

Product Overview

AR0234CS: 1/2.6-inch 2.3 Mp CMOS Digital Image Sensor with Global Shutter

For complete documentation, see the data sheet.

The AR0234CS is a 1/2.6-inch 2Mp CMOS digital image sensor with an active-pixel array of 1920 (H) x 1200 (V). It incorporates a new innovative global shutter pixel design optimized for accurate and fast capture of moving scenes at 120 frame per second, full resolution.

The sensor produces clear, low noise images in both low-light and bright scenes. It includes sophisticated camera functions such as auto exposure control, windowing, row skip mode, column-skip mode, pixel-binning, and both video and single frame modes. It is programmable through a simple two-wire serial interface. The AR0234CS produces extraordinarily clear, sharp digital pictures with an industry leading Global Shutter Efficiency, and its ability to capture both continuous video and single frames makes it the perfect choice for a wide range of applications, including scanning, autonomous mobility, surveillance and industrial quality control.

Features

- Best in Class Global Shutter Efficiency
- Low Dark Current/Hot Pixels
- High Linear Full Well
- Low Operational Power
- Small Form Factor
- Built-In Statistics Engine
- Multiple Functional Modes - Row & Col Skip Modes, Pixel Binning

Applications

- Gesture recognition
- 3D scanning
- Position tracking
- Machine vision
- AR/VR/MR/XR

Benefits

- Superior Image Quality for fast-moving objects
- Reduced Total Noise Floor, Higher SNR delivering High Image Fidelity
- High Dynamic Range, delivers higher image clarity
- Suitable of Battery Powered Applications
- Ideal for Space Constrained Applications
- Offloads Image Processor Loads, provides scene details with Prog. ROI
- Application-specific Image Quality Selections with Performance/Power Trade-offs

End Products

- Autonomous Mobile Robots
- Autonomous Guide Vehicles (Drones)
- Video Doorbells
- AR/VR/MR Headsets
- Barcode Readers

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0234CSC00SUD20		Pb-free Halide free non AEC-Q and PPAP	NEW	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	
AR0234CSC00SUKA0-CP		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	ODCSP-83
AR0234CSC00SUKA0-CP1		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	ODCSP-83
AR0234CSC00SUKA0-CR		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	ODCSP-83
AR0234CSC28SUD20		Pb-free Halide free non AEC-Q and PPAP	NEW	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	
AR0234CSC28SUKA0-CP		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	ODCSP-83
AR0234CSC28SUKA0-CP1		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	ODCSP-83
AR0234CSC28SUKA0-CR		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Color	ODCSP-83
AR0234CSSM00SUD20		Pb-free Halide free non AEC-Q and PPAP	NEW	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	
AR0234CSSM00SUKA0-CP		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	ODCSP-83
AR0234CSSM00SUKA0-CP1		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	ODCSP-83
AR0234CSSM00SUKA0-CR		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	ODCSP-83
AR0234CSSM28SUD20		Pb-free Halide free non AEC-Q and PPAP	NEW	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	
AR0234CSSM28SUKA0-CP		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	ODCSP-83
AR0234CSSM28SUKA0-CP1		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	ODCSP-83
AR0234CSSM28SUKA0-CR		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	2.3	120	1/2.6 inch	Global Shutter	3.0 x 3.0	MIPI Parallel	Mono	ODCSP-83

For more information please contact your local sales support at www.onsemi.com.

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