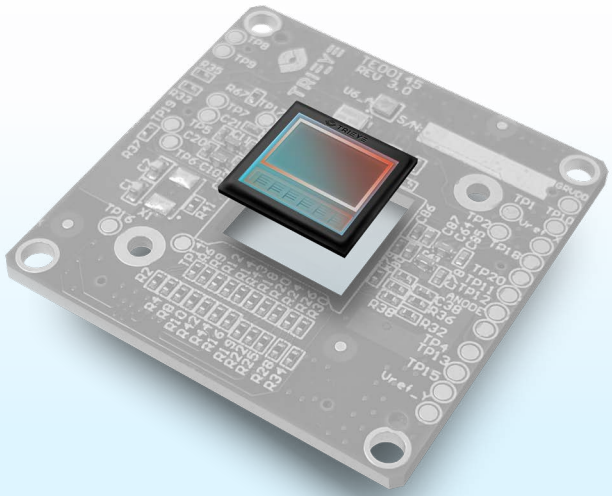
TES200 PRODUCT OVRVIEW

The TES200 is a high-performance 1.3MP Short-wave Infrared (SWIR) image sensor available in a 13mm iBGA package.

The TES200 operates in the 700nm to 1650nm wavelength range and provides high sensitivity at 1.3MP resolution. With its large format, high frame rate, wide spectral response, and low power consumption, the TES200 offers enhanced sensitivity and dynamic range. This makes the new TES200 image sensor image sensor ideal for imaging and sensing applications in various industries, including industrial, robotics, and biometrics.



TES200
SWIR Image Sensor

PRODUCT FEATURES

- Back-illuminated 2/3” CMOS image sensor for SWIR (short wave infrared spectrum)
- 1236x960 pixel maximum resolution
- Supported color: Monochrome
- Supported output formats: RAW12, RAW10, RAW8
- Supports global shutter
- Horizontal and Vertical binning or sub-sampling
- Supports configurable region of interest (ROI) and windowing
- Up to 120 fps for 12 bit per pixel at full frame
- Up to 180 fps for 8 bit per pixel at full frame
- Configurable 24-bit Parallel Interface (up to 125MHz)
- Fast I2C (up to 1Mbps) control interface
- Support external frame synchronization
- Support up to 8 General Purpose outputs and Triggers
- Integrated 12-bit ADC
- Integrated Temperature Monitor
- Integrated 512 bit of OTP memory (e-fuses)
- Low power modes supported
- 13x13mm, 144 balls 1mm pitch iBGA package

ELECTRO OPTICAL CHARACTERISTICS

Typical values at 25C junction temperature

PARAMETER	UNITS	TYPICAL	COMMENTS
Pixel Pitch	um	7x7	
Horizontal Resolution	Pixels	1236	
Vertical Resolution	Pixels	960	
ADC Accuracy	Bits	12	ADC can operate at 8,10 or 12 bpp mode
Shutter type		Global	
Maximum Frames per Second	fps	120	12bit mode, at full resolution
		150	10bit mode, at full resolution
		180	8bit mode, at full resolution
Power Consumption	mW	500	
Wavelength Range	nm	700–1650	
Full Well Capacity	e-	440,000	
Quantum Efficiency	%	60%	measured at 1245nm
Quantum Efficiency per wavelength	%	>50%	850nm to 1450nm
Conversion gain	DN/e-	0.0064	At 12 bit ADC
Dark Current	pA	100	Per pixel
Optical cross talk	%	2	For the nearest neighbors
	%	0.5	For the neighbors in the corners

To learn more, contact us at sales@trieye.tech or visit www.trieye.tech

IMPORTANT NOTICE