Gpixel

GSENSE Series

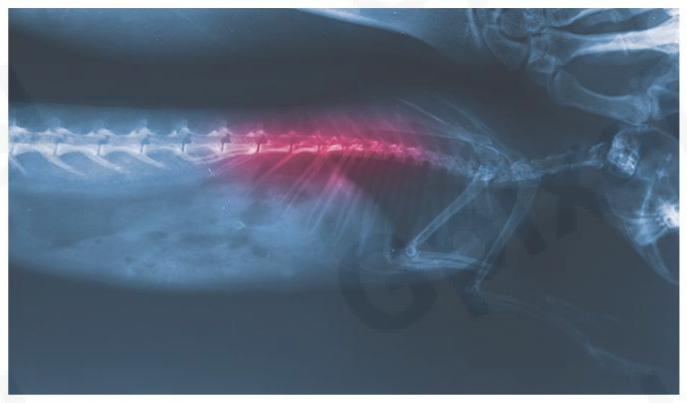
SCIENTIFIC CMOS IMAGE SENSORS

GSENSE

The GSENSE series is a world leading scientific CMOS image sensor family, designed with correlated multiple sampling for extreme low noise, true HDR for high dynamic range and optional backside illumination technology for quantum efficiency of up to 97%. Primary applications include scientific imaging, medical imaging, spectroscopy, fluorescence imaging, astronomy, high energy physics, and high-end surveillance.







Product Family Features

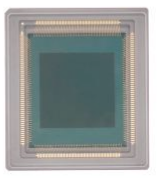
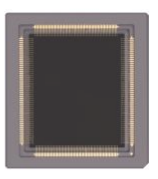
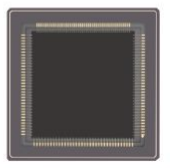
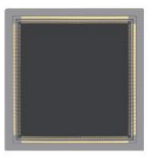
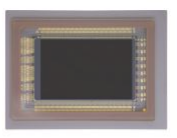
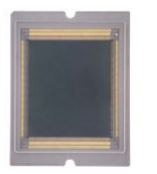
- sCMOS
- FSI and BSI options
- HDR dual gain combination to 90 dB
- Low noise
- On-chip temperature sensor
- On-chip SPI sensor
- Electrical black pixels for offset correction
- Pixel micro lenses for high QE
- Removable glass versions

Applications

- Medical Imaging
- Scientific Imaging
- Spectroscopy
- Fluorescence imaging
- 3D laser profiling
- Astronomy

Specifications

Gpixel

CMOS Image Sensors		Resolution	Pixel Size (μm²)	Optical Format	Shutter Type	Dark Current (e^-/s/pixel)	Peak QE	FWC Max (ke^-)	Temporal Noise Min (e^-)	DR Max (dB)	ADC (bit)	Max Frame Rate(fps)
GSENSE6504BSI		2048 x 2048	6.5 x 6.5	1.2" 18.8 mm	Rolling	0.009 (-42°C)	95% (450 nm)	53	0.5	98.7	12	291
GSENSE2020BSI		2048 x 2048	6.5 x 6.5	1.2" 18.8 mm	Rolling	0.07 (-30°C)	95% (560 nm)	55	1.2	90.5	12/11	74
GSENSE400BSI		2048 x 2048	11.0 x 11.0	2" 31.9 mm	Rolling	0.27 (-40°C)	95% (570 nm)	91	1.6	95	12	48
GSENSE4040BSI		4096 x 4096	9.0 x 9.0	3.3" 52.1 mm	Rolling	0.04 (-40°C)	90% (600 nm)	39.2	2.3	84.6	12	24
GSENSE6060		6144 x 6144	10.0 x 10.0	5.4" 86.9 mm	Rolling	0.01 (-70°C)	72% (550 nm)	133	4.1	89	14/12	44
GSENSE6060BSI		6144 x 6144	10.0 x 10.0	5.4" 86.9 mm	Rolling	0.04 (-40°C)	95% (580 nm)	95	3	90	14/12	26
GSENSE3243BSI		8192 x 5232	3.2 x 3.2	1.2" 31.1 mm	Rolling	7.8 (40°C)	80% (550 nm)	85	2	83	14	100
GSENSE6510BSI		3200 x 3200	6.5 x 6.5	1.9" 29.4 mm	Rolling	0.2 (-10°C)	95% (610 nm)	21	0.7	78.8	12/11/8	500
GSENSE9016BSI		4096 x 4096	9 x 9	3.3" 36.8 mm	Rolling	0.04 (-30°C)	95% (450 nm)	118	0.7	104	14/12	44
GSENSE1517BSI		4116 x 4100	15.0 x 15.0	5.45" 87.1 mm	Rolling	0.008 (-70°C)	92% (450 nm)	70	1.2	95.3	16	4
GSENSE1081BSI		8900 x 9120	10.0 x 10.0	7.96" 127.4 mm	Rolling	0.00373 (-70°C)	97% (610 nm)	90.7	5.4	84.5	16/15	0.9
GSENSE64105BSI		10240×10240	6.4 x 6.4	24 pairs of LVDS	Rolling	6.28 (20°C)	75% (550 nm)	110	1.25	98.8	12/13	1.25

GPIXEL CHINA CHANGCHUN (HQ)
Building 5, Optoelectronic Information Industrial Park, 7691 Ziyou Road, 130033 Changchun, Jilin, China
Phone: +86-431-85077785

GPIXEL EUROPE
Gpixel NV
Copernicuslaan 60, 2018 Antwerpen, Belgium
Phone: +32-33034442

GPIXEL JAPAN
Gpixel Japan Co., Ltd.
TOC Osaki Building 18th Floor, 1-6-1 Osaki, Shinagawa-ku, Tokyo, 141-0032 Japan
Phone: +81-03-5962-1600

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