



News Release June 13, 2019

## **Olympus Tough TG-6 Compact Digital Camera**

Perfect for Outdoor Shooting with Tough Performance, Macro Functions and a Newly-developed Circular Fisheye Converter

Olympus Corporation (President: Yasuo Takeuchi) is pleased to announce the Olympus Tough TG-6 compact digital camera, scheduled for availability in late July 2019. This model features Tough performance construction that can shoot underwater up to 15 m deep, with a high-speed f/2.0<sup>1</sup> zoom lens to capture high-quality images in various shooting conditions.

#### Sales Outline

Category	Product Name	MSRP	Launch Date
Compact digital camera	Olympus Tough TG-6 (Red/Black)	Open price	Late July 2019

#### Main Features

- 1. Tough performance for shooting anytime: waterproof, dustproof, shockproof, crushproof, freezeproof, and anti-fogging
- 2. High-quality images obtained through a combination of the f/2.0 lens, back-lit CMOS sensor, and TruePic VIII image processor
- 3. Variable Macro System that goes beyond the limits of the eye with close-up shooting capabilities up to 1 cm from the subject
- 4. Full-featured underwater shooting modes and a new fisheye converter that can function underwater





Olympus Tough TG-6 (Left: Red, Right: Black)

<sup>&</sup>lt;sup>1</sup> At the wide-angle end of 25mm (35mm equivalent)

The Olympus Tough TG-6 is the latest model in the Tough series with reliable Tough performance for shooting anytime and anywhere. It is waterproof to a depth of 15 m², dustproof³, shockproof to 2.1 m⁴, crushproof to 100 kgf⁵, freezeproof to -10°C⁶, and features a dual-pane protective glass construction for excellent anti-fogging performance. The Variable Macro System has been further improved for ultra close-up shooting³ up to 1 cm from the subject even in P and A modes. Additionally, a new fisheye converter lens that supports circular fisheye photography has been added to a full lineup of other accessories for expanded shooting possibilities, making this truly the strongest field camera available.

#### Main Features -Details

## 1. <u>Tough performance for shooting anytime: waterproof, dustproof, shockproof, crushproof, freezeproof, and anti-fogging</u>

Sealing throughout the entire camera body and double-lock construction on the camera battery cover and other openings are designed to provide waterproof performance to a depth of 15 m for underwater shooting and excellent dustproof capabilities in sandy and dusty locations. Its floating construction protects the inside of the camera, clearing drop tests up to 2.1 meters, and the reinforced body withstands loads up to 100 kgf. This model is also freezeproof down to -10°C, and the lens features dual-pane protective glass construction to reduce fogging for reliable shooting even in locations with severe temperature differences.



Image of Sealing Construction

<sup>&</sup>lt;sup>2</sup> Waterproof performance is JIS/IEC protection class 8 (IPX8) equivalent. All measurements are according to Olympus testing conditions, and do not guarantee protection from damage or malfunction under all conditions.

<sup>&</sup>lt;sup>3</sup> Dustproof performance is JIS/IEC protection class 6 (IP6X) equivalent. All measurements are according to Olympus testing conditions, and do not guarantee protection from damage or malfunction under all conditions.

<sup>&</sup>lt;sup>4</sup> The Olympus Tough TG-6 is provided with shockproofing to 2.1 m (compliant with MIL-STD810F). This model cleared drop tests under Olympus in-house testing conditions, however Olympus does not guarantee protection from damage or malfunction under all conditions. Olympus in-house shockproof testing conditions: Drop height: 2.1 m, Drop surface: Plywood (lauan laminate), Drop orientation: A total of 26 directions for each surface, each side, and each corner, Number of drop times: Drop test was performed once for each direction.

<sup>&</sup>lt;sup>5</sup> Kilogram-force (kgf) is the unit for measuring force exerted on an object. All measurements are according to Olympus testing conditions, and do not guarantee protection from damage or malfunction under all conditions.

<sup>&</sup>lt;sup>6</sup> The number of recordable still images is reduced at low temperatures.

<sup>&</sup>lt;sup>7</sup> Super Macro setting required.

# 2. <u>High-quality images obtained through a combination of the f/2.0 lens, back-lit CMOS sensor, and TruePic VIII image processor</u>

This model is also equipped with a high-speed, high-performance f/2.0 zoom lens and a hi-speed back-lit CMOS image sensor that has superb high-sensitivity performance. Anti-reflective (AR) coating is used on both sides of the sealing glass for the image sensor to reduce ghosts and flares. The TruePic VIII from the Olympus OM-D E-M1X professional model is used on this model, reducing noise levels, and improving the resolution in low contrast areas. RAW data can also be recorded and then edited to look exactly the way users like using the Olympus Workspace image editing software.

AR coating (Anti-Reflective coating)

Sealing glass

Light reflections on AR coating

# 3. <u>Variable Macro System that goes beyond the limits of the eye with close-up shooting capabilities up to 1 cm from the subject</u>

Equipped with the Variable Macro System, this model is equipped with four shooting modes, boasting a closest focusing distance up to 1 cm from the end of the lens and a maximum shooting magnification of 7x<sup>8</sup>. This excellent close-up shooting performance makes it possible to shoot high-quality images of the microscopic world that the human eye cannot see. A closest focusing distance of 1 cm is possible for close-up shots even in P and A modes for more flexible photography.

#### Microscope mode

With this mode, users can capture high-quality, detailed images of tiny subjects that are difficult to see with the naked eye, such as the antennae and feet of insects, the veins of a leaf on a tree, snowflakes, etc. A maximum shooting magnification of 7x is possible when the optical zoom is set to the telephoto end and the subject is 1 cm away from the end of the lens, delivering magnified shots, similar to using a microscope.



Image shot with maximum shooting magnification

#### Microscope control mode

Users can switch display magnification ratios with the press of a single button similar to switching microscope objective lenses for observing and photographing subjects at 1x, 2x, and 4x. When the subject is 1 cm from the end of the lens while using this mode, the image on the rear LCD monitor can zoom in up to 44.4x.

<sup>8 35</sup>mm equivalent

## Focus stacking mode9

Focus stacking mode captures multiple shots while automatically shifting the focus from the foreground to the background. Only the areas in focus are extracted and merged, resulting in a full pixel photo with a deep depth of focus. This is particularly effective for macro shooting when shots have a shallow depth of field and a narrow range of focus. Between 3 and 10 shots can be set on the Tough TG-6 so users can fine tune settings for different subjects and precision in the finished shot.

#### Focus bracketing mode

With a single shot, this function captures up to 30 images while shifting the focus from the foreground to the background. Three levels of focal shift and number of shots can be selected to perfectly match the subject and shooting conditions. This feature is convenient for instantly setting the focal position when shooting flower petals and the wings of insects, etc.



Focus bracketing

## 4. <u>Full-featured underwater shooting modes and a new fisheye converter that can</u> function underwater

To expand the possibilities of underwater shooting ever further, the Tough TG-6 is equipped with five underwater modes, including Underwater Wide, Underwater Snapshot, Underwater Macro, Underwater Microscope, and Underwater HDR. Each mode switches to shooting settings optimized for various situations. The popular Underwater White Balance mode has been expanded to three options, providing appropriate color adjustment for deep water shooting. The new Fisheye Converter FCON-T02, for circular fisheye photography, has been added to a versatile lineup of accessories to further expand shooting possibilities.

#### Five underwater modes

The Tough TG-6 is equipped with five underwater shooting modes optimized to match various conditions.

Underwater Wide: Optimized for shooting in dim underwater conditions and capable of shooting in deeper water.

Underwater Snapshot: Records subjects using the natural lighting in pools and other shallow water for natural-looking photos.

Underwater Macro: Perfect for close-up shots of small subjects such as little fish.

Underwater Microscope: Captures even smaller subjects up to 1 cm from the end of the lens.

Underwater HDR: Dramatically recreates the scene without losing details in dark areas.

<sup>&</sup>lt;sup>9</sup> Use of a tripod is recommended. Processing may take longer than usual.

#### Three underwater white balance modes

This model is equipped with three underwater white balance options for operability in various shooting situations. When one of the above five underwater modes are selected the optimal white balance is also set. White Balance can also be changed manually.

Underwater: Shallow - Mainly for water up to approximately 3 meters deep to improve the red tones that tends to occur in shallow water.

Underwater: Mid Range - Optimally tunes the color for general use in water from 3 to 15 meters deep.

Underwater: Deep - For use with the new Underwater Case PT-059 in water deeper than 15 meters, particularly for improving the blue tones in photos.

### Fisheye Converter, FCON-T02 (New, sold separately)

The new Fisheye Converter FCON-T02 delivers both circular fisheye photography and diagonal fisheye photography via zooming control. It can function even underwater for zoomed-in shots. The Converter Adapter CLA-T01 (sold separately) is required to attach this lens.

#### Other Features

### 1. Full lineup of accessories for system expansion

With the new Fisheye Converter FCON-T02, the Tough TG-6 offers a full lineup of accessories available for expanding shooting possibilities as shown in the system chart below.



**Accessory chart** 

## Lens Barrier, LB-T01 (New, sold separately)

The new lens barrier LB-T01<sup>10</sup> protects the lens surface from scratches and dirt. Because the barrier is easily opened/closed by rotating the edge, operation is smooth even while wearing gloves.



With Lens Barrier LB-T01

<sup>&</sup>lt;sup>10</sup> Cannot be used together with Silicone Jacket CSCH-127

#### Silicone Jacket, CSCH-127 (New, sold separately)

This accessory protects the surface of the camera body from scratches. It also provides a solid grip on the camera when shooting during winter sports and water sports. LED Light Guide LG-1 and Flash Diffuser FD-1 can be used with the silicone jacket attached to the camera.

## **Underwater Case, PT-059**<sup>11</sup> (New, sold separately)

This underwater case is designed exclusively for the Tough TG-6 and can be used down to a depth of 45 meters. The camera control dial is operable even when the camera is stored in the case for easy exposure compensation control underwater. Two external flash units for underwater photography (UFL-3) are compatible for multi-unit flash photography in a compact system.



With Underwater Case PT-059 and Twin-unit flash

### Lithium Ion Battery Charger, UC-92 (New, sold separately)

This new, compact battery charger can fully charge the Lithium Ion Battery LI-92B using a USB port in approximately 2 and a half hours.



**Lithium Ion Battery Charger UC-92** 

<sup>&</sup>lt;sup>11</sup> The Field Sensor System will not operate properly when the camera is stored in the underwater case. Make sure to set the Log Lever to the off position when using the case. Use together with silica gel for best results.

#### 2. Field Sensor System for recording various information

This model is equipped with the Field Sensor System, which uses tracking information obtained from various sensors on the camera, including the GPS<sup>12</sup>, manometer, temperature sensor, and compass for realistic display along with images in the Olympus Image Track (OI.Track) smartphone app. Simply press the INFO button even when the camera is off to display data.



Image of Field Sensor

#### 3. Pro Capture Mode to never miss a shot

Pro Capture Mode shoots sequentially at 10 fps for 0.5 seconds before the shutter button is pressed fully, making it perfect for capturing shots where the timing is difficult, such as an insect in flight and the crown shape as a drop of milk splashes.

#### 4. Advanced video functions Including 4K Movie and High-speed Movie<sup>13</sup>

This model supports 4K Movie, which records beautiful scenery in high definition and can be used to extract full pixel 4K still images. High-speed Movie also records at 120 fps in high-quality Full HD, 240 fps at HD size, and 480 fps at SD size.

#### 5. 1.04 million dot high-definition rear LCD monitor

The new rear LCD monitor now features a 1.04 million pixel high-definition resolution for better visibility. The brightness and color saturation have been optimally tuned for use outdoors.

<sup>&</sup>lt;sup>12</sup> GPS: Global Positioning System. To use GPS Assist data, information must be updated via the internet. A PC or smartphone with an internet connection is required. GPS Assist Data must be updated every 2 weeks. Depending on the country/region of use, different laws and regulations may be applicable regarding the use of the GPS function. Be sure to follow local laws and regulations. Be sure to turn off the GPS function in places where its use is forbidden or restricted, such as inside airplanes. The camera is not equipped with a navigation function. GPS is a positioning measurement system that uses signals received from orbiting satellites. For better reception, avoid locations where signals can be blocked or reflected. Use the camera in as open location as possible where the sky is clearly visible. It may not be possible to obtain positioning information, or positioning information may be incorrect in the following locations: Indoors, underground or underwater, in forests, near tall buildings, near high-voltage lines, inside tunnels, near magnets, metal, or electronic appliances, near mobile phones that operate in the 1.5 GHz band.

<sup>&</sup>lt;sup>13</sup> Use a UHS-1 UHS speed class 3 or higher SD card for 4K Movie and High-speed Movie.

### 6. Date Imprint into still images

It is now possible to embed the date/time of shot into still images. Users can turn this feature on and off to best fit their needs.



**Date Imprint** 



Olympus will celebrate its 100th anniversary on October 12 this year.

We would like to thank all of our customers and stakeholders who have supported the company's development throughout these years.

We look forward to continuing the tradition of contributing to society through Making people's lives healthier, safer and more fulfilling.

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