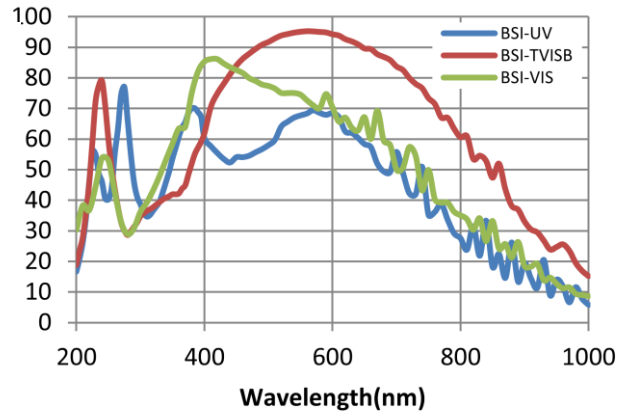
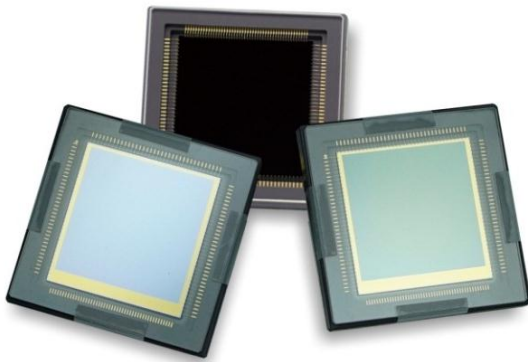


Backside Illuminated Scientific CMOS Image Sensors

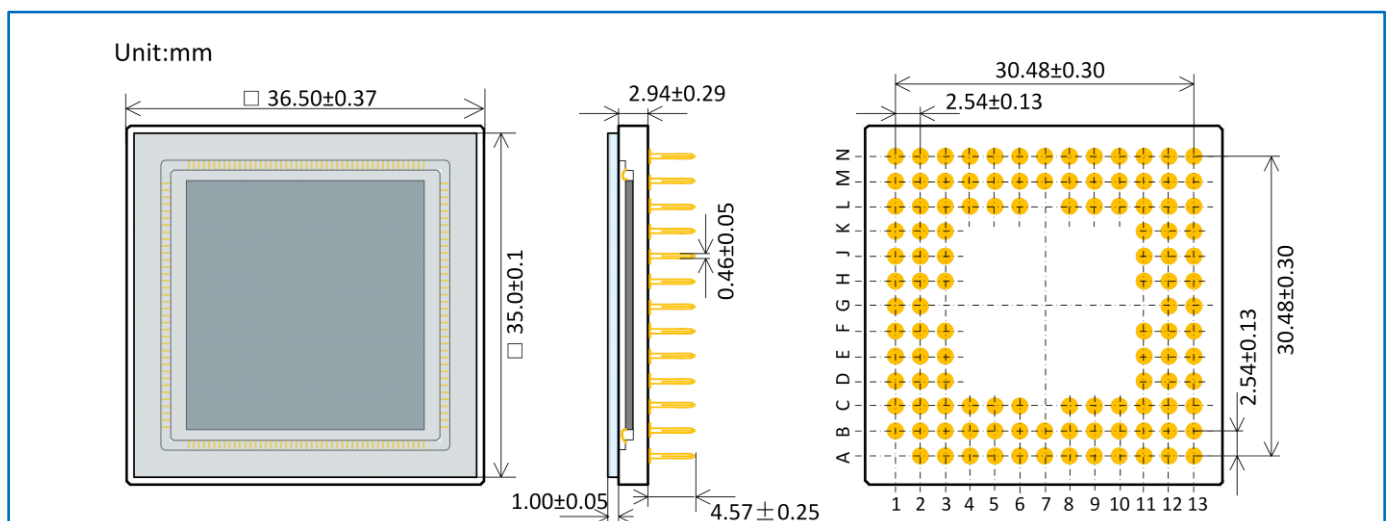


SENSOR DESCRIPTIONS

As the first backside illuminated scientific CMOS image sensor in the world, GSENSE400BSI features low readout noise of $1.6e^-$, high dynamic range of 93dB, and low dark current of $0.2e^-/s/pix$ at deep cooling of $-50^{\circ}C$. Three sensor types are available with different anti-reflective coatings and epi-layer thickness, optimizing the peak QE at different wavelength for various applications: the peak QE is 77% at 275nm (-UV), 86% at 420nm (-VIS), and 95% at 560nm (-TVISB). In addition, GSENSE400BSI sensors can output 24fps at HDR mode and 48fps in STD mode. These features make GSENSE400BSI ideal for high-end scientific imaging, corona detection, astronomy, spectroscopic, and forensic imaging applications.

GSENSE400BSI-TVISB SPECIFICATIONS

Photo-sensitive area	22.5mm(H) x 22.5mm(V)	SNR Max	49dB
Pixel size	11 μ m x 11 μ m	Dark noise	1.6 e^-
Resolution	2048x2048	Dark current	<0.2 $e^-/s/pix$ @ $-50^{\circ}C$
Shutter type	Electronic rolling shutter	Dynamic range (HDR mode)	93 dB(intra-scene)
ADC	12bit	Full well capacity	91ke $^-$
Max frame rate	48fps	Linear Full well capacity	89ke $^-$
Data rate	2.4Gbit/s @ 25MHz	PRNU	<1.5%
Supply voltage	3.3V / 1.8V	Quantum efficiency	95%@560nm, 60%@800nm
Operating temperature	$-55^{\circ}C \sim +80^{\circ}C$	FPN	<2 e^-
Max power	<650mW	Package	115-pin PGA



Please address all product inquiries to GPIXEL Inc.

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