



1/10 inch VGA reflowable and chip scale camera module



Description

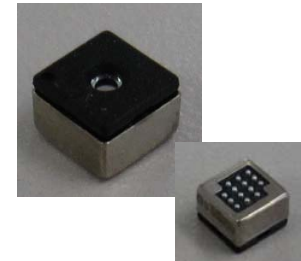
The Toshiba TCM8500MD is Reflowable camera module compatible with SMIA specification in which VGA size of array resolution (648x488) sensor incorporating an AD converter is included. The image size meets with 1/10 inch optical format. Use of the CMOS process enables low power consumption operations. It also provides space saving solution in the mobile phone with the small size camera module, 3.44mm(X) x 3.44mm(Y) x 2.5mm(H).

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TOSHIBA CMOS Image sensor

- Japanese <http://www.semicon.toshiba.co.jp/product/sensor/index.html>
- English <http://www.semicon.toshiba.co.jp/eng/product/sensor/index.html>

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Applications

- Cellular and Mobile phone

Features

- 1/10" VGA resolution (2.2 μm)
- Chip scale size & reflowable camera module
- Progressive scan
- RAW10 serial output from CCP2 interface
- I²C interface
- Lens shading correction
- Hardware standby, software standby mode and streaming mode

Specifications

- Optical format: 1/10"
- Pixel size : 2.2um x 2.2um
- Effective pixels: 648(H) x 488(V)
- Output pixels : 640(H) x 480(V)
- Data formats: RAW10
- Frame rate: max. 30fps @full resolution
- Power supply:
 - VANA=2.4 to 2.9V,
 - VDIG=1.7 to 1.9V,
- Power consumption :
 - Streaming @15fps: 65mW
 - Streaming @30fps: 71mW
 - SW standby: 390uW
 - HW standby: 15uW
- Sensitivity : 411(mV/lx·s)
- SNR : 33(dB)
- Dynamic range : 61 (dB)
- Optimum operating temperature: 5 to 40°C
- Operating temperature : -30 to +70°C
- Storage temperature : -40 to 85°C
- Module size: 3.44 x 3.44 x 2.5mm (bottom contact, 16 balls)
- Focus type: Fixed focus
- F number: 2.8
- FOV: 74 degree (diagonal)
- TV distortion: >-13%
- Configuration: 1 glass

System Block Diagram of TCM8500MD

