

Camera comparison

CAMERA TYPES

- HD-Ultra camera
- HD-Lite camera
- HD-Mini camera
- HD-Autofocus camera
- HD-Pro HDMI camera



MODELS	HD-Ultra	HD-Lite	HD-Mini	HD-Autofocus	HD-Pro HDMI
Sensor	Sony sensor	Aptina sensor	Aptina sensor	Sony sensor	Sony sensor
Format	1/2.8", HDTV 1080p (50/60 Hz)	1/2.5", HDTV 1080p (50/60 Hz)	1/3", HDTV 720p (50/60 Hz)	1/1.9"; HDTV 1080p (50/60Hz)	1/2.8", HDTV 1080p (50/60Hz)
Pixels	3264 x 1836 (capture mode), 1920 x 1080 pixels (live view), HDMI 60 fps, USB 30 fps	2592 x 1944 pixels (capture mode), 1920 x 1080 pixels (live view), HDMI 15 fps, USB 15fps	1280 x 720 pixels (capture mode), 1280 x 720 pixels (live view), 30 fps	1920 x 1080 pixels, HDMI, 60 fps	1920 x 1080 pixels (capture mode), 1920 x 1080 pixels (live view), HDMI 60 fps, USB 26 fps
Pixel size	2.8 x 2.8 (µm)	2.2 x 2.2 (µm)	3.75 x 3.75 (µm)	3.75 x 3.75 (µm)	2.9 x 2.9 (µm)
Video	1080p pixels video recording mode	1080p pixels video recording mode	--	1080p pixels video recording mode	1080p pixels video recording mode
Video output	Digital HDMI, USB-2	Digital HDMI, USB-2	Digital HDMI	Digital HDMI, USB-C *	Digital HDMI, USB-2
Scan mode	Progressive scan	Progressive scan	Progressive scan	Progressive scan	Progressive scan
Exposure	Automatic/manual	Automatic/manual	Automatic/manual	Automatic/manual	Automatic/manual
White balance	Automatic/manual	Automatic/manual	Automatic/manual	Automatic/manual	Automatic/manual/ROI
Sensitivity	510 mV/lux-sec	1 V/lux-sec	6.5 V/lux-sec	1120 mV with 1/30 sec	1300mV with 1/30 sec
Noise	Standard noise reduction	Standard noise reduction	Standard noise reduction	Standard noise reduction	Standard noise reduction
Color rendering (bits)	36	24	24	24	24
Signal/Noise (db)	55	40.5	44	50	38
Dynamic (db)	69	60	85	65	66
Interfaces	Digital HDMI, USB-2	Digital HDMI, USB-2	Digital HDMI	Digital HDMI, USB-C	Digital HDMI, USB-2
Storage in HDMI mode	High speed 8 GB SD memory card (max. 32 GB)	High speed 4 GB SD memory card (max. 32 GB)	High speed 16 GB SD memory card (max. 32 GB)	High speed 16 GB SD memory card (max. 32 GB)	High speed 16 GB SD memory card (max. 32 GB)
Camera buttons	on/off	on/off	--	on/off	on/off
Mounting	C-mount interface	C-mount interface	C-mount interface	C-mount interface	C-mount interface
Power supply	External mains adapter 100-240 Vac to 12Vdc/2A	External mains adapter 100-240 Vac to 12Vdc/2A	External mains adapter 100-240 Vac to 12Vdc/1A	External mains adapter 100-240 Vac to 12Vdc/2A	External mains adapter 100-240 Vac to 12Vdc/2A
Operation	0 – 60° C, 45-85 % humidity	0 – 60° C, 45-85 % humidity	-10 – 40° C, 30-80 % humidity	-10-40°C, 45-85% humidity	-10~ 50 C, 30~80% humidity
Storage temperature	-20 to 70° C	-20 to 70° C	-20 to 60° C	-20°C to 60° C	-20°C to 60° C
Product number	VC.3036	VC.3031	VC.3020	VC.3034	VC.3038

* USB-2 compatible

PACKAGE CONTENT

MODELS	HD-Ultra	HD-Lite	HD-Mini	HD-Autofocus	HD-Pro
Software	ImageFocus 4	ImageFocus 4	--	ImageFocusAlpha	ImageFocusAlpha
Languages	6 ⁽¹⁾	6 ⁽¹⁾	English	15 ⁽²⁾	15 ⁽²⁾
Compatible	Win 7, 8 and 10	Win 7, 8 and 10	--	--	Win 7, 8 and 10
C-mount with objective	0.37x	0.45x	0.37x	0.5x	0.37x
HDMI & USB cable	•	•	Only a HDMI cable	•	•
30 and 30.5 mm conversion adapters (stereomicroscopes)	•	•	•	•	•
SD card	8 GB	4 GB	16 GB	16 GB	16 GB
Calibration slide 10mm/100	•	•	•	•	•
External power netadapter	12V 2A	12V 2A	12V 1A	12V 1A	12V 1A
Dimensions (w x d x h)	80 x 70 x 90	80 x 70 x 90	50 x 50 x 60	81 x 65 x 78	81 x 65 x 78
Weight (grams)	440	280	150	500	500

⁽¹⁾ One language can be selected during initial installation of the ImageFocus 4 software: English, German, French, Dutch, Spanish and Russian

⁽²⁾ English, Catalan, French, German, Indonesian, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese, Spanish, Thai, Traditional Chinese, Turkish

BUILT-IN SOFTWARE FEATURES (HDMI MODE)

MODELS	HD-Ultra	HD-Lite	HD-Mini	HD-Autofocus	HD-Pro HDMI
Capture images	JPEG 3261x1840 pixels	JPEG 2592x1944 pixels	JPEG 1280x720 pixels	JPEG 1920x1080 pixels	JPEG 1920 x1080 pixels
Video recording	AVI 1920x1080 pixels	AVI 1920x1080 pixels	--	ASF 1920x1080 pixels	ASF 1920x1080 pixels
Browse saved images	•	•	--	•	•
Browse saved video's	•	•	--	no	•
SD card storage	8 GB	4 GB	16 GB	16 GB	16 GB
Mouse driven	•	•	•	•	•
Auto Exposure	•	•	•	•	•
Exposure time	0.001s ~ 10 s	0.001s ~ 10 s	0.2 ~ 2000 ms	0.06 ~ 918 ms	0.036 ~ 8000 ms
Gain	•	•	•	•	•
RGB & white balance	•	•	•	•	•
Gamma	•	•	•	•	•
Sharpness	•	•	•	•	•
Noise reduction	3D algorithm	3D algorithm	Standard	Standard	Standard
Saturation & contrast	•	•	•	•	•
Horiz. & vert. flip	•	•	•	•	•
Grids	cross and multi grid	multi grid	multi grid	multi grid	User defined grid
Autofocus	--	--	--	•	--
Compare function	•	•	--	•	•
Measurement functions	live and captured images	--	--	live image only	live and captured images
Calibration table	•	--	--	•	•
Line & free curve	•	--	--	•	•
Polygon & rectangle	•	--	--	•	•
Angle	•	--	--	•	•
Circle 3 points	•	--	--	•	•
Circle radius	•	--	--	•	•
Export function	CSV, Txt	--	--	CSV	CSV
Languages	8 ⁽³⁾	8 ⁽³⁾	--	5 ⁽⁴⁾	5 ⁽⁴⁾

⁽³⁾ English, simplified Chinese, traditional Chinese, German, Italian, French, Japanese, Korean

⁽⁴⁾ English, Simplified Chinese, Traditional Chinese, Korean and Thai