



Product Overview

KAF-50100: Full Frame CCD, Image Sensor, 50.1 MP

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

Product Description

The KAF-50100 Image Sensor is a high performance, 50-megapixel CCD. Based on the TRUESENSE 6.0 micron Full Frame CCD Platform, the sensor features ultra-high resolution, broad dynamic range, and a four-output architecture. A lateral overflow drain suppresses image blooming, while an integrated Pulse Flush Gate clears residual charge on the sensor with a single electrical pulse. A Fast Dump Gate can be used to selectively remove a line of charge to facilitate partial image readout. The sensor also utilizes the TRUESENSE Transparent Gate Electrode to improve sensitivity compared to the use of a standard front side illuminated polysilicon electrode.

The sensor shares a common pin-out and electrical configuration with the KAF-40000 Image Sensor, allowing a single camera design to support both members of this sensor family.

Features

- TRUESENSE Transparent Gate Electrode for high sensitivity
- Ultra-high resolution
- Broad dynamic range
- Low noise architecture
- Large active imaging area

Applications

- Digitization
- Mapping / Aerial
- Photography
- Scientific
- Surveillance

Part Electrical Specifications

Product	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Color	Package Type
KAF-50100-AAA-JD-AE	Pb-free Halide free	Active	Full Frame CCD	50.1	1	645 1.1x		6.0 x 6.0	Mono	CPGA-52
KAF-50100-AAA-JD-BA	Pb-free Halide free	Active	Full Frame CCD	50.1	1	645 1.1x		6.0 x 6.0	Mono	CPGA-52
KAF-50100-ABA-JR-AE	Pb-free Halide free	Active	Full Frame CCD	50.1	1	645 1.1x		6.0 x 6.0	Mono	CPGA-52
KAF-50100-ABA-JR-BA	Pb-free Halide free	Active	Full Frame CCD	50.1	1	645 1.1x		6.0 x 6.0	Mono	CPGA-52
KAF-50100-CAA-JD-AA	Pb-free Halide free	Active	Full Frame CCD	50.1	1	645 1.1x		6.0 x 6.0	Bayer Color	CPGA-52
KAF-50100-CAA-JD-AE	Pb-free Halide free	Active	Full Frame CCD	50.1	1	645 1.1x		6.0 x 6.0	Bayer Color	CPGA-52

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

Created on: 7/11/2015