

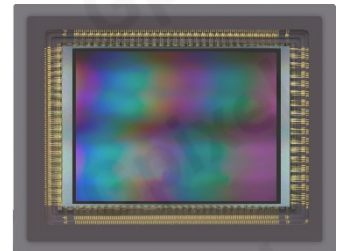
GCINE4349 Product Flyer



120 FPS 8K HDR FULL FRAME VIDEO CMOS IMAGE SENSOR

GCINE4349 is an 8K video HDR full frame ($35.2 \times 25.8 \text{ mm}^2$) stacked BSI image sensor designed with large $4.3 \mu\text{m}$ 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.



Key Features

- 4.3um square pixels
- Stacked sensor with backside illumination
- Rolling Shutter with DSC support
- high Full Well Charge with low noise
- Dual Gain Readout

Applications

- Professional video
- Professional DSC Camera

Sensor Specifications

Resolution	8192 x 6000	Optical format	Full frame (35 mm format)
Pixel size	4.3µm × 4.3µm	Photo-sensitive area	35.2 mm x 25.8 mm
Shutter type	Rolling & DSC	Quantum efficiency	75%
Full well capacity	160ke ⁻ (8K Video Mode)	Pixel clock rate	37.125MHz
Dark noise	1.7e ⁻ (DSC High Gain)	Dark current	TBA
Dynamic range	87dB (up to 110dB)	Frame rate	120fps @ 8K 240fps @ 4K
Output interface	64x 1.2Gbps sLVDS	Max. Data rate	76.8Gbps
Chroma	Color	Power consumption	3.3W – 8.1W
Power supply	3.3V, 1.8V, 1.25V, -2.2V	Package	431-pinLGA 57.6mmx44.4mm

Ordering Information

Sensor Part No.

GCINE4349-CVC-HLT-BUD	RGB Bayer, microlens, ceramic 431 pins LGA, Sealed D263®T glass with AR coating, Multi-EXP based mode supported, Demo Grade
GCINE4349-CVC-HLT-BUE	RGB Bayer, microlens, ceramic 431 pins LGA, Sealed D263®T glass with AR coating, Multi-EXP based mode supported, Engineering sample
GCINE4349-CVC-NLT-BUD	RGB Bayer, microlens, ceramic 431 pins LGA, Sealed D263®T glass with AR coating, 1EXP based mode supported, Demo Grade
GCINE4349-CVC-NLT-BUE	RGB Bayer, microlens, ceramic 431 pins LGA, Sealed D263®T glass with AR coating, 1EXP based mode supported, Engineering Sample
GSENSE4349BSI-CVM-NLT-BUD	Monochrome with ulens, ceramic 431pins LGA, Sealed D263® T glass with AR coating, 1EXP based mode supported, Demo Grade
GSENSE4349BSI-CVM-NLT-BUE	Monochrome with ulens, ceramic 431pins LGA, Sealed D263® T glass with AR coating, 1EXP based mode supported, Engineering sample
GSENSE4349BSI-CVM-HLT-BUD	Monochrome with ulens, ceramic 431pins LGA, Sealed D263® T glass with AR coating, 4EXP based mode supported, Demo Grade
GSENSE4349BSI-CVM-HLT-BUE	Monochrome with ulens, ceramic 431pins LGA, Sealed D263® T glass with AR coating, 4EXP based mode supported, Engineering Sample

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