

## E-M1 Mark II

- Advanced AF system with high-speed sequential shooting - C-AF of 18fps and S-AF of 60fps
- Fast-response EVF with 6 millisecond response time to easily keep up with moving subjects
- Splash/dust/freezeproof build which also dampens shock to enable worry-free shooting
- 20M Live MOS sensor improves performance, image quality and high sensitivity shooting
- Pro Capture mode for lag-free shooting so you can get the precise shot you want
- Unrivalled mobility with lightweight, compact design even with large telephoto lenses
- Advanced battery with increased capacity and battery status display
- TruePicVIII image processor with double quad-core system with dedicated AF performance processing chip



## Revolutionary. In every way.

The E-M1 Mark II is like no other OM-D before it. A powerhouse of technology delivers the photography experience that every professional craves: An advanced AF system with high-speed sequential shooting - Continuous Auto Focus (C-AF) of up to 18fps and Single Auto Focus (S-AF) of up to 60fps - and innovative Pro Capture for lag-free shooting. A lightweight, weatherproof build and high-stamina battery. A 20M Live MOS sensor and TruePic VIII processor for achieving new heights in image quality. There's nothing more to be desired.

## Specifications

### Type

|               |                      |
|---------------|----------------------|
| Body material | Magnesium alloy body |
| Lens mount    | Micro Four Thirds    |

### Image Sensor

|                     |                             |
|---------------------|-----------------------------|
| Type                | 4/3" Live MOS sensor        |
| Effective pixels    | 20.4 Megapixels             |
| Filter array        | Primary colour filter (RGB) |
| Aspect ratio & area | 4:3 / 17.3 x 13.0mm         |
| Full resolution     | 21.8 Megapixels             |

### Engine

|      |              |
|------|--------------|
| Type | TruePic VIII |
|------|--------------|

### Filter

|                       |                        |
|-----------------------|------------------------|
| Dust reduction filter | Supersonic Wave Filter |
|-----------------------|------------------------|

## Viewfinder

|                                  |  |
|----------------------------------|--|
| Type                             | Electronical Viewfinder  |
| Pixel number                     | 2.360K dots  |
| Diopter adjustment               | Yes; -4.0 - +2.0 diopters / built-in type  |
| Field of view                    | Approx. 100%   |
| Magnification                    | Max. 1.48x with a 50mm lens set to infinity at -1 dioptre (depending on selected viewfinder style)   |
| Eye point                        | 21mm at -1 dioptre from eyepiece lens  |
| Style                            | 3 styles selectable  |
| Displayed information            | Aperture value<br>Shutter speed<br>AF frame (super impose)<br>AF confirmation mark<br>AF lock<br>Auto bracket<br>Battery check<br>Exposure compensation indicator<br>Exposure compensation value indicator<br>Exposure level indicator<br>Exposure mode<br>Flash<br>FP flash<br>IS activating mode<br>Metering mode<br>Number of storable sequential pictures<br>White balance<br>Level Gauge<br>Highlight & Shadow<br>Live Pre-view function<br>Histogram |
| Brightness adjustment            | Adaptive Brightness Technology / Manual settings: +/- 7 levels   |
| Correction of colour temperature | +/- 7 levels   |
| S-OVF                            | Expands the Live View dynamic range<br><br>*Available in the EVF when in P, A, S and M modes. Art filter, WB and exposure are not reflected in EVF.  |

## Live View

|                         |  |
|-------------------------|--|
| Displayed information   | Aperture<br>Shutter speed<br>Auto bracket<br>AE lock<br>Focus mode<br>Shooting mode<br>Battery check<br>IS activating mode<br>Face / Eye detection mode<br>Record mode<br>ISO<br>Sequential shooting mode<br>White Balance<br>Metering mode<br>Exposure compensation value<br>AF frame display<br>AF confirmation mark<br>Shooting information<br>Spot metering area<br>Super FP<br>Flash status<br>Touch Panel Condition<br>Focal length<br>Flash mode<br>Histogram<br>Level Gauge<br>Highlight & Shadow<br>Focus peaking<br>Number of storable pictures<br>Custom<br>Face detection<br>Flash intensity<br>WiFi |
| Field of view           | Approx. 100%   |
| Magnification levels    | 3 / 5 / 7 / 10 / 14x   |
| Dynamic range expansion | When in HDR1 or HDR2   |
| Display modes           | Comparison<br>Grid (4 types)<br>Grid<br>Histogram<br>Level Gauge<br>Magnified View<br>Standard information<br>Off  |

## Image Stabiliser

|                              |  |
|------------------------------|--|
| Type                         | Sensor shift   |
| Modes                        | Five-dimensional, vertical or horizontal activation, automatic |
| Effective Compensation Range | Up to 5.5 EV steps (CIPA)                                      |

## Focusing System

|                          |  |
|--------------------------|--|
| Method                   | TTL phase difference detection system, contrast detection system   |
| Focus areas              | 121 points * / All target, Group target (9-areas or 5-areas), Single target<br>800 points / Manual selection in Magnified View Mode<br>* All cross type                    |
| AF lock                  | Yes; Locked by first position of shutter release button in single AF mode, AE/AF lock button (customised)  |
| Modes                    | Manual focus<br>Preset MF*<br>Single AF<br>Continuous AF<br>Single AF + MF<br>AF Tracking<br>* Distance setting values are rough estimates and only AF lenses can be used. |
| AF illuminator           | Yes  |
| Full time AF             | Yes  |
| Manual focus             | Yes; With enlarged focusing area or focus peaking  |
| Face Detection extension | Eye Detect AF: Off<br>Left side priority<br>Near side priority<br>Right side priority  |
| Predictive AF            | Yes  |
| AF tracking              | Yes; 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 - 999shots   |
| Step size                | 10levels   |
|                          | Compatible with: All Micro Four Thirds AF lenses   |

## Exposure System

|                       |  |
|-----------------------|--|
| Modes                 | Programme automatic<br>Aperture priority<br>Shutter priority<br>Manual<br>Bulb<br>Time<br>Movie<br>HDR<br>My Mode<br>Custom shooting<br>Custom 1<br>Custom 2 |
| Exposure compensation | +/- 5 EV (1, 1/2, 1/3 steps)<br>Note: Monitor and EVF displays only up to ±3 EV.   |
| Exposure bracketing   | 2 / 3 / 5 frames (+/- 1/3, 2/3, 1 EV steps)<br>7 frames (+/- 1/3, 1/2, 2/3 EV steps)   |
| ISO bracketing        | 3 frames (1/3, 1/2, 1 EV steps)  |
| AE lock               | Yes  |
| My Mode               | 4 settings storable  |
| Enhancement function  | Digital Shift (horizontal and vertical compensation can be performed simultaneously)<br>Shadow Adjustment Technology   |
| HDR bracketing        | 3 / 5 frames (+/- 2 / 3 EV steps)<br>7 frames (+/- 2 EV steps)   |

## Multi-Exposure

|                       |   |
|-----------------------|---|
| Max. number of frames | 2 frames (shooting)<br>3 frames (editing) |
| Auto gain control     | Yes                                       |
| Frame assistance      | Live View                                 |

## Light Metering

|                 |  |
|-----------------|--|
| Method          | TTL open aperture light metering   |
| Zones           | 324 zones Multi-pattern Sensing System   |
| Detection range | -2 - 20 EV (17mm f2.8, ISO 100)  |
| Modes           | ESP light metering<br>Spot metering<br>Centre weighted metering<br>Highlight<br>Shadow |

## Art Filter

|                       |  |
|-----------------------|--|
| Modes                 | Pop Art<br>Soft Focus<br>Pale & Light Colour<br>Light Tone<br>Grainy Film<br>Pin Hole<br>Diorama<br>Cross Process<br>Dramatic Tone<br>Gentle Sepia<br>Key Line<br>Water colour<br>Vintage<br>Partial Colour* |
| Variation / Effect    | Available  |
| Art Filter bracketing | Art Filters selectable   |

## Sensitivity

|        |  |
|--------|--|
| Auto   | (customisable, default ISO LOW - 6400)   |
| Manual | ISO LOW - 25600 in 1/3 or 1 EV ISO steps |

## Shutter

|              |                                  |
|--------------|----------------------------------|
| Shutter type | Computerised focal-plane shutter |
| Self timer   | 2s / 12s / Custom                |
| Durability   | 200000shots                      |

## Shutter Speeds

|                     |   |
|---------------------|---|
| Shutter speed range | 1/8000 - 60s (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 - 8s   |
| Start delay         | 0, 1/8, 1/4, 1/2, 1, 2, 4, 8, 15, 30s   |
| Resolution          | JPEG: 8160 x 6120 / 5760 x 4320<br>RAW: 10368 x 7776<br>Equivalent to 50M / 25M pixel sensor (8 shots combined into a single JPEG using sensor shift) |
|                     | Available in P/A/S/M mode   |
| Anti shock mode     |   |
| Shutter type        | Electronic first curtain shutter  |
| Shutter speed       | 1/320* - 60s  |
| Start delay         | 0, 1/8, 1/4, 1/2, 1, 2, 4, 8, 15, 30s   |
|                     | * For speeds over 1/320 sec., mechanical shutter will automatically be selected.  |
| Silent mode         |   |
| Shutter type        | Electronic shutter  |
| Shutter speed       | 1/32000 - 60s   |
| Start delay         | 0, 1/8, 1/4, 1/2, 1, 2, 4, 8, 15, 30s   |

## White Balance

|                                  |   |
|----------------------------------|---|
| AUTO WB system                   | Advanced detection system with Live MOS sensor                                    |
| Manual White balance (One-Touch) | Yes   |
| 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<br>Flourescent 1<br>Sunlight<br>Flash<br>Overcast<br>Shade<br>Underwater |
| Auto Flash adjustment            | Off / Auto WB / Flash   |
| Keep warm colour                 | On / Off  |

## Sequence Shooting

|                     |  |
|---------------------|--|
| Speed (H)           | Approx. 15fps  |
| Speed (L)           | 10fps  |
| Silent mode         |  |
| Speed (H)           | Approx. 60fps  |
| Speed (L)           | Approx. 18fps  |
| Pro Capture mode    |  |
| Speed (H)           | Approx. 60fps  |
| Speed (L)           | Approx. 18fps  |
| Pre-shutter Frames  | 0 - 14frames (recorded by half release prior to full release)  |
| Frame count limiter | 1- 99frames / Off (unlimited frames) (incl. pre-shutter frames)  |
| Conditions          | Memory card: TOSHIBA SDHC UHS-II R95 W90 EXCERIA™<br>When using the M.Zuiko Digital ED 12-40mm f2.8 Pro<br>Maximum sequential shooting speed may be affected by several factors including lens used, brightness, aperture, shutter speed, and ISO setting.<br>When ISO is 8000 or above, 30 fps becomes the maximum sequential shooting speed. 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. |
|                     | Max. number of frames:<br>RAW 84 / JPG (LN): 117   |
|                     | Max. number of frames:<br>RAW 148 / JPG (LN): Up to card capacity  |
|                     | Max. number of frames:<br>RAW 48 / JPG (LN): 48  |
|                     | Max. number of frames:<br>RAW 77 / JPG (LN): 105   |

## 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 |
| Picture mode          |  |
| Gradation             | 4levels (auto, high key, normal, low key)          |
| Engine                | TruePic VIII                                       |
| Art Filter bracketing | Available  |
| Tele converter effect | 2x   |

## Internal Flash

|                    |  |
|--------------------|--|
| Modes              | AUTO<br>Manual<br>Manual (Full, 1/4, 1/16, 1/64)<br>Red-eye reduction<br>Slow synchronisation with red-eye reduction<br>Slow synchronisation<br>Slow synchronisation 2nd curtain<br>Fill-in<br>Off<br>TTL-Auto<br>FP Manual<br>FP TTL Auto |
| Type               | Detachable flash with bounce capability (bundled)  |
| Flash compensation | +/- 3 EV / 1/3, 1/2, 1 EV steps  |
| Guide number       | 12.9 (ISO 200)   |
| X-sync speed       | 1/250s / 1/8000s (Super FP Mode)   |

## External Flash Control

|              |  |
|--------------|--|
| X-sync speed | 1/250s / 1/8000s (Super FP Mode)   |
| Type         | TTL AUTO, AUTO, MANUAL, FP TTL AUTO, FP MANUAL   |
| Modes        | Auto<br>Red-eye reduction<br>Slow synchronisation<br>2nd curtain and slow synchronisation<br>Fill-in for exclusive flash<br>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-36R, FL-50R, FL-300R, FL-600R, FL-900R, STF-8  |
| Control method            | Triggered and controlled by bundled flash   |
| Group setting             | 4 groups  |
|                           | Available when used together with cameras compatible with the Olympus wireless RC flash system. |

## Monitor

|                         |  |
|-------------------------|--|
| Monitor type            | Vari-angle LCD - Touch Panel   |
| Monitor size            | 7.6cm / 3.0" (3:2)   |
| Resolution              | 1037K dots   |
| Brightness adjustment   | +/- 7 levels   |
| Colour balance          | +/- 7 levels Vivid (default) / Natural   |
| Touch Control fucntions | AF area enlargement<br>AF area selection<br>Art Filter<br>Enlargement<br>Enlargement playback<br>Frame forward/backward<br>Live Guide<br>Scene Modes<br>Shooting mode<br>Shutter release<br>Super Control Panel<br>Wifi connection |

## Level Gauge

|           |                             |
|-----------|-----------------------------|
| Detection | 2-axis                      |
| Display   | Rear display and viewfinder |

## Super Control Panel

|                       |   |
|-----------------------|---|
| Displayed information | <ul style="list-style-type: none"> <li>Battery indicator</li> <li>Record mode</li> <li>Shutter speed</li> <li>Aperture value</li> <li>Exposure compensation indicator</li> <li>ISO</li> <li>AE bracketing</li> <li>AF frame</li> <li>Focus mode</li> <li>AEL notification</li> <li>Face detection</li> <li>Number of storable frames</li> <li>Metering mode</li> <li>Exposure mode</li> <li>Exposure level view</li> <li>Flash compensation value</li> <li>Colour space</li> <li>Gradation</li> <li>Colour saturation compensation value</li> <li>Sharpness compensation value</li> <li>Contrast compensation value</li> <li>White balance</li> <li>White balance compensation value</li> <li>Noise reduction</li> <li>Flash mode</li> <li>Drive mode</li> <li>Internal temperature warning</li> <li>Histogram</li> </ul> |
|-----------------------|---|

## Still Image Recording

|                       |  |
|-----------------------|--|
| EXIF                  | 2.3  |
| DCF                   | Yes  |
| RAW                   | Yes  |
| Dual SD card settings | Standard, Auto Switch, Dual Independent, Dual Same |

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

## Recording Formats

|              |                              |
|--------------|------------------------------|
| RAW          | 12bit                        |
| RAW & JPEG   | Yes; parallel recording      |
| JPEG         | Yes                          |
| Aspect ratio | 4:3 / 3:2 / 16:9 / 6:6 / 3:4 |
| MPO (3D)     | Yes                          |

## Image Size

|     |  |
|-----|--|
| RAW | 5184 x 3888 compressed                 |
|     | 5184 x 3888 Fine<br>(compression: 1/4) |

## Movie Recording System

|                          |   |
|--------------------------|---|
| Recording format         | MOV(MPEG-4AVC/H.264), AVI(Motion JPEG)  |
| Time code                | Rec run / Free run  |
|                          | Drop frame / Non-drop frame   |
| Image Stabilisation Mode | Yes; Sensor shift   |
|                          | M-IS1 (Image sensor shift and electronic image stabilizer with multi motion IS)   |
|                          | M-IS2 (Image sensor shift with multi motion IS)   |
| 4K Movie quality         | 4096 x 2160 (C4K) / 24p / IPB (approx. 237 Mbps)<br>3840 x 2160 (4K) / 30p, 25p, 24p / IPB (approx. 102 Mbps)                               |
| HD Movie quality         | Full HD 1920 x 1080 (16:9) / 30p, 25p, 24p / ALL-I(A-I), IPB(SF, F, N) (MOV)<br>Full HD 1920 x 1080 (16:9) / 60p, 50p / IPB(SF, F, N) (MOV) |
|                          | HD 1280 x 720 (16:9) / 60p, 50p, 30p, 25p, 24p / ALL-I(A-I), IPB(SF, F, N) (MOV)  |
|                          | ALL-I: ~ 202 Mbps   |
|                          | FullHD IPB (SF: ~52Mbps, F: ~30Mbps)  |
|                          | HD IPB (SF: ~26Mbps, F: ~14Mbps, N: ~10Mbps)  |
|                          | HD 1280 x 720 (16:9) / 30p (MOV)  |
| Movie quality            | 640 x 480 / 30p (AVI Motion JPEG®)  |
| Maximum Recording Time   | 29min (MOV)<br>14min (SD) / 7min (HD) (AVI Motion JPEG®)*   |
| Max. file size           | 4GB (AVCHD)<br>2GB (Motion-JPEG)  |
| Exposure Modes           | Aperture priority<br>Art Filter<br>Manual<br>Programme automatic<br>Shutter priority  |
|                          | * Frame rate may drop when using certain art filter   |
|                          | 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

|                |   |
|----------------|---|
| Time lapse     | 4k, 1080p, 720p (AVI Motion JPEG®)  |
| Fast motion    | Yes   |
| Slow motion    | Yes   |
| Movie clips    | 1, 2, 4, 8s<br>(Extension up to 16s by pressing record button before clip ends.)  |
| Movie effects  | Multi shot echo<br>One shot echo<br>Art fade<br>One push tele-converter<br>Old Film   |
| Art Filter     | Cross Process<br>Diorama<br>Dramatic Tone<br>Gentle Sepia<br>Grainy Film<br>Key Line<br>Light Tone<br>Pale & Light Colour<br>Pin Hole<br>Pop Art<br>Soft Focus<br>Vintage<br>Partial Colour*<br>* 18 colours selectable |
|                | Frame rate limited to 30fps or lower  |
| HDMI Live View | Yes (GUI* is shown on connected device only and peaking is not available)<br>* GUI can be hidden for recording on external drive under following condition.<br>Movie type: YCbCr 4:2:2 / Frame rate: as set / Sound: no |



## Sound Recording System

|                               |   |
|-------------------------------|---|
| Internal microphone           | Stereo  |
| Recording format              | Stereo PCM/16bit, 48kHz,<br>Wave Format Base                                |
| Image footage                 | 30s   |
| Speaker                       | Yes   |
| Microphone functions          | Wind Noise Reduction<br>Recording Volume<br>Volume limiter<br>Audio Dubbing |
| Linking Olympus PCM Recorders |   |
| Functions                     | Slate Tone / Synchronised<br>Audio Rec-Movie Rec<br>Compatible with: LS-100 |

## View Images

|                                |  |
|--------------------------------|--|
| Modes                          | Index<br>Calendar<br>Zoom<br>Slide show<br>Movie<br>Single |
| Light box                      | Yes  |
| Histogram in playback mode     | Yes  |
| Shooting information           | Off / On   |
| Highlight/Shadow point warning | Yes  |

## Erase / Protect / Copy Function

|                    |  |
|--------------------|--|
| Erase modes        | Single, All, Selected  |
| Image protect mode | Single frame, Selected<br>frames, All Frames, Release<br>protect (Single/All selected) |

## Image Editing

|                   |   |
|-------------------|---|
| Editing functions | RAW data edit<br>Red-eye reduction<br>Sepia<br>Black & White<br>Resize<br>Correction of saturation<br>Correction of brightness<br>Correction of colour balance<br>Shadow Adjustment<br>Trimming<br>e-Portrait<br>Aspect ratio |
|-------------------|---|

## Menu

|                          |   |
|--------------------------|---|
| Menu languages in camera | English, French, German,<br>Spanish, Italian, Russian,<br>Czech, Dutch, Danish,<br>Polish, Portuguese,<br>Swedish, Norwegian,<br>Finnish, Croatian, Slovenian,<br>Hungarian, Greek, Slovak,<br>Turkish, Latvian, Estonian,<br>Lithuanian, Ukrainian,<br>Serbian |
|--------------------------|---|

## Customisation Options

|                     |   |
|---------------------|---|
| Fn Button           | Yes   |
| My Mode             | 4 settings storable (Can be<br>set to mode dial.) |
| Factory reset       | Full / Basic                                      |
| Programmable button | Yes   |

## Interface

|                       |  |
|-----------------------|--|
| Media                 | SD Memory Card (SDHC,<br>SDXC, UHS-I, UHS-II<br>compatible) Class 10<br>or higher SD card is<br>recommended for movie<br>shooting UHS-II or UHS-I U3<br>card is recommended for 4K,<br>C4K, ALL-I shooting.<br><br>Slot1: UHS-I, II compatible;<br>Slot2: UHS-I compatible |
| HDMI™                 | Yes; Micro connector (Type<br>D) *   |
| USB 2.0 High Speed    | Yes  |
| USB 3                 | Type C   |
| Wireless connectivity | WiFi   |
|                       | * "HDMI", the HDMI logo and<br>"High-Definition Multimedia<br>Interface" are trademarks<br>or registered trademarks of<br>HDMI Licensing LLC.  |
| Tethered control      | Yes  |
| Microphone jack       | 3.5 ø mm mini-jack   |
| Earphone jack         | 3.5 ø mm mini-jack   |
| Synchro socket        | -  |

## 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            |

## Exterior

|                   |       |
|-------------------|-------|
| Available Colours | Black |
|-------------------|-------|

## Power Supply

|                 |  |
|-----------------|--|
| Battery         | BLH-1 Lithium-Ion Battery  |
| Sleep mode      | 1, 3, 5, 10 min. and off selectable.   |
| DC-input        | AC-5   |
| Battery life    |  |
| Image shooting  | Approx. 440 shots (using BLH-1 and Toshiba SDHC UHS-I Card Exceria with IS on, with no flashes attached, based on CIPA test standards) Approx. 950 shots (using quick sleep mode, under Olympus testing conditions based on CIPA test standards) |
| Movie recording | 90min (standard JEITA conditions) 150min (when zoom and other operational functions are not used)  |

## Environment

|             |   |
|-------------|---|
| Temperature | -10 - 40°C Operating temperature / -20 - 60°C storage temperature |
| Humidity    | 30 - 90% operation humidity / 10 - 90% storage humidity           |

## Size

|                        |   |
|------------------------|---|
| Dimensions (W x H x D) | 134.1 x 90.9 x 68.9mm (without protrusions) |
| Weight                 | 574g (including battery and memory card)    |
|                        | 498g (body only)                            |