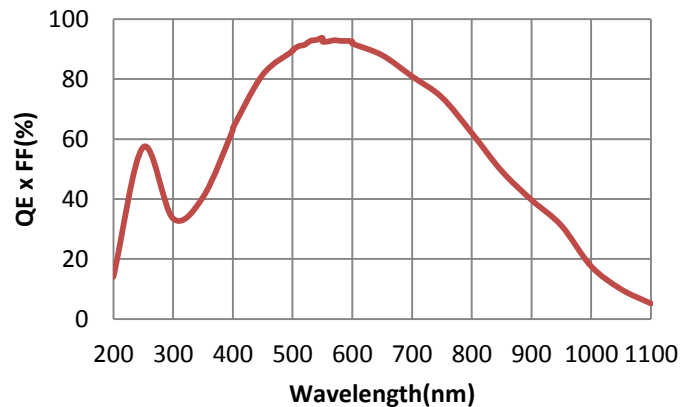
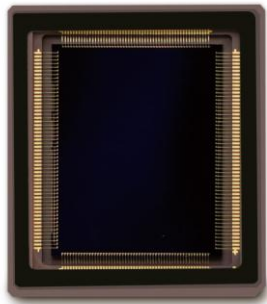


Backside Illuminated sCMOS Image Sensor – GSENSE2020BSI



SENSOR DESCRIPTION

Designed with the state-of-art backside illuminated scientific CMOS technology, GSENSE2020BSI is a 4 Megapixel sensor with 6.5 μ m pixel size, featuring 94% quantum efficiency and a readout noise of less than 1e⁻ with correlated multi-sampling (CMS). Ideal for bio-imaging , life science, astronomy and scientific imaging, GSENSE2020BSI also provides a solution for industrial inspection requiring superior UV sensitivity thanks to its high frame rate and global reset rolling shutter. GSENSE2020BSI is pin-compatible with GSENSE2020s and GSENSE2011s, allowing easy hardware integration with minimized development effort, and fast time-to-market.

DESIGN SPECIFICATIONS

Resolution	2048 × 2048	Pixel size	6.5 μ m × 6.5 μ m
Photosensitive area	13.3mm × 13.3mm	Shutter type	Rolling shutter with global reset
ADC	11 / 12bit	SNR Max	47dB
Full well charge	54.8ke ⁻	Quantum Efficiency	94% @ 550nm
Dynamic range	90dB @ HDR	Chroma	Mono
Output interface	8 × 2 LVDS @ 11bit	Dark noise	1.6e ⁻
	4 × 2 LVDS @ 12bit		1.2e ⁻ @ 2 times CMS
Dark current	80e ⁻ /p/s @ 35 °C @ 12bit	Frame rate (HDR)	43fps @ 12bit
	100e ⁻ /p/s @ 35 °C @ 11bit		74fps @ 11bit
Package	153 pins micro-PGA	Temperature	-55°C ~ +85°C
Supply voltage	3.5V / 1.8V	Consumption	<1.2W

