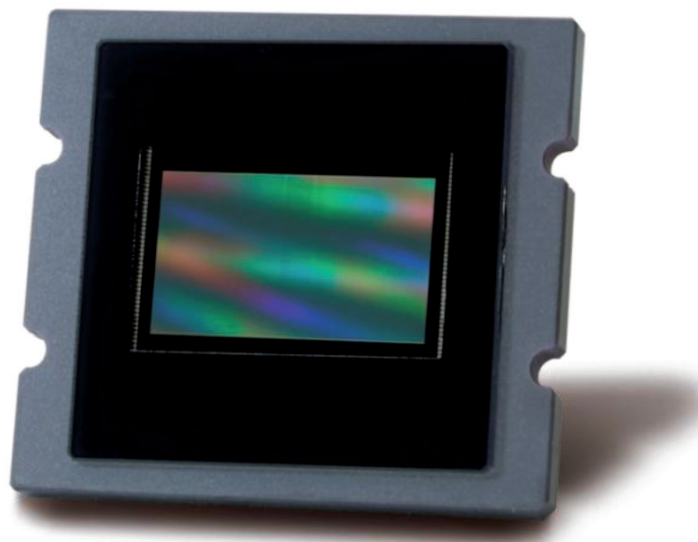


Sci-CMOS 5130

15 Megapixels CMOS Image Sensor

Preliminary Short Form Datasheet



Sensor descriptions:

Designed with scientific-grade image sensor specifications, Sci-CMOS 5130 is the first 5 K resolution image sensor with frame rate higher than 250 fps, and the frame rate can be further increased with row-based ROI windowing.

Sci-CMOS 5130 features dark current less than $10 \text{ e}^-/\text{p/s}$ @ $20 \text{ }^\circ\text{C}$, and large open area at the bottom of the ceramic package is available for heat dissipation or cooling.

Sci-CMOS 5130 is available in Mono and RGB, and sampling starts in April 2016.

Sensor features:

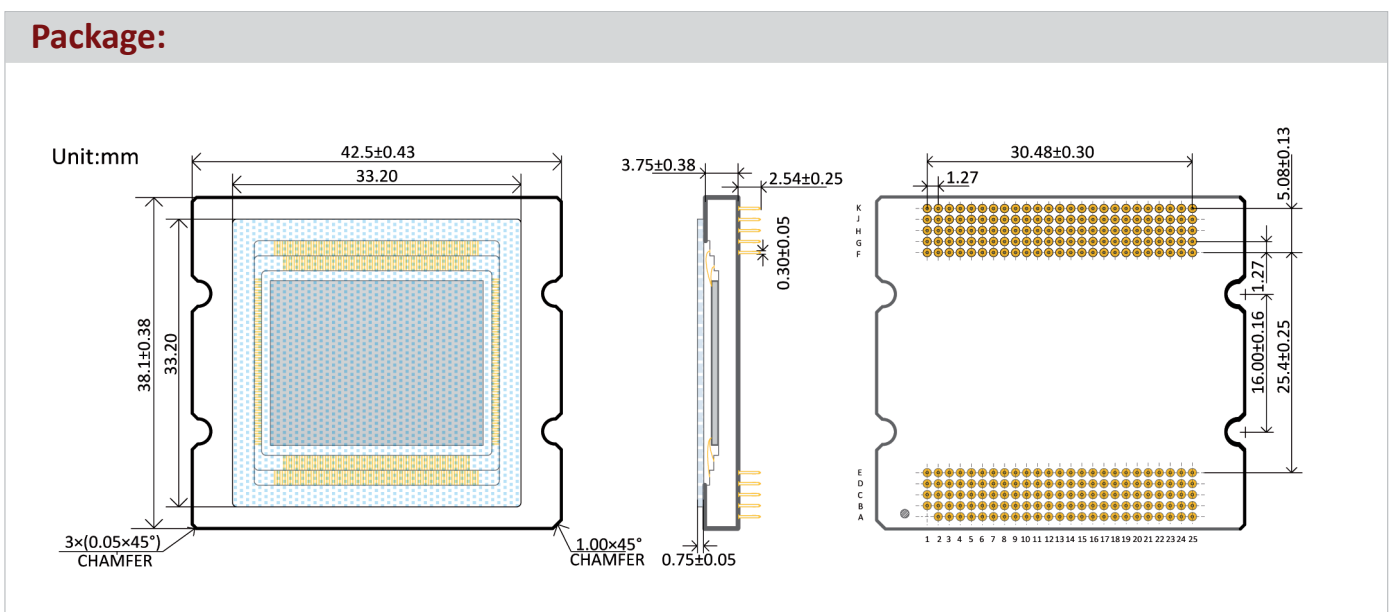
- 5K resolution scientific-grade image sensor
- APS-C format and $> 250 \text{ fps}$ @ full resolution
- Dynamic range up to 82 dB @ rolling and 70 dB @ global

Applications:

- 5K High-end Cameras for Film and Broadcast
- Virtual Reality, Augmented Reality and 3D Scanning
- High-end Security and Surveillance
- High resolution scientific imaging

Sensor Specifications:			
Optical format	APS-C format	Full well charge	5.76 ke ⁻
Resolution	5120 × 2968	SNR Max	41.23 dB
Pixel size	4.25 μm × 4.25 μm	Dark noise (Rolling)	1.5 e ⁻
Shutter type	Rolling & Global shutter	Dark noise (Global)	3.5 e ⁻
ADC	10 / 11 / 12 bit	Quantum Efficiency	> 60 % @ 600 nm
Output interface	80 LVDS @ 10 bit 40 LVDS @ 11 bit 20 LVDS @ 12 bit	Dynamic range	82 dB (rolling HDR) 70 dB (global HDR)
PRNU	<1%	Dark current	< 10e ⁻ /p/s @ 20 °C
Supply voltage	3.3 V / 1.8 V	Operating temperature	-55 °C~ +85 °C
Power consumption	< 3 W	Package	249 pins μPGA

Frame Rate:			
Rolling STD mode	260 fps @ 10 bit ADC	130 fps @ 11 bit ADC	65 fps @ 12 bit ADC
Rolling HDR mode	130 fps @ 10 bit ADC	65 fps @ 11 bit ADC	32 fps @ 12 bit ADC
Global CDS mode	130 fps @ 10 bit ADC	65 fps @ 11 bit ADC	32 fps @ 12 bit ADC
Global CDS HDR mode	65 fps @ 10 bit ADC	32 fps @ 11 bit ADC	16 fps @ 12 bit ADC



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