



Product Overview

KAI-29050: Interline Transfer CCD, Image Sensor, 28.8 MP

[For complete documentation, see the data sheet](#)

Product Description

The KAI-29050 Image Sensor is a 29-megapixel CCD in a 35 mm optical format (43 mm diagonal). Based on the TRUESENSE 5.5 micron Interline Transfer CCD Platform, the sensor features broad dynamic range, excellent imaging performance, and a flexible readout architecture that enables use of 1, 2, or 4 outputs for full resolution readout up to 4 frames per second. A vertical overflow drain structure suppresses image blooming and enables electronic shuttering for precise exposure control.

The sensor is available with the TRUESENSE Sparse Color Filter Pattern, a technology which provides a 2x improvement in light sensitivity compared to a standard color Bayer part.

The sensor shares common PGA pin-out and electrical configurations with other devices based on the TRUESENSE 5.5 micron Interline Transfer CCD Platform, allowing a single camera design to be leveraged to support multiple members of this sensor family.

Features

- Bayer color Pattern, TRUESENSE Sparse Color Filter Pattern, and Monochrome configurations
- Progressive scan readout
- Flexible readout architecture
- High frame rate
- High sensitivity
- Low noise architecture
- Excellent smear performance
- Package pin reserved for device identification

Applications

- Digitization
- Intelligent Transportation Systems
- Machine Vision
- Mapping / Aerial
- Photography

Part Electrical Specifications

Product	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (μm)	Color	Package Type
KAI-29050-AXA-JD-AE	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Mono	CPGA-72
KAI-29050-AXA-JD-B1	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Mono	CPGA-72
KAI-29050-AXA-JD-B2	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Mono	CPGA-72
KAI-29050-AXA-JR-AE	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Mono	CPGA-72
KAI-29050-AXA-JR-B1	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Mono	CPGA-72
KAI-29050-AXA-JR-B2	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Mono	CPGA-72
KAI-29050-CXA-JD-AE	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Bayer Color	CPGA-72
KAI-29050-FXA-JD-AE	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72
KAI-29050-FXA-JD-B1	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72
KAI-29050-FXA-JD-B2	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72
KAI-29050-PXA-JD-AE	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72
KAI-29050-QXA-JD-AE	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72
KAI-29050-QXA-JD-B1	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72
KAI-29050-QXA-JD-B2	Pb-free Halide free	Active	Interline CCD	28.8	4	35 mm	Electronic	5.5 x 5.5	Sparse CFA	CPGA-72

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