

GMAX2505

5 MP GLOBAL SHUTTER IMAGE SENSOR

Featured with world smallest charge domain global shutter pixel, GMAX2505 is the new member of GMAX series C-mount line up after GMAX2505. It offers 5 MP (2600 x 2160) resolution in 1/2" optical format, operates with true CDS for low noise and high dynamic range. In addition, it has excellent PLS and angular response thanks to the light pipe technology.

GMAX2505 supports 10 bit and 12 bit output and is offered in two speed variances matching industrial standard camera interface speeds. The full speed version consists of 20 sub-LVDS data output channels each running at maximum 960 MHz, offering full resolution frame rate of 290 fps at 10 bit output and a total data throughput of 19.2 Gbps. The high frame rate increases system throughput for industrial inline inspections and enables precise operation at high speed.



Key Features and Benefits

- ▶ 2.5 μm Global Shutter Pixel
- ▶ High Resolution GS in 1/2" Optical Format
- ▶ High Data Throughput up to 19.2 Gbps
- ▶ Low Noise Global Shutter
- ▶ Good PLS and CRA

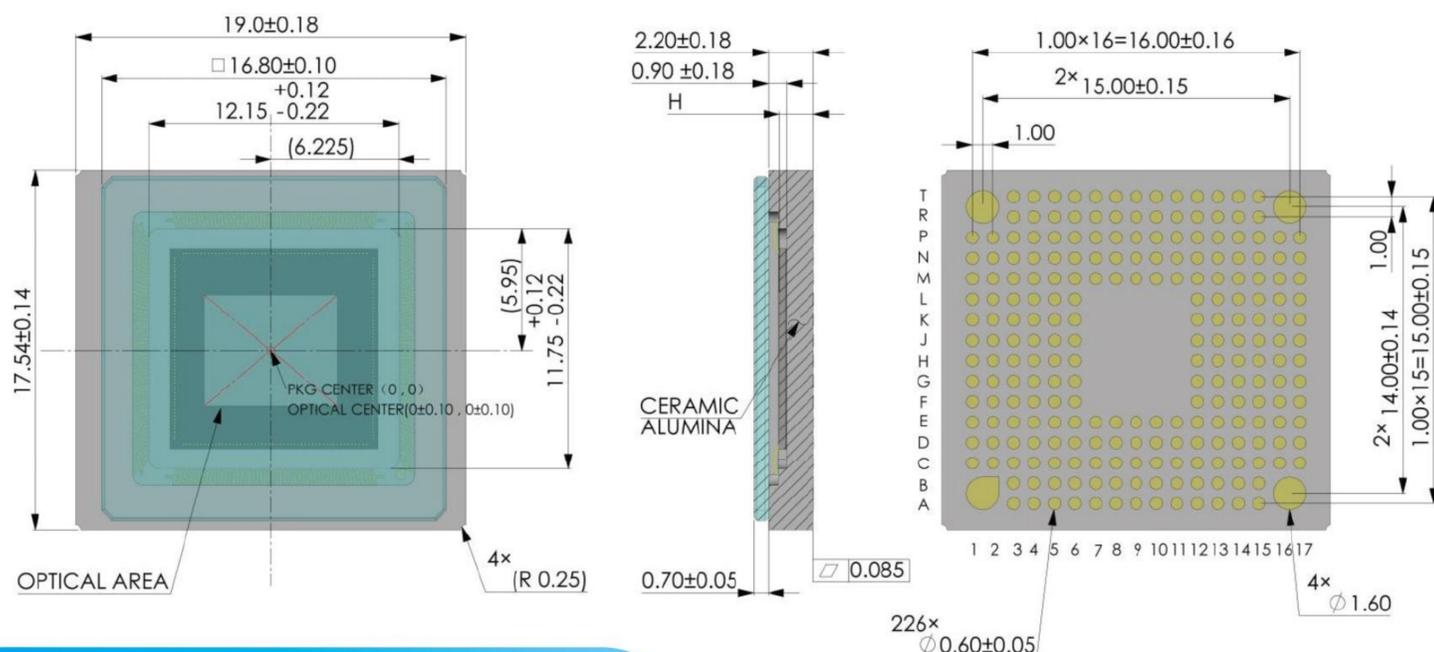
Application

- ▶ Automation & Inspection
- ▶ Logistic & Positioning
- ▶ Metrology
- ▶ Motion Capture

Specifications

Nr of Active Pixels	2600(H) x 2160(V)	Optical Format	1/2"
Pixel Size	2.5 μm x 2.5 μm	Photosensitive Area	6.5 mm x 5.4 mm
Shutter Type	Global Shutter	Parasitic Light Sensitivity	<-80 dB
Peak QE	65.5% (500 nm)	Angular Response	>13° (80% Response)
Full Well Capacity	6.7 ke ⁻ (PGA gain 1.0x)	Temporal Noise	1.8 e ⁻ (12 bit,PGA gain 4x) 3.9 e ⁻ (10 bit,PGA gain 2x)
Max. SNR	38.2 dB (PGA gain 1.0x)	Dynamic Range	65.5 dB (12 bit,PGA gain 2x) 62.1 dB (10 bit,PGA gain 2x)
Dark Current	1.2 e ⁻ /pixel/s (30°C)	ADC	10/12 bit
Max Frame Rate	290 fps (10 bit) 121 fps (12 bit)	Output Format	20 ch Sub-LVDS
Power Consumption	<0.6 W (12 bit) <0.9 W (10 bit)	Max. Data Rate	19.20 Gbps
Supply Voltage	3.3 V/1.3 V (analog) 1.8 V-3.3 V (IO) 1.3V (digital)	Channel Multiplexing	20/10/8/6/4/2
Chroma	Mono & RGB Color	Package	226 pins LGA (19.0 mm x 17.5 mm)

Package Drawing



Contact Gpixel

GPIXEL CHINA CHANGCHUN (HQ)

Building 5, Optoelectronic Information
Industrial Park, 7691 Ziyou Road,
130033 Changchun, Jilin, China
Phone: +86-431-85077785

GPIXEL EUROPE

Gpixel NV
Copernicuslaan 60, 2018
Antwerpen, Belgium
Phone: +32-33034442

GPIXEL JAPAN

Gpixel Japan Co., Ltd.
TOC Osaki Building 18th Floor, 1-6-1 Osaki,
Shinagawa-ku, Tokyo, 141-0032 Japan
Phone: +81-03-5962-1600



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