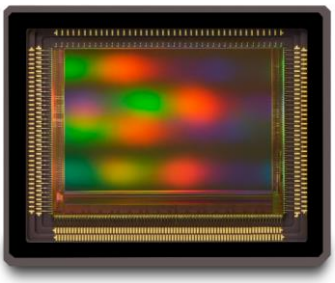
43MP Global Shutter CMOS Image Sensor – GMAX0806



Applications:

- **LCD/OLED Display Inspection**
- **Machine Vision and Industrial Inspection**
- **Astronomy and Life Science**
- **Bio Imaging and DNA Sequencing**
- **Railway Inspection and High-end Surveillance**

SENSOR DESCRIPTION

Featured with the latest 2.8µm charge domain global shutter pixel, GMAX0806 is a 43 megapixels CMOS image sensor developed for high-end industrial inspection. It supports 2x2 binning with 4x full well capacity and enhanced frame rate. For application demanding high dynamic range, the sensor achieves 80dB when it operates in 2x2 binning HDR mode. GMAX0806 offers extremely low readout noise and dark current, making the sensor suitable for scientific imaging application. GMAX0806 is assembled with a 183-pin µPGA package for high reliability and heat dissipation.

SENSOR SPECIFICATION

Resolution	7915 × 5436	Optical format	APS-C
Pixel size	2.8µm × 2.8µm	Photo-sensitive area	22.16mm × 15.22mm
Shutter type	Global Shutter	Quantum efficiency	61.7% @ 490nm
Full well capacity	7.6ke$^-$	Max. SNR	39dB
Dark noise	1.6e$^-$	Dynamic range (intra-scene)	66dB
Dark current	0.04e$^-$/p/s @ 6°C	PLS	1/3000
Frame rate	17fps	Output interface	9 pairs of sub-LVDS
PRNU	1.2%	FPN	2.9e$^-$
ADC	12bit	Max. Data rate	9Gbit/s
Chroma	Mono & Color	Package	183 pins micro-PGA
Power supply	3.3V/1.35V	Power consumption	1W

PACKAGE OUTLINE