Lite Model

Event-based vision camera

SilkyEvCam HD Lite

SilkyEvCam HD Lite is an industrial-grade event-based vision camera with Sony's IMX636 event-based vision sensor which is realized in collaboration between Sony and PROPHESEE. It delivers HD resolution while maintaining the same dimensions as previous VGA models. Built on a completely different concept than conventional frame-based cameras, SilkyEvCam HD Lite reveals an unprecedented event-based world.

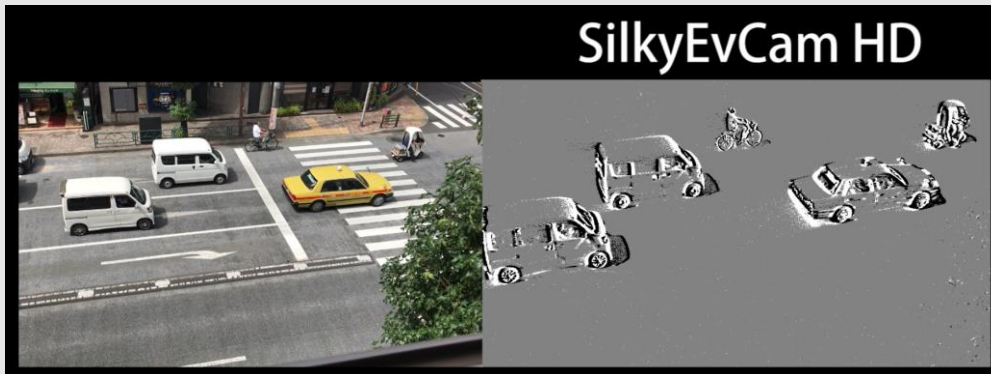| 1 μsec	>120dB	1/10〜1/1000	1280 x 720
Min temporal resolution	Dynamic range	Data volume compared to frame-based camera	Resolution

An event-based vision sensor is designed to emulate how the human eye senses light. The sensor detects the luminance changes in each pixel and extracts only those that exceed the preset threshold value then outputs the event "coordinate, polarity, and time". This operation is performed independently and asynchronously for each pixel.

Differences from conventional cameras

While conventional cameras output information for the entire screen according to a fixed frame rate, event-based vision cameras output asynchronously data only for pixels that have undergone a change in brightness or darkness. Therefore, it does not output motionless (no luminance change) roads, buildings, or stationary cars, and can reliably capture only moving objects.

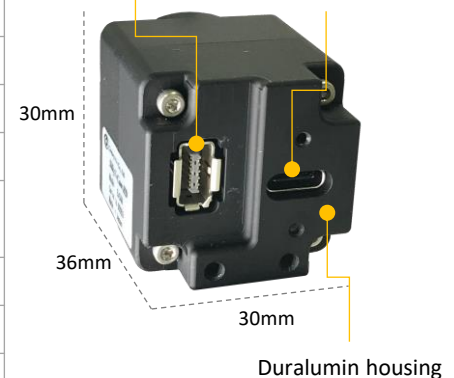Conventional camera ▽   Event-based vision cameras ▽

Check the video here!

SilkyEvCam HD Lite

Event-based vision sensor	Model	IMX646 (Sony)
	Image size	Type 1/2.5" (Diagonal 7.14mm)
	Resolution	HD (1280(H) x 720(V))
	Pixel size	4.86μm x 4.86μm
	Typical Latency	800μs or under @ 1k lux
	Readout throughput	20Mevents/s (default, setting changeable)
Output	Interface	USB 3.0 (USB Type-C™ connector)
		IX Series Connector (IX80G-B-10P : HIROSE) (Plug: IX30G-B-10S-CV(7.0) | IX31G-B-10S-CV(7.0))
Camera	Power supply	USB Power (VBUS) 5V
	Lens mount type	C/CS Mount
	Dynamic range	>120dB (DR >120 dB can be reached based on low light cutoff measurement being: 0.08 lux (imaging characteristics not guaranteed).)
	Operating temperature	0 ～ + 50 ℃
	Storage temperature	- 30 ～ + 80 ℃
	Current consumption	300mA (max) / 100mA (Ave.)
	Dimensions / Weight	30mm (W) x 30mm (H) x 36mm (D) / 42g
	Raw formats	EVT3

IX Series Connector
SYNC_I/O TRIG_IN

USB Type-C™ connector with lock screw

30mm

36mm

30mm

Duralumin housing

BUILT TO ENDURE

Change of temperature: IEC 60068-2-14
Damp heat, steady state: IEC 60068-2-78
Rough handling shocks: IEC 60068-2-31
Electrostatic discharge immunity test:
IEC 61000-4-2

Software toolkit

"Metavision® SDK ", a software toolkit provided by PROPHESEE can be used for this product. The Metavision® SDK provides basic libraries, algorithms, and practical sample programs for processing data from event-based vision cameras. (The Metavision® SDK is free of charge up to and including Ver. 4.6.x. From Ver. 5.x.x onwards, it will be available for a fee.)

2024.12