Features

- 1/7" CIF Digital Camera Module with Built-in Lens
- Turnkey Solution with CMOS Color Image Sensor and On-chip Image Processing
- High Performance:
 - Ultra Compact Size
 - Very Low Power Consumption
 - High Sensitivity
 - Low Fixed Pattern Noise
 - High Dynamic Range
 - Up to 60 fps at Full Resolution
- Easy to Operate:
 - Single Master Clock Operation (Integrated PLL)
 - On-chip Timing Generator
 - Two-wire Interface (TWI)
 - Single 2.5V Power Supply
- Built-in Functions:
 - On-chip 10-bit A/D Converter
 - Automatic Dark Calibration
 - Power Management Unit
 - Automatic Flicker Detection and Correction
 - Digital Zoom, Region of Interest (Programmable)
 - Decimation: CIF (352L × 288H)/QCIF (176L × 144H) and Lower Resolution
- Built-in Image Processing:
 - Lens Vignetting Correction (Programmable)
 - Defective Pixel Correction
 - Color Interpolation, Color Correction (Programmable)
 - Gamma Correction (Programmable)
 - RGB to YCrCb Transformation
 - Edge Enhancement (Programmable)
 - Anti-aliasing Filter
 - 8-bit 4:2:2 YCrCb Output Format
 - White Balance (Auto/Manual Control Selectable)
 - Exposure Control (Auto/Manual Control Selectable)

Main Specifications

- CMOS Sensor: 352 x 288 Active Pixel Array
- Pixel Size: 5.6 μm × 5.6 μm
- Optical Format: 1/7"
- Frame Rate: Up to 60 fps
- Power Consumption at 15 fps: 38 mW (10 pF)
- . Dynamic Range: 55 dB
- Sensitivity: 25 Scene Lux at 15 fps
- Output Format: YCrCb 4:2:2, RGB Bayer
- Color Filter: Bayer RGB with Micro Lens
- Input Frequency: [3-80] MHz
- Field of View: 55° (H), 46° (V), 69° (D)
- F-number: 2.4
- Focal Lens: 1.85 mm
- Module Size: 8.5 mm (L) × 8.5 mm (W) × 5.2 mm (H)
- Package: Flexible Connector on Printed Circuit Board



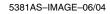


Eye-On-Si[™] Ultra-compact CMOS Digital Camera Module

AT76C450BC-MY02BT

Preliminary Summary

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Description

The AT76C450BC-MY02BT CMOS camera module is a turnkey system ideal for mobile phones and PDA applications. This complete image solution provides CIF standard image formats and highly integrated electronics with on-chip image processing that provide high quality images. It is integrated on an ultra thin module and has a very low power consumption.

The Eye-On-Si is easy to integrate into any application, and operates with a single power supply within a frequency range of 3 to 80 MHz thanks to its on-chip PLL circuitry.

The easy-to-monitor on-chip functions and image processing are programmable through a Two Wire Interface (TWI).

The system also includes advanced image processing functionalities such as automatic white balance, auto-exposure control, color correction, gamma correction, edge enhancement, and an anti-aliasing filter, all of which contribute to high quality images.

Applications

- Motion or still picture applications for video, mobile phones and PDAs
- Toys
- Eye iris recognition
- · Security cameras
- Low-end digital cameras



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