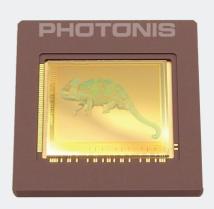
PHOTONIS Digital Vision

Kameleon Color Low Light CMOS Sensor



See Full Color at Night

Full color imaging without illumination.

The Kameleon color CMOS sensor is an award-winning technology which provides day through night imaging in full color.

The Kameleon CMOS color imaging sensor is the first operational sensor specifically designed with Night Vision, Homeland Security, Surveillance and Scientific applications in mind. This solid-state CMOS sensor provides excellent color imaging across varying light conditions, from daylight to low-light levels - such as those found during a quarter-moon.

The Kameleon CMOS color imaging sensor has a pixel architecture that offers the best compromise between inherent signal-to-noise ratio (SNR), high image resolution and intrascene dynamic range. With read noise below 4e- without cooling, the Kameleon CMOS sensor outperforms all low light imaging sensors down to 4 mlx while still supporting frame rates up to 100fps at full SXGA (1280 x 1024) resolution.

			W	avelength (nn	n)			
300	400	500	600	700	800	900	1000	1100
0.1								
0.2		/						
0.3		$/ \setminus$						
0.4		X	X			\		
0.5		$\backslash \backslash$						
0.6	/							
						GREI	N —RED	
0.7						Mono	BLUE	
0.8								

Sensor	Specifications				
Resolution	1280 × 1024 pixels				
Pixel Pitch	9.7 µm × 9.7 µm				
Sensor Format/Diagonal	14.8 mm x 12.74 mm / 16 mm				
Full Well Capacity	> 25000 e-				
Dynamic Range	> 60 dB				
Read Noise	< 4 e- mean in 100 Hz mode				
Quantum Efficiency	> 60 % at peak depending on sensor configuration				
Frame Rate	Up to 100 Hz with full field resolution				
Shutter Mode	Rolling				
Features					
Image Lag	< 0.1 %				
SNR	42 dB				
Read-out Modes	Windowing Y-direction X-Y mirroring				
Multi-slope	Three slopes				
Limiting Resolution	51 lp/mm (1280 lines)				
PRNU	< 2 % RMS				
Digital Video Output	10-bit digital output (LDVS) up to full resolution				
Environmental and P	ower				
Carrier	73 pin PGA 23 x 23 mm				
Power Consumption	< 425 mW @ 60 fps				
Operating Temperature	-40°C to 60°C				
Storage Temperature	-50°C to 80°C				







xs optimized for SWaP

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