http://www.four-thirds.org/en/ Catalog contents as of February 2018



# Micro Four Thirds Lenses

Four Thirds Lenses

























































### The Science of Expression

Ten years ago, on August 5th, 2008, a brand new standard for cameras and lenses made its debut on the world stage. Micro Four Thirds, as the new standard was called, was the culmination of a rigorous scientific examination of photography and the form that it should take in the 21st century.

Looking ahead to the future of digital technology, Micro Four Thirds' developers took into consideration the interplay between a wide range of factors, including intercommunication between the camera and lens, seamless compatibility between still images and movies, and high image quality. All of this was modulated by our conviction that as many people as possible should be able to enjoy and benefit from this technology. And that meant that as well as embodying the latest technological advances and most sophisticated photographic concepts, this new standard should also offer improved portability through reductions in size and weight, thus making it easier for more people than ever to enjoy the incredible joy and excitement that comes from the creative expression made possible by photography.

By eliminating the mirror box used in traditional interchangeable lens cameras, the Micro Four Thirds development team made it possible to create remarkably slim and compact cameras and lenses that provide users with all the power and performance of a full-size SLR. One of the results of the Micro Four Thirds' launch was a social phenomenon called "wearing a camera", the impact of which is still being felt today.

Each and every aspect of performance and functionality has been formulated and refined to unleash the creative power of each individual, to enable them to shoot pictures that capture the feelings they wish to express, and to evoke those same feelings in anyone who views those images. Our commitment to creative passion has made the Micro Four Thirds standard what it is today and will continue to push it forward in the decades to come.

#### 2008

Micro Four Thirds standard established

Beijing Olympic Games iPhone 3G released

#### 2009

President Obama inaugurated Michael Jackson deceased

#### 2010

#### Panasonic AG-AF100

COSINA NOKTON 25mm F0.95

ioined Micro Four Thirds standard Buri Khalifa opened FIFA World Cup South Africa

#### 2011

Carl 7eiss and 2 other firms ioined Micro Four Thirds standard

Jasmine Revolution in Tunisia Tohoku Earthquake in Japan

### SIGMA

SIGMA 30mm F2.8 EX DN

Kenko Tokina Reflex 300mm F6.3 MF MACRO

Panasonic Lumix DMC-GH3

#### **2012**

Tamron and 2 other firms joined Micro Four Thirds standard

President Putin inaugurated London Olympic Games

#### 2013

Blackmagic Design and 5 other firms joined Micro Four Thirds standard

Papal conclave in Vatican



Blackmagic Design

Blackmagic Pocket Cinema Camera

Lumix DMC-GH4



14-150mm F/3,5-5,8 Di III KOWA KOWA PROMINAR 8,5mm F2,8

### **2014**

Kowa Optical Products and 2 other firms joined Micro Four Thirds standard

FIFA World Cup Brazil USA-Cuba diplomatic relations normalized

ioined Micro Four Thirds standard

JVCKENWOOD GY-LS300CH

DJI

ZenmuseX5

Apple Watch released

DJI and 2 other firms

Simultaneous terrorist attacks in Paris

### **2016**



Xiaoyi and 5 other firms ioined Micro Four Thirds standard

Rio de Janeiro Olympic Games PlayStation VR released

Entaniya and 2 other firms

ioined Micro Four Thirds standard President Trump inaugurated

A more detailed history - The Micro Four Thirds Decade -

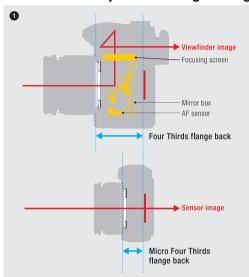
can be found on the Four Thirds website. 2018

### Benefits of Micro Four Thirds

The Micro Four Thirds standard arose from the effort to develop a more compact slim-bodied camera and lens system while maintaining the concept of the digital-dedicated Four Thirds standard.

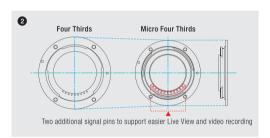
In addition to the high imaging performance inherited from the original Four Thirds standard, the Micro Four Thirds standard features amazing portability enabled by the mirrorless design, as well as optimized video recording, easier Live View shooting, and a wide variety of dedicated lenses and accessories, not to mention access to an extensive selection of existing Four Thirds and classic lenses.

### **Benefit 1 Compact and Lightweight System**

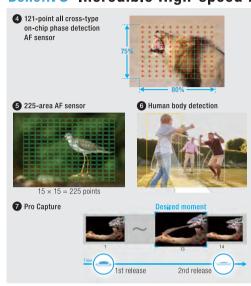


Traditional interchangeable lens SLRs use a mirror box to ensure that the photographer can look through the viewfinder and see exactly what will be captured. However, the image viewed on the focusing screen after being reflected by the mirror is not the same as the image formed on the film or image sensor surface. Furthermore, this design is a major factor contributing to increasing the size and weight of the camera.

The Micro Four Thirds camera eliminates the mirror box and brings the high image quality of the Four Thirds standard to a broader range of applications thanks to the more compact size and optimized video recording facility. Micro Four Thirds is a new standard that has greatly expanded the photographer's freedom to explore various possibilities that would have been impossible with traditional interchangeable lens SLRs.



### **Benefit 3** Incredible High-speed Performance



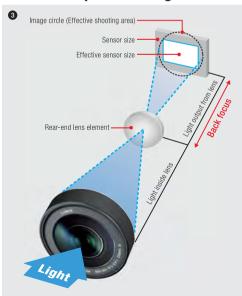
By eliminating the mirror box that used to limit the speed of traditional interchangeable lens SLRs, the Micro Four Thirds standard has eliminated the delay in sequential shooting and the restriction of AF distance measurement caused by the action of the mirror. High-speed capability that surpasses conventional limits is one of the biggest benefits of Micro Four Thirds.

Micro Four Thirds technologies support the tracking of moving objects and the reliable recognition of human bodies and faces. Other Micro Four Thirds technologies include a 121-point all cross-type on-chip phase detection sensor for faster focusing ● and a 225-area AF sensor that allows multiple customized AF frame strings ●. The world's fastest AF at 0.04 sec., and 18-fps sequential shooting in AF-tracking can also be found in some of the higher-end Micro Four Thirds cameras.

The Micro Four Thirds standard dramatically enhanced photography with technologies such as 3D moving object capture called DFD (Depth from Defocus) technology, human body recognition and advanced face recognition technology ②, and Pro Capture that can record up to 14 frames of 20M images between the 1st and 2nd shutter releases so that you never miss the precise moment ②.

Apart from the performance improvement of cameras as described above, another important factor contributing to the speeding up of the Micro Four Thirds photography is the advanced signal linkage with a large variety of lenses, which is critical to an open standard whose mandate is to make it possible for photographer to choose from an array of options for the combination of lenses and cameras that best suits their requirements. This is because the high resolution capability of the lens – the starting point for the image capture process - is the essential basis for many speed-enhancing technologies.

### **Benefit 2** Optical Design that Provides Mobility and Image Quality



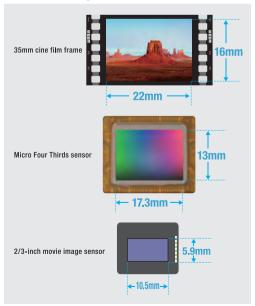
However good the image sensor and processing engine are, image quality will be inferior if the lens is of poor quality. The size of the Micro Four Thirds image sensor is based on the minimum size limit for a lens that can be easily carried, while still providing high image quality.

The light passing through the lens is output from the output lens (rear-end lens) and forms a circular image on the imaging plane (image sensor). The circular area that contains an accurate image is referred to as the image circle. In most cases, the sensor is sized so that it can deal with image deformation due to low light intensity outside the image circle. However, the area used in actual shooting is the area called the effective pixel area, which is inside the image circle. The size of this area is defined as the effective sensor size. Diagram on the strict physical principles between the light passing through the lens and the subsequent output from the lens, it is generally necessary to design a lens with a large diameter and length in order to obtain a large image circle. In addition, the flange back should also be optimized to avoid unnatural refractions of light.

Micro Four Thirds lenses have a flange back about half the size of those used in Four Thirds lenses while using a sensor that's the same size ①. The mount diameter has also been reduced by about 6 mm to further support lens size reduction ②.

Theoretically, a short flange back or back focus can facilitate improvement of wide-angle lens performance by rendering the front and rear of the lens symmetrical. However, if the flange back is extremely short compared to the diagonal length of the sensor, undesirable effects such as distortion and deformation of peripheral image will be noticeable. Based on the physical principles described above, the Micro Four Thirds standard was developed by targeting the optimal balance between mobility and image quality by determining how much lens size could be reduced while maintaining the image quality.

### **Benefit 4 Optimized for Video**



As the Micro Four Thirds standard employs a very similar image area as 35mm motion picture film, you can utilize the shooting skills you gained through experience using PL-mount lenses, such as being able to compose your shot and know the depth of field without using the viewfinder. In addition, unlike conventional PL-mount lenses, Micro Four Thirds standard lenses allow much more efficient use of battery power, reducing both cost and the risk of noise caused by heat from the image processor. Such advantages had the video and movie industries interested in the standard from the very start.

After release of the AG-AF105 (which is marketed as the AG-AF100 series outside Japan) professional electronic movie camera by Panasonic in 2010, there has been a rush to join the standard among many movie industry professionals who recognize Micro Four Thirds' usability in movies, as well as by well-established lens manufacturers such as Schneider and Carl Zeiss.

The compact size and high image quality of the entire system (including the lens) and the remote controllability made possible by the digital design are also useful in industrial applications such as drone shooting and professional recording cameras, which has also induced many companies to join the standard.

# Wide Zoom Lenses

Lenses covering wide-angle focal lengths of less than 12mm (24mm of 35mm equivalent),





14-28mm (35mm equivalent) OLYMPUS : M.ZUIKO DIGITAL ED 7-14mm F2.8 PR0

EDITION USALING HALING SuperEDITION EDITION Asptendation ZERO Cooling MSC Splash-Aust-proof

Ultra-wide-angle zoom boasting maximum portability, brightness and optical performance

An ultra-wide-angle zoom lens featuring high mobility and excellent optical performance. With an F2.8 aperture at all focal lengths, this lens is perfect for capturing nightscapes and starry skies.





14-28mm (35mm equivalent) Panasonic : LUMIX G VARIO 7-14mm F4.0 ASPH.

Max, dia, x Length = Φ70mm x ca, 83.1mm Weight = ca,300g

Ultra-wide-angle, ultra-compact 14-28mm zoom lens

Taking full advantage of Micro Four Thirds System's short flange back, this compact lens captures breathtaking wide perspectives with an angle of view of 114°.





16-36mm (35mm equivalent)
Panasonic : LEICA DG VARIO-ELMARIT

8-18mm F2.8-4.0 ASPH.

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Max, dia x Length = Φ73.4mm x ca, 88mm Weight = ca,315g Filter diameter = Φ67mm

Excellent imaging with dynamic perspectives and being-there feeling

Ultrawide-angle zoom lens built to meet the rigorous optical standards of Leica, featuring high performance, high quality with a large maximum aperture of F2.8. Supports 4K movie recording.





18-36mm (35mm equivalent)
OLYMPUS: M.ZUIKO DIGITAL
ED 9-18mm F4.0-5.6

Max. dia. x Length =  $\Phi$ 56.5mm x 49.5mm (when retracted) Weight = 155g Filter diameter =  $\Phi$ 52mm

Ultra-wide-angle zoom with a wide angle of view

This ultra-wide-angle zoom lens sets a new standard in compact design, Ideal for snapshots and landscape photography.

DSAllens HRillens ED lens Asphericallens MSC









### Standard Zoom Lenses

enses covering focal lengths from semi-wide-angle between 12mm and 18mm (between 24mm and 36mm of 35mm equivalent) to telephoto





24-64mm (35mm equivalent) Panasonic: LUMIX G VARIO 12-32mm F3.5-5.6 ASPH, MEGA O.I.S. ED lens | Aspherical lens | Optical Image Stabilizer (inside lens)

Max. dia. x Length =  $\Phi$ 55.5mm x ca.24mm (when retracted) Weight = ca.70g Filter diameter =  $\Phi$ 37mm

Compact standard zoom Jens with 24mm wide angle (35mm equivalent) capability

A compact, lightweight lens ideal for use in many different shooting situations, from taking everyday snapshots to shooting a group photo in a small room or capturing scenic landscane while traveling





24-70mm (35mm equivalent) Panasonic: LUMIX G X VARIO 12-35mm F2.8 II ASPH. POWER O.I.S. | Manual | M

Max. dia. x Length = Φ67.6mm x ca.73.8mm Weight = ca.305g Filter diameter = Φ58mm

Standard zoom with bright F2.8 aperture throughout the zooming range

Dustproof, splashproof and incredibly portable, this go-anywhere compact lens boasts a large F2.8 aperture throughout the zooming range, making it ideal for everything from enanghots to landscanes High resolution ontics and powerful Dual LS 2 image stabilization ensure crisp, clear images.



24-80mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 12-40mm F2.8 PRO EDAters DSA lens HD lens HR lens EDIers Asphericallens ZERO Costing MSC Splash-Adust-proof

Max, dia x Length = Φ69.9mm x 84mm Weight = 382g Filter diameter = Φ62mm

Dustproof/Splashproof with bright F2.8 throughout the zoom range With a fixed F2.8 aperture throughout

the zoom range, this compact, lightweight, dustproof and splashproof zoom lens meets the requirements of professional photographers.





28-84mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 14-42mm F3.5-5.6 EZ Riens ED lens Aspherical lens MSC Electronic zoom

Max. dia. x Length = Φ60.6mm x 22.5mm (when retracted) Weight = 93q Filter diameter = Φ37mm

Motorized standard zoom lens boasts world's thinnest profile\*

Incorporating a motorized zoom mechanism in a slim profile that's just 22.5mm thick, this standard zoom lens offers high nnerability while ensuring uniform, sharp image quality throughout the image plane

As of January 29, 2014. Among standard 3x zoom lense





Max, dia, x Length = Φ56.5mm x 50mm (when retracted) Weight = 113g Filter diameter = Φ37mm

Compact and lightweight standard zoom lens

With a compact size and light weight of 113 grams, this standard zoom lens is optimized for daily use on the street, as well as for portraiture.

Aspherical lens MSC







28-84mm (35mm equivalent)

Panasonic: LUMIX G X VARIO PZ 14-42mm F3.5-5.6 ASPH, POWER O.I.S. ED lens | Apphenical lens | Nano Surface Coating | Optical Image Stabilizer (inside lens) | Moterized zoom

Max. dia. x Length = Φ61.0mm x ca.26.8mm (when retracted Weight = ca.95g Filter diameter = Φ37mm

Standard lens with built-in motorized zoom

The compact, lightweight retractable mechanism improves portability of the camera, while at the same time ensuring high contrast all the way to the image periphery. The guiet noise design is suitable for movie shooting





24-90mm (35mm equivalent) Kodak: PIXPRO SZ ED 12-45mm F3.5-6.3 AF

Aspherical FD lens | FD lens | Aspherical lens Max. dia. x Length = Φ58.1mm x 63mm Weight = ca.182.5g Filter diameter = Φ49mm

Standard zoom lens covering an ample focal range

Four aspherical lens elements and two FD lens elements ensure low distortion for a wide zoom range. A standard zoom lens ideal for everyday use.





24-120mm(35mm equivalent)

Panasonic: LEICA DG VARIO-ELMARIT 12-60mm F2.8-4.0 ASPH. POWER O.I.S.

Disco Aspherical line Nano Surface Coating Optical Image Stabilizer (inside lens) Splash - idust-proof

Max, dia, x Length = Φ68.4mm x ca.86mm Weight = ca.320g Filter diameter = Φ62mm

LEICA DG standard zoom with excellent imaging throughout the zooming range

Experience the legendary power of Leica with this impressive 5X optical zoom lens. Beautiful defocusing effects in a wide range of focal lengths make this lens an excellent choice for artistic photography. Capture spectacular landscapes or create stunning portraits.



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24-120mm(35mm equivalent)

Panasonic: LUMIX G VARIO 12-60mm F3.5-5.6 ASPH. POWER O.I.S. EDIens Asphericaltens Optical Image Stabilizer (inside lens) Splash-/dust-proof

Max. dia. x Length =  $\Phi$ 66mm x ca.71mm Weight = ca.210g Filter diameter =  $\Phi$ 58mm

Dustproof/Splashproof standard 5X zoom lens

With an extended focal length range starting at wide angle of 24mm (35mm equivalent), this dustproof/splashproof 5X zoom lens is the ideal choice for just about any shooting situation.





28-84mm (35mm equivalent) Panasonic: LUMIX G VARIO 14-42mm F3.5-5.6 II ASPH. MEGA O.I.S.

Asolerica Jens Optical Image Stabilizer (inside Jens) Max. dia. x Length = Φ56mm x ca.49mm Weight = ca.110g Filter diameter = Φ46mm

Sophisticated design and reduced size/weight

The compact, lightweight design of this lens lets you enjoy photography in a wide range of situations, from everyday snapshots to landscape and portrait





28-90mm (35mm equivalent) Panasonic: LUMIX G VARIO 14-45mm F3.5-5.6 ASPH. MEGA O.I.S. Aspherical lans Optical Image Stabilizer (inside lens)

Max. dia. x Length = Φ60mm x ca.60mm Weight = ca.195g Filter diameter = Φ52mm

Compact, lightweight standard zoom lens

With a wide focusing range of about 3.2X zoom ratio from wide-angle 28mm (35mm equivalent), this lens ensures exceptional shooting performance under a wide range of conditions.





28-280mm (35mm equivalent) Panasonic: LUMIX G VARIO 14-140mm F3.5-5.6 ASPH. POWER O.I.S.

ED lens | Aspherical lens | Optical Image Stabilizer (inside lens)

Max. dia. x Length = Φ67mm x ca.75mm Weight = ca.265g Filter diameter = Φ58mm

Sophisticated design and reduced size/weight

The compact, lightweight design and high mobility of this powerful zoom makes it an excellent choice for a wide range of applications ranging from landscape and portrait shooting to sport photography.





24-200mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 12-100mm F4.0 IS PRO

CSAless Screen Los Hillion Colors Applications Z Cooling Name INSC Optical Image Stabilizer (inside lens) Spitial-Most-poor Max. dia. x Length =  $\Phi$ 77.5mm x 116.5mm Weight = 561g Filter diameter =  $\Phi$ 72mm

Pro-quality high-magnification zoom lens

With its high image quality, high magnification and compact size, this lens is a perfect fit for professional photographers. Features compatibility with Olympus 5-axis Sync IS enabled cameras.





28-300mm (35mm equivalent) Tamron:

14-150mm F/3.5-5.8 Di III Model C001

Max. dia. x Length = Φ63.5mm x ca.80mm Weight = 285g Filter diameter = Φ52mm

Lighter, Smaller, Sharper,

A high power zoom lens helps swiftly capture different views at the angle of field you choose. Incorporating specialized class elements for excellent imaging performance.



28-300mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 14-150mm F4.0-5.6 II

EDA lans DSA lans HR lans E-HR lans ED lans Apphendal lans ZERO Coating MSC Splash-/dust-proof Max, dia, x Length = Φ63.5mm x 83mr

Compact, lightweight dustproof/splashproof zoom with excellent mobility

A lightweight 10.7X zoom lens featuring ZERO (Zuiko Extra-low Reflection Optical) Coating. Its dustproof/splashproof construction allows photography even in extreme conditions.

Weight = 285g Filter diameter = Φ58mm





MSC



## Telephoto Zoom Lenses





70-200mm (35mm equivalent) Panasonic: LUMIX G X VARIO 35-100mm F2.8 II POWER O.I.S.

INTERPOLATE MANY Surface Coating Optical Image Stabilizer (inside lens) Schash-(dust-proof

Max. dia. x Length = Φ67.4mm x ca.99.9mm Weight = ca.357g Filter diameter = Φ58mm

Large F2.8 aperture telephoto zoom delivers high performance in a compact size

With its large F2.8 aperture and powerful Dual LS.2 image stabilization, this lens supports high-speed shutter in sports photography, ensuring sharp, crustal clear action shots. This lens is equally adent at more personal level, offering a beautiful defocusing effect ideal for portrait and close-up pictures.

80-300mm (35mm equivalent)

HR lens ED lens MSC

render natural bokeh.

OLYMPUS: M.ZUIKO DIGITAL

Telephoto zoom lens lets you preserve great memories in grand images

ED 40-150mm F4.0-5.6 R

Max. dia. x Length = Φ63.5mm x 83mm Weight = 190g Filter diameter = Φ58mm

lightweight telephoto zoom lens employs an ED lens element to correct

Featuring extremely high portability, this

color aberration and a circular iris to





70-200mm (35mm equivalent) Panasonic: LUMIX G VARIO 35-100mm F4.0-5.6 ASPH, MEGA O.I.S. ED lens Aspherical lens Optical Image Stabilizer (inside lens)

Max, dia. x Length =  $\Phi$ 55.5mm x ca.50mm (when retracted) Weight = ca.135g Filter diameter =  $\Phi$ 46mm

Lightweight telephoto zoom lens that's retractable for easy storage

Featuring a manually-operated retraction mechanism built into the cylinder, this lens delivers high image quality in a compact, lightweight design made possible by matching the optical configuration to the mechanism and reducing the weight of mobile parts.



80-300mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 40-150mm F2.8 PR0 EDA lens HD lens Super ED lens ED lens Aspherical lens ZERO Coating MSC Splash-/dust-proof

Max. dia. x Length =  $\Phi$ 79.4mm x 160mm Weight = 760g (w/o tripo adapter / tripod adapter: 120g) Filter diameter =  $\Phi$ 72mm

Telephoto zoom lens with high image quality and maximum portability

Top-notch performance in every aspect from brightness and close-up capability to portability and operation. It employs the world's first\* Dual VCM focus system. realizing outstanding precision and AF speed. Based on Olympus research.



200-600mm (35mm equivalent) Panasonic: LUMIX G VARIO 100-300mm F4.0-5.6 II POWER O.I.S. ED lens Optical Image Stabilizer (inside lens) Splash-/dust-proof

Max. dia. x Length = Φ73.6mm x ca.126mm Weight = ca.520g Filter diameter = Φ67mm

600mm (35mm equiv.) super-telephoto zoom with dustproof/splashproof design Compact, lightweight design and Dual I.S.2 image

stabilization make possible handheld super-telephoto shooting - perfect for capturing brilliant images of fast-moving sports action or unapproachable animals. Dustproof/splashproof design means this lens is ready for action under the toughest conditions.





200-800mm (35mm equivalent) Panasonic: LEICA DG VARIO-ELMAR 100-400mm F4.0-6.3 ASPH, POWER O.I.S. UED lars | ED lars | Aspherical lars | Optical Image Stabilizer (inside lens) | Splash=/dust-proof

Max. dia. x Length = Φ83mm x ca.171.5mm Weight = ca.985g Filter diameter = Φ72mm

Ultra-telephoto zoom - the longest in the Micro Four Thirds family

Built to LEICA's most exacting standards, this is the first zoom model in the LEICA DG lens series. And despite offering amazing 800mm (35mm equivalent) ultra-telephoto capability, this lens is surprisingly compact and light weight, featuring a splash-and-dustproof design.











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85-320mm (35mm equivalent) Kodak: PIXPRO SZ ED 42.5-160mm F3.9-5.9 AF

Max. dia. x Length = Φ58.7mm x 80.4mm Weight = ca.205g Filter diameter = Φ49mm

Mid-telephoto lens offers a new type of photographic experience

In spite of its compact size and light weight, this telephoto lens covers a wide range from mid-telephoto to full



90-300mm (35mm equivalent) Panasonic: LUMIX G VARIO 45-150mm F4.0-5.6 ASPH. MEGA O.I.S. UHR lens Aspherical lens Optical Image Stabilizer (inside lens)

Max. dia. x Length = Φ62mm x ca.73mm Weight = ca.200g Filter diameter = Φ52mm

Ultra compact telephoto zoom lens with high optical performance The UHR (Ultra High Refractive Index)

lens and 2 aspherical lenses achieve uniform image depiction from the center to the corners. Smooth, silent focusing in both photo and video recording.









90-400mm (35mm equivalent) Panasonic: LUMIX G VARIO 45-200mm F4.0-5.6 II POWER O.I.S. ED lens Optical Image Stabilizer (inside lens) Splash-/dust-proof

Max. dia. x Length = Φ70mm x ca.100mm Weight = ca.370g Filter diameter = Φ52mm

Dustproof/splashproof telephoto zoom with powerful image stabilization

The wide zoom range expands your photo opportunities. From portraits that bring to life natural facial expressions to impressive telephoto images, this lens is a great choice for active photographers. Powerful Dual I.S.2 image stabilization and a dustproof/splashproof design ensure potimum performance and reliability in any situation.



150-600mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 75-300mm F4.8-6.7 II HR lens Super ED lens ED lens ZERO Coating MSC

Max. dia. x Length = Φ69mm x 116.5mm Weight = 423g Filter diameter = Φ58mm

Super-telephoto zoom captures dynamic images of distant subjects

This 600mm (35mm equivalent) super-telephoto zoom lens is compact and lightweight enough for handheld photography. The ZERO Coating on the lens surface helps provide clear images even when shot at a long distance.







90-350mm (35mm equivalent)



Panasonic: LUMIX G X VARIO PZ 45-175mm F4.0-5.6 ASPH. POWER O.I.S. EDIERS Asphenical lens Nano Surface Coating Optical Image Stabilizer (inside lens) Moterized zoom

Max. dia. x Length = Φ61.6mm x ca.90mm Weight = ca.210g Filter diameter = Φ46mm

Telephoto lens with built-in motorized zoom

The multi-actuator flowing inner focus mechanism enables this lens to offer sharp, clear images in a compact, lightweight design. Low-noise operation







## Wide Prime Lenses

Single-Focal-Length Lenses for Wide-Angle with Focal Length below 20mm (40mm of 35mm equivalent).

Fisheye



16mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 8mm F1.8 Fisheve PRO

Super Hillers HR Bre Super ED Bres ED Bres Rephencial Bres ZERO Coating MSC Splash-Must-proof

Max. dia. x Length = Φ62mm x 80mm Weight = 315g

#### World's first\* fisheye lens with a F1.8 aperture

With a F1.8 aperture and 180° angle of view, this fisheye lens boasts superior optical performance with excellent imaging from the center to edges. A reliable dustrinof/solashoroof construction allows photography in any condition.





#### Super wide-angle lens with fast aperture

Two aspherical lenses with 3 aspherical surfaces are used to ensure super-sharp images even when the aperture is fully open, "Selective Aperture Control System",







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

Max. dia. x Length =  $\Phi$ 60.7mm (fixed hood section) x ca.51.7mm Weight = ca.165g Filter diameter = Front: Not mountable, Rear: Sheet filter holder 22mm x 22mm

#### World's smallest, lightest\* high-performance fisheye lens

A diagonal angle of view of 180° and short focal length lets you capture the distortion and exaggerated perspective that fisheve lenses are known for. \* As of July 21, 2011. Among the AF-compatible fisheye lenses for inter-changeable-lens type digital cameras.



17mm (35mm equivalent)

Kowa: KOWA PROMINAR 8.5mm F2.8 XD lens | Aspherical lens | Manual focus

Max. dia. x Length = Φ71.5mm x 86.8mm Weight = 440g Filter diameter = Φ86mm (attach to lens hood)

#### Ultra-wide-angle lens realistically depicts scenes with breathtaking scope

With a dynamic diagonal angle of view of 106°, this lens minimizes distortion and enhances contrast in peripheral areas. nroviding superh ontical performance suitable for use with a high-resolution 4K camera.



28mm (35mm equivalent) Panasonic

LUMIX G 14mm F2.5 II ASPH.

Max. dia. x Length = Φ55.5mm x ca.20.5mm Weight = ca.55g Filter diameter = Φ46mm

#### Wide-angle pancake lens with compact size and light weight

The high brightness of this lens makes it handy in daily use, from shooting vast landscapes to compositions with wide perspectives that take advantage of the 28mm wide angle (35mm equivalent).





30mm (35mm equivalent)

Panasonic: LEICA DG SUMMILUX 15mm F1.7 ASPH.

Acabacical lane

Max. dia. x Length = Φ57.5mm x ca.36mm Weight = 115q Filter diameter = Φ46mm

#### Compact, lightweight F1.7 SUMMILUX lens with high image quality With brightness that surpassed Leica's

most stringent optical standards, this lens features a lovely soft defocusing effect that makes it perfect for snanshots



32mm (35mm equivalent) SIGMA:

SIGMA 16mm F1.4 DC DN I Contemporary FLD class SLD class Aspherical lens

Max. dia. x Length = Φ72.2mm x 91.1mm Weight = 395g Filter diameter = Φ67mm

#### Wide-angle lens that features both a large F1.4 aperture and a compact profile

Incorporates the latest optical technology to offer F1.4 brightness, high optical performance and comfortable operability in a compact format. Movie recording with smooth natural AF focusing.





21mm (35mm equivalent) Voigtländer: NOKTON 10.5mm F0.95 Aspherical lens Manual focus

Max. dia. x Length = Φ77mm x 82.4mm Weight = 585g Filter diameter = Φ72mm

with and without click-stops, is also built in.





24mm (35mm equivalent) Panasonic: LEICA DG SUMMILUX 12mm F1.4 ASPH.

UED Jens | ED Jens | Aspherical Jens

Max. dia. x Length = Φ70mm x ca.70mm Weight = ca.335g Filter diameter = Φ62mm

#### SUMMILUX wide-angle lens with a large F1.4 open aperture

The SUMMILUX lens with the open aperture of F1.4 delivers precise, natural imaging power featuring smooth, subtle gradations all the way to the edge





24mm (35mm equivalent)

Kowa: KOWA PROMINAR 12mm F1.8

XD lens | Aspherical lens | Manual focus

Max. dia. x Length = Φ76.5mm x 90.5mm Weight = 475g Filter diameter = Φ72mm

#### Wide-angle lens for natural, true-to-life imaging of a wide range of scenes

Great for outdoor shooting thanks to the sharp. crisp, detailed imaging made possible by its wide angle of 24mm (35mm equivalent) and very low distortion, this lens boasts high brightness of F1.8 so it can be used indoors as well. Cannot be used with Panasonic LUMIX DMC-61





34mm (35mm equivalent) OLYMPUS:

#### M.ZUIKO DIGITAL ED 17mm F1.2 PRO

ED-DS-Views ED-Marrie Super-HR less Super-ED less ED less Pégherical lies 2 Coeting Nano MSC Splash-vicus-proof Max. dia. x Length = Φ68.2mm x 87mm Weight = 390g Filter diameter = Φ62mm

#### Large-aperture wide-angle lens with outstanding imaging power

Wide-angle lens with large F1,2 open aperture delivers standout performance in both landscape and documentary shooting. Extensive use of special lens elements lets you enjoy both beautiful "feathered bokeh" effect and high resolution.





34mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL 17mm F1.8

Max. dia. x Length = Φ57.5mm x ca.35.5mm Weight = 120g Filter diameter = Φ46mm

DSA lens HR lens Aspherical lens ZERO Coating MSC

#### High-grade F1.8 snapshot lens with metallic outer finish

Combining the brightness of an F1,8 aperture and high image quality in a compact package, this lens is ideal for snapshots and street photography. A snapshot focus mechanism is also incorporated.





35mm (35mm equivalent) Voigtländer: NOKTON 17.5mm F0.95 Aspherical lens Manual focus

Max. dia. x Length = Φ63.4mm x 80mm Weight = 540g Filter diameter = Φ58mm

### F0.95, Wide-angle lens with fast aperture

Wide angle lens of 35mm (35mm equivalent) with F0.95 at wide open. "Selective Aperture Control System" allows you to set the lens precisely at any aperture settings.





24mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 12mm F2.0

Max. dia. x Length = Φ56mm x 43mm Weight = 130g Filter diameter = Φ46mm

#### High-grade snapshot lens with metallic finish

Hans ED lens Aspherical lens ZERO Coating MSC

With a large aperture of F2.0 and a wide angle of 24mm (35mm equivalent), this lens offers high picture quality, while hoasting a more compact design optimized for snapshot shooting





38mm (35mm equivalent) SIGMA: SIGMA 19mm F2.8 DN I Art

Aspherical lens Max. dia. x Length = Φ60.8mm x 45.7mm Weight = 160g Filter diameter = Φ46mm

#### High-performance wide-angle lens, ideal for snapshots and indoor shooting

An ideal lens for casual snaps, as well as for indoor photography which benefits from its wide-angle of view. The superior telecentric ontical design improves image quality throughout the frame.







## Standard Prime Lenses

Single-Focal-Length Lenses with Focal Lengths from 20mm to 40mm (40mm to 80mm of 35mm equivalent)



## Telephoto Prime Lenses

Focal-Length Lenses for Medium Telephoto to Telephoto with 40mm (80mm of 35mm equivalent) and up.







40mm (35mm equivalent) Panasonic: LUMIX G 20mm F1.7 II ASPH. Aspherical lens

Max. dia. x Length = Φ63mm x ca.25.5mm Weight = ca.87g Filter diameter = Φ46mm

#### Pancake lens with large aperture, light weight and slim design Despite its reduced size and weight, this

lens delivers impressive performance with a large high-brightness F1.7 aperture that enables you to capture gorgeous. photographs with high contrast and beautiful defocusing effects.





50mm (35mm equivalent) Voigtländer NOKTON 25mm F0.95 Type II

Max, dia, x Length = Φ60,6mm x 70mm Weight = 435g Filter diameter = Φ52mm

#### Movie compatible, fast aperture standard lens

25mm angle of view with "Selective Aperture Control System". Aperture can be controlled without click-stop and any noise that is ideal for setting aperture at any points between the range and video shooting.





50mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 25mm F1.2 PRO

HR lans E-HR lens Super ED lans ED lens Aspherical lans Z Coating Nano MSC Splash-/dust-proof

#### Max. dia. x Length = Φ70mm x 87mm Weight = 410g Filter diameter = Φ62mm Large aperture high-resolution lens with beautiful bokeh

effects from the open aperture of F1.2.

The extensive use of special lens elements allows this lens to offer both high resolution and beautiful defocusing





85mm (35mm equivalent) Voigtländer: NOKTON 42.5mm F0.95 Manual focus

Max. dia. x Length = Φ64.3mm x 74.6mm Weight = 571g Filter diameter = Φ58mm

#### Mid-telephoto lens with fast aperture

An angle of view of 85mm (35mm equivalent) and a beautiful defocusing effect produced by the ultra-fast E0.95. aperture make this lens ideal for portrait photography





85mm (35mm equivalent) Panasonic: LEICA DG NOCTICRON 42.5mm F1.2 ASPH. POWER O.I.S. UHR lens ED lens Aspherical lens Optical Image Stabilizer (inside lens)

Max, dia, x Length = Φ74mm x ca 76.8mm Weight = ca 425g Filter diameter = Φ67mm

Mid-telephoto Jens with F1.2 Jarge aperture capable of expressing beautiful defocusing effect A bright F1.2 open aperture and outstanding

imaging performance enforced by Leica's rigorous optical standards make this larne-anerture mid-telenhoto lens a nond choice for portrait shooting





85mm (35mm equivalent Panasonic: LUMIX G 42.5mm F1.7 ASPH, POWER O.I.S. Acabaricallane

Max, dia, x Length = Φ55mm x ca 50mm Weight = ca 130g Filter diameter = Φ37mm

#### Middle telephoto portrait lens with large F1.7 open aperture

With a mid-range telephoto focal length of 85mm (35mm equivalent), this lens is suitable for portrait shooting. Features a natural-looking perspective, capturing the details of a subject as seen by the human eve





50mm (35mm equivalent) Panasonic: LEICA DG SUMMILUX 25mm F1.4 ASPH.

Max. dla. x Length =  $\Phi$ 63mm(fixed hood section) x ca.54.5mm Weight = ca.200g | Filter diameter =  $\Phi$ 46mm

#### Single-focus lens with excellent brightness

A compact lens with high imaging performance that features the sof beautiful defocusing effect that Leica lenses are renowned for.







50mm (35mm equivalent) Panasonic: LUMIX G 25mm F1.7 ASPH.

Max. dia. x Length =  $\Phi$ 60.8mm x ca.52mm Weight = ca.125g Filter diameter =  $\Phi$ 46mm

#### Standard lens that can provide a soft defocus effect for creative photography

This large-anerture standard lens features a heautiful defocus effect to make your subjects really stand out. The F1.7 brightness at the open aperture captures beautiful, stabilized images even outdoors at twilight outdoors or in a dimly lit room.





50mm (35mm equivalent) Kowa ·

KOWA PROMINAR 25mm F1.8 XD lens Aspherical lens Manual focus

Weight = 400g Filter diameter = \$\Phi55mm\$

#### F1.8 standard lens featuring beautiful defocusing effects

With a standard angle of view of 50mm (35mm equivalent) that matches natural vision and a bright open aperture of F1.8, this lens is able to realistically depict a wide range of images, from snanshots to nortraits.





90mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL ED 45mm F1.2 PRO HRI lens | ED lens | Aspherical lens | Z Coating Nano | MSC | Splash-/dust-proof

Max. dia. x Length = Φ70mm x 84.9mm Weight = 410g Filter diameter = Φ62mm

#### Large-aperture medium telephoto lens brings your subject to the forefront

A lens equivalent to 90mm (35mm camera) is optimum for portraits. This lens provides excellent resolution and a beautiful "feathered bokeh," adding depth to your photos.





90mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL 45mm F1.8 ENTERIOR ZERO Coating MSC

Max. dia. x Length = Φ56mm x 46mm Weight = 116g Filter diameter = Φ37mm

#### Family portrait lens with beautiful defocusing capability

The F1.8 aperture and shallow denth-of-field of this lens lets anyone shoot portraits in which soft, beautiful background defocusing makes the subject very prominent.





120mm (35mm equivalent) SIGMA: SIGMA 60mm F2.8 DN I Art SI Diplass | Aspherical lens

Max. dia. x Length = Φ60.8mm x 55.5mr Weight = 190g Filter diameter = Φ46mm

Mid-telephoto lens featuring a natural feeling of perspective and beautiful defocus effects

#### Featuring a natural feeling of perspective

and heautiful defocus effects, this lens allows the photographer to zoom in on distant objects and capture a single part of a subject. It brilliantly realizes the nhotographer's intentions







50mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL 25mm F1.8 Aspherical lens ZERO Coating MSC

Max, dia, x Length = Φ57.8mm x 42n Weight = 137g Filter diameter = Φ46mm

#### Bright standard lens that enhances the joy of photography with beautiful bokeh

A single focal length lens with high imaging power and beautiful bokel produced from the F1.8 aperture. This lens features a natural angle of view similar to the human eve.





60mm (35mm equivalent) SIGMA: SIGMA 30mm F1.4 DC DN I Contemporary

Max. dia. x Length = Φ64.8mm x 72.1mm Weight = 260g Filter diameter = Φ52mm

#### Large-aperture standard lens with excellent optical performance

Bright standard lens with F1.4 open aperture lets you experience the photographic thrill that comes from the versatility that a truly large aperture makes possible. Enjoy the enhanced defocus effect available only with a large aperture and crisp, clear optical performance.







60mm (35mm equivalent) SIGMA SIGMA 30mm F2.8 DN I Art

Max, dia, x Length = Φ60,8mm x 40,5mr Weight = 140g Filter diameter = \$\Phi46mm\$

#### High-performance standard lens, ideal for portraits and snapshots

Ideal for portraits and snapshots, this high-performance standard lens features an inner focusing system that corrects any fluctuations or aberrations to maintain image quality regardless of the focusing position.





150mm (35mm equivalent) OLYMPUS M.ZUIKO DIGITAL ED 75mm F1.8 HR lens ED lens ZERO Coating MSC

Max, dia, x Length = Φ64mm x 69mi Weight = 305g Filter diameter = \$\Phi 58mm

#### High-grade portrait lens with excellent image quality

High-level imaging performance achieves beautifully circular defocusing effects. Suitable for shooting theatrical scenes and indoor sports.





400mm (35mm equivalent) Panasonic: LEICA DG ELMARIT 200mm F2.8 POWER 0.I.S.

UED Res Nano Surface Coating Optical Image Stabilizer (inside lens) Splash-/dust-Max. dia. x Length = Φ87.5mm x ca.174mm Weight = ca.1,245g(w/o tripod adapter) Filter diameter = Φ67mm

#### Super-telephoto lens optimized for sport and wildlife photography

Designed to the strict optical standards of Leica, this lens features F2.8 brightness with sharp, clear imaging throughout the image plane, making it possible to capture stunning, high-quality photographs fast-moving subjects such as wild animals or athletes.



600mm (35mm equivalent) OLYMPUS: M.ZUÍKO DÍGITAL ED 300mm F4.0 IS PRO

HR Lens CHIRLENS Super ED Lens Z Coating Nano MSC Optical Image Stabilizer (inside lens) Spissh-idust-proo Max. dia. x Length = Φ92.5mm x 227mm(when food retracted) Weight =1,270

#### (w/o tripod adapter / tripod adapter: 205g) Filter diameter = Φ77mm Super-telephoto lens with handheld shooting capability

In addition to excellent mobility made possible by its compact size, light weight and dustproof/splashproof design, this lens features 5-axis image stabilization making handheld shooting with a super-telephoto lens much easier than it's ever been in the past.





# Telephoto Prime Lenses Single-Focal-Length Lenses for Medium Telephoto to Telephoto with 40mm (80mm of 35mm equivalent) and up.





600mm (35mm equivalent)

Tokina Reflex 300mm F6.3 MF Macro

Max, dia, x Length = Φ66mm x 66mm Weight = 298g Filter diameter = Φ55mm

Palm-size super-telephoto lens with closest focusing distance of 0.8 meter

The use of reflex optics and reduction of the overall lens length have resulted in a lens with a previously unconceivable length of 66mm, a maximum diameter of 66mm and a weight of 298 grams.





Micro Four Thirds System compatible Telephoto Lens Kit









350mm, 500mm, 850mm. Telephoto lens kit for shooting in three focal lengths with a single lens

To minimize the chromatic aberrations (color fringing) that lenses with long focal lengths tend to produce, this lens employs one fluorite crystal and two XD (eXtra-low Dispersion) lens elements.

Based on advanced optical technology developed originally for spotting scopes, this lens features the high contrast and crisp imaging performance required of a camera lens.

The standard focal length of the master lens in the Standard Kit is "500mm F5.6", but it can be converted into a brighter telescopic lens of "350mm F4.0" (using the optional TX07 mount adapter) or a more telescopic lens of "850mm F9.6" (using the optional TX17 mount adapter). The mount adapters for the 350mm and 850mm conversion are specifically designed to be combined with the master lens. Each adapter incorporates an XD lens element to ensure excellent optical performance comparable to dedicated





## Macro/Other Prime Lenses





60mm (35mm equivalent) Panasonic : LUMIX G MACRO 30mm F2.8 ASPH. MEGA O.I.S.

Max. dia. x Length = Φ58.8mm x ca.63.5mm Weight = ca.180g Filter diameter = Φ46mm

Single focal length macro lens with 1X life-size close-up capability

With a single focal length of 60mm (35mm equivalent), this macro lens can be used in a variety of applications, from high-powered macro photography to landscape shooting.







60mm (35mm equivalent) OLYMPUS : M.ZUIKO DIGITAL ED 30mm F3.5 Macro

EDATens DSA lens Aspherical lens ZERO Coating MSC Max. dia. x Length = Φ57mm x 60mm Weight = ca.128g Filter diameter = Φ46mm

Powerful macro lens with 2.5X (35mm equiv.) shooting magnification

The 2.5X magnification (35mm equivalent) is the highest in its class and is capable of bringing into view a world difficult to see with the naked

3D



90mm (35mm equivalent)

Macro

Panasonic : LEICA DG MACRO-ELMARIT 45mm F2.8 ASPH, MEGA O.I.S. ED lens Aspherical lens Optical Image Stabilizer (inside lens)

Max. dia. x Length = Φ63mm x ca.62.5mm Weight = ca.225g Filter diameter = Φ46mm

Outstanding image quality that Leica is known for

With imaging performance that meets Leica's demanding performance evaluation criteria, this lens offers consistently high contrast and



Macro

Macro



120mm (35mm equivalent) OLYMPUS: M.ZUIKO DIGITAL

ED 60mm F2.8 Macro E-HR lens HR lens ED lens ZERO Coating MSC Splash-/dust-proof

Max. dia. x Length = Φ56mm x 82mm Weight = 185g Filter diameter = Φ46mm

Dustproof/splashproof nature macro lens

1X macro lens featuring an internal focus system that does not alter the lens length. A focus limit switch is built in for quicker focusing.





65mm (35mm equivalent)\* Panasonic: LUMIX G 12.5mm F12

Max. dia. x Length = Φ57mm x ca.20.5mm Weight = ca.45g

World's first \*\* interchangeable 3D lens

This easy-to-handle compact lens allows

instant 3D still-picture shooting with two built-in optical systems. The left and right images are shot without time lag so even a moving subject is not distorted after synthesis.



\* When the aspect ratio is set at 16:9 with DMC-GH2.
\*\* As of September 21, 2010. Among the interchangeable lenses for digital SLR cameras.









## Four Thirds Lenses

utilizing the accurate, quick phase-detection AF, the traditional Four Thirds System format allows you to fully enjoy the high image quality of the full lineup of Four Thirds lenses.

#### LEICA D LENS



28-100mm (35mm equivalent)

Panasonic: LEICA D VARIO-ELMARIT 14-50mm F2.8-3.5 ASPH. MEGA O.I.S. Aspherical lens Optical Image Stabilizer (inside lens)

Max. dia x Length = Φ78.1mm x ca 97.4mm Weight = ca 490g Filter diameter = Φ72mm

Standard zoom with Leica's acclaimed imaging capabilities

The "LEICA D" lenses are the first interchangeable lenses for D-SLF cameras developed by Leica Camera AG in collaboration with Panasonic. This lens incorporates the MEGA O.I.S., which is a gyro-type optical image stabilizer.









28-100mm (35mm equivalent Panasonic: LEICA D VARIO-ELMAR 14-50mm F3.8-5.6 ASPH. MEGA O.I.S.

EDIens Aspherical lens Optical Image Stabilizer (inside lens) Max. dia. x Length = Φ74mm x ca.93mm Weight = ca.434g Filter diameter = Φ57mm

Standard zoom with superb expression capabilities worth the name of Leica

This lens boasts superb performance. minimizing aberrations to produce an image with high contrast and sharpness







Panasonic: LEICA D VARIO-ELMAR

14-150mm F3.5-5.6 ASPH. MEGA O.I.S.

ED lens | Aspherical lens | Supersonic wave motor (XS) | Optical I mage Stabilizer (inside lens)

28-300mm (35mm equivalent)

Max, dia. x Length = Φ78.5mm x ca 90.4mm Weight = ca.535g Filter diameter = Φ72mm



50mm (35mm equivalent) Panasonic: LEICA D SUMMILUX

25mm F1.4 ASPH. Super ED lans | ED lans | Aspherical lans

Max. dia. x Length = Φ77.7mm x ca.75mm Weight = ca.510q Filter diameter = Φ62mm

Large-aperture standard lens with aperture ring equipped, achieving F1.4

This lens combines outstanding F1.4 brightness at maximum aperture with exceptional imaging performance thanks to high resolution and high

contrast.





#### **ZUIKO DIGITAL LENS**



18-36mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 9-18mm F4.0-5.6 EDA Jens DSA Jens Aspherical Jens

Max. dia. x Length = Φ79.5mm x 73mm Weight = 275q Filter diameter = Φ72mm

Ultra-wide-angle zoom lens with lightweight, ultra-compact design



22-44mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL 11-22mm F2.8-3.5 Aspherical lens Splash-/dust-proof

Max. dia. x Length = Φ75mm x 92.5mm Weight = 485g Filter diameter = Φ72mm

Wide zoom boasting bright F2.8-3.5



28-108mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL 14-54mm F2.8-3.5 II Aspherical lens Splash-/dust-proof

Max. dia. x Length =  $\phi$ 74.5mm x 88.5mm Weight = 440g Filter diameter = Φ67mm

High-performance zoom lens with High-Speed Imager AF compatibility



Production of all ZUIKO DIGITAL Four Thirds lenses has been discontinued.

36-360mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 18-180mm F3.5-6.3 ED lens | Aspherical lens

Max. dia. x Length = Φ78mm x 84.5mm Weight = 435g Filter diameter = Φ62mm

Standard 10X zoom lens convenient for



80-300mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 40-150mm F4.0-5.6

Max. dia. x Length = Φ65.5mm x 72mm Weight = 220g Filter diameter = Φ58mn 300mm lens elements in a short 72mm



140-600mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 70-300mm F4.0-5.6

Max. dia. x Length = Φ80mm x 127.5mm Weight = 615g Filter diameter = Φ58mn Compact super-telephoto zoom lens with handheld shooting capability



180-500mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 90-250mm F2.8 ED lens Splash-/dust-proof

Max. dia. x Length = Φ124mm x 276mm Weight = 3,270g (with tripod adapter) Filter diameter = Φ105mm Coverage up to 500mm



50mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL 25mm F2.8

Max. dia. x Length = Φ64mm x 23.5mm Weight = 95g Filter diameter = Φ43mr Pancake-type lens weighing only 95g

Aspherical lens



Macro

100mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 50mm F2.0 Macro ED lans Splash-/dust-proof

Max, dia, x Length = Φ71mm x 61.5mm Weight = 300g Filter diameter = Φ52mn Medium-telephoto macro lens with excellent resolution and contra



600mm (35mm equivalent) OLYMPUS: ZUIKO DIGITAL ED 300mm F2.8 ED line Splash-/dust-proof

Max. dia. x Length =  $\Phi$ 127mm x 285mm. Weight = 3,290g (with tripod adapter). Drop-in filter diameter =  $\Phi$ 43mm. Experience a whole new dimension of brightness and picture quality

### Specification

	Lens			35mm Equivalent	Splash-/	Motorized	Image	Lens Construction	Angle of View	Number of Blades	Minimum		Maximum Image	Filter Size	Diameter(Φ) x Length	Weight	L D O	Lens Front Cap	Lens Hood	Compatibility			Compatibility	
	Lens	wanutacture	Color	Focal length	Dust-Proof	zoom	Stabilizer*	Lens Construction Elements - Groups	Angle of view	Number of Blades	Aperture	Distance (m / in.)	Magnification (35mm equivalent)	(mm)	(mm / in.)	Weight (g / oz.)	Lens Rear Cap	Lens Front Cap	(): Optional	EC-20	EC-14	EX-25	DMW-MA1	MMF-3
	≤ ZUIKO DIGITAL ED 9-18mm F4.0-5.6	OLYMPUS	Black	18-36mm	-	-	-	13 - 9	100°-62°	7 (Circular aperture diaphragm)	22	0.25 / 9.84	0.12x (0.24x)	72	ф79.5×73 / ф3.13×2.84	275 / 9.7	LR-1	LC-72B	LH-75C	Yes*2	Yes*2	-	Yes*4	Yes
- 1 1	☐ ZUIKO DIGITAL 11-22mm F2.8-3.5	OLYMPUS	Black	22-44mm	Yes	-	-	12 - 10	89°-53°	7	22	0.28 / 11.02	0.13x (0.26x)	72	ф75×92.5 / ф2.95×3.64	485 / 17,1	LR-1	LC-72B	LH-75	Yes*3	Yes	-	Yes*4	Yes*6
ΙГ	LEICA D VARIO-ELMARIT 14-50mm F2.8-3.5 ASPH, MEGA O.I.S.	. Panasonio	Black	28-100mm	-	-	Yes	16 - 12	75°- 24°	7	22	0.29 / 11.42	0.16x (0.32x)	72	Ф78.1×са.97.4 / Ф3.07×са.3.83	ca.490 / ca.17.3	VFC4185	VYF3089	VYC0949	Yes*2	Yes	-	Yes*4	Yes*6
- 1 1	∠ EICA D VARIO-ELMAR 14-50mm F3.8-5.6 ASPH. MEGA O.I.S.	Panasonio	Black	28-100mm	-	-	Yes	15 - 11	75°- 24°	7	22	0.29 / 11.42	0.21x (0.42x)	67	ф74×са.93 / ф2.91×са.3.66	ca.434 / ca.15.3	VFC4185	VYF3160	VYC0972	Yes*2	Yes*2	-	Yes	Yes
20	ZUIKO DIGITAL 14-54mm F2.8-3.5 II	OLYMPUS	Black	28-108mm	Yes	-	-	15 - 11	75°- 23°	7 (Circular aperture diaphragm)	22	0.22 / 8.66	0.26x (0.52x)	67	ф74.5×88.5 / ф2.89×3.48	440 / 15.5	LR-1	LC-67B	LH-70D	Yes*3	Yes	Yes*2	Yes*4	Yes
	LEICA D VARIO-ELMAR 14-150mm F3.5-5.6 ASPH. MEGA O.I.S.	Panasonio	Black	28-300mm	-	Yes	Yes	15 - 11	75°-8.2°	7	22	0.5 / 19.69	0.18x (0.36x)	72	ф78.5×са.90.4 / ф3.09×са.3.56	ca.535 / ca.18.9	VFC4185	VYF3089	VYC0975	Yes*2	Yes*2	-	Yes	Yes
L	ZUIKO DIGITAL ED 18-180mm F3.5-6.3	OLYMPUS	Black	36-360mm	-	-	-	15 - 13	62°- 6.9°	7	22	0.45 / 17.72	0.23x (0.46x)	62	ф78×84.5 / ф3.07×3.33	435 / 15.3	LR-1	LC-62B	LH-65	Yes*2	Yes*2	Yes*2	Yes*4	Yes*6
- 1 5	ZUIKO DIGITAL ED 40-150mm F4.0-5.6	OLYMPUS	Black	80-300mm	-	-	-	12 - 9	30°-8.2°	7 (Circular aperture diaphragm)	22	0.9 / 35.43	0.14x (0.28x)	58	Ф65.5×72 / Ф2.58×2.83	220 / 7,8	LR-1	LC-58C	LH-61D	Yes*2	Yes*2	Yes*2	Yes*4*5	Yes*7
	ZUIKO DIGITAL ED 70-300mm F4.0-5.6	OLYMPUS	Black	140-600mm	-	-	-	14 - 10	18°-4.1°	9 (Circular aperture diaphragm)	22	0.96 / 37.8 (MF) 1.2 / 47.24 (AF)	0.50x (1.00x)	58	Ф80×127.5 / Ф3.15×5.02	615 / 21,7	LR-1	LC-58C	LH-61E	Yes*2	Yes*2	Yes*2	Yes*4*5	Yes*7
	ZUIKO DIGITAL ED 90-250mm F2.8	OLYMPUS	Black	180-500mm	Yes	-	-	17 - 12	14°- 5.0°	9 (Circular aperture diaphragm)	22	2.5 / 98.43	0.08x (0.16x)	105	ф124×276 / ф4.88×10.87	3,270 / 115.3	LR-1	LC-140	LH-120B	Yes	Yes	Yes*2	Yes*4	Yes*6
	LEICA D SUMMILUX 25mm F1.4 ASPH.	Panasonic	Black	50mm	-	-	-	10 - 9	47°	7 (Circular aperture diaphragm)	16	0.38 / 14.96	0.09x (0.17x)	62	Ф77.7×са.75 / Ф3.06×са.2.95	ca.510 / ca.18.0	VFC4185	VYF3147	VYC0959	-	-	-	Yes*4*5	Yes*7
13	ZUIKO DIGITAL 25mm F2.8	OLYMPUS	Black	50mm	-	-	-	5 - 4	47°	7 (Circular aperture diaphragm)	22	0.2 / 7.87	0.19x (0.38x)	43	ф64×23.5 / ф2.52×0.93	95 / 3.4	LR-1	LC-43B	(LH-43)	Yes	Yes	Yes*2	Yes*4*5	Yes
"	ZUIKO DIGITAL ED 50mm F2.0 Macro	OLYMPUS	Black	100mm	Yes	-	-	11 - 10	24°	7	22	0.24 / 9.45	0.52x (1.04x)	52	φ71×61.5 / φ2.80×2.42	300 / 10.6	LR-1	LC-52B	LH-55	Yes	Yes	Yes	Yes*4	Yes*6
	ZUJKO DJGJTAL ED 300mm F2,8	OLYMPUS	Black	600mm	Yes	-	-	13 - 11	4.1°	9	22	2.4 / 94.46	0.15x (0.30x)	4type (Built-in 43) *1	ф127×285 / ф5.00×11.22	3,290 / 116.0	LR-1	LC-140	LH-120	Yes	Yes	*2	Yes*4	Yes*6

<sup>\*1:</sup> Dedicated 43mm drop-in filters (including clear, ND4, ND8 and circular polarizing filters). The front filter diameter is 112mm. \*2: Only manual focusing is available.

<sup>\*4:</sup> The vertical-hold detect function is not available with the DMC-G1, DMC-GF1 or DMC-GH1. \*5: Autofocusing is available when the firmware is updated.

<sup>\*7:</sup> The latest-version firmware for the lens is compatible with the High-Speed Imager AF so focusing is easier,

<sup>\*</sup> Since Olympus incorporates image stabilizers in the bodies of its cameras, image stabilization is available with any lens. (Corresponding models: OLYMPUS OM-D series, OLYMPUS PEN series)

<sup>\*3:</sup> Autofocusing is only available at the center distance-measuring point of the viewfinder,

<sup>\*6:</sup> Focusing may be difficult due to incompatibility with the High-Speed Imager AF. In this case, it is recommended to use the "S-AF + MF" mode.

## **Accessories**

lenses, converter lenses, adapters. Expand your creativity and range of expression with these valuable tools,

#### Body Cap Lenses for Micro Four Thirds



#### OLYMPUS: BCL-0980 Fisheye Body Cap Lens (9mm F8.0 Fisheye)

Ultra-thin cap lens that gives you an ultra-wide-angle fisheye view of 140°, The simplified MF lever enables easy one-touch pan-focus and close-up shooting. Available in two colors

- and cruse-up structure, Available III vito crucis, "When using the image stabilization mechanism bull into the camera, set the local length to firm or 8mm if the 9mm setting is not available." Focus adjustment is possible by ordating the MF lever manually. Autofocusing is not available.

  Communication function with the body not available. (Exif data not provided.)



#### OLYMPUS: BCL-1580 Body Cap Lens (15mm F8.0)

Only 9mm thick, this lens can be used as both a body cap and as a pan-focus lens for spur-of-the-moment shots,

- "When using the image stabilization mechanism built into the camera, set the local length to 15mm or 15mm if the 15mm setting is not available." Focus adjustment is possible by rotating the MF lever manually.
- Autofocusing is not available.

  Communication function with the body not available. (Exif data not provided.)

#### Converter Lenses for Micro Four Thirds



#### OLYMPUS: MC-14 M.ZUJKO DIGITAL 1.4x Teleconverter

This extends the focal length of the master lens by 40% with very little image quality degradation. This lens is also dustproof /snlashnroof and resistant to low temperatures

- \*Applicable lensers: M.ZUIKO DIGITAL, ED 40-150mm F2.8 PRO,
  M.ZUIKO DIGITAL ED 300mm F4.0 IS PRO

  \*The effective f-number of the lens drops by one step when this converter is attached.



#### OLYMPUS: WCON-P01 Wide Converter

When attached to the M.ZUIKO DIGITAL 14-42mm F3.5-5.6 II R. lens (set to the wide-angle end of 14mm), this converter makes it possible to shoot wide-angle pictures with a focal length of 11mm (equivalent to 22mm of 35mm film cameras).

- \* Applicable lanses: M.ZUIKO DIGITAL 14-42mm F3.5-5.6 II R
  \* Use at the wide angle end (focal length 14mm) is recommended.
  \* The decorative ring cannot be used in combination with this lens.



#### Panasonic: DMW-GWC1 Wide Conversion Lens This wide-angle converter makes it possible to capture a larger area

in the frame, without interfering with the optical performance of the optical lens to which it is attached. Useful in enhancing the depth of the image by broadening the landscape or the background.

\* Magnification: 0.79x

\* Applicable lanses: LUMIX 6 X VARIO PZ 14-42mm F3.5-5.6 ASPH. POWER 0.I.S.,

LUMIX G 14mm F2.5 II ASPH.



#### Kenko: Extension Tube Set

lens, an extension tube is an intermediate ring that enables close-up photography when mounted. This set includes two rings - one 10mm long and one 16mm long.

- Manual flocusing is recommended.
   The notal combined length of the rings must be shorter than the focal length of the lens.
   The photographing magnification is variable depending on the master lens.
   For details on the lens combination, visit the website of the product manufacturer.



#### Panasonic : DMW-TC20 2.0x Teleconverter

Doubling the focal length of the master lens turns it into a more powerful telephoto lens without degrading the optical performance. \* Applicable lenses: LEICA DG FLMARIT 200mm F2 8 POWER OLS



#### OLYMPUS: MCON-P02 Macro Converter

A macro converter lens attachable to seven different M.ZUIKO DIGITAL lenses to enable macro shooting.

DIGITAL lenses to enable macro shooting.

"Applicable lenses M.ZUIKO DIGITAL FAZER RS.5.5.6 II R. M.ZUIKO DIGITAL ED

"Applicable lenses M.ZUIKO DIGITAL FAZER RS.5.5.6 II R. M.ZUIKO DIGITAL ED

Included Silepup Rings is equaled for use with the three lenses
lested abova, M.ZUIKO DIGITAL ZOIME FLS, M.ZUIKO DIGITAL

"Do not attach the macro cannot for an anaplicable less. Diving so called damage the lens."

Cannot be used an conditionation with a policitation filter or attended opening florid cap.



#### Panasonic: DMW-GMC1 Macro Conversion Lens

This converter enables imaging of fine details that may not be clearly visible when viewed with the naked eye, Useful for shooting things such as small objects with finely detailed decorative engravings of small flowers.

\* Maximum image magnification: 0.35x (With LUMIX G X VARIO P2.14-42mm F3.5-5.6 ASPH. POWER O.L.S., at Tele end) \* Applicable lenses: LUMIX G X VARIO P2.14-42mm F3.5-5.6 ASPH. POWER O.L.S., LUMIX G 14mm F2.5 II ASPH.



#### OLYMPUS: FCON-P01 Fisheye Converter

When attached to the M.ZUIKO DIGITAL 14-42mm F3.5-5.6 II R lens (set to the wide-angle end of 14mm), enables fisheye photography that offers an optimum distortion effect with an angle

"Applicable lenses: M.ZUIKO DIGITAL ED 40-150mm F2.8 PRO, M.ZUIKO DIGITAL ED 300mm F4.0 IS PRO

\* The effective f-number of the lens drops by one step when this converter is attached.



#### Panasonic: DMW-GFC1 Fisheye Conversion Lens

Features 120° angle of view. Allows you to shoot unique images with the curved fisheve effect, Just attach it to the front of the lens to take advantage of this extraordinary and impressive effect. \* Applicable lenses: LUMIX G X VARIO PZ 14-42mm F3.5-5.6 ASPH. POWER O.L.S., LUMIX G 14mm F2.5 LASPH.



#### Panasonic: DMW-GTC1 Tele Conversion Lens

This converter lets you shoot a telephoto image, while maintaining the optical performance of the optical lens to which it is attached. When the converter is attached to the LUMIX G X VARIO PZ 14-42mm F3.5-5.6 ASPH, POWER O.I.S., the combination can be used as a 168mm telephoto lens with up to 2X magnification at the tolonhoto and

\* Applicable lenses: LUMIX G X VARIO PZ 14-42mm F3.5-5.6 ASPH, POWER O.L.S.,

#### Four Thirds Adapters for Micro Four Thirds



#### Snlash-/dust-proof OLYMPUS: MMF-3 Four Thirds Adapter

Mount adapter to enable a Four Thirds lens to be mounted on a Micro Four Thirds lens mount,



#### Panasonic: DMW-MA1 Four Thirds Adapter

Mount adapter to enable a Four Thirds lens to be mounted on a Micro Four Thirds lens mount,

#### Classic Lens Adapters for Micro Four Thirds



#### Panasonic: DMW-MA2M

Mount adapter to enable an M-mount lens of Leica Camera AG to be mounted on a Micro Four Thirds lens mount.



#### Panasonic: DMW-MA3R

Mount adapter to enable an R-mount lens of Leica Camera AG to be mounted on a Micro Four Thirds lens mount,



	Lens	Manufacturer	Color	Splash-/ Dust-Proof	Lens Construction Elements - Groups	Diameter(Φ) x Length (mm / in.)	Weight (g / oz.)	Lens Rear Cap	Lens Front Cap
S	BCL-0980 Fisheye Body Cap Lens (9mm F8.0 Fisheye)	OLYMPUS	Black,White	-	5 - 4	Ф56×12.8 / Ф2.2×0.5	30 / 1.1	LR-2	-
é	BCL-1580 Body Cap Lens (15mm F8.0)	OLYMPUS	White,Silver,Red	-	3-3	Ф56×9 / Ф2.2×0.35	22 / 0.8	LR-2	-
	MC-14 M, ZUIKO DIGITAL 1,4x Teleconverter	OLYMPUS	Black	Yes	6-3	Ф58.8×14.7 / Ф2.31×058	105 / 3.7	LR-2	BC-3
	DMW-TC20 2.0x Teleconverter	Panasonic	Black	Yes	8-5	Фса.58×са.34 / Фса.2.3×са.1.3	ca.160 / 5.6	Available	Available
	FCON-P01 Fisheye Converter	OLYMPUS	Silver	-	3-3	Ф62×38 / Ф2,44×1,5	112 / 4,0	LR-3	LC-62C
1	WCON-P01 Wide Converter	OLYMPUS	Silver	-	2-2	Ф62×30.5 / Ф2.44×1.2	85 / 3.0	LR-3	LC-62C
100	MCON-P02 Macro Converter	OLYMPUS	Black	-	2-1	Ф53×15.1 / Ф2.09×0.59 (with step-up ring)	52 / 1.8 (with step-up ring)	LR-4	LC-53
ol her rei	DMW-GFC1 Fisheye Conversion Lens	Panasonic	Black	-	3-3	Фса.60.5×са.28.4 / Фса.2.4×са.1.1	ca.77 / ca.2.7	Available	Available
"	DMW-GWC1 Wide Conversion Lens	Panasonic	Black	-	3-3	Фса 60,5хса 28 / Фса 2,4хса 1,1	ca.70 / ca.2.5	Available	Available
	DMW-GMC1 Macro Conversion Lens	Panasonic	Black	-	3-2	Фса.53.5×са.24.2 / Фса.2.1×са.1.0	ca.46 / ca.1.6	Available	Available
	DMW-GTC1 Tele Conversion Lens	Panasonic	Black	-	6 - 4	Фса,53,5×са,47.4 / Фса,2,1×са,1,9	ca.81 / ca.2.9	Available	Available
	Extension Tube Set	Kenko Tokina	Black	-	-	Φ57×10 / Φ2.24×0.39 : Φ57×16 / Φ2.24×0.63	48 / 1.7 : 70 / 2.5	-	-
Γ.	MMF-3 Four Thirds Adapter	OLYMPUS	Black	Yes	-	Φ65×19.5 / Φ2.6×0.77	42 / 1.5	LR-2	BC-1
Huapte	DMW-MA1 Four Thirds Adapter	Panasonic	Black	-	-	Фса.71×са.24 / Фса.2.8×са.0.94	ca.87 / ca.3.1	-	-
Die.	DMW-MA2M	Panasonic	Black	-	-	Фса.61×са.13 / Фса.2.4×са.0.51	ca.60 / ca.2.1	-	-
L	DMW-MA3R	Panasonic	Black	-	-	Фса.67хса.33 / Фса.2.64хса.1.3	ca.90 / ca.3.2	-	-

#### Converter Lenses for Four Thirds



#### OLYMPUS: EC-20 ZUIKO DIGITAL 2x Teleconverter

Doubles the focal length of the master lens,

The effective F-number of attached lens drops by 2 steps.

\*Before using the EC-20, be sure to update the camera firmware to the latest version to assure optimum focusing accuracy. For details, visit the website of the product manufacture.



#### OLYMPUS: EC-14 ZUIKO DIGITAL 1.4x Teleconverter

Extends the focal length of the master lens by 1.4x

\* The effective F-number of attached lens drops by 1 step.
\* Before using the EC-14, be sure to update the camera firmware to the latest version to assure optimum focusing accuracy. For details, visit the website of the product



#### OLYMPUS: EX-25 Extension Tube

This is an intermediate ring that enables close-up photography when

mounted between the camera body and an interchangeable lens.

\* Manual focusing is recommended.

\* Image magnification is variable depending on the master lens.

\* For details on lens combinations, visit the website of the product manufacture



Lens	Manufacturer	Color	Splash-/ Dust-Proof	Lens Construction Elements - Groups	Diameter(φ) x Length (mm / in.)	Weight (g / oz.)	Lens Rear Cap	Lens Front Cap
EC-20 ZUIKO DIGITAL 2x Teleconverter	OLYMPUS	Black	Yes	7 - 5	Ф68×41 / Ф2.68×1.61	225 / 7.9	LR-1	BC-1
EC-14 ZUIKO DIGITAL 1,4x Teleconverter	OLYMPUS	Black	Yes	6-5	Ф68×22 / Ф2,68×0,87	170 / 6.0	LR-1	BC-1
EX-25 Extension Tube	OLYMPUS	Black	Yes	-	Ф68×25 / Ф2.68×0.98	150 / 5.3	LR-1	BC-1

# Movie Equipments Expand the potential of movie recording with the mobility of the Micro Four Thirds standard



Blackmagicdesign

#### **Digital Cinema Cameras**



Blackmagic Micro Cinema Camera



Blackmagic Pocket Cinema Camera



Blackmagic Micro Studio Camera 4K



Blackmagic Studio Camera

### **Innovative Camera Systems**



INSPIRE 2



ZENMUSE X5S



DJI MFT 15mm F/1.7 ASPH Prime Lens



OSMO PRO

Photron



OSMO RAW

#### **Industrial Camera Systems**



FASTCAM Multi



Z CAM S1 Pro



Z CAM S1x Pro



Z CAM V1 Pro



Z CAM

Z CAM K1 Pro

#### **Professional Camera Systems**



AG-AF105A



GY-LS300CH



Panasonic JVCKENWOOD KPI

HORSEMAN TS-pro

#### **Camera Lenses**



11-16 T3 CINEMA LENS







Tokina (Kowa)

Cine Prominar 8.5mm T3.0 / 12mm T1.9 / 25mm T1.9

<sup>\*</sup> These products also accept the use of lenses and cameras compliant with the Micro Four Thirds System. However, as there are functional restrictions with certain models, please consult the manufacturer of each product for details. \*For inquiries about Tokina 11-16 T3 Cinema lens, please contact KPI (Kenko Professional Imaging Co., Ltd.).





### With their outstanding imaging capabilities. Lumix and Leica lens technologies deliver superb picture quality

#### **LEICA DG Lens**

Leica, the pioneer of compact camera systems, has long impressed professionals the world over with its lenses. Its worldwide fame as a manufacturer of precision optical devices is built on a constant stream of innovations and inventions that go back more than a century

LEICA DG LENS

The LEICA DG lens designed for Panasonic's LUMIX G Series is another innovation. made possible by LEICA's command of the latest technology in optics and mechanisms. Natural imaging performance with rich gradations throughout the image plane creates an extraordinary sense of texture - so real you can almost touch it. The result is extraordinary expressive power that will allow you to truly realize your creative vision.



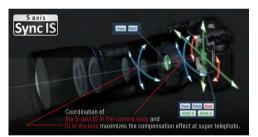
### **Aspherical Lenses**

To assure superior image quality while reducing size and weight, each LUMIX G / LEICA DG lens features a number of aspherical lenses that effectively prevent lens aberrations, such as spherical or distortion aberration. Each aspherical lens has the effect of several spherical lenses. so a higher magnification ratio can be achieved with fewer lenses. The result is smaller overall size and weight. Aspherical lenses are extremely difficult to produce, however, because they demand high dimensional accuracy. In the past this restricted the applicable lens shapes and materials, but Panasonic has made great strides in this area, Our Yamagata Plant began developing cutting-edge production technologies for molded lenses early on, and today the plant manufactures a wide variety of Jenses, including concave Jenses that have a large difference in thickness and measure a mere 0.3mm at the thinnest part. The aspherical lenses with superb image rendering ability produced at this plant are now in widespread use.

#### Image stabilization by interlocking the body and lens Dual I.S.2 / Dual I.S.

With real-time interlocked control of the 5-axis Body Image Stabilization (B.I.S.) and the 2-axis Optical Image Stabilizer (O.I.S.), Dual I.S. offers powerful support for users who need blur-free high-definition images. While B.I.S. on its own has difficulty stabilizing telephoto side images as the focal length is increased, Dual I.S. is able to effectively stabilize the image in the medium telephoto range, as well as throughout the telephoto ranges by interlocking the five axes in the body and the two axes in the lens.

#### Express yourself in more ways than ever M.Zuiko Lenses

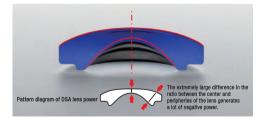


#### 5-axis Sync IS

Incorporating an image stabilization mechanism, the M.ZUIKO DIGITAL ED 300mm F4.0 IS PRO has an image blurring compensation effect equivalent to up to 4 shutter speed steps\*1 and the M.ZUIKO DIGITAL ED 12-100mm IS F4.0 PRO an effect equivalent to up to 5 shutter speed steps\*2 with the lens alone. When combined with a camera featuring 5-axis image stabilization, the stabilization effect can be expanded to as many as 6.5 steps\*3 - quite simply the world's best. This unprecedented stabilization performance assures reliable handheld shooting free from the effects of camera shake even in super-telephoto and zoom shooting.

\*1: CIPA standard compliant, under shake applied in 2 axes (vaw)

C. EPA standard Companies and training applies of a 2 way (analytic) is a food leight of 100mm (epochapet to 200mm with 35mm camera). C. EPA standard Companies and the standard companies are standard to 200mm (epochapet to 200mm with 35mm camera). C. EPA standard Companies are standard to 200mm with 35mm camera). Applicable camera bedies: 6.0 steeps with 04M DE-L1M with frequence Vec. 4.x ONG-DE-L1M Standard to 200mm with 35mm camera). Applicable camera bedies: 6.0 steeps with 04M DE-L1M with frequence Vec. 4.x ONG-DE-L1M Standard with frequence Vec. 2.x ONG-DE-L1M Standard with frequence Vec.



#### Special optical glass lens elements support high image quality in a compact design

Olympus is the world's first manufacturer to successfully mass-produce the sophisticated DSA (Dual Super Aspherical) lens, which features aspherical surfaces on both sides and an extremely large ratio between the center thickness and peripheral thickness. The aspherical design delivers excellent imaging performance by precisely compensating for various aberrations including spherical aberrations, distortions and comatic aberrations. Because this configuration enables effects that would normally require several ordinary lens elements, it makes possible an ultra-compact design. In addition. Olympus adopts a variety of special optical lenses fabricated based on full command of the inherited ZUIKO and other advanced technologies, such as the EDA and Super ED lenses, to contribute to the coexistence of high image quality and compact sizes of M.ZUIKO lenses.

#### ED-DSA lens (Extra-low Dispersion Dual Super Aspherical lens)

by incorporating ED (Extra-low Dispersion) data stopper Aspirerual tens) by incorporating ED (Extra-low Dispersion) glass in a DSA (Dual Super Aspherical) lens, the ED-DSA lens manifests the features of both, With the high color aberration compensation capability of the ED lens and the high multi-aberration bepletical, freme and astignatism aberrations of the DSA lens, the ED-DSA lens further reduces the number of lens elements used, thereby enabling reduction of the overall length and improvement of the

#### EDA lens (Extra-low Dispersion Aspherical lens)

This is an ultrailip-efformance laws with an applicate diseign that uses ED glass material featuring excellent chromatic aberration correction characteristics to ensure excellent inaging performance. While the ED glass compensates for chromatic aberration that applicated ladering infectively compensates various other aberrations including spherical aberrations, distortion and comatic aberrations.

#### Super ED lens (Super Extra-low Dispersion lens)

This lans in added of spure FD uses not have only control to the c

The ED lens also has properties close to fluorite. With a lower change in refractive index in the wavelengths from blue to red than an ordinary optical lens, the ED lens significantly reduces the chromatic aberrations that cause color

#### E-HR lens (Extra-low Dispersion & High Refractive index lens)

This lens is made of an extra-low dispersion lens material similar to that used in the ED lens. While it is capable of reducing chromatic aberrations, the high refractive index allows this lens to compensate for other types of aberrations as well.

#### Super HR lens (Super High Refractive index lens)

#### HR lens (High Refractive index lens)

ctivity of this lens provides it with a high aberration compensation capability as well as small implementation size.

bleeding and contrast deterioration and offers sharp, high-contrast imaging performance.

The very high light refractivity of this lens provides it with a higher aberration compensation capability as well as smaller implementation size than the HR lens.

HD lens (High refractive index & Dispersion lens) bles both a high chromatic aberration compensation and size reduction.





### Introducing Sigma's all-new DN series of lenses -the ultimate lenses for mirrorless interchangeable lens cameras

#### Mirrorless-camera-dedicated DN Lenses

SIGMA lenses with "DN" in the name are designed for optimal performance on cameras with a short flange back. Launched in early 2012, the SIGMA DN Series initially included the 30mm F2.8 EX DN and the 19mm F2.8 EX DN. Designed for exclusive use with mirrorless interchangeable lens camera, both models featured high performance, compact design and smooth, quiet operation. Later in 2013, these new models were incorporated into the Art line, which, thanks to the addition of the 60mm F2.8 DN I Art, included wide-angle, standard and medium telephoto models. The series continued to expand in 2016 with the introduction of the 30mm F1.4 DC DN I Contemporary which successfully married a large F1.4 aperture with a slim, compact design. In 2017, SIGMA introduced another "Contemporary" model, the 16mm F1.4 DC DN I Contemporary. SIGMA is committed to establishing itself as the lens system for mirrorless cameras and to that end will continue to add new models to its lineup to meet a diverse range of requirements.

#### **Art and Contemporary**

SIGMA's Art lenses incorporate optics that deliver the best possible performance in a package that maintains the compact profile of mirrorless interchangeable lens cameras and boasts extremely high optical performance throughout the focus range. AF functions such as continuous AF are included and the speed and quietness of AF operation make these lenses an excellent choice for movie recording. Reliable performance and outstanding focusing capability allow users to focus all their attention on shooting. The Contemporary line lenses epitomize today's state-of-the-art in every aspect including the latest optical design, optimum material selection, and superior movie recording performance. Streamlined, ergonomic, and remarkably compact, these easy-operation lenses make image quality their first priority.



#### To offer excellent products

For evaluation of lens performance, the unique MTF test instrument A1\* employing the 46-mega-pixel FOVEON direct image sensor was developed. This has made it possible to inspect high-frequency components that were previously undetectable. All SIGMA products are subjected to the A1 100% inspection before shipment to ensure maximum performance. \*A1 : Aizu 1

#### "Made in Japan"

All Sigma's manufacturing plant, everything right down to molds and parts is carried out under an integrated production system. We are now one of the very few manufacturers whose products are solely "made in Japan". We like to think our products are somehow imbued with the essence of our homeland, blessed as it is with clean air and water, and focused, hard-working people. We pride ourselves on the authentic quality of Sigma products, born of a marriage between highly attuned expertise and intelligent, advanced technology. Our sophisticated products have satisfied professionals and lovers of photography all over the world, because our manufacturing is based on genuine craftsmanship, underpinned by the passion and pride of our experts.



### The "Lichtriesen" of Voigtländer - Nokton series



NOKTON 10.5mm F0.95





NOKTON 25mm F0.95 Type II



#### Four of the Voigtländer lenses are specifically designed for use on Micro Four Thirds-cameras. They are real stars - the "Lichtriesen" of Voigtländer -

Serving as a so-called "standard lens".

the Nokton F0.95 / 25mm provides pictures that correspond to the angle of view of the human eye. Aperture is critical to the impression that people receive from a photograph.

The extremely fast F0.95 aperture makes it easy for you to capture stunning. crystal-clear images under virtually any conditions.

By using a shallow depth of field, you can create a series of different impressions from the same scene. The superb bokeh of the Nokton makes the subject stand out for extraordinary overall results.

Video- and film-making enthusiasts will be especially impressed by the Selective Aperture Control System featured on Nokton Micro Four Thirds-lenses. This enables smooth, stepless and noiseless changing of the aperture.

Another highlight of four lenses is the very short closest focusing distance. At macro setting, coupled with the fast aperture, this gives you tremendous scope for image design.

With their large, fast aperture, these lenses are extremely bright, making them able to operate very effectively in low light. With a Nokton lens, you'll suddenly find yourself seeking out difficult lighting conditions such as those at dawn or under heavy clouds, so that you can capture beautiful atmospheric images.

The outstanding manufacturing quality of these lenses puts them at the top of their class in every respect. A smooth turning focus ring and click-response aperture ring

reflect the high precision of our manufacturing process.



### Tokina expands the new option of "lightness"

Tokina decided to participate in the Micro Four Thirds System for one very simple reason.

The small image sensor and shorter flange back of the Micro Four Thirds System offer a tremendous advantage in optical design.

This makes it possible to develop new lenses completely different from conventional ones.

"What kind of lens will users of Micro Four Thirds cameras most appreciate?"

Tokina's answer to this question — "a lens that offers characteristics matching those of the camera body" — is based on the deep understanding and knowledge it has gained over its many years as a dedicated lens manufacturer.

#### Reflex 300mm F6.3 MF Macro (Manual Focus)

#### Super-telephoto lens that fits in the palm of your hand

The Reflex 300mm F6.3 MF Macro lens employs Reflex optics to reduce the overall length of the lens by reflecting light with a mirror. The result is previously inconceivable — a compact lens with a length of 66mm, maximum diameter of 66mm, and weight of 298 grams.

### High-precision mirror and aluminium enhanced-reflection mirror coating

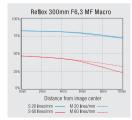
The key to Reflex optics is the surface accuracy of the mirror, so this lens employs a mirror polished with OSCAR-type low-speed grinding to provide a high accuracy equivalent to the test plate glass (Newton gauge). In addition, the aluminum reflection film is treated with special processing to improve the reflection index of the reflection mirror.

#### Closest focusing distance of 0.8m

The Reflex 300mm F6.3 MF Macro lens is not only a super-telephoto lens. It can also approach subjects to a closest focusing distance of 0.8m and shoot pictures with a macro magnification of 1:2. This telephoto macro lens is capable of macro shooting while reserving a working distance.

#### Manual focusing for maximum accuracy

Tokina chose not to provide this lens with AF because of the large focusing rotation angle from ∞ to the closest focusing distance of 0.8m and of the requirement for very precise focusing with some very narrow angles of view, 4°8' at 300mm, for example. Consequently, we decided that manual operation would make focusing more accurate and allow users to feel the "joy of photography." Nevertheless, this lens incorporates a distance encoder just like AF lenses so it is capable of interfacing with the camera to provide distance information.







## Tamron's constantly evolving high-magnification zoom lenses have finally arrived in the world of Micro Four Thirds

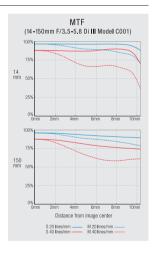
#### 14-150mm F/3.5-5.8 Di III Model C001

## The essence of Tamron technology in a compact, all-in-one™ zoom that minimizes aberrations and maximizes image quality

The optical design of Tamron 14-150mm includes one LD (Low Dispersion) glass element, two AD (Anomalous Dispersion) glass elements, two Molded-Glass Aspherical elements, and one Hybrid Aspherical element. This formula reduces aberrations to a bare minimum to achieve exceptional class-leading image quality. The 14-150mm

zoom is the fruit of Tamron's 20+ years of experience in designing and manufacturing world-class all-in-one zoom lenses. Building an impressive 10.7X zoom range into an ultra-compact lens body is made possible by adopting a more sophisticated multi-stack-cam layout. This advanced cam layout draws on Tamron's extensive engineering expertise, which is focused on innovative space-saving zoom cam structures.

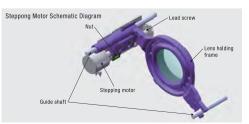




#### A Stepping Motor for quick, quiet auto-focusing

The stepping motor provides fast, quiet, and comfortable autofocus. The stepping motor's actuator allows precise control of angular rotation, and since it drives the focusing mechanism directly without any intermediary reduction gear, it is also exceptionally quiet.

These features also give the lens a seamless, fluid auto-focusing action when shooting video.





## Kowa Micro Four Thirds lenses – carrying on the tradition of the prestigious PROMINAR brand

#### PROMINAR - A half century of excellence -

Beginning with the Kalloflex Automat twin-lens reflex in 1954, Kowa Optical Works produced a succession of one-of-a-kind cameras for about 25 years, culminating with the Kowa Super 66. For over half a century that tradition of original design and advanced technology has been diligently maintained until finally reborn under the name of PROMINAR Micro Four Thirds lenses.



#### PROMINAR - Inherited design concept -

"To reproduce natural colors as they are seen by the human eye" — this is the key concept driving the design of Kowa PROMINAR lenses. Comprising XD (eXtra-low Dispersion) lens, high-precision aspherical lenses and a multilayer film coating, these lenses are able to capture brilliant images with extremely accurate color reproduction, crisp high resolution and the lowest possible distortion all the way to the edges.



#### PROMINAR - The quality of tradition -

Crafted individually by master artisans who fabricate each part individually, then carefully assemble and inspect them, these lenses are reminiscent of a bygone era. Metallic materials are painstakingly shaved to produce a lens with a luxurious texture that feels good to the touch and provides the precision response you would expect from a "made-in-Japan" product.



#### PROMINAR - Technologies leading the way to what's next -

The use of a 9-blade circular aperture diaphragm enables beautiful and natural defocusing effects appropriate to a PROMINAR lens. The aperture ring has a dual link iris system with click/silent switching capability compatible with both still picture and movie shooting.





## Birger Engineering supports the use of Micro Four Thirds System and Four Thirds System lenses in "non-traditional applications".

#### Remote and Automated Control

Birger lens control systems enable the remote and automated control of low cost consumer and professional camera lenses. These control systems are utilized in the Machine Vision, Broadcast, Security, Surveillance and Entertainment markets. Closed loop control and feedback with a high degree of precision and repeatability for focus, aperture and zoom. Now supporting Micro Four Thirds System, and Four Thirds System lenses.

With the addition of a Birger controller, Micro Four Thirds lenses can be a perfect match for sensors and cameras that would typically be provided with a C-mount or CS-mount interface. Typically, the Four Thirds System lenses are faster, sharper, smaller, and more cost effective than photographic lenses designed for a larger image circle. Unlike lenses made specifically for these markets, Four Thirds System lenses with a Birger controller allow for complete automation of all aspects of image acquisition.



#### **BEI Device Interface Software**

Control your lenses from a computer running MacOS or Windows using the "BEI Device Interface Software". This is a free download from the Birger website. Or, control your lenses using a simple command protocol that is the same, regardless of lens manufacturer or lens mount type. This Birger protocol is open, and insulates the user from any lens compatibility or lens platform differences. Birger offers software updates free for the life of the platform.

#### "Any Lens. Any Camera."

Birger provides mechanical and electrical adapters for dozens of different camera types and industry standard interfaces. The connection to the computer controlling the adapter can be RS-232, USB, or Ethernet, allowing for control from as far as half a world away. The Birger command interface is supported by many of the world's leading Machine Vision camera companies. Now, without any additional software engineering work, these same companies can offer support for Micro Four Thirds System, and Four Thirds System lenses, with this new generation of controllers from Birger.

# Blackmagic Design



Blackmagic Micro Cinema Camera

## **JVCKENWOOD**



GY-LS300CH

#### New style of movie recording made possible by the Blackmagic design

#### Blackmagic Micro Cinema Camera

#### The world's smallest digital film camera with innovative remote control!

Introducing the Blackmagic Micro Cinema Camera, a miniaturized Super 16mm digital film camera with 13 stops of dynamic range and a revolutionary expansion port with PWM and S.Bus inputs! You can operate Micro Cinema Camera remotely and capture the action anywhere by using commonly available model airplane remote controllers and video transmitters! Imagine adjusting focus, iris and zoom wirelessly! Micro Cinema Camera is a true digital film quality camera with up to 13 stops of dynamic range, an MET lens mount and built in RAW and ProRes recording!



#### Blackmagic Pocket Cinema Camera

Blackmagic Pocket Cinema Camera is a pocket sized Super 16 digital film camera that's small enough to take with you everywhere, so you'll never miss a shot! You get true digital film images with 13 stops of dynamic range. Super 16 sensor, RAW and ProRes recording, built in SD card recorder, 3.5" LCD screen and the flexibility of an active MFT lens mount. You can easily monitor and review files on the high resolution LCD, precisely check focus with 1:1 zoom and check camera status with on screen display. You even get built in metadata entry!



Blackmagic Micro Studio Camera 4K

#### Blackmagic Micro Studio Camera 4K

The Blackmagic Micro Studio Camera is an incredibly small Ultra HD studio camera that can be remote controlled via SDI and completely customized so you can mount it virtually anywhere! You get a broadcast quality Ultra HD sensor, MFT lens mount, built in primary color corrector, talkback, tally and a unique expansion port that features PTZ control, lens control and more! Micro Studio Camera is the perfect camera for live studio production, sports flyovers and hidden camera work in both HD and Ultra HD!

#### Super 35 CMOS image sensor creates professional 4K images



#### Variable Scan Mapping maintains native angle of view for a variety of lenses

JVC's unique variable scan mapping allows you to dynamically map the pixels on the GY-LS300 4K image sensor to your target output resolution. It enables use of a wide variety of high quality lenses maintaining their native field of view without vignetting. This feature, coupled to the zoom control capabilities of the camcorder, allows you to magnify the image of fixed focus lenses, or extend the range of zoom lenses while shooting.



#### JVC Log (J-Log1) Gamma Modes for Truly Cinematic Results and HDR solution

JVC provides the Log Gamma modes, expanding the recorded image dynamic range by 800% with film-like latitude by preserving more information over the entire dynamic range of the sensor for grading and manipulation in postproduction. In this gamma mode, 80% coverage of the "ITU-R BT.2020" wide color space is possible. JVC provides 3 type LUTs converting J-Log1 to color gamut of "ITU-R BT.709", "ITU-R BT.2020", "ITU-R BT.2100 (HDR Hybrid Log Gamma)" for color grading in post. These LUTs expand utility of J-Log1 including HLG workflow, and give you the opportunity to create truly cinematic results and HDR solution.



#### Cinema 4K, Cinema 2K recording for the ultimate cinema look, and more...

Cinema 4K (4096 x 2160) and Cinema 2K (2048 x 1080) with 17:9 aspect ratio recording expand GY-LS300's range of applications, for cinema quality documentaries or for film-quality resolution and presence.

New LUT files are released which convert J-Log1 video to color gamut of "DCI-X'Y'Z'" or "DCI-P3(R'G'B')", digital cinema standard. "DCI-X'Y'Z'" LUT files enables color grading with as wide color space as DCP for cinema theater.

# **Specification**



Lens	Manufacturer	Color	35mm Equivalent Focal length	Splash-/ Dust-Proo	Motorized f zoom	Image Stabilizer*	Lens Construction Elements - Groups Angle of	View	Number of Blades	Minimum Aperture	Closest Focusing Distance (m / in.)	Maximum Image Magnification (35mm equivalent)	Filter Size (mm)	Diameter(φ) x Length (mm / in.)	Weight (g / oz.)	Lens Rear Cap (): Optional	Lens Front Cap (): Optional	Lens Hood (): Optional
M.ZUIKO DIGITAL ED 7-14mm F2.8 PRO	OLYMPUS	Black	14-28mm	Yes			14 - 11 114° - 7		7(Circular aperture diaphragm)	22	0.2 / 7.87 0.25 / 9.84	0.12x (0.24x)		Ф78.9×105.8 / Ф3.12×4.17	534 / 18.8	LR-2 Available (DMR-LRC1)	LC-79 Available	-
LUMIX G VARIO 7-14mm F4.0 ASPH.	Panasonic Panasonic	Black Black	14-28mm 16-39mm	Yes	<del> </del>		16 - 12 114° - 7		7(Circular aperture diaphragm) 7(Circular aperture diaphragm)	22	0.25 / 9.84	0.08x (0.15x) 0.12x (0.24x)	67	Φ70×ca.83.1 / Φ2.76×ca.3.27 Φ73 4×ca.88 / Φ2.89×ca.3.46	ca.300 / ca.10.58	Available (DMR-LRC1)	Available (DMW-LFC67)	<del> </del>
M.ZUIKO DIGITAL ED 9-18mm F4.0-5.6	OLYMPUS	Black	18-36mm		-	-	12 - 8 100° - 6	62°	7(Circular aperture diaphragm)	22	0.25 / 9.84	0.1x (0.2x)	52	Φ56.5×49.5 / Φ2.22×1.95 (when retracted)	155 / 5.5	LR-2	LC-52C	(LH-55B)
LUMIX G VARIO 12-32mm F3.5-5.6 ASPH, MEGA O.I.S.	Panasonic	Black,Silver	24-64mm	-	-	Yes	8 - 7 84° - 3	17°	7(Circular aperture diaphragm)	22	0.2 / 7.87 (at 12-20mm of focal length) 0.3 / 11.81 (at 21-32mm of focal length)	0.13x (0.26x)	37	Ф55.5×ca.24 / Ф2.19×ca.0.94	ca.70 / ca.2.47	Available (DMR-LRC1)	Available (DMW-LFC37)	-
LUMIX G X VARIO 12-35mm F2.8 II ASPH, POWER O.I.S.	Panasonic	Black	24-70mm	Yes	† <u>-</u> -	Yes	14 - 9 84° - 3	4°	7(Circular aperture diaphragm)	22	0,25 / 9,84	0.17x (0.34x)	58	Ф67.6×са.73.8 / Ф2.66×са.2.91	ca.305 / ca.10.76	Available (DMR-LRC1)	Available (DMW-LFC58)	Available
M.ZUJKO DJGJTAL ED 12-40mm F2.8 PRO	OLYMPUS	Black	24-80mm	Yes		-	14 - 9 84° - 3	0°	7(Circular aperture diaphragm)	22	0.2 / 7.87	0,3x (0,6x)	62	ф69,9×84 / ф2,74×3,31	382 / 13,47	LR-2	LC-62D	LH-66
YI Z00M LENS 12-40mm F3.5-5.6	XIAOYI	Black,Silver	24-80mm	ļ <u>-</u>	ļ <del>-</del>		11 - 9 84.1° - 31		7(Circular aperture diaphragm)	22	0.35 / 13.78	0.11x (0.22x)	49	φ58.3×63 / φ2.29×2.48	ca.183 / ca.6.45	Available (LBC-01)	Available (LFC-49)	ļ <del>.</del>
KODAK PIXPRO SZ ED 12-45mm F3.5-6.3 AF LEICA DG VARIO-ELMARIT12-60mm F2.8-4.0 ASPH. POWER O.I.S.	KODAK Panasonic	Black,White Black	24-90mm 24-120mm	Yes	ļ <u>-</u>	Yes	11 - 9 88.2° - 2 14 - 12 84° - 2		7 9(Circular aperture diaphragm)	22	0.35 / 13.78 0.2 / 7.87 (Wide) 0.24 / 9.44 (Telle)	0.045x (0.09x) 0.3x (0.6x)	49 62	Φ58.1×63 / Φ2.29×2.48 Φ70×ca.86 / Φ2.76×ca.3.39	182.5 / 6.44 ca.320 / ca.11.29	LR-BK01 Available (DMR-LRC1)	LC-BK01 Available (DMW-LFC62)	Available
LUMIX G VARIO 12-60mm F3.5-5.6 ASPH. POWER O.I.S.	Panasonic	Black	24-120mm	Yes	+	Yes	11 - 9 84.05° - 2		7(Circular aperture diaphragm)	22	0.2 / 7.87 (Wide) 0.25 / 9.84 (Tele)	0.27x (0.54x)	58	Φ66×ca.71 / Φ2.60×2.80	ca.210 / ca.7.41	Available (DMR-LRC1)	Available (DMW-LFC58)	Available
M.ZUIKO DIGITAL ED 12-100mm F4.0 IS PRO	OLYMPUS	Black	24-200mm	Yes	†	Yes	17 - 11 84° - 1	2°	7(Circular aperture diaphragm)	22	0.15 / 5.9 (Wide) 0.45 / 17.7 (Tele)	0.3x(0.6x/Wide)/ 0.21x(0.42x/Tele)	72	Ф77,5×116,5 / Ф3,05×4,58	561 / 19.7	LR-2	LC-72C	LH-76B
M. ZUIKO DIGITAL ED 14-42mm F3.5-5.6 EZ	OLYMPUS	Black, Silver	28-84mm		Yes		8 - 7 75° - 2	q°	5(Circular aperture diaphragm)	22	0.2 / 7.87 (at 14mm of focal length)	0,21x(0,42x/1de)	37	Φ60.6×22.5 / Φ2.38×0.89	93 / 3,27	LR-2	LC-37B (LC-37C)	
M.ZUKO DIGITAL 14-42mm F3.5-5.6 II R	OLYMPUS	Black, Silver	28-84mm		100		8 - 7 75° - 2		7(Circular aperture diaphragm)	22	0.25 / 9.84 (at 14-19mm of focal length)	0.19x (0.38x)	37	(when retracted) Φ56.5×50 / Φ2,22×1.97	113 / 4.0	LR-2	LC-37B	(LH-40)
				<del> </del>	ļ <u>-</u>						0.3 / 11.81 (at 20-42mm of focal length)			(When retracted)				(LH-40)
LUMIX G X VARIO PZ 14-42mm F3.5-5.6 ASPH, POWER O.I.S.	Panasonic	Black,Silver,White	28-84mm	-	Yes	Yes	9 - 8 75° - 29	9°	7(Circular aperture diaphragm)	22	0.2 / 7.87 (at 14-20mm of focal length) 0.3 / 11.81 (at 21-42mm of focal length)	0.17x (0.34x)	37	Φ61×ca.26.8 / Φ2.40×ca.1.06 (when retracted)	ca.95 / ca.3.4	Available (DMR-LRC1)	Available (DMW-LFC37)	-
LUMIX G VARIO 14-42mm F3.5-5.6 II ASPH. MEGA O.I.S	Panasonic	Black,Silver	28-84mm			Yes	9 - 8 75° - 2	9°	7(Circular aperture diaphragm)	22	0.2 / 7.87 (at 14-20mm of focal length) 0.3 / 11.81 (at 21-42mm of focal length)	0.17x (0.34x)	46	Ф56×са.49 / Ф2.20×са.1.93	ca.110 / ca.3.88	Available (DMR-LRC1)	Available (DMW-LFC46)	Available
LUMIX G VARIO 14-45mm F3.5-5.6 ASPH, MEGA O.I.S.	Panasonic	Black	28-90mm	-	-	Yes	12 - 9 75° - 2'	7°	7(Circular aperture diaphragm)	22	0.3 / 11.81	0.17x (0.34x)	52	Ф60×са,60 / Ф2,36×са,2,36	ca.195 / ca.6.88	Available (DMR-LRC1)	Available (DMW-LFC52)	Available
LUMIX G VARIO 14-140mm F3.5-5.6 ASPH. POWER O.I.S	Panasonic	Black,Silver	28-280mm	-		Yes	14 - 12 75° - 8.	.8°	7(Circular aperture diaphragm)	22	0.3 / 11.81 (at 14-20mm of focal length) 0.5 / 19.69 (at 11-140mm of focal length)	0.25x (0.5x)	58	Ф67×са.75 / Ф2.63×са.2.95	ca.265 / ca.9.35	Available (DMR-LRC1)	Available (DMW-LFC58)	Available
Tamron 14-150mm F/3.5-5.8 Di III Model C001	Tamron	Black,Silver	28-300mm	-	-	-	17 - 13 75° - 8.		7(Circular aperture diaphragm)	22	0.5 / 19.69	0.26x (0.52x)	52	Ф63.5×са.80 / Ф2.50×3.15	285 / 9.2	Available	Available	Available (Hower-shaped ler
M.ZUIKO DIGITAL ED 14-150mm F4.0-5.6 II	OLYMPUS	Black	28-300mm	Yes	-	-	15 - 11 75° - 8.		7(Circular aperture diaphragm)	22	0.5 / 19.69	0.22x (0.44x)	58	Ф63.5×83 / Ф2.50×3.27	285 / 9.2	LR-2	LC-58F	LH-61C
LUMIX G X VARIO 35-100mm F2.8 II POWER O.I.S.	Panasonic	Black Black.Silver	70-200mm	Yes	<del>-</del>	Yes Yes	18 - 13 34° - 1; 12 - 9 34° - 1;		7(Circular aperture diaphragm)	22	0.85 / 33.46	0.1x (0.2x)	58 46	Φ67.4×ca.99.9 / Φ2.66×ca.3.93 Φ55.5×ca.50 / Φ2.19×ca.1.97 (when retracted)	ca.357 / ca.12.5 ca.135 / ca.4.76	Available (DMR-LRC1) Available (DMR-LRC1)	Available (DMW-LFC58) Available (DMW-LFC46)	Available Available
LUMIX G VARIO 35-100mm F4.0-5.6 ASPH. MEGA 0.I.S. M.ZUIKO DIGITAL FD 40-150mm F2.8 PRO	Panasonic OLYMPUS	Black, Sliver Black	70-200mm 80-300mm	Yes	+	Yes	16 - 10 30° - 8.		7(Circular aperture diaphragm) 9(Circular aperture diaphragm)	22	0.9 / 35.43 0.7 / 27.56	0.11x (0.22x) 0.21x (0.42x)	72	Φ79.4×160 / Φ3.13×6.30	760 / 26.8 *3	LR-2	LC-72C	Available LH-76
M.ZUIKO DIGITAL ED 40-150mm F4.0-5.6 R	OLYMPUS	Black,Silver	80-300mm	- 100		-	13 - 10 30° - 8.		7(Circular aperture diaphragm)	22	0.9 / 35.43	0,16x (0,32x)	58	Φ63.5×83 / Φ2.50×3.27	190 / 6,7	LR-2	LC-58E	(LH-61D)
KODAK PIXPRO SZ ED 42.5-160mm F3.9-5.9 AF	KODAK	Black,White	85-320mm		†	-	15 - 10 29° - 7.		7	22	1.0 / 39.4	0.042x (0.08x)	49	Φ58.7×80.4 / Φ2.31×3.17	205 / 7,23	LR-BK01	LC-BK01	-
말 LUMIX G VARIO 45-150mm F4.0-5.6 ASPH. MEGA O.I.S.	Panasonic	Black,Silver	90-300mm	-	-	Yes	12 - 9 27° - 8.	.2°	7(Circular aperture diaphragm)	22	0.9 / 35.43	0.17x (0.35x)	52	ф62×са.73 / ф2.44×са.2.87	ca.200 / ca.7.05	Available (DMR-LRC1)	Available (DMW-LFC52)	Avai ab e
LUMIX G X VARIO PZ 45-175mm F4.0-5.6 ASPH. POWER O.I.S	Panasonic	Black,Silver	90-350mm	-	Yes	Yes	14 - 10 27° - 7.		7(Circular aperture diaphragm)	22	0.9 / 35.43	0.2x (0.4x)	46	Ф61.6×ca.90 / Ф2.43×ca.3.54	ca.210 / ca.7.41	Available (DMR-LRC1)	Available (DMW-LFC46)	Available
LUMIX G VARIO 45-200mm F4.0-5.6    POWER 0.1.S.	Panasonic	Black	90-400mm	Yes	ļ <del>-</del>	Yes	16 - 13 27° - 6.		7(Circular aperture diaphragm)	22	1.0 / 39.4 0.9 / 35.43 (at 75mm of focal length)	0.19x (0.38x)	52	ф70×са 100 / ф2.76×са 3.94	ca.370 / ca.13	Available (DMR-LRC1)	Available (DMW-LFC52)	Available
M.ZUIKO DIGITAL ED 75-300mm F4.8-6.7 II	OLYMPUS	Black	150-600mm	-	-	-	18 - 13 16° - 4.	.1°	7(Circular aperture diaphragm)	22	1.5 / 59.06 (except 75mm of focal length)	0.18x (0.36x)	58	Ф69×116.5 / Ф2.72×4.59	423 / 14.92	LR-2	LC-58E	(LH-61E)
LUMIX G VARIO 100-300mm F4.0-5.6 II POWER O.I.S.	Panasonic	Black	200-600mm	Yes	ļ	Yes	17 - 12 12° - 4.		7(Circular aperture diaphragm)	22	1.5 / 59.06	0.21x (0.42x)	67	Ф73.6×са.126 / Ф2.90×са.4.96	ca.520 / ca.18.3	Available (DMR-LRC1)	Available (DMW-LFC67)	Available
LEICA DG VARIO-ELMAR 100-400mm F4.0-6.3 ASPH, POWER 0.I.S. M.ZUIKO DIGITAL ED 8mm F1.8 Fisheye PRO	Panasonic OLYMPUS	Black Black	200-800mm 16mm	Yes	-	Yes	20 - 13 12° - 3. 17 - 15 180°		9(Circular aperture diaphragm)	22	1.3 / 51.18 (FULL) 5.0 / 196.85 (LIMIT) 0.12 / 4.72	0.25x (0.5x) 0.2x (0.4x)	72	Φ83×ca.171.5 / Φ3.27×ca.6.75 Φ62×80 / Φ2.44×3.15	ca.985 / ca.34.7	Available LR-2	Available LC-62E	Available
LUMIX G FISHFYF 8mm F3.5	Panasonic	Black	16mm	Yes -	+		10 - 9 180°		7(Circular aperture diaphragm) 7(Circular aperture diaphragm)	22	0.1 / 3.96	0.2x (0.4x)	22 x 22	Φ60.7×ca.51.7 / Φ2.39×ca.2.04	ca.165 / ca.5.82	Available (DMR-LRC1)	Available	<del> </del>
KOWA PROMINAR 8.5mm F2.8	Kowa	Black, Silver, Green	17mm	† <u>-</u>	†	-	17 - 14 106°		9(Circular aperture diaphragm)	16	0.2 / 7.87	0.08x (0.16x)	86	Φ71.5×86.8 / Φ2.81×3.41	440 / 15.52	Available	Available	Available
NOKTON 10.5mm F0.95	Voigt änder	Black	21mm			-	13 - 10 93°		10	16	0.17 / 6.69	0,12x (0,24x)	72	ф77×82.4 / ф3.03×3.24	585 / 20,6	Avai <b>l</b> able	Available	Avai ab e
LEICA DG SUMMILUX 12mm F1.4 ASPH.	Panasonic	Black	24mm	Yes	ļ	ļ <u>-</u>	15 - 12 84°		9(Circular aperture diaphragm)	16	0.2 / 7.87	0.1x (0.2x)	62	Ф70×са.70 / Ф2.75×са.2.75	ca.335 / ca.11.8	Available	Available (DMW-LFC62)	Available
KOWA PROMINAR 12mm F1.8  ➤ M.ZUIKO DIGITAL FD 12mm F2.0	Kowa OLYMPUS	Black, Silver, Green Black	24mm 24mm		ļ	ļ <u>-</u>	12 - 10 86.8°		9(Circular aperture diaphragm)	16	0.2 / 7.87 0.2 / 7.87	0.1x (0.2x) 0.08x (0.16x)	72 46	Φ76.4×90.5 / Φ3.01×3.56 Φ56×43 / Φ2.20×1.69	475 / 16.76 130 / 4.6	Available I R-2	Available LC-46 (LC-48B)	Available (LH-48)
B LUMIX G 14mm F2.5 II ASPH.	Panasonic	Black.Silver	24IIIIII 28mm		+		6-5 75°		7(Circular aperture diaphragm) 7(Circular aperture diaphragm)	22	0.277.87	0.1x (0.2x)	46	Φ55.5×ca.20.5 / Φ2.19×ca.0.81	ca.55 / ca.1.9	Available (DMR-LRC1)	Available (DMW-LFC46)	(LR-40)
LEICA DG SUMMILUX 15mm F1.7 ASPH.	Panasonic	Black,Silver	30mm		†		9 - 7 72°		7(Circular aperture diaphragm)	22	0.2 / 7.87	0,1x (0,2x)	46	Φ57.5×ca.36 / Φ2.26×ca.1.42	ca.115 / ca.4.06	Available (DMR-LRC1)	Available (DMW-LFC46)	Available
SIGMA 16mm F1.4 DC DN I Contemporary	SIGMA	Black	32mm			-	16 - 13 68.1°	0	9(Circular aperture diaphragm)	16	0.25 / 9.84	0.1x (0.2x)	67	ф72.2×91.1 / ф2.84×3.59	395 / 13.9	LCR II	LCF III 67	LH716-01
M.ZUIKO DIGITAL ED 17mm F1.2 PRO	OLYMPUS	Black	34mm		ļ	ļ <del>.</del>	15 - 11 65°		9(Circular aperture diaphragm)	16	0.2 / 7.87	0.15x (0.3x)	62	Φ68.2×87 / Φ2.69×3.43	390 / 13.76	LR-2	LC-62F	LH-66C
M.ZUIKO DIGITAL 17mm F1.8 NOKTON 17.5mm F0.95	OLYMPUS Voigtländer	Black,Silver Black	34mm 35mm		ļ	ļ <u>-</u>	9 - 6 65° 13 - 9 64.6°		7(Circular aperture diaphragm)	22	0.25 / 9.84	0.08x (0.16x) 0.25x (0.5x)	46 58	Φ57.5×35.5 / Φ2.26×1.40 Φ63.4×80 / Φ2.50×3.15	120 / 4.23 540 / 19.0	LR-2 Available	LC-46 (LC-48B) Available	(LH-48B) Available
SIGMA 19mm F2.8 DN I Art	SIGMA	Black.Silver	38mm		<u> </u>		8 - 6 59.3°		7(Circular aperture diaphragm)	16	0.15 / 5.91	0.14x (0.27x)	46	Φ63.4×607 Φ2.30×3.15 Φ60.8×45.7 / Φ2.39×1.80	160 / 5.6	LCR II	LCF III 46	LH520-03
LUMIX G 20mm F1,7    ASPH.	Panasonic	Black,Silver	40mm	-	-	-	7 - 5 57°		7(Circular aperture diaphragm)	16	0.2 / 7.87	0.13x (0.25x)	46	Ф63×са.25.5 / Ф2.48×са.1.00	ca.87 / ca.3.07	Available (DMR-LRC1)	Available (DMW-LFC46)	-
NOKTON 25mm F0.95 Type II	Voigtländer	Black	50mm			-	11 - 8 47.3°	0	10	16	0.17 / 6.69	0.26x (0.52x)	52	ф60.6×70 / ф2.39×2.75	435 / 15.34	Available	Available	Available
M.ZUIKO DIGITAL ED 25mm F1.2 PRO	OLYMPUS	Black	50mm	Yes	ļ <del>.</del>		19 - 14 47°		9(Circular aperture diaphragm)	16	0.3 / 11.81	0.11x (0.22x)	62	ф70×87 / ф2.75×3.42	410 / 14.5	LR-2	LC-62F	LH-66B
LEICA DG SUMMILUX 25mm F1.4 ASPH.	Panasonic Panasonic	Black Black,Silver	50mm 50mm		ļ <u>-</u>	ļ <u>-</u>	9 - 7 47° 8 - 7 47°		7 (Circular aperture diaphragm)	16	0.3 / 11.81 0.25 / 9.84	0.11x (0.22x) 0.14x (0.28x)	46 46	Φ63×ca,54,5 / Φ2,48×ca,2,15 Φ60.8×ca,52 / Φ2,39×ca,2,05	ca.200 / ca.7.05 ca.125 / ca.4.41	Available (DMR-LRC1) Available	Available (DMW-LFC46) Available (DMW-LFC46)	Available Available
LUMIX G 25mm F1.7 ASPH.	Fanasonic Kowa	Black, Silver. Green	50mm 50mm		+		8-6 50.2		7(Circular aperture diaphragm) 9(Circular aperture diaphragm)	16	0.25 / 9.84	0.14x (0.28x) 0.15x (0.3x)	46 55	Φ60.8×ca.52 / Φ2.39×ca.2.05 Φ60×94 / Φ2.36×3.7	ca.125 / ca.4.41 400 / 14.12	Available Available	Available (DMW-LFC46) Available	Available Available
M. ZUIKO DIGITAL 25mm F1.8	OLYMPUS	Black, Silver	50mm	-	†	-	9-7 47°		7(Circular aperture diaphragm)	22	0.25 / 9.84	0.12x (0.24x)	46	Φ57.8×42 / Φ2.28×1.65	137 /4.83	LR-2	LC-46	LH-49B
SIGMA 30mm F1.4 DC DN   Contemporary	SIGMA	Black	60mm	-		-	9 - 7 39.6°		9(Circular aperture diaphragm)	16	0.3 / 11.81	0,14x (0,28x)	52	ф64.8×72.1 / ф2.55×2.84	260 / 9.2	LCR	LCF     52	LH586-01
SIGMA 30mm F2.8 DN   Art	SIGMA	Black,Silver	60mm	-		-	7 - 5 39.6°	_	7(Circular aperture diaphragm)	22	0.3 / 11.81	0.12x (0.24x)	46	Ф60.8×40.5 / Ф2.39×1.59	140 / 4.99	LCRII	LCF III 46	LH520-03
NOKTON 42.5mm F0.95	Voigtländer	Black	85mm	ļ <u>-</u>	ļ	- V	11 - 8 30.5°	•	0/0/	16	0.23 / 9.06	0.25x (0.5x)	58	Φ64.3×74.6 / Φ2.53×2.94	571 / 20.14	Available (DMD L DC1)	Available	Available Available
LEICA DG NOCTICRON 42.5mm F1.2 ASPH, POWER 0.I.S LUMIX G 42.5mm F1.7 ASPH, POWER 0.I.S.	Panasonic Panasonic	Black Black, Silver	85mm 85mm		+	Yes	14 - 11 29° 10 - 8 29°		9(Circular aperture diaphragm) 7(Circular aperture diaphragm)	16	0.5 / 19.69 0.31 / 12.20	0.1x (0.2x) 0.2x (0.4x)	67 37	Φ74×ca,76.8 / Φ2.91×ca,3.02 Φ55×ca,50 / Φ2.17×ca,1.97	ca.425 / ca.15.0 ca.130 / ca.4.59	Available (DMR-LRC1) Available	Available (DMW-LFC67) Available (DMW-LFC37)	Available Available
YI LENS 42.5mm F1.8	XIAOYI	Black, Silver	85mm		† <u>-</u>	- 102	6-6 29°		7 (Circular aperture diaphragm)	22	0.5 / 19.69(Normal mode)	0.25x (0.5x)	49	Φ56.5x61 / Φ2.22×2.4	ca.120 / ca.4.23	Available (LBC-01)	Available (LFC-49)	Availabil
M.ZUJKO DJGJTAL ED 45mm F1,2 PRO	OLYMPUS	Black	90mm	Yes	+		14 - 10 27°		9(Circular aperture diaphragm)	16	0,25 / 9,84(Macro mode) 0.5 / 19.69	0.23x (0.3x)	62	Φ70×84.9 / Φ2.75×3.34	410 / 14,5	LR-2	LC-62F	LH-66B
M.ZUIKO DIGITAL ED 4511111 F1,2 PRO  M.ZUIKO DIGITAL 45mm F1,8	OLYMPUS	Black,Silver	90mm	- 169	<del> </del>	-	9-8 27°		7(Circular aperture diaphragm)	22	0.5 / 19.69	0.11x (0.22x)	37	Φ/0×84.97 Φ2.75×3.34 Φ56×46 / Φ2.2×1.81	116 / 4.1	LR-2	LC-37B	(LH-40B)
SIGMA 60mm F2.8 DN I Art	SIGMA	Black,Silver	120mm			-	8 - 6 20.4°		7(Circular aperture diaphragm)	22	0.5 / 19.69	0.14x (0.28x)	46	φ60.8×55.5 / φ2.39×2.19	190 / 6.7	LCRII	LCF III 46	LH520-03
M.ZUIKO DIGITAL ED 75mm F1.8	OLYMPUS	Black,Silver	150mm	1 -	I	-	10 - 9 16°		9(Circular aperture diaphragm)	22	0.84 / 33.07	0.1x (0.2x)	58	Ф64×69 / Ф2.52×2.72	305 / 10.76	LR-2	LC-58E (LC-61)	(LH-61F)
LEICA DG ELMARIT 200mm F2.8 POWER 0.I.S.	Panasonic	Black	400mm	Yes		Yes	15 - 13 6.2°		9(Circular aperture diaphragm)	22	1.15 / 45.28	0.2x (0.4x)	77	Ф87.4×ca.174 / Ф3.44×ca.6.85	ca.1,245 / ca.43.9 *3	Available (DMR-LRC1)	Available (DMW-LFC77)	Available
M.ZUIKO DIGITAL ED 300mm F4.0 IS PRO	OLYMPUS Tables	Black	600mm	Yes	ļ <u>-</u>	Yes	17 - 10 4.1°		9(Circular aperture diaphragm)	22	1.4 / 55.12	0.24x (0.48x)	77	Φ92.5×227 / Φ3.64×8.94	1,270 / 44.7 *3	LR-2	LC-77B	Build in
Reflex 300mm F6.3 MF Macro  LUMIX G MACRO 30mm F2.8 ASPH, MEGA O.I.S.	Kenko Tokina Panasonic	Silver Black	600mm	-	+-	Yes	7 - 3 4°8' 9 - 9 40°	_	None (Reflex type) 7(Circular aperture diaphragm)	22	0.8 / 31.4 0.105 / 4.13	0.5x (1.0x) 1.0x (2.0x)	55 46	Φ66×66 / Φ2.59×2.59 Φ58.8×ca.63.5 / Φ2.31×ca.2.5	298 / 10.51 ca.180 / ca.6.35	Available Available	Available Available (DMW-LFC46)	BH-552 Available
M.ZUIKO DIGITAL ED 30mm F3,5 Macro	OLYMPUS	Black	60mm		<del> </del>	- 100	7-6 40°		7 (Circular aperture diaphragm)	22	0.105 / 4.13	1,25x (2,5x)	46	φ56.6×(a.65.57 φ2.31×(a.2.5 φ57×60 / φ2.24×2.36	128 / 4.51	LR-2	LC-46	Available
LEICA DG MACRO-ELMARIT 45mm F2.8 ASPH. MEGA 0.I.S.	Panasonic	Black	90mm	-	-	Yes	14 - 10 27°		7(Circular aperture diaphragm)	22	0.15 / 5.91(FULL) 0.5 / 19.69(LIMIT)	1.0x (2.0x)	46	Ф63×са.62.5 / Ф2.48×са.2.46	ca.225 / ca.7.94	Available (DMR-LRC1)	Available (DMW-LFC46)	Available
M.ZUIKO DIGITAL ED 60mm F2.8 Macro	OLYMPUS	Black	120mm	Yes	I	-	13 - 10 20°		7(Circular aperture diaphragm)	22	0.19 / 7.48	1.0x (2.0x)	46	ф56×82 / ф2.20×3.23	185 / 6.53	LR-2	LC-46	(LH-49)
I LUMIX G 12 5mm F12	Panasonic	Black	65mm *2	-	T -	-	4 - 3 (x2) 37° *2	2	Fixed diaphragm	12 (Fixed)	0,6 / 23,62	0.02x (0.1x)*2	-	Φ57×ca.20.5 / Φ2.24×ca.0.81	ca.45 / ca.1.59	Available (DMR-LRC1)	Available	-

<sup>\*1: 0.29</sup> in certain focal length range. \*2: When setting the aspect ratio to 16:9 with DMS-GH2. \*3: Weight without the tripod adapter.

<sup>\*</sup> Since Olympus incorporates image stabilizers in the bodies of its cameras, image stabilization is available with any lens. (Corresponding models: OLYMPUS OM-D series, OLYMPUS PEN series)

\* The compression level of product photographs shown in this catalog varies. Check the above tables for actual sizes.

\* Specifications and design are subject to change without notice.