



AR0231AT: CMOS Image Sensor, 2.3 MP, 1/2.7"

The AR0231AT is a 1/2.7-inch CMOS digital image sensor with an active-pixel array of 1928Hx1208V. It includes LED Flicker Mitigation (LFM) that eliminates high frequency LED flicker from traffic signs and vehicle LED lighting and allows Traffic Sign Reading algorithms to operate in all light conditions. The AR0231AT uses the latest 3.0 micron Back Side Illuminated (BSI) pixel with ON Semiconductor's DR-Pix™ technology, which offers dual conversion gain for improved performance under all lighting conditions. It captures images in linear, HDR or LFM modes, and offers frame-to-frame context switching between modes. The AR0231AT also includes features that support ASIL B.

Features

- High Dynamic Range
- LED Flicker Mitigation (LFM)
- ASIL B Support
- Up to 4–exposure HDR at 1928 × 1208 and 30 fps or 3–exposure HDR at 1928 × 1208 and 40 fps
- Latest 3.0 m Back Side Illuminated (BSI) Pixel with ON Semiconductor DR–Pix Technology
- Data Interfaces: up to 4–lane MIPI CSI–2, Parallel, or up to 4–lane High Speed Pixel Interface (HiSPi) Serial Interface (SLVS and HiVCM)
- Advanced HDR with Flexible Exposure Ratio Control
- Selectable Automatic or User Controlled Black Level Control
- Frame to Frame Switching among up to 4 Contexts to Enable Multi–function Systems
- Spread–spectrum Input Clock Support
- Multi–Camera Synchronization Support
- Multiple CFA Options

Applications

- 1080p30 Video Applications
- Mirror Replacement
- High Dynamic Range Imaging
- ADAS + Viewing Fusion
- Automotive ADAS

End Products

- ADAS
- Automotive

Specifications

Product	Compliance	Status	Description	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (μm)	Output Interface	Color	Package Type
AR0231AT7B00XUD20	AEC Qualified PPAP Capable Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"									
AR0231AT7B00XUEA0-DPBR	AEC Qualified PPAP Capable Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231AT7B00XUEA0-DRBR	AEC Qualified PPAP Capable Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231AT7C00XUD20	AEC Qualified PPAP Capable Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"									
AR0231AT7C00XUEA0-DPBR	AEC Qualified PPAP Capable Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231AT7C00XUEA0-DRBR	AEC Qualified PPAP Capable Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231AT7R00XUD20	AEC Qualified PPAP Capable Pb-free Halide free	Product Preview	CMOS Image Sensor, 2.3 MP, 1/2.7"									
AR0231AT7R00XUD20-E	Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"	CMOS	2.3	40 fps	1/2.7 inch	Electronic Rolling	3.0 x 3.0	HiSPi™ Parallel MIPI	Other	
AR0231AT7R00XUEA0-DPBR	AEC Qualified PPAP Capable Pb-free Halide free	Product Preview	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231AT7R00XUEA0-DRBR	AEC Qualified PPAP Capable Pb-free Halide free	Product Preview	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231AT7R00XUEA0-TPBR	AEC Qualified PPAP Capable Pb-free Halide free	Product Preview	CMOS Image Sensor, 2.3 MP, 1/2.7"									IBGA-121
AR0231ATSC00XUEA0-DRBR-E	Pb-free Halide free	Active	CMOS Image Sensor, 2.3 MP, 1/2.7"	CMOS	2.3	40 40 fps	1/2.7 inch	Rolling Electronic Rolling	3.0 x 3.0	MIPI Parallel HiSPi™	Other RGB	IBGA-121