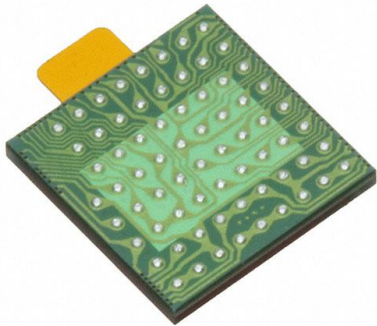


# AR0144CSSC20SUKA0-CRBR Datasheet

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<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	AR0144CSSC20SUKA0-CRBR-DG
Manufacturer	<a href="#">onsemi</a>
Manufacturer Product Number	AR0144CSSC20SUKA0-CRBR
Description	IMAGE SENSOR CMOS ODCSP-69
Detailed Description	CMOS Image Sensor 1280H x 800V 3µm x 3µm 69-O DCSP (5.55x5.57)

This model AR0144CSSC20SUKA0-CRBR is available at DiGi Electronics.

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## Purchase and inquiry

Manufacturer Product Number:

AR0144CSSC20SUKA0-CRBR

Series:

-

Type:

CMOS

Active Pixel Array:

1280H x 800V

Voltage - Supply:

-

Supplier Device Package:

69-ODCSP (5.55x5.57)

Base Product Number:

AR0144

Manufacturer:

onsemi

Product Status:

Active

Pixel Size:

3µm x 3µm

Frames per Second:

60

Package / Case:

69-WFBGA, CSPBGA

Operating Temperature:

-

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

Moisture Sensitivity Level (MSL):

4 (72 Hours)

ECCN:

EAR99

ON Semiconductor®



## 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.
AR0144CSCC00SUD20	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
AR0144CSCC00SUKA0-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
AR0144CSCC00SUKA0-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
AR0144CSCC20SUD20	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
AR0144CSCC20SUKA0-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
AR0144CSCC20SUKA0-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

## AR0144CSSC20SUKA0-CRBR onsemi IMAGE SENSOR CMOS ODCSP-69

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	

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