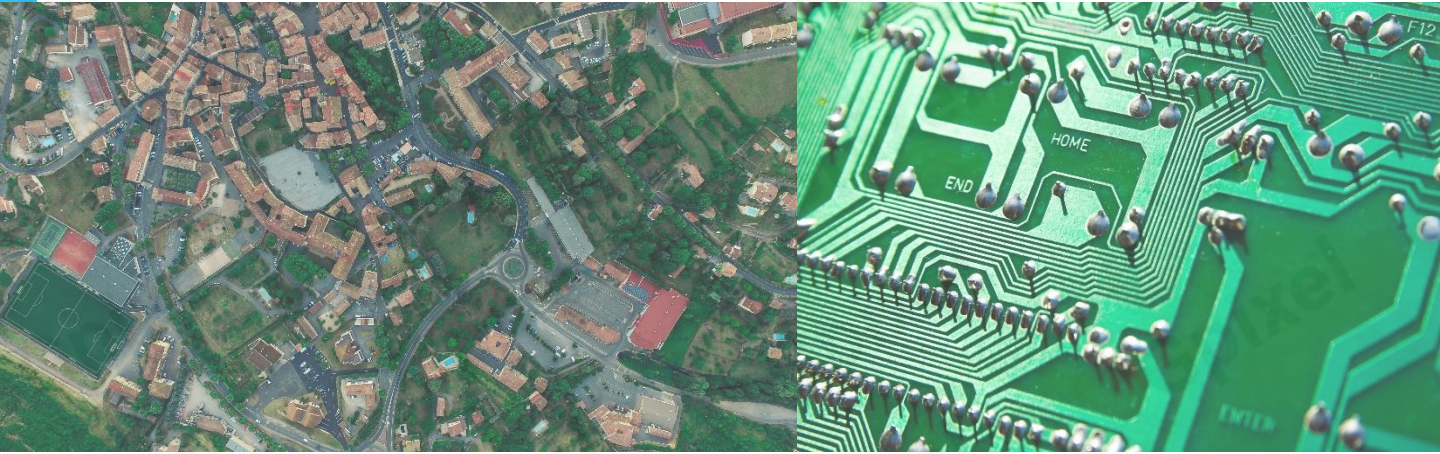


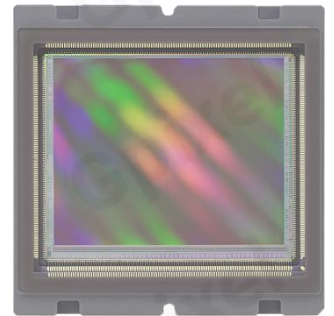
GMAX32103 Product Flyer



103MP GLOBAL SHUTTER IMAGE SENSOR

GMAX32103 is a 103 Megapixel (11276 x 9200) medium-sized (46.6mm) ultra-high resolution, global shutter image sensor designed with the latest 3.2 μm charge domain global shutter pixel. It achieves more than 9k e⁻ FWC at low gain and 2.8 e⁻ read noise at high gain separately with 66 dB intra-scene dynamic range. Using advanced 65nm CIS process and light pipe technology, sensor achieves 68% peak QE @ 510nm and more than 1/15,000 shutter efficiency.

The full speed version sensor consists of 52 pairs sub-LVDS channels running at 960 Mbps which delivers a 24 fps in 12-bit operation at full resolution. The unique features make it an ideal solution for demanding imaging high end applications such as high-resolution inspection, aerial imaging and many more.



Key Features

- 3.2 μm Global Shutter pixel
- High resolution up to 103MP
- High data throughput up to 960Mbps
- On chip sequencer and SPI control
- High speed and Good PLS

Applications

- High Resolution Industrial Inspection
- Flat panel display inspection
- Aerial mapping

Sensor Specifications

Resolution	11276 x 9200	Optical format	Medium sized (46.6mm)
Pixel size	3.2 μm x 3.2 μm	Photo-sensitive area	36.1 mm x 29.4 mm
Shutter type	Global shutter	Quantum efficiency	66.9% @ 500nm
Full well capacity	9k e ⁻ (max in LG mode)	Shutter efficiency	1/15,000
Dark noise	2.8 e ⁻ (min in HG mode)	Dark current	12e ⁻ /p/s @ 50°C
Dynamic range	66dB	Frame rate	24fps @12bit
Output interface	52 pairs of sub-LVDS	Channel multiplexing	52/26/18/14/10/8/6/4
ADC	12bit	Max. Data rate	960M bps
Chroma	Mono & Color	Power consumption	2471 mW
I/O voltage	1.8V - 3.3V	Package	209 pins PGA 49.5 mm x 42.3 mm

Ordering Information

Sensor Part No.

GMAX32103-BVM-NUT-BU1

Monochrome, with microlens, ceramic 209 pins μ PGA, Sealed D 263[®] T ECO glass with AR coating. Grade 1

GMAX32103-BVM-NUT-BU2

Monochrome, with microlens, ceramic 209 pins μ PGA, Sealed D 263[®] T ECO glass with AR coating. Grade 2

GMAX32103-BVM-NUT-BU3

Monochrome, with microlens, ceramic 209 pins μ PGA, Sealed D 263[®] T ECO glass with AR coating. Grade 3

GMAX32103-BVC-NUT-BU1

Color, with microlens, ceramic 209 pins μ PGA, Sealed D 263[®] T ECO glass with AR coating. Grade 1

GMAX32103-BVC-NUT-BU2

Color, with microlens, ceramic 209 pins μ PGA, Sealed D 263[®] T ECO glass with AR coating. Grade 2

GMAX32103-BVC-NUT-BU3

Color, with microlens, ceramic 209 pins μ PGA, Sealed D 263[®] T ECO glass with AR coating. Grade 3

EVK Part No.

EVA-32103-NT12,

Evaluation board
Operation mode: 12 bit mode
Lens holder: T-mount
Interface: USB 3.0

Contact Gpixel HQ

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