

Type	
Body material	Metal
Lens mount	Micro Four Thirds
Image Sensor	
Type	4/3" Live MOS sensor
Effective pixels	16.1 Megapixels
Aspect ratio & area	4:3 / 17.3 x 13.0mm
Full resolution	17.2 Megapixels
Engine	
Type	TruePic VI
Image Stabiliser	
Type	Sensor shift
Modes	Five-dimensional, vertical or horizontal activation, automatic
Effective Compensation Range	Up to 5 EV steps
Live View	
Displayed information	Aperture, Shutter speed, Auto bracket, AE lock, Focus mode, Shooting mode, Battery check, My Mode, IS activating mode, Internal temperature warning, 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, Eye-Fi condition, Flash mode, Histogram, Custom, Face detection
AF type	Contrast detection system
100% field of view	Approx. 100 %
Magnification levels	5 / 7 / 10 / 14 x
Level Gauge	
Detection	2-axis
Display	Rear display and viewfinder
Monitor	
Monitor type	Tiltable LCD- Touch Panel
Monitor size	7.6cm / 3.0"
Resolution	1037000 dots
Brightness adjustment	+/- 7 levels
Colour balance	+/- 7 levels Vivid (default) / Natural
Touch Control functions	AF area enlargement, AF area selection, Enlargement, Enlargement playback, Frame forward/backward, Live Guide, Scene Modes, Shooting mode, Shutter release, Super Control Panel, Wifi connection
Focusing System	
Method	Contrast Detection AF system
Focus areas	35 points / Automatic and manual selection / Auto selection with Face Detection ON
AF lock	800 points / Manual selection in Magnified View Mode
Modes	Yes, Locked by first position of shutter release button in single AF mode, AE/AF lock button (customised)
AF illuminator	Manual focus, Single AF, Continuous AF, Single AF + MF, AF Tracking, Super Spot AF
Full time AF	Yes
Manual focus	Yes, With enlarged focusing area or focus peaking
Face Detection extension	Eye Detect AF: Off, Left side priority, Right side priority, Near side priority
Predictive AF	Yes
AF tracking	Yes, Available in continuous AF mode
Light Metering	
Method	TTL open aperture light metering
Zones	324 zones Multi-pattern Sensing System
Detection range	0 - 20 EV (17mm f2.8, ISO 100)
Modes	ESP light metering, Spot metering, Centre weighted metering, Highlight, Shadow
Exposure System	
Modes	Programme automatic, Aperture priority, Shutter priority, Manual, Bulb, Time, i-Auto, Scene Modes, Art Filter, Photo Story, My Mode
Exposure compensation	+/- 3EV (1, 1/2, 1/3 steps)
Exposure bracketing	2 / 3 / 5 frames (+/- 1/3, 2/3, 1 EV steps) 7 frames (+/- 1/3, 1/2, 2/3 EV steps)
HDR bracketing	3 / 5 frames (+/- 2 / 3 EV steps) 7 frames (+/- 2 EV steps) Note: HDR picture can not be made by this function.
ISO bracketing	3 frames (1/3, 1/2, 1 EV steps)
AE lock	Yes, (Fn1/Rec button)
My Mode	4 settings storable
Enhancement function	Shadow Adjustment Technology

Scene Modes	
Number of scene modes	25
Modes	Portrait, e-Portrait, Landscape, Landscape with Portrait, Macro, Sports, Night Scene, Night Scene with portrait, Children, High key, Low key, Digital Image Stabilisation, Nature Macro, Candle, Sunset, Documents, Panorama, Fireworks, Beach and Snow, Fisheye converter, Macro converter, 3D, Wide converter, Underwater Macro, Underwater Wide
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 Available
Variation / Effect	
Multi-Exposure	
Max. number of frames	2 frames (shooting) 3 frames (editing)
Auto gain control	Yes
Sensitivity	
Auto	ISO LOW - 25600 (customisable, default ISO LOW - 1600)
Manual	ISO LOW - 25600 in 1/3 or 1 EV ISO steps
Shutter	
Shutter type	Computerised focal-plane shutter
Self timer	2s / 12s Custom (delay 1-30sec., shooting interval 0.5/1/2/3sec., number of shots 1-10)
Anti Shock	Yes, release delay: 1/8 - 30s
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)
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	2 custom settings can be registered
Custom WB	1 setting can be registered at Kelvin temperature (2000K - 14000K)
Preset values	Tungsten, Fluorescent 1, Sunlight, Flash, Overcast, Shade, Underwater
Auto Flash adjustment	Off / Auto WB / Flash
Keep warm colour	On / Off
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
Sequence Shooting	
Speed (H)	Approx. 9 fps
Speed (L)	5 fps (IS off), 4.5 fps (IS on)
Max. number of frames	18 frames (RAW)
Conditions	Up to card capacity (JPG / Large Normal mode) Memory card: Toshiba SDXC UHS-I card R95 W80 model Premiugate series "Class 10" 8GB Note: Depending on shooting conditions, the sequential shooting speed may reduce speed during shooting.
Interval shooting	Interval: 1 s - 24 Max. number of frames: 99
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	i-Enhance, Vivid, Natural, Portrait, Muted, Monotone, Art Filter
Gradation	4 levels (auto, high key, normal, low key)
Engine	TruePic VI
Art Filter bracketing	Available
Tele converter effect	2 x
Image Editing	RAW data edit, Red-eye reduction, Sepia, Black & White, Resize, Correction of saturation, Shadow Adjustment, Trimming, e-Portrait, Gradation auto

Movie Recording System		Interface	
Recording format	MOV(MPEG-4AVC/H.264), AVI(Motion JPEG)	Media	SD Memory Card (SDHC, SDXC, UHS-I compatible) Class 6 is recommended for Movie shooting
Image Stabilisation Mode	Yes, Sensor shift (5-axis)	HDMI™	Yes, Micro connector (Type D)*
HD Movie quality	Full HD 1920 x 1080 (16:9) 30p, 20Mbps (MOV) Full HD 1920 x 1080 (16:9) 30p, 17Mbps (MOV) HD 1280 x 720 (16:9) 30p, 13Mbps (MOV) HD 1280 x 720 (16:9) 30p, 10Mbps (MOV) HD 1280 x 720 (16:9) / 30fps (AVI Motion JPEG®)	USB 2.0 High Speed	Yes
Movie quality	640 x 480 / 30fps (AVI Motion JPEG®)	Combined V & USB output	Yes, NTSC or PAL selectable
Time laps	1280 x 720 / 10 fps (AVI Motion JPEG®) 29min (17Mbps) 14min (SD) / 7 min (HD) (AVI Motion JPEG®)*	Wireless connectivity	
Max. file size	4GB (AVCHD) 2GB (Motion-JPEG)	Connection	Accessory Port 2 * "HDMI", the HDMI logo and "High-Definition Multimedia Interface" are trademarks or registered trademarks of HDMI Licensing LLC.
Exposure Modes	Aperture priority, Art Filter, Manual, Programme automatic, Shutter priority * Some Art Filters are excluded	Wi-Fi Functions	
Movie effects	Multi shot echo, One shot echo	GPS info	Available through Smartphone GPS data
Art Filter		Wireless Shooting	Live View, Rec View, Touch AF & Shutter, Self timer, Power off
Sound Recording System		Image Share	File type: JPEG, MOV Simultaneously connectable devices: 4 Privacy function
Internal microphone	Stereo	Easy Connection	QR code setting Note: Shooting mode is fixed on i-Auto
Recording format	Stereo PCM/16bit, 48kHz, Wave Format Base	Size	
External microphone	Optional	Dimensions (W x H x D)	122.3 x 68.9 x 37.2mm
Image footage	30s	Weight	420g (including battery and memory card) 378g (body only)
Speaker	Yes	Exterior	
Microphone functions		Available Colours	Black, Silver, White
Image Size			
RAW	4608 x 3456 compressed / 4608 x 3456 Fine (compression: 1/4) / 7.5 MB / frame 4608 x 3456 Normal (compression: 1/8) / 3.5 MB / frame 2560 x 1920 Normal (compression: 1/8) 1.1 MB / frame 1024 x 768 Normal (compression: 1/8) / 0.3 MB / frame		
View Images			
Modes	Index, Calendar, Zoom, Slide show, Movie, Single		
Light box	Yes		
Histogram in playback mode	Yes		
Shooting information	Off / On		
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		
Type	Internal Flash		
Flash compensation	+/- 3 EV (1/3, 1/2, 1 EV steps)		
Guide number	10 (ISO 200)		
X-sync speed	1/320 s / 1/4000 s (Super FP Mode)		
External Flash Control			
X-sync speed	1/250s / 1/4000s (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		
Control method	Triggered and controlled by built-in flash light		
Group setting	4 groups		
Power Supply			
Battery	BLN-1 Lithium-Ion Battery		
Sleep mode	1, 3, 5, 10 min. and off selectable.		
Live View shooting	Approx. 400images (50% with Live View)		