

Product Overview

AR0261: CMOS Image Sensor, 2 MP, 1/6"

For complete documentation, see the data sheet.

ON Semiconductor's AR0261 is a 2-megapixel sensor delivering native 1080p resolution with exceptional image quality and meets strict form factor requirements (z-height less than 3.5mm) for ultra-thin, full HD video applications within the Mobile, Tablet and Notebook market. This sensor has a 1/6-inch optical format and a new 1.4-micron pixel featuring ON Semiconductor A-PixHS(tm) technology to provide excellent low-light performance. The new sensor provides HD video at 1080p/60fps or 720p/60fps critical for sharp, clear video capture.

Features

- 2 MP CMOS sensor with advanced 1.4um pixel BSI technology
- Data interfaces: 1 and 2 lane mobile industry processor interface (MIPI)
- Bit-depth compression available for MIPI Interface:10-8 and 10-6 to enable lower bandwidth receivers for full frame rate applications
- 3D synchronization controls to enable stereo video capture
- Interlaced multi-exposure readout enabling High Dynamic Range (HDR) still and video applications
- 8.8kbits one-time programmable memory (OTPM) for storing shading correction coefficients and module information
- Programmable controls: gain, horizontal and vertical blanking, auto black level offset correction, frame size/rate, exposure, left-right and top-bottom image reversal, window size, and panning
- On-chip dual phase-locked loop (PLL) oscillator structure for improved EMI characteristics
- Superior low-light performance
- Low dark current

For more features, see the data sheet

Applications

- Mobile
- Consumer
- Medical

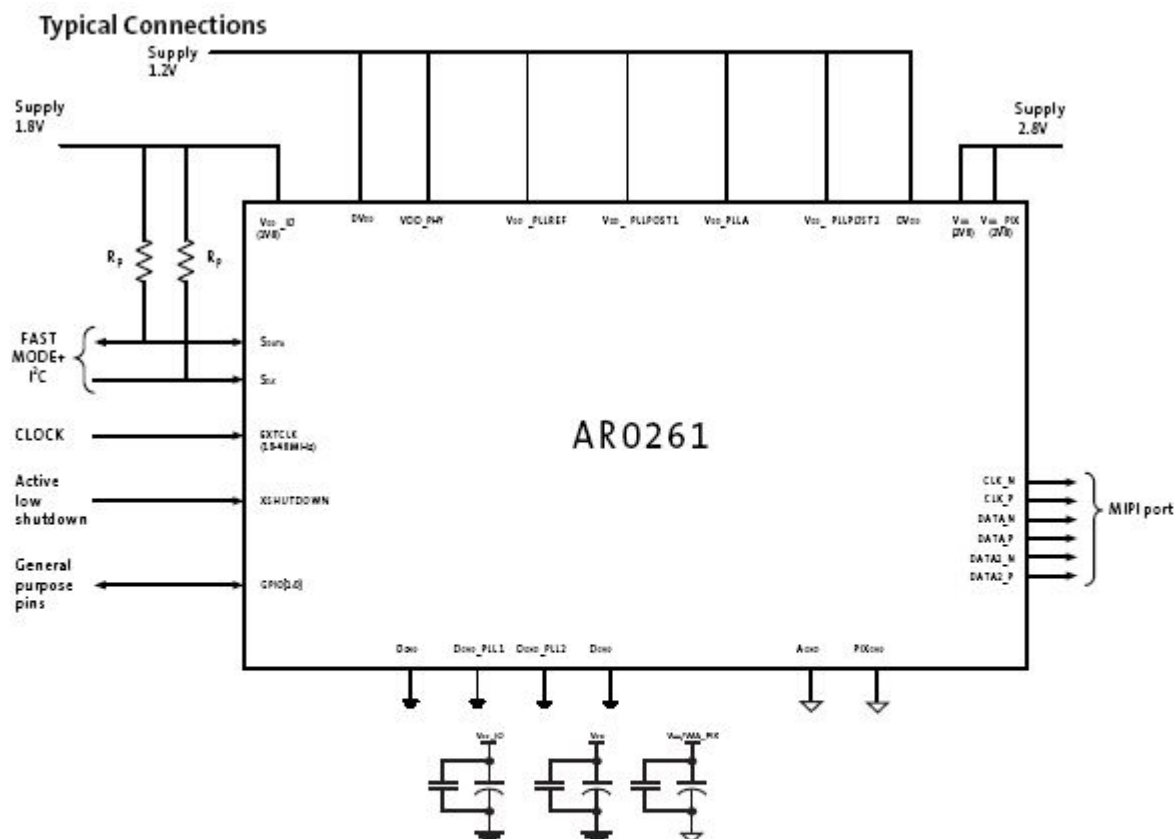
End Products

- Smart Phone
- Digital Still camera
- Wearable devices

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0261CSSM00SMD20		Pb-free	Active	CMOS	2.1	60	1/6 inch	Electronic Rolling	1.4 x 1.4	MIPI	Mono	
		Halide free										
AR0261CSSM00SMKA0-CR-E		Pb-free Halide free	Active									ODCSP-35

Application Diagram



- Notes:
1. All power supplies must be adequately decoupled. The order of preference is as follows: 2.8V supply - 1.0 μ F and 0.1 μ F; 1.2V supply - 1.0 μ F and 0.1 μ F; 1.8V supply - 0.1 μ F. The minimum recommended decoupling configuration is 0.1 μ F per power supply.
 2. Aptina recommends a 1.5k Ω resistor value for the two-wire serial interface R_{PULL-UP}; however, other values may be used. refer to section 7.1 pull-up resistor sizing section of the UM10204 I²C specification in http://www.nxp.com/documents/user_manual/UM10204.pdf
 3. All inputs must be configured with VDD_IO.
 4. Mechanical pads are not shown in this figure.
 5. VAA and VAA_PIX may be tied together.

For more information please contact your local sales support at www.onsemi.com.

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