

MEDIA RELEASE

Panasonic announces groundbreaking LUMIX DMC-FZ1000: the world's first compact camera with 4K recording capability*

**For a digital compact camera as of 12 June 2014*

Sydney, 12 June 2014 – Panasonic has globally announced the LUMIX DMC-FZ1000, the latest member of the popular FZ series. This new digital compact camera boasts the world's first 4K video recording capability for a camera in its class, a large 20.1-megapixel High Sensitivity MOS sensor, and a high-quality 16x optical zoom LEICA DC VARIO-ELMARIT lens.[1]

The DMC-FZ1000's large 1-inch MOS sensor is four times larger than the sensor found on conventional compact cameras, making it possible to capture beautiful, clear images with minimal noise, even when shot at a high ISO sensitivity.

This works hand-in-hand with the quad-core Venus Engine image processor, first introduced on the LUMIX DMC-GH4, to achieve stunning colour and picture quality that goes beyond expectations for its class.

The integrated 16x optical zoom LEICA DC VARIO-ELMARIT lens has been newly developed for the DMC-FZ1000, and achieves amazing detail and resolution all the way to the corners of each frame. It also works with the large MOS Sensor to produce a stunning bokeh effect.

The DMC-FZ1000 will be available in Australia in late July. Pricing will be announced closer to the launch date.

Doug Campbell, Product Marketing Manager, LUMIX, Panasonic Australia, said: "The DMC-FZ1000 incorporates 4K video recording capability for the first time in a compact digital camera¹, giving users the ability to shoot beautiful home movies at four times the resolution of Full HD.

"This feature isn't limited to video capture only, as it's possible to cut out a single frame of the 4K video and save it as an eight-megapixel image, providing enough detail to create an A3 poster print."

The camera can also record videos in Full HD, and the powerful 16x optical zoom with 5-step speed control enables smooth zoom control while recording. The 5-axis HYBRID OIS (Optical Image Stabiliser)+ with Active Mode[1] effectively compensates for handshake. A variety of creative video modes are available to create professional-looking videos.

Featuring Panasonic's DFD (Depth From Defocus[1]) technology, the DMC-FZ1000 offers an ultra high-speed auto-focus of approximately 0.09[1] seconds at the wide end and approximately 0.17 seconds at the telephoto end – a speed increase of approximately 350% over the DMC-FZ200. High speed burst shooting is available at up to 12 frames per second using the full 20.1-megapixel resolution. Together with the short release time lag and quick start-up time of approximately 0.66 seconds, this ensures the DMC-FZ1000 never misses a fleeting photo opportunity.

The DMC-FZ1000 offers intuitive control using a combination of an OLED Live View Finder, a 3-inch free-angle LCD rear monitor, and the newly added zoom lever, zoom ring and drive mode dial. The Live View Finder boasts a 2,359k-dot high resolution with a 100% field of view, while the 3" 921k-dot free-angle rear LCD opens up plenty of creative possibilities by rotating 180 degrees to the side and tilting 270 degrees up

and down.

Integrated Wi-Fi connectivity and NFC (Near Field Communication) technology provides users with a more flexible shooting experience and the ability to instantly share images. A new addition to the FZ series is a 3.5mm jack for connecting an external microphone for video recording. RAW data can also be developed in-camera.

Key Features

High Sensitivity MOS Sensor and New Venus Engine

The DMC-FZ1000 incorporates a newly developed 1-inch High Sensitivity MOS sensor with 20.1-megapixel resolution. The 1-inch sensor is 4x larger than conventional 1/2.3-inch sensors in size. This large sensor results in a dramatic reduction of noise, even when shooting at ISO 12,800. The rich amount of light that it lets in helps to produce impressive defocus with a shallow depth of field.

The Venus Engine quad-core image processor has been newly developed for the DMC-FZ1000 to dramatically boost its performance, especially for the high speed signal processing that is required for 4K video recording. The advanced Multi-processor NR (Noise Reduction) technology applies effective noise reduction and detail processing, and a new Random Filter blends chromatic noise into the image more naturally, resulting in a maximum ISO 25,600 (Extended).

A newly adopted aperture filter is capable of controlling a wider frequency range, adjusting the sharpness according to the frequency level to achieve a true stereoscopic effect. The Venus Engine also improves colour reproduction with accurate evaluation of each colour even if it is similar in colour phase, saturation and luminosity. The accuracy of auto white balance is dramatically improved by metering 12 times for a more precise detection area.

New 25mm Ultra Wide-Angle LEICA DC VARIO-ELMARIT Lens

The newly developed LEICA DC VARIO-ELMARIT lens system (F2.8-F4.0 aperture) with 16x optical zoom (the 35mm equivalent of 25-400mm) is comprised of 15 elements in 11 groups, including four ED lenses and five aspherical lenses with eight aspherical surfaces, resulting in a high MTF value.

Five aspherical glass lenses is a record number in the history of LUMIX digital compact cameras, and is made possible by Panasonic's unique aspherical lens mould technology. This enables the DMC-FZ1000 to achieve beautiful, evenly smooth defocus with an invisible edge line. This first lens group located at the front consists of four lenses to minimise chromatic aberration, especially at the tele-end.

High Quality Video

The DMC-FZ1000 is not only an advanced photographic tool for recording high quality photos but also outstanding videos. It features an exceptional 4K video recording capability, which can shoot at QFHD 4K (3840 x 2160) at 25 frames per second in MP4.

It's also possible to cut out a frame from a recorded 4K video and save it as an eight-megapixel picture, enabling users to choose the best spur-of-the-moment shot after filming to produce a still image of 3840 x 2160 pixels.

For reliable recording of high-res video, the DMC-FZ1000 is compatible with UHS Speed Class 3 (U3), a new speed class standard for SD memory cards. UHS Speed Class 3 (U3) guarantees a constant minimum write speed of 30MB/s, which is required for recording 4K video.

The DMC-FZ1000 also records Full HD 1920 x 1080 50p video in AVCHD Progressive (MPEG-4/H.264) format. A dedicated button on the top of the camera lets users instantly start recording videos while shooting photos. Users also have the option of recording in MP4 at 50p to guarantee higher compatibility with PCs.

The powerful 16x optical zoom with smooth 5-step zoom and Hybrid OIS+ with Active Mode is available in video recording too. The 5-axis compensation system suppresses handshake movement in virtually any direction. Dolby Digital offers highly realistic sound to accompany videos, and this works with the stereo zoom microphone's zoom noise reduction system and the Auto Wind Cut function, which blocks out most of the noise from background wind. The popular iA (Intelligent Auto) mode is available for video recording.

The Creative Video mode lets users set the shutter speed and aperture manually to make even more impressive videos. Changing the shutter speed brings special effects to videos, which is especially suitable for shooting fast-moving subjects, while controlling the aperture is convenient when there are several subjects at different distances and the user wants to have some of them stand out.

The High Speed Video mode enables users to record subjects at a fast 100 frames per second in Full HD. Time Lapse and Stop Animation modes are also available.

High Speed Response and Mobility

To maximise performance, the DMC-FZ1000 uses a dedicated linear motor that is integrated into the focus system. This achieves a speed increase of approximately 275%^[1] faster focusing compared with the DMC-FZ200.

The Light Speed Auto-Focus is further enhanced with the DFD (Depth from Defocus) technology, which shortens the time to set focus. This works by calculating the distance to the subject by evaluating two images with different sharpness levels and looking up the optical characteristics of the current lens in an internal database. As a result, the DMC-FZ1000 achieves an ultra high-speed auto-focus of approximately 0.09 seconds at the wide end and approximately 0.17 seconds at the tele-end^[1] – a speed that is approximately 350% faster than the DMC-FZ200. The benefits of this technology improve as the focal length increases.

Burst shooting has also improved dramatically over the DMC-FZ200, with high speed burst shooting rates of 12 frames per second (AFS) to capture fast moving subjects in-focus. The DMC-FZ1000 has a maximum mechanical shutter speed of 1/4000 second (at the 25mm wide end) and 1/3200 second (at the 400mm tele end). This increases to 1/16000 second when using the electronic shutter, which reduces washouts even in strong sunlight.

With the quick start-up of approximately 0.66 seconds, short release time lag and stability of continuous focusing for both photo and video recording, the DMC-FZ1000 ensures photographers never miss a moment.

The DMC-FZ1000 also comes with new focus options. The Full Area AF allows users to set focus on any part of the approximately 100% field of view. The Focus Detect Area has increased to 49 points for more flexible composition, and the Custom Multi AF mode allows users to freely select blocks to focus out of the 49

focusing areas. The 1-area AF can be seamlessly magnified in both manual focus and auto focus mode. The Pinpoint AF helps users focus on a tiny area by magnifying the area with a frame-in-frame window. In the Low Light AF mode, the auto-focus works in -3EV lighting, which is as dark as a moonlit sky with no other light source.

For more practical control over focusing, the DMC-FZ1000 incorporates a Focus Peaking function that shows the focus position in MF and AF+MF modes, enabling users to see the peaking of focus while monitoring the subject in live view. The MF Assist mode lets photographers check the focusing area with a maximum 10x magnified frame-in-frame window.

Intuitive Control

The DMC-FZ1000 boasts a high precision, high-speed OLED (Organic Light-Emitting Diode) 0.39-inch LVF (Live View Finder) with a 2,359k-dot high resolution and 4:3 aspect ratio. This uses an approximately 1.88x/0.7x (35mm camera equivalent) magnification and 100% field of view.

Using OLED enables the LVF to achieve a high speed response with minimum time lag while enhancing the resolution. It also boasts a 10,000:1 high contrast for superior colour reproduction. The Live View image can be displayed in monochrome through the LVF, enabling shooters to concentrate on contrast. Thanks to the newly designed large eyecup, the visibility of the LVF is improved. Image output between the LVF and the rear LCD switches automatically using the LVF's eye sensor.

The 3.0-inch 921k-dot free-angle LCD has a wide viewing angle, and rotates 180° to the side and tilts 270° up and down, with approximately 100% of field of view. The AR Coating minimises reflection, making it easier to view in sunny outdoors situations.

Operability is also improved on the DMC-FZ1000, allowing for intuitive control. The zoom lever on the top allows smooth zooming in and out with 5-step speed adjustment. The zoom ring can also be used for manual focus control. The newly added Drive Mode Dial and AFS/AFC/MF Lever enables direct shooting setting. The DMC-FZ1000 also integrates 3.5mm jack for external microphone connection.

Easy Wireless Connectivity

The DMC-FZ1000 integrates 802.11n Wi-Fi connectivity with NFC (Near Field Communication) technology to offer a more flexible shooting experience and instant image sharing with easy operation. Using the Panasonic Image App, remote shooting of both photos and video is available using an iOS/Android smartphone or tablet, with options including shutter release, zooming, focusing, and setting the shutter speed, aperture and exposure compensation. It is also easy to embed geotags in images after shooting. For smartphones and tablets without NFC, the camera displays a dedicated QR code on its monitor to complete pairing easily by reading the code.

Creative Control

The DMC-FZ1000 offers a variety of artistic functions to add fun to digital photography. The popular Creative Control mode features a total of 22 filter options, including Expressive, Retro, Dynamic Monochrome and Bleach Bypass. The effect of each mode is also adjustable. The 22 filter effects are also available when using Creative Panorama. Gamma presets are available in the Creative Video mode (CINELIKE D and CINELIKE V) to produce cinema-like videos.

Other Features

The DMC-FZ1000 offers a variety of other features to help users get the most out of their photography:

- The 3cm Macro Shooting mode allows for stunning macro photos to be taken with a minimum focusing distance of 3cm.
- The Highlight/Shadow Control is available in the Live View Finder so that users can adjust highlights or shadows separately using the rear dial. Three patterns of settings can be customised in addition to three patterns of preset.
- Like the DMC-GH4, the DMC-FZ1000 is also capable of developing RAW images in-camera. Users can adjust the colour space setting (sRGB/Adobe RGB), white balance, exposure compensation, contrast, highlight/shadow, saturation, noise reduction, and sharpness. LUMIX's proprietary Photo Style, Intelligent D-Range Control and Intelligent Resolution settings can also be applied.
- The Level Gauge detects the horizontal/vertical angle of view using the internal level that works with the acceleration sensor – helpful for keeping the composition of horizontal photos precise.
- The iA+ (Intelligent Auto Plus) mode is available for shooting photos and video. For beginners, this mode offers a variety of shooting-assist functions such as AF Tracking, Intelligent Scene Selector, Face Recognition, Intelligent ISO Control and Food Recognition. The iA Plus mode also lets users adjust the defocusing area in the background, exposure compensation and white balance.
- Optional accessories include: the GN58 powerful External Flash (DMW-FL580L), which enables high speed charging of approximately 1.7 seconds, wireless control and LED video light functionality; the Stereo/Shotgun Microphone (DMW-MS2), which enables stereo/shotgun switch; a 62mm ND Filter (DMW-LND62); PL Filter (DMW-LPL62); and MC Protector (DMW-LMCH62).

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[1] For a digital compact camera as of 12 June 2014

[1] Hybrid OIS+ with Active Mode does not operate in 4K video recording

[1] DFD available for photo shooting only

[1] Based on the CIPA standard when using Live View Finder

[1] Panasonic in-house test

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