



# Clifton Cameras Product Specification

## OM System OM-1

### Type

Body material: Magnesium alloy body  
Lens mount: Micro Four Thirds

### Image Sensor

Type: 4/3" Stacked BSI Live MOS sensor  
Effective pixels: 20.4 Megapixels

### Engine

Type: TruePix X

### Filter

Dust reduction filter: Supersonic Wave Filter

### Viewfinder

Type: Electronical Viewfinder  
Pixel number: 5,760 K dots  
Diopter adjustment: Equipped -4.0 - +2.0 diopters / built-in type  
Angle of view: Approx. 100%  
Magnification: Max. 1.65 x with a 50mm lens set to infinity at -1 dioptre (depending on selected viewfinder style)  
Eye point: 21 mm at -1 dioptre from eyepiece lens  
Style: 3 styles selectable  
Brightness adjustment: Adaptive Brightness Technology / Manual settings: +/- 7 levels  
Correction of colour temperature: +/- 7 levels  
S-OVF: Expands the Live View dynamic range  
*\*Available in the EVF when in P, A, S, M and B modes. Art filter, WB and exposure are not reflected in EVF.*

### Live View

Field of view: Approx. 100%  
Magnification levels: 3 / 5 / 7 / 10 / 14 x  
Dynamic range expansion: When in HDR1 or HDR2

### Image Stabiliser

Type: Sensor shift  
Modes: Five-dimensional, vertical or horizontal activation, automatic  
Effective Compensation Range: Up to 8 EV steps\* Sync IS, Up to 7 EV steps\*  
*Based on CIPA measurement conditions*  
*\*When using M.Zuiko Digital ED 12-40mm f/2.8 PRO (focal length =40mm (35mm equivalent: 80mm))*  
*\*When using the M.ZUIKO DIGITAL ED 150-400mm F4.5 TC1.25x IS PRO Focal length: 150mm (35mm equivalent: 300mm), halfway release image stabilisation Off, Frame rate: High*  
Live View: stabilisation Available



### **Focusing System**

Method: TTL phase difference detection system, contrast detection system

Focus areas: 1053 points / cross-type phase detection AF, 1053 points / contrast AF

*All target, Single target (1 point), Small target (9 points),*

*Cross target (39 points), Middle target (63 points), Large*

*target (165 points), Custom target\* (AF area and its*

*increment steps selectable)\*Number of saved custom*

AF working range: -8 - 19 EV (ISO approx.100, with a f/1.2 lens)

AF lock: Available, Locked by first position of shutter release button in single AF mode, AE/AF lock button (customised)

Separate AF-On button: Available

Modes: Manual focus, Preset MF\*\*, Single AF\*, Continuous AF\*,

AF\* Tracking, Stacking, Bracketing

*\* incl. manual override*

*\*\* Distance setting values are rough estimates and only AF lenses can be used.*

AF illuminator: Equipped

Manual focus: Available, With enlarged focusing area, focus peaking and focus indicator

Face Detection extension: Eye Detect AF: Off, Left side priority, Near side priority, Right side priority

Predictive AF: Available

AF tracking: Available, Available in continuous AF mode

### **Focus peaking**

Colour selection: White, black, red, yellow

Intensity: High / Normal / Low

Back light effect: On / Off

### **Focus Bracketing Mode**

Number of images: 3 - 999 shots

Step size :10 levels

Compatible with: All Micro Four Thirds AF lenses

### **Focus Stacking Mode**

Technology: 3-15 images are taken at different focus points and automatically composited together into a single image

*Compatible with: M.Zuiko Digital ED 60mm F2.8 Macro, M.Zuiko Digital ED 30mm F3.5 Macro, M.Zuiko Digital ED 7-14mm F2.8 PRO, M.Zuiko Digital ED 8-25mm F4 PRO, M.Zuiko Digital ED 8mm F1.8 Fisheye PRO, M.Zuiko Digital ED 12-40mm F2.8 PRO, M.Zuiko Digital ED 12-40mm F2.8 PRO II, M.Zuiko Digital ED 12-45mm F4 PRO, M.Zuiko Digital ED 12-100mm F4 IS PRO, M.Zuiko Digital ED 40-150mm F2.8 PRO, M.Zuiko Digital ED 40-150mm F4.0 PRO, M.Zuiko Digital ED 100-400mm F5.0-6.3 IS, M.Zuiko Digital ED 150-400mm F4.5 TC1.25x IS PRO, M.Zuiko Digital ED 300mm F4 PRO M.Zuiko Digital 1.4x Teleconverter MC-14, M.Zuiko Digital 2x Teleconverter MC-20 - Angle of view becomes slightly smaller*



AF targeting pad: Available (activate/deactivate with double tap on rear monitor)  
Intelligent Subject Detection AF: Aircrafts, Bullet trains, Birds, Cats, Dogs, Formula cars, Helicopters, Motorcycles, Rally cars, Standard trains, Steam locomotives  
Focus limit: Available

### **Exposure System**

Modes: Programme automatic, Aperture priority, Shutter priority, Manual, Bulb, Time, Movie, HDR, Custom shooting, Custom 1, Custom 2, Custom 3, Live Composite  
Exposure compensation: +/- 5 EV ( 1, 1/2, 1/3 steps )  
*Note: Monitor and EVF displays only up to 3 EV.*

Exposure bracketing: 2 / 3 / 5 frames ( +/- 1/3, 2/3, 1 EV steps )  
7 frames ( +/- 1/3, 1/2, 2/3 EV steps )  
ISO bracketing: 3 frames ( 1/3, 1/2, 1 EV steps )

AE lock: Available  
Shadow Adjustment Technology  
Flicker Scan: Available for M, S and silent mode (can be confirmed in Live View)

HDR bracketing: 3 / 5 frames ( +/- 2 / 3 EV steps )  
7 frames ( +/- 2 EV steps )

Anti-Flicker Shooting function: Available

### **Multi-Exposure**

Max. number of frames: 2 frames (shooting), 3 frames (editing)  
Auto gain control: Available  
Frame assistance: Live View

### **Light Metering**

Method: TTL open aperture light metering  
Zones: 324 zones Multi-pattern Sensing System  
Detection range: -2 - 20 EV (f2.8, ISO 100)  
Modes: ESP light metering, Spot metering, Centre weighted metering, Highlight, Shadow  
Histogram in shooting mode: Available

### **Art Filter**

Modes :Pop Art, Soft Focus, Pale & Light Colour, Light Tone, Grainy Film, Pin Hole, Diorama, Cross Process, Dramatic Tone, Gentle Sepia, Key Line, Water colour, Vintage,Partial Colour\*, Bleach Bypass, Instant Film  
Variation / Effect: Available  
Art Filter bracketing: Art Filters selectable  
*\* 18 colours selectable*

### **Sensitivity**

Auto: ISO LOW\* - 102400 (upper default ISO 25600)  
Manual: ISO LOW\* - 102400 in 1/3 or 1 EV ISO steps  
*\*approx. 80*



### **Shutter**

Shutter type: Computerised focal-plane shutter

Durability: 400,000 shots

Modes: Single frame, Sequential shooting, Self timer, Bracketing

### **Shutter Speeds**

Shutter speed range: 1/8000 - 60 s (in 1/3, 1/2, 1 EV steps)

Bulb mode: Up to 30 minutes (selectable longest time in the menu, default: 8 minutes)

### **High res shot**

Shutter type: Electronic shutter

Shutter speed: 1/8000 - 60 s

Start delay: 0, 1/8, 1/4, 1/2, 1, 2, 4, 8, 15, 30 s

Resolution JPEG: 10368x7776 / 8160 x 6120 / 5760 x 4320

RAW: 10368 x 7776

*Equivalent to 80M / 50M / 25M pixel sensor (8 shots combined into a single JPEG using sensor shift)*

*Available in P/A/S/M mode*

### **Handheld High res shot**

Shutter type: Electronic shutter

Shutter speed: 1/8000 - 60 s

Resolution JPEG: 8160 x 6120 / 5760 x 4320

RAW: 8160 x 6120

*Equivalent to 50M / 25M pixel sensor (8 shots combined into a single JPEG using sensor shift)*

*Available in P/A/S/M mode*

*Flash can not be used*

### **Anti-shock mode**

Shutter type: Electronic first curtain shutter

Shutter speed: 1/320\* - 60 s

Start delay: 0, 1/8, 1/4, 1/2, 1, 2, 4, 8, 15, 30 s

*\* For speeds over 1/320 sec., mechanical shutter will automatically be selected.*

### **Silent mode**

Shutter type: Electronic shutter

Shutter speed: 1/32000 - 60 s

Start delay: 0, 1/8, 1/4, 1/2, 1, 2, 4, 8, 15, 30 s

### **Flicker Scan**

Stills: 1/7634 - 1/50 s

Movies: 1/250 - 1/30 s \*

\* Frame rates greater 30fps are limited to their reciprocal value

### **White Balance**

Manual White balance (One-Touch): Available

White balance bracketing: 3 frames / +/- 2, 4, 6 mired steps

One-touch white balance: 4 custom settings can be registered

Custom WB: 1 setting can be registered at Kelvin temperature (2000K - 14000K)

Preset values: Tungsten, Flourescent 1, Sunlight, Flash, Overcast, Shade, Underwater

Auto Flash adjustment: Off / Auto WB / Flash



Keep warm colour: On / Off

### **Sequence Shooting**

Speed: Approx. 10 fps (selectable 1-10fps)

### **Anti-shock mode**

Speed: Approx. 10 fps (selectable 1-10fps)

### **Silent mode**

Speed: Approx. 20 fps (selectable 5, 10, 15, 20fps with blackout)

Speed SH1\*: Approx. 120 fps (selectable 60, 100, 120fps without blackout)

Speed SH2\* \*\* Approx. 50 fps (selectable 25, 50fps without blackout)

### **Pro Capture mode**

Speed\*: Approx. 20 fps (selectable 5, 10, 15, 20fps)

Speed SH1\*: Approx. 120 fps (selectable 60, 100, 120fps)

Speed SH2\* \*\*: Approx. 50 fps (selectable 25, 50fps)

*\*Slower shutter speeds and flash can not be used*

*\*Compatible lenses are limited.*

Max. number of frames: All values are approximate

### **Conditions**

Memory card: Toshiba SDXU-D032G with standard card setting in slot 1

When using the M.Zuiko Digital ED 12-40mm F2.8 PRO II

Low ISO processing: Priority is given to sequential shooting

10fps RAW: 139 / JPG (LF): 169

20fps RAW: 108 / JPG (LF): 116

50fps RAW: 96 / JPG (LF): 97

120fps RAW: 92 / JPG (LF): 92

### **Compatible lenses to SH2**

#### **(50fps)**

*M.ZUIKO DIGITAL ED 12-40mm F2.8 PRO, M.ZUIKO DIGITAL ED 12-40mm F2.8 II PRO, M.ZUIKO DIGITAL ED 12-100mm F4.0 IS PRO, M.ZUIKO DIGITAL ED 40-150mm F2.8 PRO, M.Zuiko Digital ED 40-150mm F4.0 PRO, M.ZUIKO DIGITAL ED 150-400mm F4.5 TC 1.25x IS PRO, M.ZUIKO DIGITAL ED 300mm F4.0 IS PRO*

### **Image Processing**

Colour space: sRGB / AdobeRGB

Sharpness + Contrast: 5 levels

Contrast: 5 levels

Saturation: 5 levels

Black & White filter: Yellow, Orange, Red, Green

Black & White toning: Sepia, Blue, Purple or Green in Black & White mode

Gradation: 4 levels (auto, high key, normal, low key)

Art Filter bracketing: Available

Tele converter effect: 2 x



Fisheye compensation :Available when M.Zuiko Digital ED 8mm Fisheye PRO is attached. Angle of view adjustable in 3 levels

Compensation automatically ON when using Underwater Modes, available (can be confirmed in Live View)

#### **External Flash Control**

X-sync speed: 1/250 s / 1/8000 s (Super FP Mode)

Type: TTL AUTO, AUTO, MANUAL, FP TTL AUTO, FP MANUAL

Compatible external flash: FL-LM3, FL-600R, FL-900R, STF-8, FL-700WR

Modes: Auto, Red-eye reduction, Slow synchronisation, 2nd curtain and slow synchronisation, Fill-in for exclusive flash, Manual

Intensity: +/- 3 EV ( 1/3, 1/2, 1 EV steps )

*Note: Some functions are only available if they are supported by the external flash.*

#### **Wireless Flash Control**

Number of channels: 4 channels

Compatible external flash: FL-LM3, FL-600R, FL-900R, STF-8, FL-700WR

Control method: Triggered and controlled (Olympus Wireless RC Flash system)

Group setting: 4 groups

*Available when used together with cameras compatible with the Olympus wireless RC flash system.*

Compatible commander: FC-WR, FL-700WR

*For more details see specifications of commander units.*

Compatible receiver FL-700WR, FR-WR + wireless RC system flash

Radio control: 3 groups

Radio wireless control: Available when attaching optional flash commander.

Number of channels: 4 channels

Modes: Auto, FP TTL Auto, Manual, TTL Auto, FP Manual

#### **Monitor**

Monitor type: Vari-angle LCD - Touch Panel

Monitor size :7.6 cm / 3.0" (3:2)

Resolution: 1,620 K dots

Brightness adjustment: +/- 7 levels

Colour balance: +/- 7 levels

Touch Control functions: AF area enlargement, AF area selection, Art Filter, Enlargement, Enlargement playback, Frame forward/backward, Live Guide, Shooting mode, Shutter release,Super Control Panel, Wi-Fi connection

#### **Recording Formats**

RAW: 12 bit

RAW & JPEG: Applied parallel recording

JPEG: Applied

Aspect ratio: 4:3 / 3:2 / 16:9 / 6:6 / 3:4

#### **Image Size**

RAW: 5184 x 3888, 5184 x 3888 Fine (compression: 1/4)

#### **Still Image Recording**

EXIF: 2.31

DCF: Applied



RAW: Applied

Dual SD card settings: Standard, Auto Switch, Dual Independent, Dual Same

*When two cards are inserted, card to be saved onto or to be viewed can be designated.*

### **Movie Recording System**

Recording format: MOV(MPEG-4AVC/H.264)/ MOV (HEVC/H.265)

Picture mode: Flat, OM-Log400, HLG (View assist compatible)

Time code: Rec run / Free run, Drop frame / Non-drop frame

Image Stabilisation: Mode Applied Sensor shift (5-axis) M-IS1 (Image sensor shift and electronic image stabilizer with multi motion IS) M-IS2 (Image sensor shift with multi motion IS)

MOV(MPEG-4AVC/H.264)

4096x2160 (C4K): 30p, 25p, 24p / LongGOP (approx. 102 Mbps) 60p, 50p / LongGOP (approx. 202 Mbps)

3840x2160 (4K): 30p, 25p, 24p / LongGOP (approx. 102 Mbps) 60p, 50p / LongGOP (approx. 202 Mbps)

1920x1080 (FHD): 30p, 25p, 24p / ALL-I (approx. 202 Mbps)/ LongGOP (approx. 27 Mbps) 60p, 50p / LongGOP (approx. 52 Mbps) MOV (HEVC/H.265)

4096x2160 (C4K): 30p, 25p, 24p / LongGOP (approx. 77 Mbps) 60p, 50p / LongGOP (approx. 152 Mbps)

3840x2160 (4K): 30p, 25p, 24p / LongGOP (approx. 77 Mbps) 60p, 50p / LongGOP (approx. 152 Mbps)

1920x1080 (FHD): 30p, 25p, 24p / ALL-I (approx. 82 Mbps) / LongGOP (approx. 22 Mbps) 60p, 50p / ALL-I (approx. 162 Mbps) / LongGOP (approx. 42 Mbps)

Maximum Recording Time: Unlimited

Exposure Modes: Aperture priority, Manual, Programme automatic, Shutter priority

*Class 10 or higher SD card is recommended for movie shooting UHS-II or UHS-I U3 card is recommended for ALL-I shooting*

### **Movie Specialties**

High-Speed Recording: 1920x1080 (MOV) / 240fps

Time lapse: 4k, 1080p, 720p / 5, 10, 15, 30 fps

*Max. number of frames: 9999*

Fast motion: Available

Slow motion: Available

Art Filter :Cross Process, Diorama, Dramatic Tone, Instant Film, Water colour, Gentle Sepia, Grainy Film, Key Line, Light Tone, Pale & Light Colour, Pin Hole, Pop Art, Soft Focus, Vintage, Partial Colour\*, Bleach Bypass

*Frame rate may drop when using certain art filter*

Flicker Scan: Available in M mode (can be confirmed in Live View)

### **HDMI Live View**

Monitor / Record / RAW

Monitor mode: Video signal and info display is processed



*In monitor mode, the image can not be enlarged on the camera when a movie is being recorded.*

Record mode: Only video signal is processed

*In record mode, movie quality can be set to YCbCr 4:2:2 (8 bit). When recording simultaneously on the camera in 4K/C4K/FHD HS, 4:2:0 is upsampled to 4:2:2. In RAW mode, output video quality is 4K/C4K 12bit RAW data, frame rate follows movie setting, and sound will be recorded. ProRes RAW 4:4:4 12bit is supported.*

#### **Movie Specialties**

1920x1080 / 120fps

1920x1080 / 100fps

#### **Sound Recording System**

Internal microphone: Stereo

Recording format: High quality sound recording (Stereo linear PCM/24-bit, Sampling frequency 96kHz)

Stereo PCM/16bit, 48kHz, Wave Format Base

Image footage: 30 s

Speaker: Equipped

Microphone functions: Wind Noise Reduction, Recording Volume, Volume limiter

#### **View Images**

Modes :Single, Index, Calendar, Zoom, Movie

Auto rotation: Available

Histogram in playback mode: Available

Shooting information: Off / On

Highlight/Shadow point warning: Available

#### **Erase / Protect / Copy Function**

Erase modes: Single, All, Selected

Image protect mode: Single frame, Selected frames, All Frames, Release protect (Single/All selected)

#### **Image Editing**

Editing functions: RAW data edit, Red-eye reduction, Sepia, Black & White, Resize, Correction of saturation, Correction of brightness, Correction of colour balance, Shadow Adjustment, Trimming, Aspect ratio

#### **Interface**

Media: SD Memory Card (SDHC, SDXC, UHS-I, UHS-II compatible) Class 10 or higher SD card is recommended for movie shooting UHS-II or UHS-I U3 card is recommended for 4K, C4K, ALL-I shooting.

HDMI™: Applied Micro connector (Type D) \*

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

USB 3: Type C

Wireless connectivity: Wi-Fi, Bluetooth

Communication method: Bluetooth Low Energy Ver.4.2

Tethered control: Available USB cable (camera operation by both PC or camera controls)

Wi-Fi (transfer of recorded images to PC via access point,

5GHz and 2.4GHz available)



Microphone jack: 3.5 mm mini-jack

Earphone jack: 3.5 mm mini-jack

Synchro socket: Equipped

#### **Wi-Fi Functions**

Easy Connection: QR code setting

Wireless Shooting: Live View, Power off, Rec View, Self timer, Touch AF & Shutter, P/A/S/M exposure modes, Bulb mode, Zoom, Movie recording, Live Composite, Short movie

#### **Power Supply**

Battery: BLX-1 Lithium-Ion Battery

Sleep mode: 1, 3, 5min. and off selectable.

Internal Charging: USB

USB charging: Performance varies depending on different USB devices

USB bus power: USB PD bus power can be used (PD compliant camera: Rev 3.0 Ver 1.0a)

#### **Battery life**

Image shooting: 520 shots (using BLX-1 under CIPA testing conditions) 1,100 shots (using quick sleep mode, under Olympus testing conditions based on CIPA test standards)

Movie recording: 90 min (standard JEITA conditions) 160 min (when zoom and other operational functions are not used)

*\* Note: Values are approximate.*

#### **Dimensions / Weight**

Width: 138.8 mm

Height: 91.6 mm

Depth: 72.7 mm

Weight: 599 g (including battery and memory card)

511 g (body only)