AR0144CS: CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch

The AR0144 is a 1/4-inch 1.0 Mp CMOS digital image sensor with an active-pixel array of 1280H x 800V. It incorporates a new innovative global shutter pixel design optimized for accurate and fast capture of moving scenes. 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 AR0144 produces extraordinarily clear, sharp digital pictures, and its ability to capture both continuous video and single frames makes it the perfect choice for a wide range of applications, including scanning and industrial inspection.

Features

- Best Global Shutter Efficiency
- Low Dark Current/Hot Pixels
- High Linear Full Well
- Low Operational Power
- Small Form Factor

Benefits

- Improved image quality for fast moving objects
- Total Noise Floor Reduction, SNR Improvement
- High Dynamic Range
- Ideal for battery powered applications
- Ideal for space constrained applications like Handheld Scanners

Applications

- Barcode Scanning
- 3D Scanning
- Virtual/Augmented Reality
- Positional Tracking
- Gesture Recognition
- Machine Vision
- Biometric Scanning

End Products

- Barcode Scanners
- Head Mounted Displays
- Biometric Scanners
- Virtual Reality/Augmented Reality Glasses
- Drones

Product	Status	Compliance	Description	Package		MSL*	Container	
				Type	Case Outline		Type	Qty.
AR0144CSSC00SUD20	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 0 degree CRA die			NA	MTFRM	1
AR0144CSSC00SUKA0-CPBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 0 degree CRA CSP with protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSC00SUKA0-CRBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 0 degree CRA CSP no protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSC20SUD20	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 20 degree CRA Die			NA	MTFRM	1
AR0144CSSC20SUKA0-CPBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 20 degree CRA CSP with protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSC20SUKA0-CRBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 20 degree CRA CSP no protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSM00SUD20	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 0 degree CRA die			NA	MTFRM	1
AR0144CSSM00SUKA0-CPBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 0 degree CRA CSP with protective film	ODCSP-69	570BV	4	Tray JEDEC	3000

AR0144CSSM00SUKA0-CRBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 0 degree CRA CSP no protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSM20SUD20	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA die			NA	MTFRM	1
AR0144CSSM20SUKA0-CPBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA CSP with protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSM20SUKA0-CPBR1	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 CSP Protective Film Low MOQ	ODCSP-69	570BV	4	Tray JEDEC	300
AR0144CSSM20SUKA0-CRBR	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA CSP no protective film	ODCSP-69	570BV	4	Tray JEDEC	3000
AR0144CSSM20SUKA0-CRBR1	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA CSP no protective film low MOQ	ODCSP-69	570BV	4	Tray JEDEC	300
AR0144CSSM28SUD20	Active	Pb-free Halide free	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 28 degree CRA die			NA	MTFRM	1

Moisture Sensitivity level (MSL) for surface mount devices (lead free measured at 260°C reflow, non lead free at 235°C reflow)

Product	Compliance	Status	Description	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0144CSSC00SUD20	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 0 degree CRA die	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	RGB	
AR0144CSSC00SUKA0-CPBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 0 degree CRA CSP with protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	RGB	ODCSP-69
AR0144CSSC00SUKA0-CRBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 0 degree CRA CSP no protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	RGB	ODCSP-69
AR0144CSSC20SUD20	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 20 degree CRA Die	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	RGB	
AR0144CSSC20SUKA0-CPBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 20 degree CRA CSP with protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	RGB	ODCSP-69
AR0144CSSC20SUKA0-CRBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, RGB Color 20 degree CRA CSP no protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	RGB	ODCSP-69
AR0144CSSM00SUD20	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 0 degree CRA die	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	
AR0144CSSM00SUKA0-CPBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 0 degree CRA CSP with protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	ODCSP-69
AR0144CSSM00SUKA0-CRBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 0 degree CRA CSP no protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	ODCSP-69
AR0144CSSM20SUD20	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA die	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	

Product	Compliance	Status	Description	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0144CSSM20SUKA0-CPBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA CSP with protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	ODCSP-69
AR0144CSSM20SUKA0-CPBR1	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 CSP Protective Film Low MOQ	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	ODCSP-69
AR0144CSSM20SUKA0-CRBR	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA CSP no protective film	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	ODCSP-69
AR0144CSSM20SUKA0-CRBR1	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 20 degree CRA CSP no protective film low MOQ	CMOS	1MP	60	1/4 inch	Global Shutter	3.0 x 3.0	Multi	Mono	ODCSP-69
AR0144CSSM28SUD20	Pb-free Halide free	Active	CMOS Image Sensor, Digital, Global Shutter, 1.0 MP, 1/4-Inch, Mono 28 degree CRA die	CMOS	1MP	60	1/4 Inch	Global Shutter	3.0 x 3.0	Multi	Mono	