Olympus OM-D E-M1X SPECIFICATIONS

**Sensor / Dust Reduction**
- Sensor Type: 4/3" Live MOS Sensor
- Effective Pixels: 20.4 million
- Total Pixels: 21.8 million
- Aspect Ratio & Area: 4:3 / 17.4 x 13.0mm
- Dust Reduction: Super Sonic Wave Filter

**Processor Type**
- Processor: Dual TruePic™ VIII

**Focusing System**
- Sequential Shooting Maximum Speed
  - High-speed image AF / imager phase detection AF and imager contrast AF used in combination
  - When a Four Thirds lens (mount adapter sold separately necessary) is attached, imager phase detection AF is always enabled.
- AF Working Range
  - EV 3.5 ~ 20 (ISO approx.100, with a f/2.8 lens)
- Focusing Points / Focusing Points Selection Mode
  - 121-point cross-type phase detection AF and 121-point contrast AF / All target, single target (normal / small), group target (5-area / 9-area / 25-area), custom target 1-4 / AF area and its increment steps selectable
- Focus Modes
  - Single AF (S-AF)*1 / Continuous AF (C-AF)*1 / Manual Focus (MF) / AF tracking (C-AF + MF)*1 / Preset MF*2
  - *1 AF+MF selectable
  - *2 Distance setting values are rough estimates and not compatible lenses except the AF lens.
- AF Limit
- AF Performance
  - C-AF lock (5 steps) / C-AF scanner (3 types) / C-AF Center Priority, C-AF Center Start
  - *Auto focusing is possible in the magnified frame; can be assigned to button to turn magnify frame AF on/off and to activate magnification; touch icon on monitor to turn off; enables selection of focus point from 800 or more.
- Magnified Frame
  - *Available only when a Micro Four Thirds lens is attached.
- Super spot AF
  - *Available only when a Micro Four Thirds lens is attached.
- Face Detection AF / Eye Detection
- Intelligent Subject Detection AF
  - Formula cars, rally cars, motorcycles, aircrafts, bullet trains, standard trains, steam locomotives
- AF Targeting Pad
  - Available (activate / deactivate with double tap on rear monitor)
- Manual Focus Assist
  - Focus ring rotation activates Live View image magnification and/or focusing peak when in S-AF+MF or MF mode
  - Activate with Fn button or focus ring
- Peaking Function
  - Change peaking settings using the Info button
  - Color selection: white, black, red, yellow
  - Intensity selection: high, normal, low
  - Back light effect: on, off
- AF Focus Adj.
  - Adjust all, adjust by lens
  - (for Phase detection AF only)
- AF Illuminator
  - Available

**Image Stabilization**
- Built-in 5-axis* sensor shift image stabilization for movies and still photos
- *Available (activate / deactivate with double tap on rear monitor)
- Activation by half-pressing shutter button or pressing AE/L button, enlarging view
- IS for Live View Image
  - Activation by half-pressing shutter button or enlarging view
  - Available* when using M.Zuiko Digital lenses equipped with image stabilization
  - *7.0 EV*
- Stabilization Performance
  - *Based on CIPA measurement conditions.
  - When using M.Zuiko Digital ED 12-40mm f/2.8 PRO (focal length =60mm (35mm equivalent: 120mm))
  - *7.5 EV*
- Lens IS Priority
  - Available

**Shutter / Sequential Shooting**
- Focal-plane shutter (mechanical shutter): 1/8000 - 80 sec., with selectable EV adjustment steps (1/3, 1/2, 1)
  - *Live Bulb / LiveTime: selectable exposure time (1/248/15/20/25/30 min.), with 8-min. default setting
- Shutter Type
  - Electronic first curtain shutter (Anti-shock mode) : 1/120 - 60 sec
  - Electronic shutter (Silent mode): 1/32000 - 60 sec
- Flicker Scan
  - Video recording 1/30 (50fps: 1/50, 60fps: 1/60, Highspeed: 1/120) ~ 1/250.0 Slow / 1/50.0-1/7634
  - Video recording SIM mode: Slow / Silent mode only, Selectable with a minimum of 0.1
  - [Sequential shooting L]: approx. 15 fps with selectable 10-15 fps
  - [Sequential shooting L]: approx. 10 fps with selectable 1-10 fps
  - [Anti-shock sequential shooting L]: approx. 8.5 fps with selectable 1-8 fps
  - [Silent sequential shooting L]: approx. 60 fps with selectable 15, 20, 30, 60 fps
  - [Silent sequential shooting L]: approx. 18 fps with selectable 1-15, 15, 18 fps
  - [Pro Capture H]: approx. 60 fps with selectable 15, 20, 30, 60 fps
  - [Pro Capture L]: approx. 18 fps with selectable 1-10, 15, 18 fps
  - [Pro Capture L]: approx. 60 fps with selectable 15, 20, 30, 60 fps
  - [Pro Capture L]: approx. 18 fps with selectable 1-10, 15, 18 fps
  - [Pro Capture L]: approx. 60 fps with selectable 15, 20, 30, 60 fps

**Sequential Shooting Maximum Speed**
- When using the M.ZUICO DIGITAL ED 12-40mm f/2.8 PRO
  - *Maximum sequential shooting speed may be affected by several factors including lens used, brightness, aperture, shutter speed, and ISO setting
  - *When in Pro Capture mode, slower shutter speeds and flash cannot be used
  - *Pro Capture L mode is available when using an Olympus Micro Four Thirds lens
  - *In Pro Capture L mode, the minimum aperture is f/5.6
  - *When ISO is 8000 or above, 30 fps becomes the maximum sequential shooting speed, and the actual shooting speed may become slower than the set shooting speed by a few frames per second. When using ISO Bracketing, performance will be affected at ISO 2000 or above
  - *Focus and exposure are fixed at the values of the first shot when using sequential shooting H
  - *Maximum sequential shooting speed is 8.5 fps for anti-shock sequential shooting L, even when set to 9 or 10 fps
## White Balance / Color Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto WB</td>
<td>Automatic white balance adjustment based on the camera's sensors</td>
</tr>
<tr>
<td>Fill-in</td>
<td>Forces the flash to fire when the subject is too dark</td>
</tr>
<tr>
<td>Red-eye</td>
<td>Reduces red-eye effect in portraits</td>
</tr>
<tr>
<td>Flash Off</td>
<td>Turns off the built-in flash</td>
</tr>
<tr>
<td>Red-eye Slow sync. (1st curtain)</td>
<td>Compensates for red-eye effect while maintaining sync with the shutter</td>
</tr>
<tr>
<td>Slow sync. (1st curtain)</td>
<td>Extended sync time for night scenes</td>
</tr>
<tr>
<td>Slow sync. (2nd curtain)</td>
<td>Extended sync time for night scenes with more controlled light distribution</td>
</tr>
</tbody>
</table>

## ISO Sensitivity

- **AUTO ISO**: Default to ISO 64 - 6400 with customizable default and upper limit (200 - 6400)
- **Manual ISO**: ISO 100 - 25600 (adjustable in 1/3 or 1/2 EV steps)
- **EV variability**: 1/3, 1/2, or 1 EV steps selectable

## Exposure Compensation

- **Range**: -2 to +20 (ISO approx. 100, with a f/2.8 lens)
- **Settings**: Customizable for each shooting mode
- **EV compensation preview**
  - Live View: up to ±3 EV steps
  - Shooting in HDR or video: up to ±3 EV steps

## Metering System

- **Digital ESP metering**: center-weighted average metering
- **324-area multi pattern metering**
- **Center-weighted average metering**
- **Spot metering**
  - Spot metering with highlight control
  - Spot metering with shadow control
- **Adaptive brightness technology (EVF Auto Luminance)**
  - 8 levels for brightness control

## Rear Monitor Size

- **4 groups**: commander flash (3 groups) + external flash (1 group)
- **4 channels**: Available for the FL-600R and FL-900R, STF-8, FL-700WR
- **Triggered and controlled by compatible flashes**: FL-LM3 or separately

## Exposure Control / Flash

- **Flash Intensity Control Mode**: TTL Auto, Manual, Super FP (FP-TTL AUTO, FP-MANUAL)
- **Flash Synchronization Speed**:
  - When using electronic shutter: up to 1/20 sec. for ISO 8000 and higher, 1/20 sec. for ISO 6400
- **Flash Intensity Control**:
  - Up to 3 EV in 1/3, 1/2, or 1 EV steps
  - Manual adjustment (1/3 or 1/2 EV steps)
- **Flash Compensation**:
  - ±5 EV, adjustable from 1/3 to 1/2 EV steps

## Preview

- **Live View Boost**
  - Setting can be specified for each shooting mode
  - Live View Boost 2: Frame Rate Priority or Quality Priority selectable

## Finder Type

- **Eye-level electronic viewfinder**: approx. 2.36M dots
- **Live View Boost 1**
  - Grid line, magnification display (x3/x5/x7/x10/x14)
  - Gradation preview, face detection preview (up to 8 faces)
  - Exposure compensation preview, WB adjustment preview
- **Live View Boost 2**
  - Setting can be specified for each shooting mode
- **Settings**
  - Off: Brightness in Live View shows specified exposure settings
  - Live View Boost 2: Frame Rate Priority or Quality Priority selectable

## Display Grid

- **Grid line**: Available
- **Magnification display**: x3/x5/x7/x10/x14
- **Gradation preview**: Available
- **Face detection preview**: Available
- **Exposure compensation preview**: Available
- **WB adjustment preview**: Available

## Anti-Flicker Shooting

- **Available on the external flash**: Red-eye, Fill-in, Flash Off, Red-eye Slow sync. (1st curtain)
- **TTL Auto**, **Auto**, **Manual**, **Super FP** (FP-TTL AUTO, FP-MANUAL)

## Exposure Compensation

- **Range**: ±3 steps along the A-B/G-M axis
- **Except for Custom WB**
Preset White Balance
- 7 preset WBs (3000K - 7500K)
  - Sunny(5300K), Shadow(7500K), Cloudy(6000K), Incandescent(3000K), Fluorescent(4000K), Underwater, WB Flash(5500K)

CWB (Kelvin Setting)
- 2000 - 14000K

Capture White Balance
- 4 custom settings can be registered
  - sRGB, Adobe RGB

Color Mode
- WB

Bracketing / HDR
- 2, 3 or 5 frames in 0.3/0.7/1.0EV steps selectable, 7 frames in 0.3/0.7EV steps selectable

ISO Bracketing
- 3 frames in 0.3/0.7/1.0EV steps selectable

Flash Bracketing
- 3 frames in 0.3/0.7/1.0EV steps selectable

Art Filter Bracketing
- i-Enhance, Vivid, Natural, Muted, Portrait, Monotone, Custom, Art Filters, Color Creator selectable

Focus Bracketing
- 3 to 999 shots, focus steps adjustable from 1 to 10 (compatible with Micro Four Thirds lenses)

Focus Stacking Mode
- 8 shots are taken at different focus points and automatically composited together into a single image
  - * Angle of view becomes slightly smaller (The cut area guide is displayed)

HDR (Auto Composite)
- * Exposure compensation is performed.

Bracketing for HDR post-process
- *This sequential shooting H AE bracketing is specifically designed for shooting images that will be HDR-processed on a PC.

Creative Features

Picture Mode
- i-Enhance, Vivid, Natural, Muted, Portrait, Monotone, Custom, e-Portrait, Underwater, Color Creator, Art Filters

Gradation
- Auto, Normal, High Key, Low Key
  - [except when using e-Portrait, Underwater, Art Filters, Color Creator]

Highlight and Shadow Control
- ±7 steps each for highlight, shadow, midtone

Picture Tone
- Neutral, Sepia, Blue, Purple, Green for Monotone
- Pop Art (I, II / a.b.c.d.e)
- Soft Focus (- / c.e)
- Pale & Light Color (I, II / a.b.c.d)
- Light Tone (- / d)
- Grainy Film (I, II / b.c.d.f.g)
- Pin Hole (I, II, III / d)
- Diorama (- / d)

Art Filter
- Cross Process (I, II / b.c.d.)
- Gentle Sepia (- / a.b.c.d.f)
- Dramatic Tone (/ b.c.d.e.f) (II / b.c.d.e.f.g.h)
- Key Line (I, II / a.b.c.d.e.)
- Watercolor (I, II / a.b.c.d)
- Vintage (I, II, III / a.b.c.d.e.f.j)
- Partial Color (I, II, III / a.b.c.d.e.f)
- Bleach Bypass (I, II / a.b.c.d.e.f.j)
- Instant Film (- / a.b.c.d.e.f.j)
- a. Soft Focus Effect
- b. Pin-Hole Effect
- c. White Edge Effect
- d. Frame Effect
- e. Star Light Effect
- f. Blue Effect (Top & bottom, Left & Right)
- g. B&W Effect (None, Yellow, Orange, Red, Green)
- h. Picture Tone (None, Sepia, Blue, Purple, Green)
- i. Shade Effect (Top & bottom, Left & Right)

Color Ring (for partial color)
- 18 color selectable

Live Bulb / Live Time
- Update Interval Time - 0.5 sec – 60 sec

Live Composite
- Update Interval Time / composite method - 0.5 sec – 60 sec / Lighten Mode (Bright area prioritization)
-Interval Time 1sec. - 24 Hours, Max 999 frames.

Interval Shooting
- Available on making Time-lapse movie automatically

Multiple Exposure (number of pictures / function)
- 2 frames / Auto gain, Exposing on Recorded picture(RAW)
- 3 styles can be confirmed in Live View

Fisheye Compensation
- *Underwater correction compatible

Live ND (Neutral Density)
- *Shutter Priority and Manual mode only, flash can not be used, ISO up to 800, the maximum shutter speed is 1/30 (when ND2 is set) and the speed drops if the number of ND steps is raised

High Res Shot
- *JPEG: 8160 x 6120(50M) 5760 x 4320(25M) / RAW: 10368 x 7776
- *RAW data can be developed in-camera. You need to install Olympus Workspace to develop on a PC.
- *Electronic Shutter 1/8000 - 60 sec.
- *Equivalent to 50 megapixels / 25 megapixels

Handheld High Res Shot
- *JPEG: 8160 x 6120(50M) 5760 x 4320(25M) / RAW: 8160 x 6120
- *Flash can not be used

Keystone Compensation
- Available (can be confirmed in Live View)
- *Horizontal and vertical compensation can be performed simultaneously.

Video / Audio Recording

Video Recording Format
- MOV(MPEG-4AVC/H.264)
### Movie Mode / Frame Rate / Compression Method

<table>
<thead>
<tr>
<th>Frame Rate</th>
<th>Compression Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 fps</td>
<td>N: Normal</td>
</tr>
<tr>
<td>25 fps</td>
<td>24p: Interlace</td>
</tr>
<tr>
<td>30 fps</td>
<td>30p: Interlace</td>
</tr>
<tr>
<td>50p</td>
<td>50p: Interlace</td>
</tr>
<tr>
<td>60p</td>
<td>60p: Interlace</td>
</tr>
</tbody>
</table>

### Connectivity / Power Requirements

- **USB Connector**: USB Type-C
- **Remote Connector**: φ2.5Pin Jack (when using separately available RM-CB2)
- **HDMI Connector**: Micro HDMI

### Movie Tele-converter

Approx. 29min

### Art Filter Movie

Available

### Movie Effect

One-shot Echo / Multi-echo / Art Fade / Old Film

### Grid Lines / Focus Peaking

4 types of grid lines / 4 colors for focus peaking

### Time-lapse Movie

1920×1080 (10fps, 15fps, 30fps)
1280×720 (30fps, 60fps)

### Quick Movie / Slow Movie

With (Both or either of the two may not be available depending on the frame rates).

### High speed movie

120fps (1920×1080/25fps)

### IS for Movie

M-551: Image sensor shift and electronic image stabilizer with multi motion IS,
M-552: Image sensor shift with multi motion IS, OFF

### AE Lock

Available

Program AE, aperture priority AE, shutter priority AE, manual

### Video Exposure Control

Rec run/free run, drop frame/non-drop frame

### Time Code

Monitor Mode (outputs video and info display to a connected monitor) *1

*Record Mode (outputs video only, with no info display) *2

*1 While recording, footage is simultaneously displayed on the HDMI monitor and on the camera, but the info display is shown only on either one of the two.

*2 While playing movies, footage is simultaneously displayed on the HDMI monitor (normal size) and on the camera (normal size or enlarged).

### Live View Output via HDMI

While playing movies, while being recorded.

### Movie Picture Mode

Flat, O, Log, 400

### Audio Recording Format

*View assist compatible

### Microphone / Speaker

Built-in stereo microphone / built-in mono speaker

### Microphone Function

*External stereo microphone can be attached

Wind noise reduction, recording volume, microphone volume limiter

### IC Recorder Linkage

Slate Tone / Synchronized Audio Rec-Movie Rec

### Operability

*View assist compatible

### GPS Info Function

Available (Via GPS smartphone)

*Built-in GPS info given priority

### Wireless Shooting

Wireless Release, Movie Recording, Power Off

*P / A / S / M / B and drive mode can be selected.

### Image Share

*Operation may be limited between drives.

### Easy Connection

Connect using a QR code

### Tethered Shooting

Via USB cable (camera can be operated by both PC or camera controls)

### GPS / Field Sensor System

GPR (GNSS, QZSS), compass, manometer, temperature sensor, Acceleration sensor

### Playback Mode

Single-frame, information display, index display (4/9/25/100 frames), calendar, enlargement (2× - 14×), movie (with sound, FF/REW/Pause), picture rotation (auto), Light Box display

### Information Display

Histogram [independent luminance / RGB available], Highlight/Shadow point warning, AF frame, Photographic information, OFF

### Custom

- **My Menu**: 35 items in 5 tabs with 7 items each
- **Menu custom set**: 4 types of settings can be configured to C1-C4 modes on mode dial.
- **Multi Selector customization**: Available (Settings configured to C1-C4 can be called up via the menu even in P, A, S, M and B modes).
- **Dial customization**: *Some items including shooting mode may not be called up.
- **Lever customization**: With
- **Button Customization**: Dial function and dial direction are customizable for both dials
- **Select assignment from 3 different modes, power switch, or off (no function assignment)
- **Up to 39 functions can be assigned to buttons

### Copyright Settings/Lens info Settings

With / With (save up to 10 lenses)

### Menu Languages (34 selectable)

- English, French, German, Spanish, Italian, Japanese, Korean, Traditional Chinese, Simplified Chinese, Russian, Czech, Dutch, Danish, Polish, Portuguese, Swedish, Norwegian, Finnish, Croatian, Slovenian, Hungarian, Greek, Slovakian, Turkish, Latvian, Estonian, Lithuanian, Ukrainian, Serbian, Bulgarian, Rumanian, Indonesian, Malay, Thai
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Attachment</td>
<td>Hot shoe, sync terminal</td>
</tr>
<tr>
<td>Wireless LAN</td>
<td>Built-in (IEEE 802.11b/g/n/ac)</td>
</tr>
<tr>
<td>MIC Input Jack</td>
<td>φ3.5 stereo mini jack (plug-in power on/off)</td>
</tr>
<tr>
<td>Headphone Jack</td>
<td>φ3.5 stereo mini jack</td>
</tr>
<tr>
<td>PC Interface</td>
<td>SuperSpeed (USB3.0)</td>
</tr>
<tr>
<td>TV Interface</td>
<td>Not Available</td>
</tr>
<tr>
<td>Battery</td>
<td>Two BLH-1 Li-ion batteries (included)</td>
</tr>
<tr>
<td>Battery Status Display</td>
<td>Remaining power (4 steps, %, or by-minute display), shot count, degradation</td>
</tr>
<tr>
<td>AC Adapter</td>
<td>AC-5 AC adapter is separately available (connects to power battery holder HLD-9 to provide power to camera).</td>
</tr>
<tr>
<td>USB Bus Power</td>
<td>A USB PD bus power can be used</td>
</tr>
<tr>
<td>USB Charging</td>
<td>* When the camera power is off</td>
</tr>
<tr>
<td>Sleep Mode</td>
<td>Available (1/3/5 min. off)</td>
</tr>
<tr>
<td>Number of Recordable Pictures</td>
<td>Approx. 870 shots (using 2 BLH-1 and Toshiba SDXU-D032G with IS ON, with no flashes attached, based on CIPA test standards)</td>
</tr>
<tr>
<td>Battery Life for Movie Recording</td>
<td>Approx. 350 minutes* (when zoom and other operational functions are not used)</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 977g (with 2 BLH-1 batteries and 2 Memory cards, based on CIPA standards, without eyecup)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Approx. 84g (body only)</td>
</tr>
<tr>
<td>Environmentally Sealed</td>
<td>W:144.4mm H:146.8mm D:75.4mm (based on CIPA standards: excludes protrusions)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-10°C ~ +40°C (when in operation) / -20°C ~ +60°C (when stored)</td>
</tr>
<tr>
<td>Operating Humidity Range</td>
<td>30% ~ 90% (when in operation) / 10% ~ 90% (when stored)</td>
</tr>
<tr>
<td>Box Contents</td>
<td>Body, USB cable, cable clip, cable protector, shoulder strap, instruction manual, warranty card, BLH-1 Li-ion battery (Two), BCH-1 Li-ion battery charger (Two)</td>
</tr>
</tbody>
</table>