SeSys

Networked Vision Solutions

New Camera for Low Cost Embedded Applications

The SeSys ADCM-2650-0001 ultra compact CMOS camera module is an advanced low power high resolution camera component for embedded applications.
This tiny camera module combines a CMOS image sensor and a smart image processing interface, including a high quality lens to deliver images, or video format available for storage or transmission.

The SeSys ADCM-2650-0001 camera module features 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 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 image-enabled appliances and automotive design.

The 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 colour depth (16 million colours)
- Bayer colour filters – blue, red and green
- Frame rate – 15 fps at VGA resolution
- Flexible orientation
- Programmable to many image formats
- 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 colour channel
- Integrated PLL and voltage regulators
- Fully configurable image processing
- Automatic adjustment of compression rate for constant image file size
- Auto exposure and auto white balance
- Integrated IR filter
- Compact size – 12.5 x 10.5 x 8.2 mm with cover glass

Application:

Mobile phones, video phones, image-enabled appliances, embedded automotive monitoring equipment. The camera module is a fully integrated solution – no external components are required, reducing design complexity and extending design flexibility.

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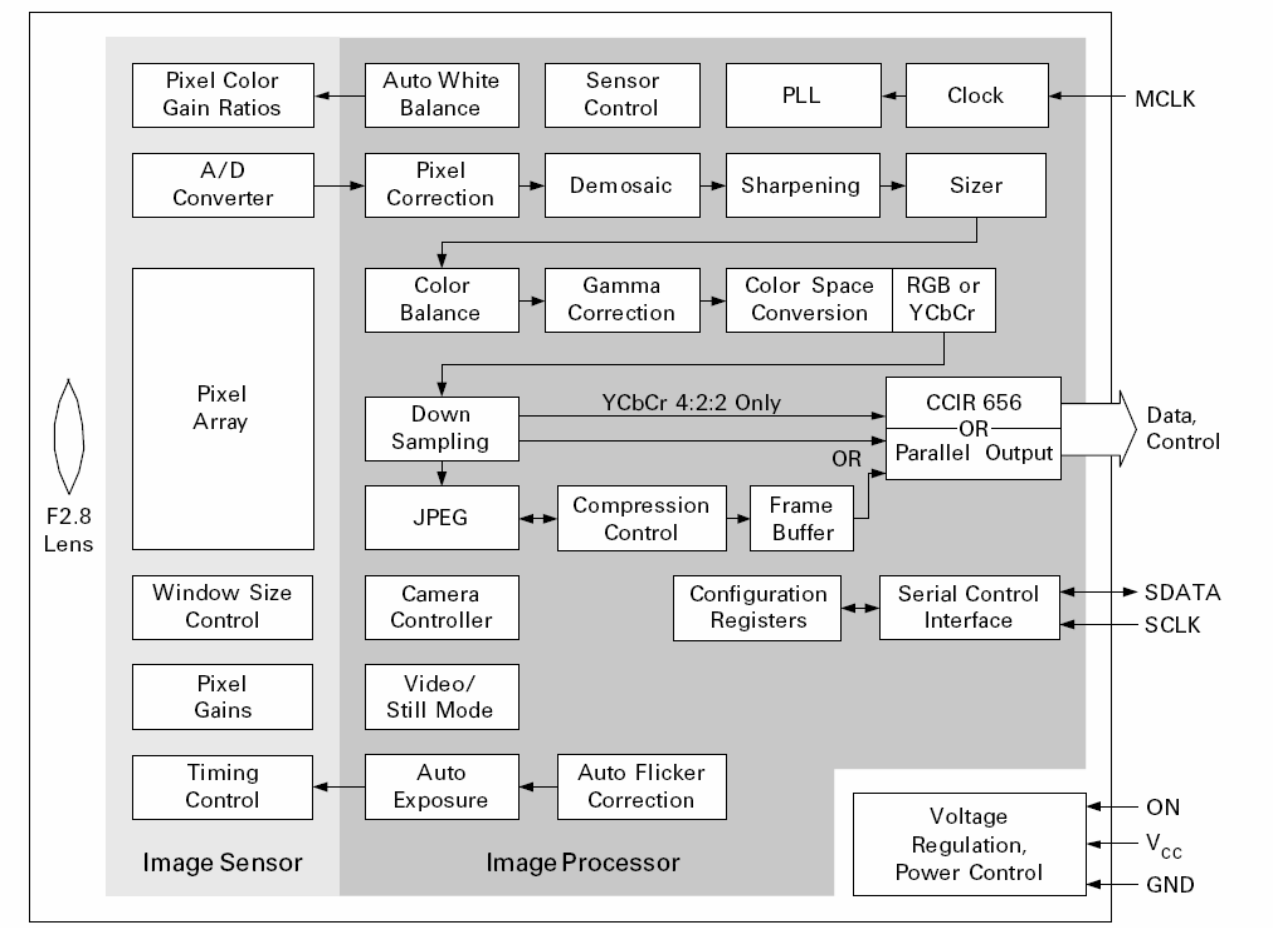
Block diagram

The SeSys ADCM-2650-0001 is a complete image processing system



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