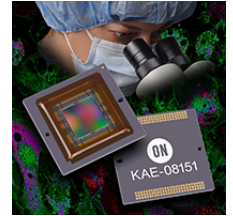


## KAE-08151

# Interline Transfer EMCCD Image Sensor, 8.1 MP

## Product Overview

For complete documentation, see the data sheet.



### **EOL has been announced for this device**

The KAE-08151 Image Sensor is an 8.1 Mp, 4/3 format (22.2 mm diagonal), Interline Transfer EMCCD image sensor that provides exceptional imaging performance in extreme low light applications. Each of the sensor's four outputs incorporates both a conventional horizontal CCD register and a high gain EMCCD register.

An intra-scene switchable gain feature samples each charge packet on a pixel-by-pixel basis. This enables the camera system to determine whether the charge will be routed through the normal gain output or the EMCCD output based on a user selectable threshold. This feature enables imaging in extreme low light, even when bright objects are within a dark scene, allowing a single camera to capture quality images from sunlight to starlight.

This image sensor is based on an advanced 5.5-micron Interline Transfer CCD Platform, and features extended dynamic range, excellent imaging performance, and a flexible readout architecture that enables use of 1, 2, or 4 outputs. A vertical overflow drain structure suppresses image blooming, provides excellent MTF, and enables electronic shuttering for precise exposure.

## Features

- Intra-Scene Switchable Gain
- Wide Dynamic Range
- Low Noise Architecture
- Exceptional Low Light Imaging
- Global Shutter
- Excellent Image Uniformity and MTF

## Applications

- Scientific Imaging
- Surveillance
- Medical Imaging
- Intelligent Transportation Systems