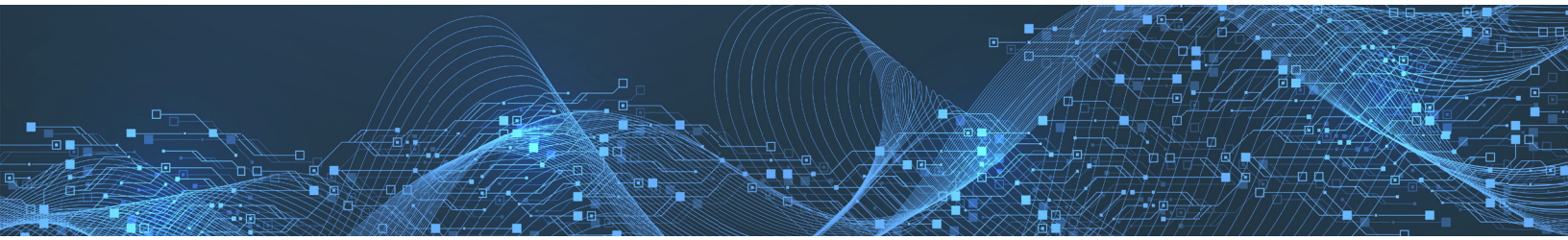
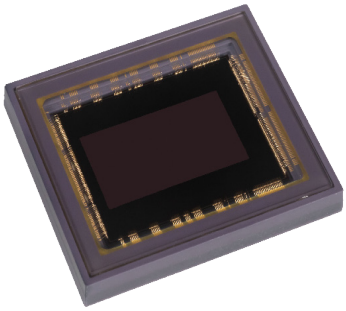
FAIRCHILD IMAGING
A HAMAMATSU Company



LTN4323

Exceptional Fidelity in 4K



4/3" | 10.5MP | BSI | sCMOS 3.1 Technology

LTN4323 has extraordinary capabilities for unparalleled versatility in 4K imaging

Incorporating sCMOS 3.1 technology, LTN4323 is a market leading image sensor boasting high MTF, class leading NIR QE, ultra-low read noise, increased FWC and high dynamic range. Coupled with our unique dual-gain architecture, this enables the most signal for your imaging applications.

The LTN4323 delivers class leading performance for a variety of applications in science, space, industrial, high contrast, hyperspectral, medical, among others.

An innovative BSI process

The LTN4323 employs new BSI sCMOS 3.1 engineering to realize extremely low noise, enhanced MTF, boosted near-infrared quantum efficiency (NIR-QE), and reduce dark current. The increased Modular Transfer Function (MTF) is achieved through reduced pixel-to-pixel crosstalk that dramatically improves sharpness. Compared to typical Front Side Illuminated (FSI) sensors, an innovative backside illuminated (BSI) process delivers a broad spectrum NIR-QE with >2x sensitivity.

The result is an advanced feature set with native high dynamic range, long exposures mode, and low crosstalk for all imaging applications.

Key features and benefits

- 0.5e- RMS read noise allows for reduced noise in dark scenes
- 10.5MP (4432 x 2368) enables high resolution and captures more details
- Dual gain 12-bit modes maximizes signal digitization
- 92dB dynamic range captures more detail in high-contrast scenes
- High pixel MTF reduces pixel crosstalk for more detailed images
- Enhanced NIR QE process allows for improved near-Infrared sensitivity
- Global shutter reduces image blur at high frame rates

Applications

- Science
- Space Domain
- Machine Vision
- High Contrast
- Hyperspectral
- Medical

FAIRCHILD IMAGING
A HAMAMATSU Company

Ideal for capturing images in extreme low-light conditions

Specifications

Sensor

Optical format	4/3"
Configurations	Monochrome or Bayer RGB
Active array	4432 x 2368 (10.5MP)
Active area	20.3 mm x 10.9 mm
Active diagonal	23.1 mm
Frame rates	120 fps @ full frame rate 1000 fps @ 290 rows
ADC resolution	12 bits @ ≤ 60 fps 11 bits @ 120 fps
Programmable gain	LG: 1x | HG: 8x, 16x, 32x

Pixel

Pixel size	4.6µm x 4.6 µm
Shutter types	Rolling w/ global reset; Global
Peak Quantum Efficiency	91%
Read noise floor	0.5e- RMS @ 5 fps
Read noise at max frame rate	0.9e- RMS @ 120 fps
Dynamic range	92 dB
Dark current	0.1e-sec @ 0°C
Non-linearity	<1%

Interface

Temperature sensor	Analog & Digital Outputs
Output data interface @ 1.2 Gbps	10 sub-LVDS @ 60 fps 20 sub-LVDS @ 120 fps
Data type	11 or 12 bit RAW 16 bit LG/HG merged
Control interface	SPI 20 MHz

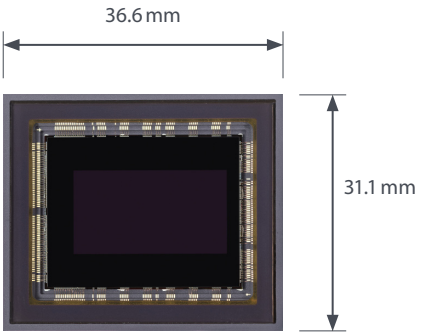
Operating

Power	1.8W @ 120 fps
Operating temp	-30°C to + 70°C
Power supply	3.3V, 2.5V, 1.8V, 1.2V

Packaging

Package	256 Pin CLGA
Coverglass	AR coated sealed window; temporary window

Dimensions



For more information contact:
Fairchild Imaging, Inc.
1841 Zanker Rd., Ste. 50
San Jose, CA 95112 USA

T: 1-408-433-2500
E: sales@fcimg.com