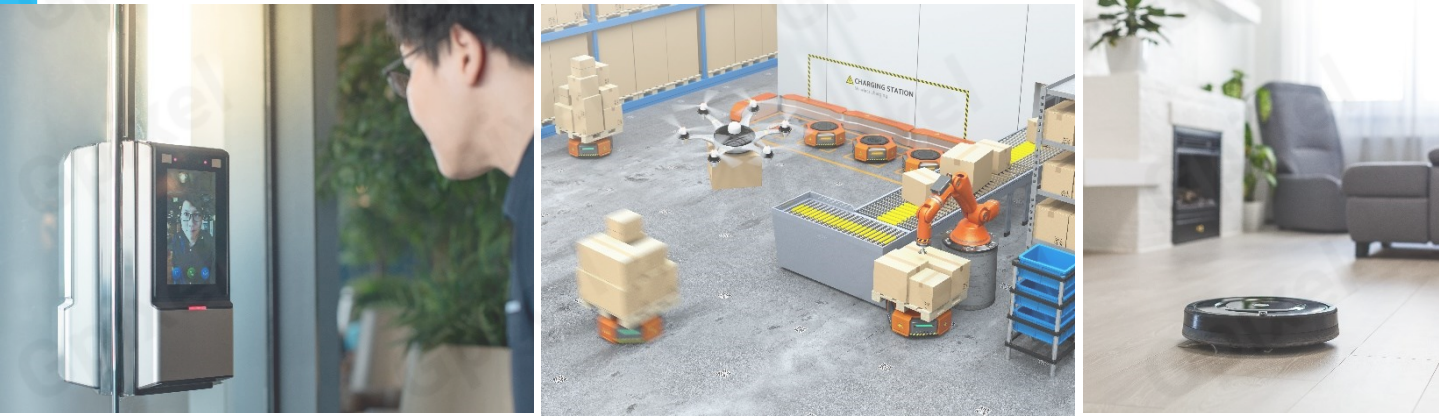


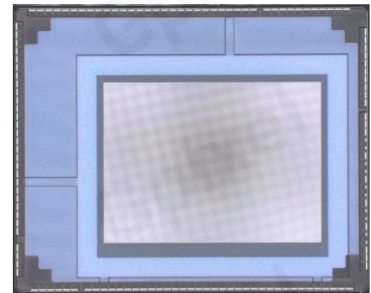
# GTOF0503 Product Flyer



## VGA ITOF GLOBAL SHUTTER CMOS IMAGE SENSOR

GTOF0503 is a VGA featuring a 5um 3-tap state-of-the-art iToF pixel incorporating a pixel array with a resolution of 640 x 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

- 5um square pixels
- 3-tap iToF Global Shutter pixel
- High NIR response
- High Modulation Frequencies of up to 3ns pulse width
- Up to 85% demodulation contrast
- MIPI CSI-2 interface

### Applications

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

## Sensor Specifications

Resolution	640 (H) x 480 (V)	Optical format	1/4"
Pixel size	5 $\mu\text{m}$ x 5 $\mu\text{m}$	Photo-sensitive area	3.2 mm x 2.4 mm
Shutter type	3-tap iToF Global Shutter	Quantum efficiency	>20% @ 940 nm (TBD)
Full well capacity	9.0 ke <sup>-</sup>	ADC	11 Bit
Dark Current	<7 e <sup>-</sup>	Modulation contrast	>80% at 3 ns (TBD)
Dynamic range	>60.8 dB	Depth Frame rate	Dual frequency: 30 fps Single frequency: 60fps
Output interface	( max)4-lane CSI-2 MIPI RAW12 1.6 Gbps 2-lane default	Region of Interest	Up to 4 ROI vertically
Chroma	Mono	Power consumption	$\pm$ 330 mW
Power supply	2.8V / 1.8V / 1.2V/ 1.3V	Package	139 pads (Die) 69 pins LGA

## Ordering Information

Sensor Part	Description	Grade
GTOF0503-CNM-NLT-BUD	Monochrome, with ulens, sealed D 263 <sup>®</sup> T glass with ARC, 69 pin LGA; 60fps Single frequency mode & 30 fps dual frequency mode	
GTOF0503-CM Tested Die	150um thickness Die, Monochrome, with ulens. 60fps Single frequency mode & 30 fps dual frequency mode	

## Contact Gpixel HQ

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