



LTN4625A with sCMOS2.0™ Technology

OVERVIEW

The Fairchild Imaging LTN4625A is a lightning fast speed (LTN) 12MP sCMOS image sensor in an APS-C optical format. The sensor integrates sCMOS2.0 technologies and supports 240 frames per second at 12MP full resolution.

The sensor is designed to support the demanding imaging needs of machine vision, high-end security/surveillance and scientific applications. The device features an array of 5T pixels on a 5.5µm pitch with an active imaging area of 4608 (H) x 2592 (V) pixels. It also supports both Rolling and Global Shutter readout modes.

The LTN4625A delivers lightning high speed, low-light sensitivity, wide dynamic range, and Quantum Efficiency (QE) above 50%. The sensor supports user-programmable row start/stop control for region of interest (ROI) readout.

KEY FEATURES

Rolling and Global shutter

Lightning fast speed

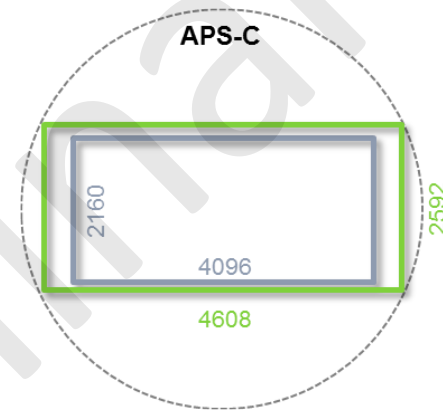
- 240 fps at 12MP (RS), 120 fps at 12MP (GS)

Exceptional low readout noise

- < 2 e- RMS (RS), < 5 e- RMS (GS)

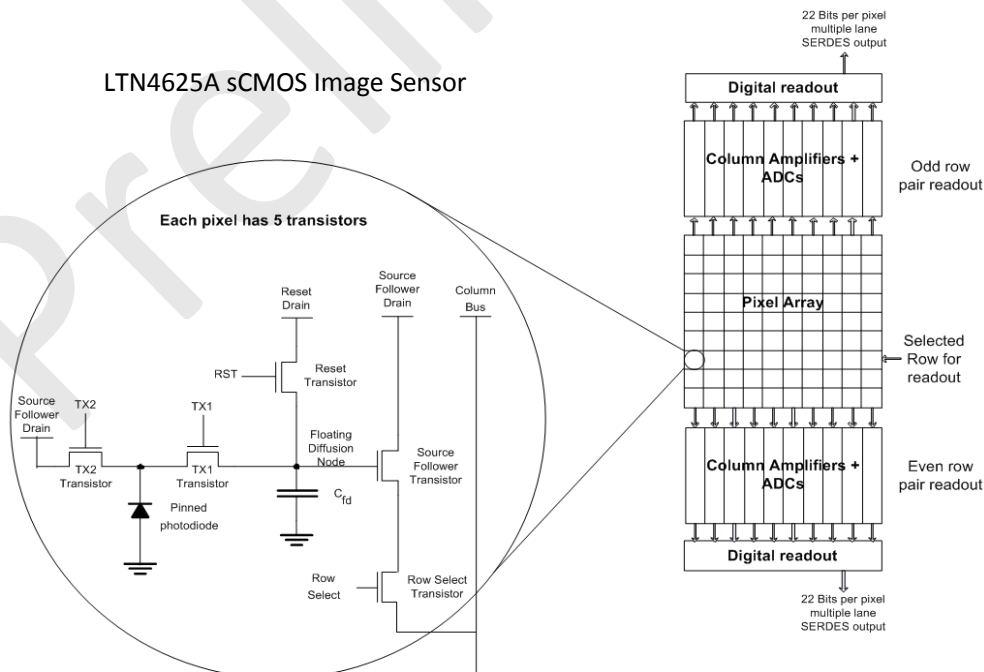
Wide Dynamic Range

- > 88 dB single frame



BLOCK DIAGRAM

LTN4625A sCMOS Image Sensor

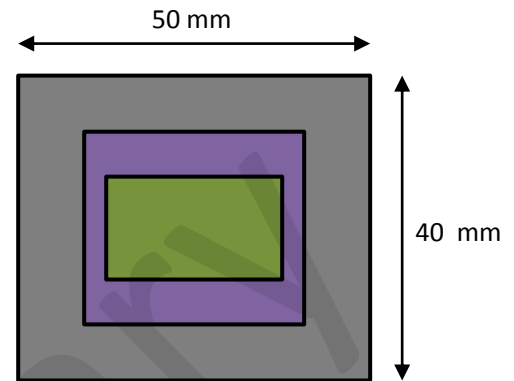




LTN4625A with sCMOS2.0™ Technology

GENERAL SPECIFICATIONS (Preliminary)

Optical format	APS-C
Active array size	4608 (H) x 2592 (V)
Pixel size	5.5 μm x 5.5 μm
Active area	25.3 mm x 14.3 mm
Diagonal of active area	29.06 mm
Chroma	RGB and Monochrome
Shutter type	Rolling and Global shutter
Max. frame rate	240 fps (RS) at Ultra HD (4K)
ADC resolution	22 bits (2 x 11-bit)
Read noise	< 2 e- RMS at 240 fps (RS) < 5 e- RMS at 120 fps (GS)
Dynamic range	> 88 dB single frame
Full well capacity	> 40,000 e-
Dark current	< 15 e-/pixel/sec at 20 °C
Power consumption	2W at 60 fps full resolution
I/O interface	Digital: 32 SERDES (3.125GHz per lane)
Supply voltage	-0.4V, 1.2V, 1.8V, 3.0V, 3.3V
Operating temp	-40 °C to + 55 °C (at junction)
Package type	194-pin CLCC

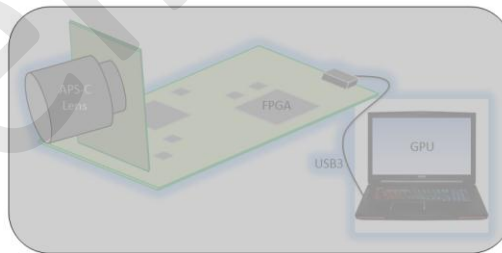


LTN4625A
Standard CLCC Package

PRODUCT EVALUATION KIT (PEK)

PEK is user-friendly system so that users can fully evaluate the capabilities of the sCMOS performance advantages.

Please contact our Sales about the availability as well as the pricing.



CONTACT

Fairchild Imaging
1841 Zanker Road, Suite 50, San Jose, CA 95112 USA
Tel: 1-650-479-5749
www.fairchildimaging.com

This product is designed, manufactured, and distributed utilizing the ISO 9001:2008 Business Management System.

©2014 BAE Systems Imaging Solutions reserves the right to make changes to its products and/or their specifications at any time without notice.