

# 120 FPS 8K HDR Full Frame Video CMOS Image Sensor

*Preliminary and Confidential*

## SENSOR DESCRIPTION

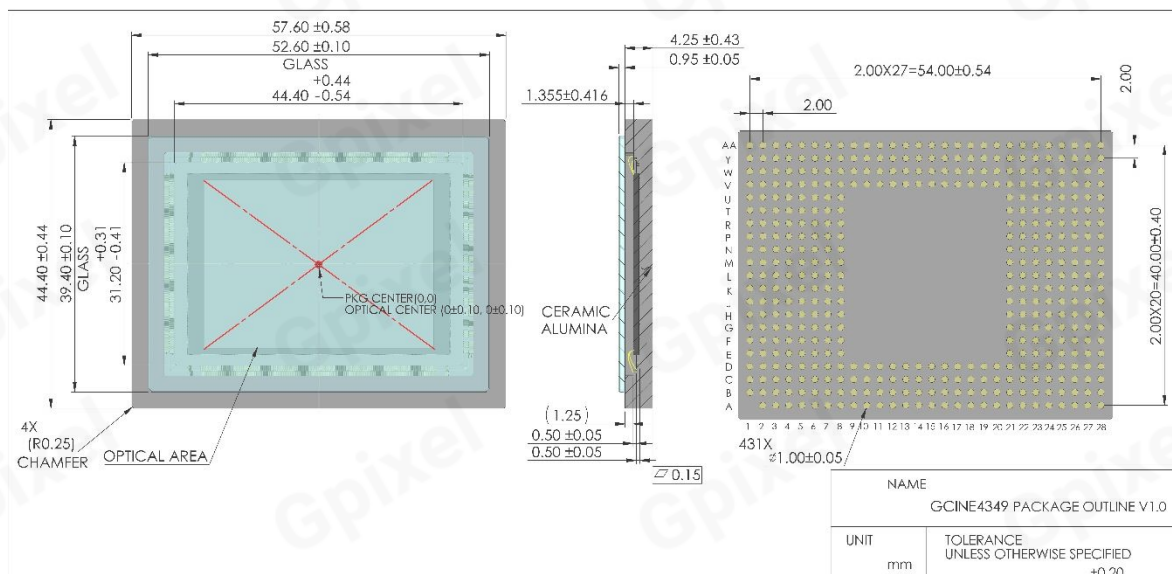
GCINE4349 is an 8K video HDR full frame (35.2 x 25.8 mm<sup>2</sup>) stacked BSI image sensor designed with large 4.3 μm pixels. It achieves a stunning 120 fps with 16-bit pixel output and achieves a max Dynamic Range of 110 dB for HDR mode. Several read out modes are supported to read out 8K or binned 4K video resolution combined with dual gain HDR modes as well as a DSC mode targeting still photography. The stacked BSI architectures allows high data rates to achieve 120 fps @8K or even 240 fps @ 4K video resolution, all with a pixel bit depth of 16 bit/pixel interfaced over 64 sub LVDS channels @ 1.2 Gbps/channel.

These unique features make it an ideal solution for high end video as well as photography applications and other high resolution, high performance applications.

## SENSOR SPECIFICATION

Resolution	8,192 (H) × 6,000 (V)	Optical format	Full frame (35 mm format)
Pixel size	4.3 μm × 4.3 μm	Photo-sensitive area	35.2 mm x 25.8 mm
Shutter type	Rolling & DSLR Shutter	Angular response	TBA
Full well capacity	160k e-	Quantum efficiency	75% (peak)
Temporal noise	1.7e- (DSC High Gain)	Frame rate	120fps @ 8K 240fps @ 4K
Dynamic range	87dB (up to 110dB)	Dark current	TBA
Output interface	64x 1.2Gbps sLVDS	Channel multiplexing	64-, 32- or 16 channels
ADC	16bit	Max. Data rate	76.8Gbps
Chroma	Color (Mono TBD)	Package	431-pin LGA
Power supply	3.3V, 1.8V, 1.25V, -2.2V	Power consumption	3.3W – 8.1W

## PACKAGE OUTLINE (PRELIMINARY)



Subject to change without notice. Please address all product inquiries to GPIXEL

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