

Product Overview

KAC-12040: CMOS Image Sensor, 12 MP

For complete documentation, see the data sheet.

EOL has been announced for this device

The KAC-12040 Image Sensor is a high-speed 12-megapixel CMOS image sensor in a 4/3" optical format based on a 4.7 μm 5T CMOS platform. The image sensor features very fast frame rate, excellent NIR sensitivity, and flexible readout modes with multiple regions of interest (ROI). The readout architecture enables use of 8, 4, or 2 LVDS output banks for full resolution readout up to 70 frames per second.

Each LVDS output bank consists of up to 8 differential pairs operating at 160 MHz DDR for a 320 MHz data rate per bank. The pixel architecture allows Rolling Shutter operation for motion capture with optimized Dynamic Range or Global Shutter for precise still image capture.

The image sensor has a pre-configured QFHD (4 x 1080p, 16:9) video mode, fully programmable ROI for windowing, programmable sub-sampling, and reverse readout (flip and mirror). Two ADCs can be configured for 8-bit, 10-bit, 12-bit or 14-bit conversion and output.

Additional features include Interspersed video streams (Dual-Video), on-chip calibration, black clamping, Overflow pixel for blooming reduction, black-sun correction (anti-eclipse), column and row noise correction, and integrated timing generation with SPI control, 4:1 and 9:1 averaging decimation modes.

Features

- Global shutter and rolling shutter
- Very fast frame rate
- High NIR sensitivity
- Multiple regions of interest
- Interspersed video streams

Applications

- Machine Vision
- Intelligent Transportation Systems
- Surveillance

For more information please contact your local sales support at www.onsemi.com.

Created on: 10/29/2020