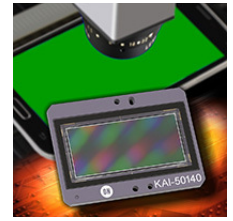


Product Overview

KAI-50140: Interline Transfer CCD Image Sensor, 50.1 MP

For complete documentation, see the data sheet.



EOL has been announced for this device

The KAI-50140 image sensor is a 50 megapixel Interline Transfer CCD in the 2:1 aspect ratio commonly found in the displays of modern smartphones. Leveraging a 4.5 μm pixel design that provides a 70% resolution increase compared to the KAI-29050 and KAI-29052 devices, the KAI-50140 provides excellent image uniformity and broad dynamic range. A flexible output architecture supports 1, 2, or 4 outputs for full resolution readout of up to 4 frames per second, and a true electronic shutter enables image capture without motion artifacts across a broad range of exposure times.

In addition to standard monochrome and Bayer Color configurations, the sensor is available in a Sparse CFA configuration which provides a 2x improvement in light sensitivity compared to the standard Bayer Color part. The sensor shares the same package as the KAI-29050 and KAI-29052 image sensors, simplifying camera design.

Features

- 2.18:1 Aspect Ratio
- 50 Mp Resolution
- Broad exposure latitude (1 sec)
- Monochrome and Bayer Color configurations
- Design similarity to existing KAI devices

Applications

- Image Capture

Benefits

- Designed specifically for inspection of modern smartphone displays
- High resolution to capture detailed images
- Enables capture under varying exposure / lighting conditions
- Allows spectral sensitivity to be matched to application
- Provides easy upgrade path for existing customers

End Products

- Machine Vision camera
- Industrial Imaging / Inspection camera
- Security / Surveillance camera
- Circuit Board / Mechanical Assembly Inspection camera

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (μm)	Output Interface	Color	Package Type
KAI-50140-QXA-JD-AE		Pb-free Halide free	Product review	Interline CCD	50.1	4	645 1.3x	Electronic	4.5 x 4.5	Analog	Sparse CFA	CPGA71 60.60x45.34

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

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