

103 MP Ultra-High Resolution GS CMOS Image Sensor

SENSOR DESCRIPTION

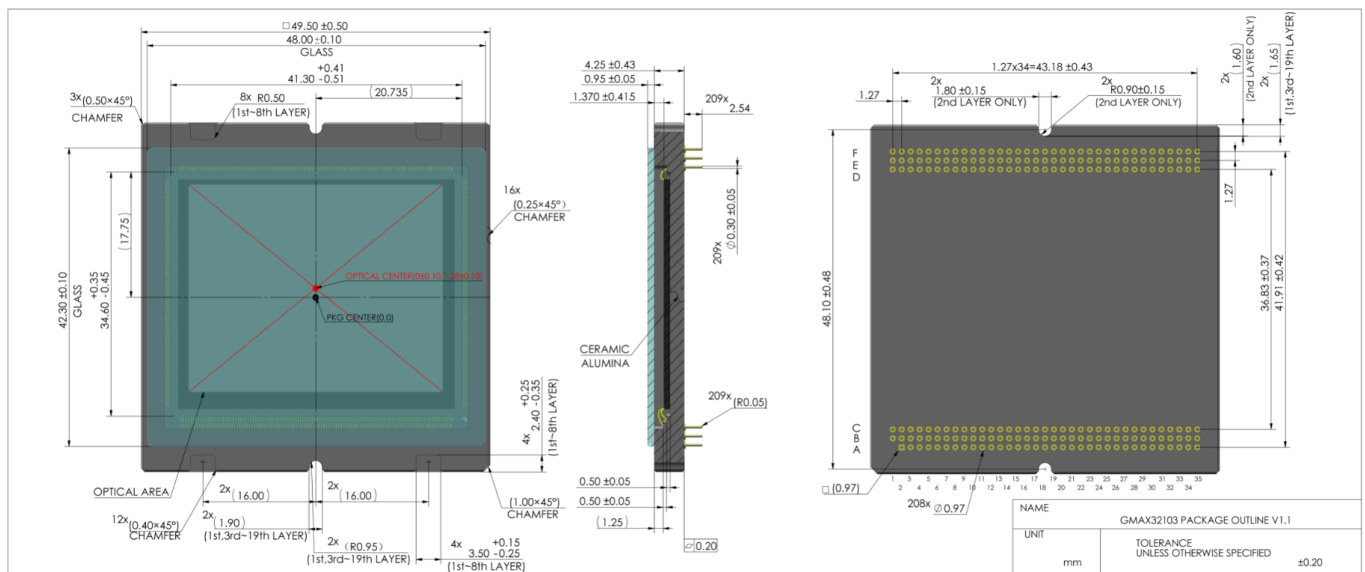
GMAX32103 is a 103 Megapixel (11,276 x 9,200) medium-sized (\varnothing 46.6mm) ultra-high resolution, global shutter image sensor designed with the latest 3.2 μm charge domain global shutter pixel. It achieves more than 9k e⁻ FWC at low gain and 2.8 e⁻ read noise at high gain separately with 66 dB intra-scene 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.

SENSOR SPECIFICATION

Resolution	11,276 (H) × 9,200 (V)	Optical format	Medium sized (\varnothing 46.6mm)
Pixel size	3.2 μm × 3.2 μm	Photo-sensitive area	36.1 mm x 29.4 mm
Shutter type	Global Shutter	Quantum efficiency	68% @ 510nm
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	12 e ⁻ / s @ 50 °C
Dynamic range	66 dB	Frame rate	24 fps @ 12 bit
Output interface	52 x sub-LVDS	Channel multiplexing	52/26/18/14/10/8/6/4
ADC	12 bit	Max. Data rate	960M bps
Chroma	Mono / Color	Package	209 pins μ PGA
Power supply	3.3V / 1.8V / 1.2V Dedicated pixel supplies	Power consumption	2.47 W

PACKAGE OUTLINE



Subject to change without notice. Please address all product inquiries to GPIXEL

Email: info@gpixel.com