

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 Shutter speed AF frame (super impose) AF confirmation mark AF lock Auto bracket Battery check Exposure compensation indicator Exposure compensation value indicator Exposure level indicator Exposure mode Flash FP flash IS activating mode Metering mode Number of storable sequential pictures White balance Level Gauge Highlight & Shadow Live Pre-view function Histogram
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 and M modes. Art filter, WB and exposure are not reflected in EVF.

Live View

Displayed information	Aperture Shutter speed Auto bracket AE lock Focus mode Shooting mode Battery check IS activating mode Face / Eye detection mode Record mode ISO Sequential shooting mode White Balance Metering mode Exposure compensation value AF frame display AF confirmation mark Shooting information Spot metering area Super FP Flash status Touch Panel Condition Focal length Flash mode Histogram Level Gauge Highlight & Shadow Focus peaking Number of storable pictures Custom Face detection Flash intensity WiFi
Field of view	Approx. 100%
Magnification levels	3 / 5 / 7 / 10 / 14x
Dynamic range expansion	When in HDR1 or HDR2
Display modes	Comparison Grid (4 types) Grid Histogram Level Gauge Magnified View Standard information 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 800 points / Manual selection in Magnified View Mode * 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 Preset MF* Single AF Continuous AF Single AF + MF AF Tracking * 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 Left side priority Near side priority 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 Aperture priority Shutter priority Manual Bulb Time Movie HDR My Mode Custom shooting Custom 1 Custom 2
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	Yes
My Mode	4 settings storable
Enhancement function	Digital Shift (horizontal and vertical compensation can be performed simultaneously) Shadow Adjustment Technology
HDR bracketing	3 / 5 frames (+/- 2 / 3 EV steps) 7 frames (+/- 2 EV steps)

Multi-Exposure

Max. number of frames	2 frames (shooting) 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 Spot metering Centre weighted metering Highlight Shadow

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*
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 RAW: 10368 x 7776 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 Flourescent 1 Sunlight Flash Overcast Shade 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™ When using the M.Zuiko Digital ED 12-40mm f2.8 Pro Maximum sequential shooting speed may be affected by several factors including lens used, brightness, aperture, shutter speed, and ISO setting. 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: RAW 84 / JPG (LN): 117
	Max. number of frames: RAW 148 / JPG (LN): Up to card capacity
	Max. number of frames: RAW 48 / JPG (LN): 48
	Max. number of frames: 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	4 levels (auto, high key, normal, low key)
Engine	TruePic VIII
Art Filter bracketing	Available
Tele converter effect	2x

Internal Flash

Modes	AUTO Manual Manual (Full, 1/4, 1/16, 1/64) Red-eye reduction Slow synchronisation with red-eye reduction Slow synchronisation Slow synchronisation 2nd curtain Fill-in Off TTL-Auto FP Manual 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 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-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 functions	AF area enlargement AF area selection Art Filter Enlargement Enlargement playback Frame forward/backward Live Guide Scene Modes Shooting mode Shutter release Super Control Panel Wifi connection

Level Gauge

Detection	2-axis
Display	Rear display and viewfinder

Super Control Panel

Displayed information	Battery indicator Record mode Shutter speed Aperture value Exposure compensation indicator ISO AE bracketing AF frame Focus mode AEL notification Face detection Number of storable frames Metering mode Exposure mode Exposure level view Flash compensation value Colour space Gradation Colour saturation compensation value Sharpness compensation value Contrast compensation value White balance White balance compensation value Noise reduction Flash mode Drive mode Internal temperature warning Histogram
-----------------------	---

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 (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)
	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)
	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)
	14min (SD) / 7min (HD) (AVI Motion JPEG®)*
Max. file size	4GB (AVCHD)
	2GB (Motion-JPEG)
Exposure Modes	Aperture priority
	Art Filter
	Manual
	Programme automatic
	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
	(Extension up to 16s by pressing record button before clip ends.)
Movie effects	Multi shot echo
	One shot echo
	Art fade
	One push tele-converter
	Old Film
Art Filter	Cross Process
	Diorama
	Dramatic Tone
	Gentle Sepia
	Grainy Film
	Key Line
	Light Tone
	Pale & Light Colour
	Pin Hole
	Pop Art
	Soft Focus
	Vintage
	Partial Colour*
	* 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)
	* GUI can be hidden for recording on external drive under following condition. Movie type: YCbCr 4:2:2 / Frame rate: as set / Sound: no

Sound Recording System

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

View Images

Modes	Index Calendar Zoom Slide show Movie 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 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 e-Portrait Aspect ratio
-------------------	---

Menu

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

Customisation Options

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

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. Slot1: UHS-I, II compatible; Slot2: UHS-I compatible
HDMI™	Yes; Micro connector (Type D) *
USB 2.0 High Speed	Yes
USB 3	Type C
Wireless connectivity	WiFi
	* "HDMI", the HDMI logo and "High-Definition Multimedia Interface" are trademarks or registered trademarks of 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)