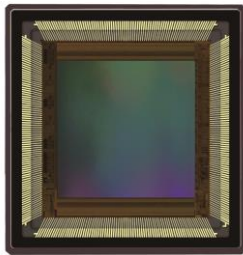


25MP Global Shutter CMOS Image Sensor – GMAX0505

Preliminary

Applications:

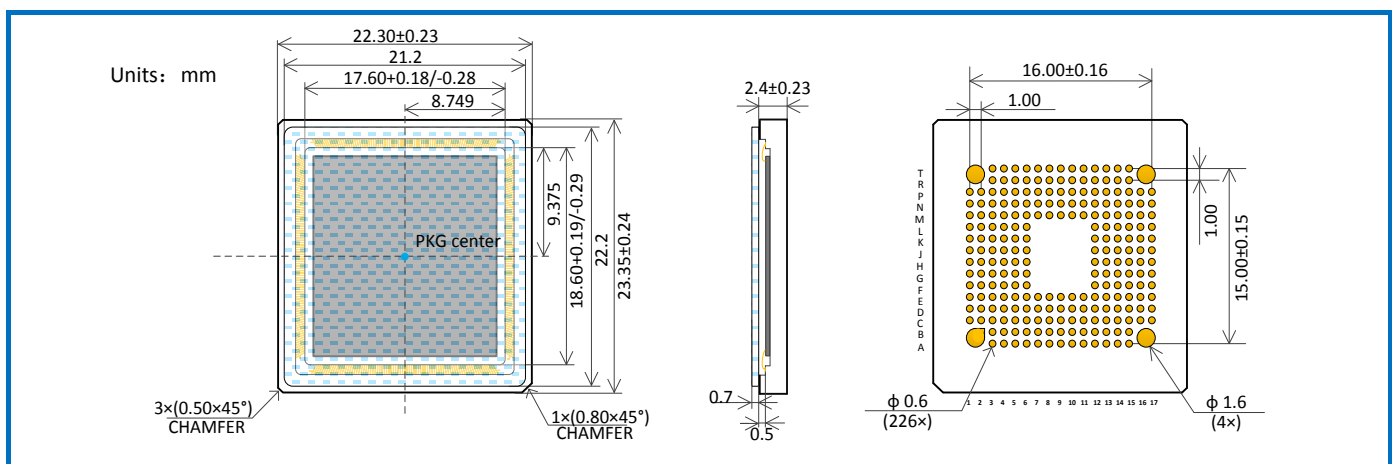
- Machine Vision
- High Resolution Industrial Inspection
- Intelligent Traffic System (ITS) and Surveillance

SENSOR DESCRIPTION

Designed with the world's smallest 2.5 μ m charge domain global shutter pixel, GMAX0505 offers the highest resolution of 25 Megapixels within 1" optical format. Despite its small pixel pitch, GMAX0505 achieves more than 70% peak QE and excellent angular response thanks to the latest light pipe technology. In addition, with optimized tungsten shielding structure on top of the pixel's memory node, the sensor's shutter efficiency is more than 80dB. GMAX0505 supports 10bit and 12bit output, and the frame rate is up to 150fps. The sensor is assembled in a ceramic Land Grid Array (LGA) package, allowing easy integration and mass production. The superior performance and the cost-effective packaging of GMAX0505 offer camera manufacturers great advantage over various applications, including machine vision, high resolution industrial inspection, ITS and surveillance.

SENSOR SPECIFICATION

Resolution	5120 × 5120	Optical format	1.1"
Pixel size	2.5 μ m × 2.5 μ m	Photo-sensitive area	12.8mm × 12.8mm
Shutter type	Global shutter	Quantum efficiency	>70%
Full well capacity	>7ke ⁻	Shutter efficiency	1/10000
Dark noise	<1.5e ⁻	Dark current	<1e ⁻ /p/s @ 25°C
Dynamic range	>58dB @ 10bit >70dB @ 12bit	Frame rate	150fps @ 10bit 60fps @ 12bit
Output interface	48 pairs of sub-LVDS	Channel multiplexing	48/24/16/12/8/6/4/2
ADC	10/12bit	Max. Data rate	46.08Gbps
Chroma	Mono & Color	Package	226 pins LGA
Power supply	3.3V / 1.8V	Power consumption	<1.5W

PACKAGE OUTLINE


Please address all product inquiries to GPIXEL Inc.

Addr: No.588 Yingkou Road, Changchun, China • Tel: 0431-86176682 • Email: info@gpixelinc.com