Camera category. For more details, please refer to the "AVCHD Information Website" <http://www.avchd-info.org/>. *The release date may differ depending on the country. Check the website of the Panasonic sales company in your country or region for details on the optional accessories that are available in your market. *The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. *Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. *Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. *Please confirm the latest information about batteries on the following website. <http://panasonic.co.jp/pacv/global/cs/info/battery.html>

*When a lens that does not support the Contrast AF function is mounted, operation will automatically switch to manual focus. Confirm the operation information of compatible lenses at Customer support <http://panasonic.jp/support/global/cs/dsc/>. *The SDXC/SDHC Memory Card can be used only if their logos are indicated on the equipment or in the operation manual. It cannot be used with equipment that supports only the SD Memory Card. *Dolby and the double-D symbol are trademarks of Dolby Laboratories. *HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. *Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. *Apple® and Mac OS® are either registered trademarks or trademarks of Apple Inc. in the United States and/or other countries. *QuickTime and the QuickTime logo are trademarks or registered trademarks of Apple Inc., used under license therefrom. *Other names of systems and products mentioned in this brochure are generally the registered trademarks or trademarks of the manufacturers who developed the system or product concerned. *Some accessories are not available in some countries. *Weight and dimensions shown are approximate. *Design, functions, and specifications are subject to change without notice. *Overall length of lens is from the tip of the lens to the base side of the lens mount. *Some functions may not work when lens other than the included lens are used. Please refer to Panasonic's website etc., for the latest information. *Availability of colours and OSD languages may vary depending on the sales area. *Some sample images are simulated. *The use of recorded or printed materials that are protected by copyright for any purpose other than personal enjoyment is prohibited, as it would infringe upon the rights of the copyright holder.

Specifications of DMC-GH1 (Body)

TYPE	Type	Digital interchangeable lens system camera	
	Recording media	SD memory card, SDHC memory card	
IMAGE SENSOR	Image sensor size	17.3 x 13.0 mm (in 4:3 aspect ratio)	
	Lens mount	Micro Four Thirds mount	
	Type	Live MOS Sensor	
	Total pixels	14.0 Megapixels	
	Camera effective pixels	12.1 Megapixels	
	Colour filter	Primary colour filter	
RECORDING SYSTEM	Dust reduction system	Supersonic wave filter	
	Recording file format	Still Image: JPEG (DCF, Exif 2.21), RAW, DPOF compatible Still Image with Audio: JPEG (DCF, Exif 2.21) + QuickTime	
	Aspect ratio	Motion Image: AVCHD / QuickTime Motion JPEG 4:3, 3:2, 16:9, 1:1 [Multi-aspect recording except 1:1]	
	Image quality	RAW, RAW+Fine, RAW+Standard, Fine, Standard	
	Colour space	sRGB, Adobe RGB	
	Still Image	File size (Pixels)	Motion Image
VIEWFINDER	Type	Live View Finder (1,440,000 dots equivalent)	
	Field of view	Approx. 100%	
	Magnification	Approx. 1.4x / 0.7x (35 mm camera equivalent) with 50 mm lens at infinity, 1.0 m ⁻¹	
	Eye point	Approx. 17.5 mm from eyepiece lens	
	Dioptric adjustment	-4.0 ~ +4.0 m ⁻¹	
	FOCUS	Type	Contrast AF system
Focus mode		AFS / AFC / AF-C	
AF mode		Face detection / AF Tracking / Z/area-focusing / 1-area-focusing	
AF detectable range		EV 0-18 (F3.5 lens, ISO 100)	
AF assist lamp		YES	
AF lock		AF/AE LOCK button or Shutter button halfway pressed in AFs mode	
EXPOSURE CONTROL	Light metering system	Intelligent Multiple / Centre Weighted / Spot	
	Light metering mode	Intelligent Multiple / Centre Weighted / Spot	
	Exposure mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	
	ISO sensitivity (Standard Output Sensitivity)	Auto / 100 / 200 / 400 / 800 / 1600 / 3200 / Intelligent ISO	
	Exposure compensation	1/3 EV Step ±3 EV	
	AE lock	AF/AE LOCK button or Shutter button halfway pressed	
WHITE BALANCE	White balance	Auto / Daylight / Cloudy / Shade / Halogen / Flash / White Set 1, 2 / Colour temperature setting	
	White balance adjustment	Blue/amber bias, Magenta/green bias	
	White balance bracket	3 exposures in blue/amber axis or in magenta/green axis	
SHUTTER	Type	Focal-plane shutter	
	Shutter speed	Still Images: 1/4000 ~ 40 and Bulb (up to approx. 4 minutes)	
	Self timer	2 sec / 10 sec / 10 sec, 3 images	
SCENE MODE	Still Image SCN mode	Portrait (Normal/Soft Skin/Outdoor/Indoor/Creative) / Scenery (Normal/Nature/Architecture/Creative) / Sports (Normal/Outdoor/Indoor/Creative) / Close-up (Flower/Food/Objects/Creative) / Night Portrait (Night Portrait/Night Scenery/Illuminations/Creative) / SCN (Sunset/Party/Baby, 1, 2/Pet)	
	Movie SCN mode	Portrait / Scenery / Sports / Low Light / Close-up (Flower/Food/Objects/Macro) / SCN (Sunset/Party/Portrait) [Activated by selecting Still Image SCN mode then pressing Movie Button. Still Image SCN modes without corresponding Movie SCN mode is recorded in Normal mode.]	

•About the performance of Face Recognition function

Recognition performance varies greatly depending on shooting conditions, i.e., according to factors such as angles, facial expression and lighting, so operation under all conditions cannot be guaranteed. Because the camera searches for faces that are similar to registered faces, there are cases where the faces are not correctly recognised when the registered image and the shooting image varies much. When facial characteristics are similar, particularly between parents and their children or brothers and sisters, the camera may not distinguish the faces.

- “AVCHD” and the “AVCHD” logo are trademarks of Panasonic Corporation and Sony Corporation. •AVCHD is a new standard for recording HD signals onto memory cards, DVD discs, and hard disks. It uses the H.264 standard to achieve more than twice the compression of conventional MPEG-2 and MPEG-4 standards. •AVCHD motion images recorded onto an SD Memory Card or a DVD disc cannot be played from a device that does not support the AVCHD standard. •Do not insert a disc containing AVCHD-recorded images into a device that does not support the AVCHD standard. The disc cannot be played on such a device, and it may not be possible to remove the disc once inserted.
- The release date may differ depending on the country. Check the website of the Panasonic sales company in your country or region for details on the optional accessories that are available in your market. •The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.co.jp/pavc/global/cs/info/battery.html>
- PHOTOfunSTUDIO 3.1 HD Edition: Requires Microsoft® Windows® 2000/XP or Vista®. •SILKYPIX® Developer Studio 3.0 SE: Requires Microsoft® Windows® Me/2000/XP or Vista® [Only a systems administrator with authority can install software on a Windows® XP or 2000, or Apple® Mac OS® X v10.2 or later (Version 10.3 or later is recommended)]. •Four Thirds™ and Micro Four Thirds™ and Micro Four Thirds and Micro Four Thirds Imaging Corporation, in Japan, the United Kingdom and other countries. •Leica is a registered trademark of Leica Microsystems IR GmbH. •Dolby and the double-D symbol are trademarks of Dolby Laboratories. •HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. •Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. •Apple® and Mac OS® are either registered trademarks or trademarks of Apple Inc. in the United States and/or other countries. •QuickTime and the QuickTime logo are trademarks or registered trademarks of Apple Inc., used under license therefrom. •Other names of systems and products mentioned in this brochure are generally the registered trademarks or trademarks of the manufacturers who developed the system or product concerned. •Some accessories are not available in some countries. •Weight and dimensions shown are approximate. •Design, functions, and specifications are subject to change without notice. •Overall length of lens is from the tip of the lens to the base side of the lens mount. •Some functions may not work when lenses other than the included lens are used. Please refer to Panasonic's website etc., for the latest information. •Availability of colours and OSD languages may vary depending on the sales area. •Some sample images are simulated. •The use of recorded or printed materials that are protected by copyright for any purpose other than personal enjoyment is prohibited, as it would infringe upon the rights of the copyright holder.

Specifications of LUMIX G Lenses

LUMIX G VARIO HD 14-140mm / F4.0-5.8 ASPH. / MEGA O.I.S.
(35mm camera equivalent: 28 - 280 mm)

Lens Construction	17 elements in 13 groups (4 Aspherical lenses, 2 ED lenses)
Mount	Micro Four Thirds mount
Optical Image Stabiliser	YES
Focal Length	14 mm to 140 mm (35 mm camera equivalent 28 mm to 280 mm)
Aperture Type	7 diaphragm blades / Circular aperture diaphragm
Aperture	F4.0 (Wide) - F5.8 (Tele)
Minimum Aperture	F22
Closest Focusing Distance	0.50 m / 1.64 ft at all focal lengths
Maximum magnification	Approx. 0.2x / 0.4x (35 mm camera equivalent)
Diagonal Angle of View	75° (W) ~ 8.9° (T)
Filter Size	Ø62 mm / 2.44 in
Max. Diameter	Ø70 mm / 2.76 in
Overall Length	Approx. 86 mm / 3.31 in (from the tip of the lens to the base side of the lens mount)
Weight	Approx. 440g / 1.6 23oz
Standard Accessories	Lens Cap, Lens Hood, Lens Rear Cap, Lens Storage Bag

LUMIX G VARIO 7-16mm / F4.0 ASPH.

(35mm camera equivalent: 14 - 28 mm)

Lens Construction	16 elements in 12 groups (2 Aspherical lenses, 4 ED lenses)
Mount	Micro Four Thirds mount
Optical Image Stabiliser	NO
Focal Length	7 mm to 16 mm (35 mm camera equivalent 14 mm to 28 mm)
Aperture Type	7 diaphragm blades / Circular aperture diaphragm
Aperture	F4.0
Minimum Aperture	F22
Closest Focusing Distance	0.25 m / 0.8 ft at all focal lengths
Maximum magnification	Approx. 0.08x / 0.15x (35 mm camera equivalent)
Diagonal Angle of View	114° (W) - 75° (T)
Filter Size	-
Max. Diameter	Ø70mm / 2.76 in
Overall Length	Approx. 83.1 mm / 3.27 in (from top of the lens hood to the base side of the lens mount)
Weight	Approx. 300 g / 10.58 oz
Standard Accessory	Lens Cap, Lens Rear Cap, Lens Storage Bag

Battery Life When Recording HD Motion Pictures (Approx.) DMC-GH1

Continuous Recording Time	2 h	2 h
Actual Recording Time	1 h 30 min	1 h 35 min

•Partial restrictions on using Panasonic digital video cameras to play AVCHD motion images recorded with the DMC-GH1.
 •AVCHD motion images recorded with the image quality set to Full-HD mode (1920 × 1080, 17 Mbps) can be played on digital video cameras equipped with HA mode (1920 × 1080, 17 Mbps) which were sold in 2008 or later.
 •AVCHD motion images recorded with the image quality set to SH/H/L mode (1280 × 720) cannot be played on AVCHD-compatible digital video cameras.
 •AVCHD motion images recorded with AVCHD-compatible digital video cameras cannot be played on the DMC-GH1.
 •More detailed information is available on our support site: <http://panasonic.jp/support/global/cs/dsc>

•Partial restrictions on using Panasonic digital still cameras to play AVCHD motion images recorded with the DMC-GH1.
 •AVCHD motion images recorded with the image quality set to Full-HD mode (1920 × 1080, 17 Mbps) cannot be played on AVCHD Lite-compatible digital still cameras.
 •AVCHD motion images recorded with the image quality set to SH/H/L mode (1280 × 720) can be played on AVCHD-Lite compatible digital cameras.
 •For this application, AVCHD Lite-compatible digital still cameras must be upgraded to the latest firmware version. Information on the latest firmware version is available at Customer Support: <http://panasonic.jp/support/global/cs/dsc>

*Shooting conditions: 23°C with 50% humidity; LCD on; Using a Panasonic SD Memory Card (LS12MB); Using the supplied battery; Using the supplied lens; Starting recording 30 seconds after the camera is turned on/When the optical image stabilizer is set to [Mode1]; Recording once every 30 seconds with full fl ash every second recording; Turning the camera off every 10 recordings. The number of recordable images decreases in Auto Power LCD mode or Power LCD mode. CIPA is an abbreviation of "Camera & Imaging Products Association".

DMC-GF1 (Body) Specifications

TYPE	Type	Digital interchangeable lens system camera	
	Recording media	SD Memory Card, SDHC Memory Card	
IMAGE SENSOR	Image sensor size	17.3 x 13.0 mm (in 4:3 aspect ratio)	
	Lens mount	Micro Four Thirds mount	
	Type	Live MOS Sensor	
	Total pixels	13.1 Megapixels	
	Camera effective pixels	12.1 Megapixels	
	Colour filter	Primary colour filter	
RECORDING SYSTEM	Dust reduction system	Supersonic wave filter	
	Recording file format	Still Image: JPEG (DCF, Exif 2.21), RAW, DPOF compatible Still Image with Audio: JPEG (DCF, Exif 2.21) + QuickTime	
	Aspect ratio	Motion Image: AVCHD / QuickTime Motion JPEG 4:3, 3:2, 16:9, 1:1	
	Image quality	RAW, RAW+Fine, RAW+Standard, Fine, Standard	
	Colour space	sRGB, Adobe RGB	
	Still Image	File size (Pixels)	Motion Image
FOCUS	Type	Contrast AF system	
	Focus mode	AFS / AFC / AF-C	
	AF detectable range	Face detection / AF Tracking / Z/area-focusing / 1-area-focusing	
	AF lock	AF/AE LOCK button or Shutter button halfway pressed in AFs mode	
	AF assist lamp	YES	
	AF bracket	3 exposures in blue/amber axis or in magenta/green axis	
EXPOSURE CONTROL	Light metering system	Intelligent Multiple / Centre Weighted / Spot	
	Light metering mode	Intelligent Multiple / Centre Weighted / Spot	
	Exposure mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual	
	ISO sensitivity (Standard Output Sensitivity)	Auto / 100 / 200 / 400 / 800 / 1600 / 3200 / Intelligent ISO	
	Exposure compensation	1/3 EV Step ±3 EV	
	AE lock	AF/AE LOCK button or Shutter button halfway pressed	
WHITE BALANCE	White balance	Auto / Daylight / Cloudy / Shade / Halogen / Flash / White Set 1, 2 / Colour temperature setting	
	White balance adjustment	Blue/amber bias, Magenta/green bias	
	White balance bracket	3 exposures in blue/amber axis or in magenta/green axis	
SHUTTER	Type	Focal-plane shutter	
	Shutter speed	Still Images: 1/4000 ~ 40 and Bulb (up to approx. 4 minutes)	
	Self timer	2sec / 10sec / 10sec, 3 images	
SCENE MODE	Still Image SCN mode	Portrait / Soft Skin / Scenery / Architecture / Sports / Peripheral Defocus / Flower / Food / Objects / Night Portrait / Night Scenery / Illuminations / Baby 1, 2 / Pet / Sunset	
	Movie SCN mode	Portrait / Soft Skin / Scenery / Architecture / Sports / Flower / Food / Objects / Low Light / Party / Sunset [Activated by selecting Still Image SCN mode then pressing Movie Button. Still Image SCN modes without corresponding Movie SCN mode is recorded in Normal mode or other related mode.]	

•AVCHD Lite motion images recorded onto an SD Memory Card or a DVD disc cannot be played from a device that does not support the AVCHD standard. •The “AVCHD Lite” and “AVCHD Lite” logos are trademarks of Panasonic Corporation and Sony Corporation. AVCHD is a high-definition [HD] digital video recording / playback format jointly established by Panasonic Corporation and Sony Corporation. AVCHD Lite is a subset of the AVCHD format for HD digital video cameras with HD video recording restricted to 720P. The new “AVCHD Lite” logo and the “AVCHD Lite” license are restricted to devices within the AVCHD Video Camera category. For more details, please refer to the “AVCHD Information Website.” <http://www.avchd-info.org/> •The release date may differ depending on the country. Check the website of the Panasonic sales company in your country or region for details on the optional accessories that are available in your market. •The DMW-BLB13 comes with a function to check whether the battery and unit can be safely used together. •Batteries made by other companies which have been certified by Panasonic may be used with these units, but we offer no guarantee as to the quality, performance or safety of such batteries. •Exercise care when purchasing batteries. Many fake or imitation batteries have been found among those sold at unusually low prices and those which customers cannot check for themselves before purchasing. •Please confirm the latest information about batteries on the following website. <http://panasonic.co.jp/pavc/global/cs/info/battery.html>

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Lens Specifications

LUMIX G 20mm / F1.7 ASPH
(35mm camera equivalent: 40mm)

Lens Construction	7 elements in 5 groups (2 Aspherical (enses)
Mount	Micro Four Thirds mount
Optical Image Stabiliser	No
Focal Length	f=20 mm (35 mm camera equivalent 40 mm)
Aperture Type	7 diaphragm blades / Circular aperture diaphragm
Aperture	F1.7
Minimum Aperture	F16
Closest Focusing Distance	0.2 m / 0.66 ft
Maximum Magnification	Approx. 0.13x / 0.25x (35 mm camera equivalent)
Diagonal Angle of View	57°
Filter Size	Ø46 mm / 1.81 in
Max. Diameter	Ø43 mm / 2.48 in
Overall Length	Approx. 25.5 mm / 1.00 in (from the tip of the lens to the base side of the lens mount)
Weight	Approx. 100 g / 3.53 oz
Standard Accessories	Lens Cap, Lens Rear Cap, Lens Storage Bag

LEICA DG MACRO-ELMARIT 45mm / F2.8 ASPH. / MEGA O.I.S.
(35mm camera equivalent: 90mm)

Lens Construction	14 elements in 10 groups (1 Aspherical lens, 1 ED lens)
Mount	Micro Four Thirds mount
Optical Image Stabiliser	YES
Focal Length	f=45 mm (35 mm camera equivalent 90 mm)
Aperture Type	7 diaphragm blades / Circular aperture diaphragm
Aperture	F2.8
Minimum Aperture	F22
Closest Focusing Distance	FULL: 0.15 m / 0.5 ft, LIMIT: 0.5 m / 1.64 ft
Maximum Magnification	Approx. 1.0x / 2.0x (35 mm camera equivalent)
Diagonal Angle of View	27°
Filter Size	Ø46 mm / 1.81 in
Max. Diameter	Ø43 mm / 2.48 in
Overall Length	Approx. 62.5 mm / 2.46 in (from the tip of the lens to the base side of the lens mount)
Weight	Approx. 225 g / 7.94 oz
Standard Accessories	Lens Cap, Lens Hood, Lens Rear Cap, Lens Storage Bag

LUMIX G FISHEYE 8mm / F3.5
(35mm camera equivalent: 16mm)

Lens Construction	10 elements in 9 groups (1 ED lens)
Mount	Micro Four Thirds mount
Optical Image Stabiliser	NO
Focal Length	f=8 mm (35 mm camera equivalent 16 mm)
Aperture Type	7 diaphragm blades / Circular aperture diaphragm
Aperture	F3.5
Minimum Aperture	F22
Closest Focusing Distance	0.1 m / 0.33 ft
Maximum Magnification	Approx. 0.2x / 0.40x (35 mm camera equivalent)
Diagonal Angle of View	180°
Projection System	Equisolid angle protection
Filter Size	Front : Mounting not possible Rear : Sheet filter holder 22mm / 0.86in x 22mm / 0.86in
Max. Diameter	Ø60.7 mm / 2.39 in
Overall Length	Approx. 51.7 mm / 2.04 in (from the tip of the lens to the base side of the lens mount)
Weight	Approx. 165 g / 5.82 oz
Standard Accessories	Lens Cap, Lens Rear Cap, Lens Storage Bag

•Partial restrictions on using Panasonic digital video cameras to play AVCHD Lite motion images recorded with the GF1.
 •AVCHD Lite motion images recorded with the image quality set to SH/H/L mode (1280 × 720) cannot be played on AVCHD-compatible digital video cameras.
 •AVCHD motion images recorded with AVCHD-compatible digital video cameras cannot be played on the GF1.
 •More detailed information is available on our support site: <http://panasonic.jp/support/global/cs/dsc>

*Shooting conditions: 23°C with 50% humidity; LCD on; Using a Panasonic SD Memory Card (LS12MB); Using the supplied battery; Using the supplied lens; Starting recording 30 seconds after the camera is turned on/When the optical image stabiliser is set to [Mode1]; Recording once every 30 seconds with full flash every second recording; Turning the camera off every 10 recordings. The number of recordable images decreases in Auto Power LCD mode or Power LCD mode. CIPA is an abbreviation of "Camera & Imaging Products Association".

•About the performance of Face Recognition function
 Recognition performance varies greatly depending on shooting conditions, i.e., according to factors such as angles, facial expression and lighting, so operation under all conditions cannot be guaranteed. Because the camera searches for faces that are similar to registered faces, there are cases where the faces are not correctly recognised when the registered image and the shooting image varies much. When facial characteristics are similar, particularly between parents and their children or brothers and sisters, the camera may not distinguish the faces.

New-Generation System Cameras

LUMIX G™
MICRO SYSTEM



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