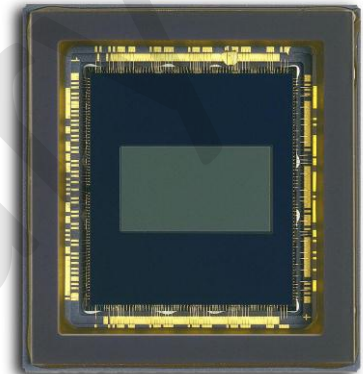
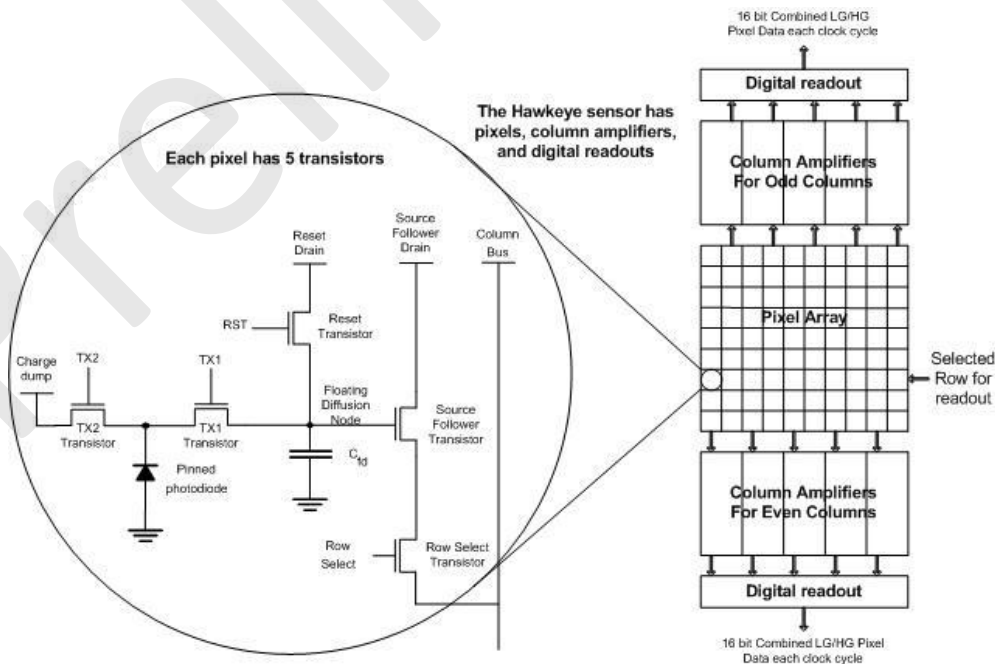


Fairchild Imaging HWK1910A with sCMOS2.0 Technology HD (1920 X 1080) Sensor with Exceptional Low Light Performance

The Fairchild Imaging HWK1910A is a high definition format, ultra-low-noise CMOS image sensor intended for surveillance and intelligent transportation applications requiring high quality imaging under extremely low light and wide dynamic range conditions. The device features an array of 5 transistor (5T) pixels on a 5.0 μ m pitch with an active imaging area of 1920(H) x 1080(V) pixels. The sensor runs in Rolling Shutter readout mode. In addition, it also has circuitry that enables high dynamic range data collection in a single image. The sensor supports user-programmable row start/stop control for region of interest (ROI) readout mode. The HWK1910A delivers extreme low-light sensitivity with a read noise of 1 electron RMS and low dark current. These features, combined with 2.1 megapixel resolution, 60 fps imaging rates and the ability for auto calibration makes the HWK1910A easy to integrate in variety of systems and ideally suited for a variety of high throughput, low light-level imaging applications.

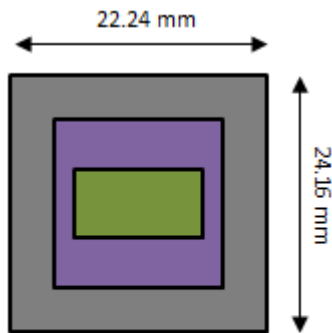


BLOCK DIAGRAM



FEATURES

- **Superior Low Light Image Quality**
- **1e- Read Noise**
- **>88 dB Intra Scene Dynamic Range in WDR mode and >120 dB in UDR mode**
- **60 FPS at 2.1MP**



HWK1910A
Standard Package

SPECIFICATIONS

Optical Format	2/3"
Active array size	1920 (H) x1080 (V)
Pixel size	5 μm x 5 μm
Active area	9.68 mm x 5.44 mm
Chroma	RGB
Shutter type	Rolling shutter
Maximum frame rate	60 fps (WDR), 30fps (UDR)
ADC resolution	16 bits (WDR), 16 bits companded (UDR)
Read noise ¹	1e- RMS
Dynamic range	> 88dB (WDR), > 120dB (UDR)
Full well capacity	> 25,000 e-
Dark current ²	< 15 e-/pixel/sec
Power consumption	< 0.5W operating at 30 fps
I/O interface	Digital: 1.8V LVCMOS and 1.8V HSTL
Supply voltages	1.8V, 2.8V, 3.3V
Operating temp	- 30°C to +70°C
Package type	64-pin CLCC

¹Median value at 30 FPS operation, ²At 20°C

FOR MORE INFORMATION, CONTACT:

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