



## Resolutions and Frame rates

Resolution	Max FPS	Record time (sec) (8GB)	Record time (sec) (16GB)	Record Time (sec) (32GB)
1280 x 1024	1 057	4.13	8.26	16.52
1280 x 720	1 502	4.13	8.27	16.54
1280 x 512	2 111	4.14	8.27	16.54
1280 x 360	2 999	4.14	8.28	16.56
1280 x 240	4 489	4.15	8.30	16.6
1280 x 120	8 923	4.17	8.35	16.62
1280 x 96	11 119	4.19	8.38	16.76
1024 x 768	1 771	4.11	8.22	16.44
1024 x 576	2 359	4.11	8.23	16.46
800 x 600	2 873	4.15	8.30	16.6
800 x 480	3 587	4.15	8.31	16.62
640 x 480	4 436	4.20	8.40	16.8
640 x 360	5 903	4.21	8.42	16.84
640 x 240	8 816	4.23	8.45	16.9
640 x 120	17 424	4.28	8.56	17.12
640 x 96	21 649	4.30	8.61	17.22
336 x 252	15 200	4.43	8.87	17.74
336 x 190	20 020	4.47	8.94	17.88
336 x 120	31 192	4.53	9.07	18.14
336 x 96	38 565	4.60	9.20	18.4

## Full Specifications

<b>Camera</b>	<i>Imaging</i>	1280x1024 1057fps, see resolution table for details
	<i>Memory</i>	8GB, 16GB, or 32GB
	<i>Record time</i>	4 seconds (8GB), 8 seconds (16GB), 16 seconds (32GB)
	<i>Lens mount</i>	CS mount, C mount with included adapter
	<i>Backfocus</i>	Field adjustable
	<i>IR Filter</i>	650nm, user removable, 18 x 18 x 1.1mm
	<i>Display</i>	5" 800x480 capacitive touchscreen
	<i>Enclosure</i>	Anodized CNC machined aluminum
	<i>Cooling</i>	Active cooling, variable-speed fan
	<i>Dimensions</i>	155mm x 96mm x 67.3mm (6.11" x 3.78" x 2.65") without lens
<i>Weight</i>	1.06kg (2.34 lbs) without lens	
<b>Video formats</b>	<i>H.264</i>	Industry-standard mp4 files at bitrates up to 60Mbps
	<i>cinemaDNG Raw</i>	Standard Adobe cinemaDNG raw files

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<b>Image Sensor</b>	<i>Resolution</i>	1280x1024 @ 1057fps
	<i>Speed</i>	1.4Gpx/s - Full throughput down to 336 pixel image width
	<i>Dimensions</i>	8.45 x 6.76mm
	<i>Pixel pitch</i>	6.6um
	<i>Sensitivity (ISO)</i>	Color - ISO 320 to 5 120 Mono - ISO 740 to 11 840
	<i>Shutter</i>	Electronic global shutter, 1/fps to 1us (1/1 000 000 s)
	<i>Dynamic range</i>	56.7 dB
<b>Battery</b>	<i>Bit depth</i>	12-bit
	<i>Type</i>	EN-EL4a
	<i>Runtime</i>	1.5 hours recording
	<i>Charge time</i>	2 hours (0-80%) with in-camera charger
<b>IO</b>	<i>Power Input</i>	17-20V 40W 5.5/2.5mm barrel jack, positive tip
	<i>Network*</i>	Gigabit Ethernet
	<i>Trigger</i>	Two Trigger inputs/frame strobe outputs (BNC and Aux) Adjustable input threshold 0 to 6.6V Electrically isolated trigger input (Aux connector)
	<i>Audio*</i>	Microphone/Line input, headphone output
	<i>Video*</i>	HDMI output, video or video+menus
	<i>USB</i>	Two USB host ports (one on mini-B via USB OTG cable)
	<i>SATA</i>	eSATA 3G
	<i>Analog input*</i>	1MSa/s 12-bit, 200kHz bandwidth, +/- 1V full scale
<b>Trigger modes</b>	<i>Normal triggered</i>	Camera records until a defined delay after a trigger
	<i>Triggered start</i>	Camera starts recording a defined delay after a trigger
<b>Trigger Sources</b>	<i>Electrical</i>	0-6.6V threshold, optional button debounce and pullup
	<i>Audio*</i>	Trigger on loud sounds
	<i>Acceleration*</i>	Trigger on camera motion, tilt or shock
	<i>Image*</i>	Trigger on image changes
<b>Recording modes</b>	<i>Normal</i>	Records into the circular buffer. Once a trigger occurs, video can be reviewed and saved
	<i>Segmented</i>	RAM is divided into segments, each recording as in the Normal mode above. Number of segments is user selectable.
	<i>Continuous*</i>	Video is saved continuously at up to 60fps to mp4 files on removable storage. Operates like a normal video camera.
	<i>Run-n-Gun*</i>	Bursts of video are saved to RAM while holding down the shutter button. Video is saved to storage devices automatically. More bursts can be captured simultaneously while video is saving.
	<i>Gated burst</i>	Frames are captured while trigger is active
	<i>Normal + continuous*</i>	High-speed video is recorded to the RAM buffer while simultaneously 60fps videos is saved to removable storage

<b>Shutter timing</b>	<i>Normal</i>	Frame rate and exposure time are controlled by camera
	<i>Edge triggered</i>	A single frame is captured on each rising or falling edge of an external input. Exposure is controlled by camera
	<i>Shutter gating</i>	Image sensor shutter is directly controlled by an external input, exposing while the input is active
<b>Assistive</b>	<i>Focus Peaking</i>	Highlights sharp edges to aid focusing
	<i>Zebra</i>	Rolling diagonal lines indicate clipped (overexposed) areas
	<i>Focus Aid</i>	Zooms in to allow easier focusing

\*These features are fully supported in the camera's hardware, but are not yet supported in software. They will be added in a free software update after the camera's initial release.