

GTOF0503

VGA 1/4" iToF CMOS IMAGE SENSOR

GTOF0503 is a VGA featuring a $5\ \mu\text{m}$ 3-tap state-of-the-art iToF pixel incorporating a pixel array with a resolution of 640×480 pixels. The BSI technology provides excellent sensitivity at NIR wavelengths. In addition, the wafer stacking enables very modulation frequencies of up to 3ns pulse width and 30 depth frames per second which results in industry-leading depth accuracy at short, mid and long-range distances even in challenging ambient light conditions by using pulse modulation iToF technique. On-chip binning further increases SNR for low light image environments. Advanced features such as multiple acquisition modes, depth with single and dual frequency, low-power standby modes and an industry standard MIPI CSI-2 interface, allow very versatile and flexible operation, providing a cost-effective all-in solution, making this product the ultimate choice for various 3D imaging applications.



Key Features and Benefits

- ▶ Machine Vision
- ▶ Automated Guided Vehicle
- ▶ Industrial Automation
- ▶ Bin Picking
- ▶ Logistics
- ▶ Smart Factory

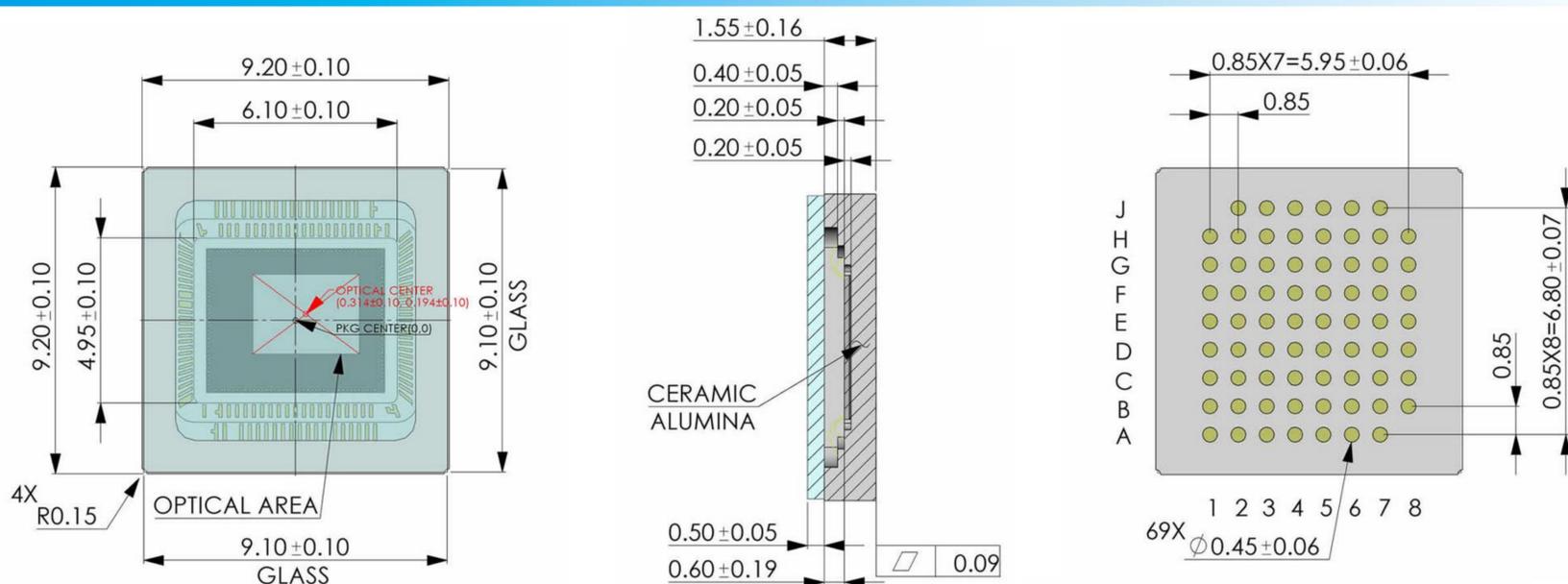
Applications

- ▶ Automation & Inspection
- ▶ Logistics
- ▶ ADAS & Intelligent Driving
- ▶ Robotics
- ▶ Consumer Electronics

Specifications

Nr of Active Pixels	640 (H) x 480 (V)	Optical Format	1/4"
Pixel Size	5 μm x 5 μm	Photosensitive Area	3.2 mm x 2.4 mm
Shutter Type	Global Shutter	Peak QE	31.5% (850 nm) 13.8% (940 nm)
Full Well Capacity	9 ke ⁻	ADC	11 bit
Temporal Noise	8.2 e ⁻	Cmod	> 80% (3 ns)
Dynamic Range	60.8 dB	Max Frame Rate	60 fps
Output Format	4 lanes CSI-2 MIPI	Region of interest readout	Vertical (up to 4 windows) horizontal (up to 1 window)
Chroma	Mono	Power Consumption	< 1.2 W
Supply Voltage	2.8 V/1.8 V/1.2 V/1.3 V	Package	139 pads (Die) 69 pins LGA (9.2 mm x 9.2 mm)

Package Drawing



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GP-PR250801 V1.1