

## AR0821CS

# 8.3 Mp Rolling Shutter CMOS Digital Image Sensor

## Product Overview

For complete documentation, see the data sheet.

AR0821CS is a 1/1.7inch CMOS digital image sensor with a 3848 H x 2168 V activepixel array. This advanced sensor captures images in either linear or high dynamic range, with rollingshutter readout. AR0821 is optimized to deliver highquality performance in both lowlight and challenging lighting conditions. It is supported by a 2.1 m DRPix™ BSI pixel from **onsemi** and embedded HDR (eHDR) technology that delivers greater than 140 dB. The sensor includes advanced functions such as inpixel binning, windowing, summing, and both video and single frame modes to provide flexible Region of Interest (ROI), optimal bandwidth as needed by the application and low power consumption. These characteristics make the sensor very suitable for a variety of applications including scanning, dashcams, autonomous mobility, and inspection & quality control.

## Features

- Industry Leading Embedded High Dynamic Range (eHDR)
- BSI Pixel with High Linear Full Well
- Low Operational Power
- Built-In Statistics Engine
- Multiple Functional Modes - Binning, Scaling, Summing, Windowing, Context Switching, Trigger

## Applications

- Aerial Imaging
- Machine Vision
- Smart Homes/Security
- Scanning
- Commercial Surveillance

## End Products

- Autonomous Guided Vehicles (Drones)
- Machine Vision Cameras
- ID, MRZ Scanners
- Retail Analytics Cameras
- Video Doorbells

## Part Electrical Specifications

Product	Status	Compliance	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
AR0821CSSC18 SMEA0-DPBR	Active		CMOS	8.3	60	1/1.7 inch	Electronic Rolling	2.1 x 2.1	MIPI	RGB	IBGA-95	503 BW. PDF	4	260	JTRAY	2700
AR0821CSSC18 SMEA0-DPBR1	Last Shipments		CMOS	8.3	60	1/1.7 inch	Electronic Rolling	2.1 x 2.1	MIPI	RGB	IBGA-95	503 BW. PDF	4	260	JTRAY	270
AR0821CSSC18 SMEA0-DRBR	Active		CMOS	8.3	60	1/1.7 inch	Electronic Rolling	2.1 x 2.1	MIPI	RGB	IBGA-95	503 BW. PDF	4	260	JTRAY	2700
AR0821CSSC18 SMEA0-DRBR1	Obsolete		CMOS	8.3	60	1/1.7 inch	Electronic Rolling	2.1 x 2.1	MIPI	RGB	IBGA-95	503 BW. PDF	4	260	JTRAY	270