



AR0431: CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement

The ON Semiconductor AR0431 is a stacked 1/3.2-inch BSI CMOS active -pixel digital image sensor with a pixel array of 2312H x 1746V. The AR0431 has been designed for IoT and security cameras. AR0431 can provide high quality imaging for both day and night lighting conditions perfect for security cameras. It has the ability to record at 120 fps delivering slow motion capable video which can use zoom and retain the resolution quality which is perfect for wearable devices.

Features

- 4 MP at 120 frames per second
- High linear full well
- Low power operation and special monitoring mode
- 1/3-inch optical format
- Sensor Synchronization
- Latest stacked pixel technology
- Near Infra-red enhancement

Benefits

- Slow Motion video capability
- Great natural dynamic range for challenging lighting conditions
- Power savings, heat savings while fully active or while always on.
- Standard compact sensor size to fit into many IoT type applications
- Allows for multiple camera synchronization for 360 degree cameras or longer range depth solutions
- Compact sensor size and leading color performance
- Save power and cost for using less NIR LEDs

Applications

- 4 MP CMOS Imaging sensor for consumer and industrial end products.

End Products

- IoT Camera
- Wearable Camera
- Security Camera
- AR/VR/MR Camera

Product	Status	Compliance	Description	Package		MSL*	Container	
				Type	Case Outline		Type	Qty.
AR0431CSSC14SMRA0-DP	Active	Pb-free ----- Halide free	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with Protective Film Tray	mPLCC -48	776A Z	4	Tray JEDEC	2400
AR0431CSSC14SMRA0-DP1	Active	Pb-free ----- Halide free	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with Protective Film Tray Low MOQ	mPLCC -48	776A Z	4	Tray JEDEC	240
AR0431CSSC14SMRA0-DR	Active	Pb-free ----- Halide free	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with No Protective Film Tray	mPLCC -48	776A Z	4	Tray JEDEC	2400
AR0431CSSC14SMRA0-DR1	Active	Pb-free ----- Halide free	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with No Protective Film Tray Low MOQ	mPLCC -48	776A Z	4	Tray JEDEC	240

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
AR0431CSSC14SMRA0-DP	Pb-free	Active	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with Protective Film Tray	CMOS	4	120	1/3.2 inch	Rolling	2.0 x 2.0	MIPI	RGB	mPLCC-48
	Halide free											
AR0431CSSC14SMRA0-DP1	Pb-free	Active	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with Protective Film Tray Low MOQ	CMOS	4	120	1/3.2 inch	Rolling	2.0 x 2.0	MIPI	RGB	mPLCC-48
	Halide free											
AR0431CSSC14SMRA0-DR	Pb-free	Active	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with No Protective Film Tray	CMOS	4	120	1/3.2 inch	Rolling	2.0 x 2.0	MIPI	RGB	mPLCC-48
	Halide free											
AR0431CSSC14SMRA0-DR1	Pb-free	Active	CMOS Image Sensor, 4 MP, 1/3.2", Near Infra-Red Enhancement, Color 14 Deg CRA mPLCC with No Protective Film Tray Low MOQ	CMOS	4	120	1/3.2 inch	Rolling	2.0 x 2.0	MIPI	RGB	mPLCC-48
	Halide free											

<https://www.onsemi.com/products/sensors/image-sensors-processors/image-sensors/ar0431/7-31-19>