

DAVIS346
Simultaneous events and frames



DVXplorer Lite
Discover event-based vision



DVXplorer
High resolution



DVXplorer Mini
Lightweight and compact



Event output				
Spatial resolution	346 x 260	320 x 240	640 x 480	640 x 480
Temporal resolution ¹	1 μs	200 μs	200 μs	200 μs
Max throughput	12 MEPS	100 MEPS	165 MEPS	450 MEPS
Typical latency ²	<1 ms	<1 ms	<1 ms	<1 ms
Dynamic range	Approx. 120 dB (0.1-100k lux with 50% of pixels respond to 80% contrast)	Approx. 90 dB (3-100k lux with 99.9% of pixels respond to 27.5% contrast) Approx. 110 dB (0.3-100k lux with 50% of pixels respond to 80% contrast)		
Contrast Sensitivity	14.3% (on), 22.5% (off) (with 50% of pixels respond)	13% (with 50% of pixels respond), 27.5% (with 99.9% of pixels respond)		
Frame output				
Spatial resolution	346 x 260	The camera does not output frames of intensity images. However, similar intensity images can be reconstructed from the event output by our DV software. ³		
Frame rate	40 FPS			
Dynamic range	55 dB			
FPN	4.2 %			
Dark signal	18000 e ⁻ /s			
Readout noise	55 e ⁻			
IMU				
	6-axis (Gyro + Accelerometer), up to 8k Hz sampling rate			
Multi-camera sync				
	Supports multi-camera time synchronization via daisy chain connection and external event injection			-

Other attributes	DAVIS346	DVXplorer Lite	DVXplorer	DVXplorer Mini
Dimensions [mm]	H 40 x W 60 x D 25			H 29 x W 29 x D 32
Lens mount	CS-mount			S-mount (M12) with locking ring
Mounting options	4-side Whitworth 1/4"-20 female and M3 mounting points			2- side Whitworth 1/4"-20 female and M3 mounting points
Connectors	USB 3.0 micro B port with locking screws, fully isolated sync input and output connectors			USB 3.0 C port with locking screws
Case material	Anodized aluminum	Engineering plastic (POM)	Anodized aluminum	Engineering plastic (POM) or anodized aluminum
Weight (without lens)	100 g	75 g	100 g	43 g (aluminum) 21 g (POM)
Pixel pitch	18.5 μm	18 μm	9 μm	9 μm
Power consumption	<180 mA @ 5 VDC (USB)	<140 mA @ 5 VDC (USB)		
Sensor technology	0.18 μm 1P6M MIM CIS	90 nm BSI CIS		
Sensor supply voltage	1.8 V and 3.3 V	1.2 V, 1.8 V and 2.8 V		
Certifications	CE certified			CE pending

¹ The temporal resolution is characterized by the timestamp unit. In fact, a timestamp unit of 1 μs offers minimum gain over a timestamp unit of 200 μs . For more explanation, please refer to our

² Nominal figure; can be improved with strong lighting/optimised biases.

- In APS GlobalShutter mode, bursts of DSV events can be caused by the capture of an APS frame.
- Due to bandwidth limitations, the DVS event output tends to follow a scanning pattern when under high load.
- The frame output has below average performance in terms of image quality compared to conventional image sensors.
- Color frames are not calibrated, and thus do not faithfully reproduce the real observed color.
- The event output can be destabilized if a strong light source impacts a sensitive spot outside the photosensitive pixel array.