AR0522: CMOS Image Sensor, 5.1 MP, 1/2.5", Near Infra-Red Enhancement

The AR0522 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 AR0522 produces extraordinarily clear, sharp digital pictures, and its ability to capture both continuous video and single frames makes it the perfect choice for wide range of applications.

Features

- 5 Mp at 60 fps for Excellent Video Performance
- Small Optical Format (1/2.5−inch)
- Color Filter Array : RGB and Monochrome
- 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
- Near Infra-Red Enhancement

Applications	End Products
• Video Surveillance • High Dynamic Range Imaging • Machine Vision	• Security camera • Action camera • Hunting camera • Body camera • Car DVR • Industrial camera

Specifications

Product	Compliance	Status	Description	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0522SRSC09SURA0-DP	Pb-free Halide free	Active	CMOS Image Sensor, 5.1 MP, 1/2.5", Near Infra-Red Enhancement, 5Mp 1/2.5" Image Sensor, RGB, 9 deg CRA, mPLCC, multi output, Drypack with protective film	CMOS	5.1	60	1/2.5 inch	Rolling	2.2 x 2.2	Multi	RGB	PLCC-52
AR0522SRSC09SURA0-DR	Pb-free Halide free	Active	CMOS Image Sensor, 5.1 MP, 1/2.5", Near Infra-Red Enhancement, 5Mp 1/2.5" Image Sensor, RGB, 9 deg CRA, mPLCC, multi output, Drypack	CMOS	5.1	60	1/2.5 inch	Rolling	2.2 x 2.2	Multi	RGB	PLCC-52
AR0522SRSM09SURA0-DP	Pb-free Halide free	Active	CMOS Image Sensor, 5.1 MP, 1/2.5", Near Infra-Red Enhancement, 5Mp 1/2.5" Image Sensor, Mono, 9 deg CRA, mPLCC, multi output, Drypack with protective film	CMOS	5.1	60	1/2.5 inch	Rolling	2.2 x 2.2	Multi	Mono	PLCC-52
AR0522SRSM09SURA0-DR	Pb-free Halide free	Active	CMOS Image Sensor, 5.1 MP, 1/2.5", Near Infra-Red Enhancement, 5Mp 1/2.5" Image Sensor, Mono, 9 deg CRA, mPLCC, multi output, Drypack	CMOS	5.1	60	1/2.5 inch	Rolling	2.2 x 2.2	Multi	Mono	PLCC-52