



## Product Overview

### KAI-1020: Interline Transfer CCD Image Sensor, 1 MP

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

#### Product Description

The KAI-1020 Image Sensor is a one megapixel interline CCD with integrated clock drivers and on-chip correlated double sampling. The progressive scan architecture and global electronic shutter provide excellent image quality for full motion video and still image capture.

The integrated clock drivers allow for easy integration with CMOS logic timing generators. The sensor features a fast line dump for high-speed sub-window readout and single (30 fps) or dual (48 fps) output operation.

#### Features

- 10 bits dynamic range at 40MHz
- Large 7.4  $\mu\text{m}$  square pixels for high sensitivity
- Progressive scan (non-interlaced)
- Integrated vertical clock drivers
- Integrated correlated double sampling (CDS) up to 40MHz
- Integrated electronics shutter driver
- Reversible HCCD capable of 40MHz operation All timing inputs 0 to 5 Volts
- Single or dual video output operation
- Progressive scan or interlaced
- Fast dump gate high speed sub-window readout

#### Applications

- Machine Vision
- Medical
- Scientific
- Surveillance

## Part Electrical Specifications

Product	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (μm)	Color	Package Type
KAI-1020-AAA-JP-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-ABB-FD-AE	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CLCC-64
KAI-1020-ABB-FD-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CLCC-64
KAI-1020-ABB-JB-AE	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-ABB-JB-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-ABB-JD-AE	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-ABB-JD-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-ABB-JP-AE	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-ABB-JP-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Mono	CPGA-68
KAI-1020-CBA-FD-AE	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Bayer Color	CLCC-64
KAI-1020-CBA-FD-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Bayer Color	CLCC-64
KAI-1020-CBA-JD-AE	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Bayer Color	CPGA-68
KAI-1020-CBA-JD-BA	Pb-free Halide free	Active	Interline CCD	1	50	2/3 inch	Electronic	7.4 x 7.4	Bayer Color	CPGA-68

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

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