

[Home](#) > [Products](#) > [Sensors](#) > [Image Sensors & Processors](#) > [Image Sensors](#) > [AR0521](#)

# AR0521: CMOS Image Sensor, 5.1 MP, 1/2.5"

[Request Datasheet](#)[Product Overview](#)[»View Material Composition](#)  
[» Product Change Notification](#)

The AR0521 is a 1/2.5-inch CMOS digital image sensor with an active-pixel array of 2592 (H) x 1944 (V). It captures images in either linear or high dynamic range modes with a rolling-shutter readout, and includes sophisticated camera functions such as binning, windowing and both video and single frame modes. It is designed for both low light and high dynamic range performance, with line interleaved T1/T2 read out to support off chip HDR in an ISP chip. The AR0521 produces extraordinarily clear, sharp digital pictures, and its ability to capture both continuous video and single frames makes it the perfect choice for a security applications.

## Features

- 5 Mp at 60 fps for Excellent Video Performance
- Small Optical Format (1/2.5-inch)
- 1440p Mode for 16:9 Video
- Superior Low-light Performance
- 2.2 m Back Side Illuminated Pixel Technology
- Supports Line Interleaved T1/T2 Readout to Enable HDR Processing in ISP Chip
- Support for External Mechanical Shutter
- On-chip Phase-locked Loop (PLL) Oscillator
- Integrated Color and Lens Shading Correction
- Slave Mode for Precise Frame-rate Control
- Data Interfaces: ♦ HiSPi (SLVS) – 4 Lanes ♦ MIPI CSI-2 – 4 Lanes
- Auto Black Level Calibration
- High-speed Configurable Context Switching
- Temperature Sensor
- Fast Mode Plus Compatible 2 Wire Interface

## Applications

- Video Surveillance
- High Dynamic Range Imaging

## End Products

- Security Camera
- Action camera
- Car DVR

## Technical Documentation & Design Resources

[Package Drawings \(1\)](#)[Videos \(3\)](#)

### Availability & Samples

### Specifications

Product	Status	Compliance	Description	Package		MSL*	Container		Budgetary Price/Unit
				Type	Case Outline		Type	Qty.	
AR0521SR2C09SURA0-DP	Active	Pb-free ----- Halide free	CMOS Image Sensor, 5.1 MP, 1/2.5", Color, 9 Degree CRA, mPLCC, w/Protective Film	PLCC-52	776AW	4	Tray JEDEC	1680	<a href="#">Contact Sales Office</a>
AR0521SR2C09SURA0-DP1	Active	Pb-free ----- Halide free	CMOS Image Sensor, 5.1 MP, 1/2.5", Color, 9 Degree CRA, mPLCC, w/Protective Film Low MOQ	PLCC-52	776AW	4	Tray JEDEC	168	<a href="#">Contact Sales Office</a>
AR0521SR2C09SURA0-DR	Active	Pb-free ----- Halide free	CMOS Image Sensor, 5.1 MP, 1/2.5", Color, 9 Degree CRA, mPLCC	PLCC-52	776AW	4	Tray JEDEC	1680	<a href="#">Contact Sales Office</a>
AR0521SR2C09SURA0-DR1	Active	Pb-free ----- Halide free	CMOS Image Sensor, 5.1 MP, 1/2.5", Color, 9 Degree CRA, mPLCC, Low MOQ	PLCC-52	776AW	4	Tray JEDEC	168	<a href="#">Contact Sales Office Inventory</a>
AR0521SR2M09SURA0-DP	Active	Pb-free ----- Halide free	CMOS Image Sensor, 5.1 MP, 1/2.5", Mono, 9 Degree CRA, mPLCC, w/Protective Film	PLCC-52	776AW	4	Tray JEDEC	1680	<a href="#">Contact Sales Office Inventory</a>
AR0521SR2M09SURA0-DR	Active	Pb-free ----- Halide free	CMOS Image Sensor, 5.1 MP, 1/2.5", Mono, 9 Degree CRA, mPLCC	PLCC-52	776AW	4	Tray JEDEC	1680	<a href="#">Contact Sales Office Inventory</a>

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

### Previously Viewed Products

Select Product...

Go

[Clear List](#)

### Associated Products

Do you also need [Image Processors](#)?Do you also need [EEPROM Memory](#)?Do you also need [LDO Regulators & Linear Voltage Regulators](#)?

### Support

[Technical Documentation](#)[Design Resources & Documents](#)[Technical Support](#)[Sales Support](#)

### Featured Video

[Robotics and the Emerging 48V Ecosystem](#)[More Videos ...](#)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[onsemi:](#)

[AR0521SR2C09SURA0-DR](#) [AR0521SR2C09SURA0-DP](#) [AR0521SR2C09SURA0-DP1](#) [AR0521SR2C09SURA0-DR1](#)