

## Product Overview

### KAI-43140: Interline Transfer CCD Image Sensor, 43.1 MP

For complete documentation, see the data sheet.

The KAI-43140 image sensor is a 43 megapixel CCD in a 35 mm optical format. Leveraging a 4.5  $\mu\text{m}$  pixel design that provides a 50% resolution increase compared to the KAI-29050 and KAI-29052 devices, the KAI-43140 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

- High resolution image capture in 35 mm optical format
- True electronic shutter with broad exposure latitude
- Low noise architecture
- Excellent smear performance
- Monochrome, Bayer Color, and Sparse Color Filter Pattern configurations

### Applications

- Industrial Imaging and Inspection
- Security and Surveillance
- Mapping / Aerial

### Part Electrical Specifications

Product	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size ( $\mu\text{m}$ )	Output Interface	Color	Package Type
KAI-43140-AXA-JD-AE	Pb-free	Active	Interline CCD	43.1	4	35 mm	Electronic	4.5 x 4.5	Analog	Mono	CPGA-72
	Halide free										
KAI-43140-AXA-JP-AE	Pb-free	Active	Interline CCD	43.1	4	35 mm	Electronic	4.5 x 4.5	Analog	Mono	CPGA-72
	Halide free										
KAI-43140-FXA-JD-AE	Pb-free	Active	Interline CCD	43.1	4	35 mm	Electronic	4.5 x 4.5	Analog	Bayer Color	CPGA-72
	Halide free										
KAI-43140-QXA-JD-AE	Pb-free	Active	Interline CCD	43.1	4	35 mm	Electronic	4.5 x 4.5	Analog	Sparse CFA	CPGA-72
	Halide free										

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

Created on: 1/22/2019