



AR0221: CMOS Image Sensor, 2.1 MP, 1/1.7"

ON Semiconductor AR0221 is a 1/1.7-inch CMOS digital image sensor with an active-pixel array of 1928 (H) × 1088 (V). This advanced image sensor captures images in either linear or high dynamic range, with rolling-shutter readout. It includes sophisticated camera functions such as in-pixel binning, windowing and both video and single frame modes. AR0221 is optimized for both low light and high dynamic range scene performance with 4.2µm BSI pixels. The sensor includes flexible functions such as in-pixel binning, windowing, and both video and single frame modes. The device is programmable through a simple two-wire serial interface, and supports both MIPI and HiSPi output interfaces.

Features

- 2.1Mp at 60 fps for Excellent Video Performance
- Optical Format (1/1.7–inch)
- 1080p Mode for 16:9 Video
- Superior Low–light Performance
- 4.2µm large Back Side Illuminated Pixel Technology
- Supports Line Interleaved T1/T2/T3 Readout to Enable HDR Processing in ISP Chip at 1080P and 30fps
- On–chip Phase–locked Loop (PLL) Oscillator
- Integrated Color and Lens Shading Correction

- Slave Mode for Precise Frame–rate Control
- Data Interfaces: - 4-lane MIPI CSI-2 and HiSpi SLCS
- Auto Black Level Calibration
- High–speed Configurable Context Switching
- Temperature Sensor
- Fast Mode Plus Compatible 2 Wire Interface
- Multi-camera synchronization support
- High-speed configurable context switching
- Advanced HDR with Flexible Exposure Ratio Control

Applications

- Video Surveillance
- High Dynamic Range Imaging

End Products

- Security Camera
- Action camera
- Car DVR
- Body camera

Specifications

Product	Compliance	Status	Description	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0221SR2C00SUEA0-DPBR	Pb-free	Active	CMOS Image Sensor, 2.1 MP, 1/1.7"	CMOS	2.1	60	1/2 inch	Electronic Rolling and Global Reset Release	4.2 x 4.2	Multi	RGB	IBGA-87
	Halide free											
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