

Product Overview

KAI-16070: Interline Transfer CCD, Image Sensor, 15.7MP

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

Product Description

The KAI-16070 Image Sensor is a 16-megapixel CCD in a 35 mm optical format (43 mm diagonal). Based on a new 7.4 micron Interline Transfer CCD Platform, the sensor provides very high smear rejection and up to 82 dB linear dynamic range through the use of a unique dual-gain amplifier. Flexible readout architecture enables use of 1, 2, or 4 outputs for full resolution readout up to 8 frames per second, while 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 pin-out and electrical configurations with a full family of Truesense Imaging Interline Transfer CCD image sensors, allowing a single camera design to be leveraged in support of multiple devices.

Features

- Superior smear rejection
- Up to 82 dB linear dynamic range
- Bayer Color Pattern, TRUESENSE Sparse Color Filter Pattern, and Monochrome configurations
- Progressive scan & flexible readout architecture
- High frame rate
- High sensitivity - Low noise architecture
- Package pin reserved for device identification

Applications

- Digitization
- Intelligent Transportation System
- Machine Vision
- Mapping / Aerial
- Medical

Part Electrical Specifications

Product	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Color	Package Type
KAI-16070-AXA-JD-AE	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Mono	CPGA-71
KAI-16070-AXA-JD-B1	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Mono	CPGA-71
KAI-16070-AXA-JD-B2	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Mono	CPGA-71
KAI-16070-CXA-JD-AE	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Bayer Color	CPGA-71
KAI-16070-CXA-JD-B1	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Bayer Color	CPGA-71
KAI-16070-CXA-JD-B2	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Bayer Color	CPGA-71
KAI-16070-PXA-JD-AE	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Sparse CFA	CPGA-71
KAI-16070-PXA-JD-B1	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Sparse CFA	CPGA-71
KAI-16070-PXA-JD-B2	Pb-free Halide free	Active	Interline CCD	15.7	8	35 mm	Electronic	7.4 x 7.4	Sparse CFA	CPGA-71

