



# Agilent ADCM-2650-0001 Portrait VGA Resolution CMOS Camera Module

## Product Overview

### Description

The ADCM-2650-0001 ultra compact CMOS camera module is an advanced, low power VGA resolution camera component for embedded applications. The camera module combines an Agilent CMOS image sensor and image processing design with a high quality lens to deliver images in JPEG or video format, ready for storage or transmission.

The ADCM-2650-0001 camera module features exceptional low light sensitivity, providing excellent image quality in low light environments. The camera module is a fully integrated solution — no external components are required, reducing design complexity and extending design flexibility.

The ADCM-2650-0001 camera module features a quality, integral lens in a tightly integrated image sensor and image processing design. The camera module is optimized for use in a variety of embedded applications, from cell phones to handheld wireless devices to image-enabled appliances and automotive design.

The ADCM-2650-0001 camera module also supports a range of programmable modes, including support for embedded or external synchronization capabilities.



### Features

- 480 x 640 portrait VGA resolution
- 24 bit color depth (16 million colors)
- Bayer color filters – blue, red and green
- Frame rate – 15 fps at VGA resolution
- Flexible orientation
- Programmable to many image formats:
  - VGA (480 x 640) portrait only
  - CIF (352 x 288)
  - QVGA (320 x 240)
  - QCIF (176 x 144)
  - QQVGA (160 x 120)
  - QQCIF (88 x 72)
  - Any other format 480 x 640 or smaller
- Panning – window can be placed anywhere in the 480 x 640 array
- Low power – 120 mW typical at 13 MHz input clock
- High intrinsic sensitivity for enhanced low light performance
- Optimized temperature performance
- Single 2.8V power supply with internal voltage regulation

- High quality F/2.8 lens
- Direct JPEG, RGB, YUV or YCbCr 8-bit parallel output port (CCIR 656-compatible)
- Embedded synchronization capability – CCIR 656
- Horizontal/vertical mirroring and subsampling
- Excellent image quality – JPEG based compression with automatic or selectable quantization tables
- Automatic gathering of frame statistics including histograms for each color channel
- Integrated PLL and voltage regulators
- Fully configurable image processing
- Automatic adjustment of compression rate for constant image file size
- Flexible image sizer
- Auto exposure and auto white balance
- Integrated IR filter
- Compact size – 12.5 x 10.5 x 8.2 mm with cover glass

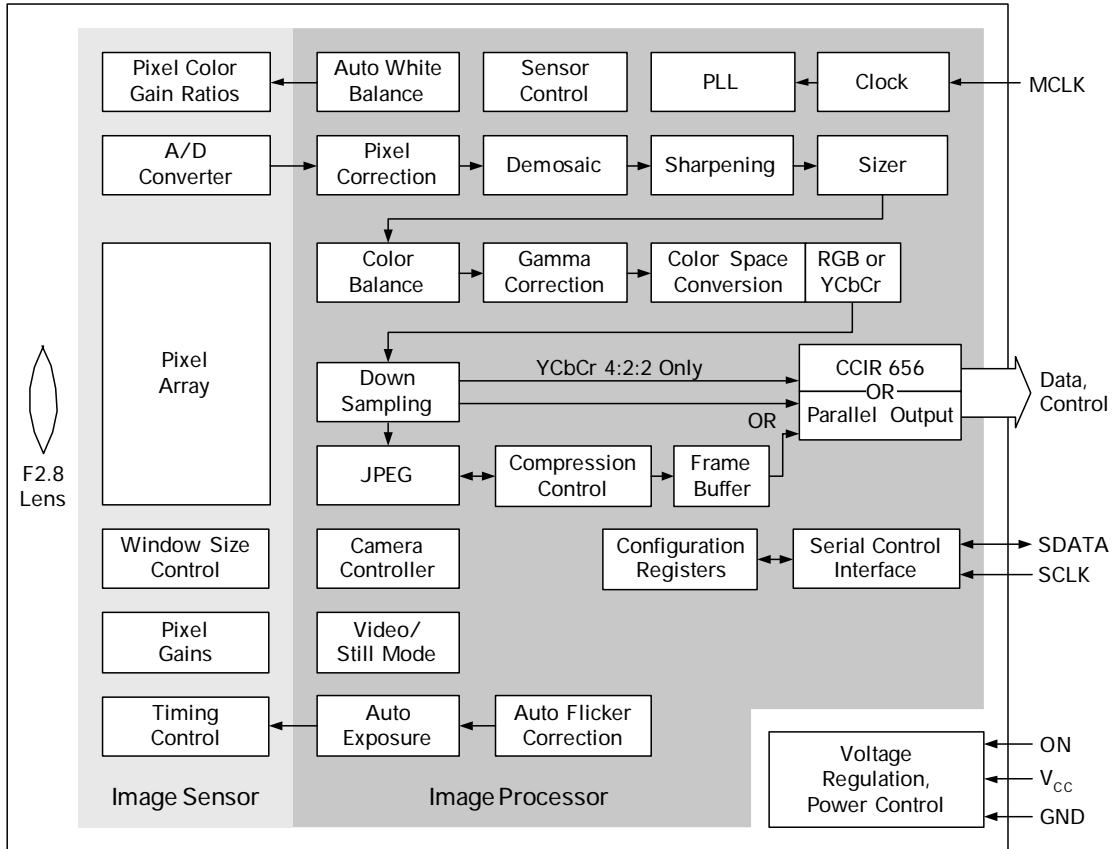
### Applications

- Mobile phones
- Video phones
- Personal Digital Assistants
- Image-enabled appliances
- Digital still mini cameras
- Embedded automotive
- Monitoring equipment



# Block Diagram

The ADCM-2650-0001 camera module is a complete image processing system.



## [www.agilent.com/semiconductors](http://www.agilent.com/semiconductors)

For product information and a complete list of distributors, please go to our web site.

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