Hi-843

8MP 1/4" CMOS Image Sensor

Advanced 1.12μm BSI 8M pixel image sensor generating 30fps full-resolution at low power consumption

Applications

- Smart Phones
- Tablets

➢ Compact Form Factor for Front Camera

Fit into 6.5mm X 6.5mm camera module size (Fixed Focus)

➢ Low Power Consumption

180mW @ 30fps full-resolution

➢ Competitive Image Quality

Advanced optical path structure to reduce X-talk and temporal color noise

➢ High Frame Rate

8M(3264x2448) 30fps over 2 or 4 lane MIPI for zero shutter lag

➢ Large OTP Memory

8K Byte OTP Memory for customer use(storing module calibration data such as LSC and AWB)

➢ 2D-LSC

Built-in 2D-LSC for per-module LSC calibration

➢ Frame Synchronization

FSYNC for dual camera application

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Features	
Resolution	8Mpixel (3,280 x 2,464)
Optical format	1/4″
Pixel size	1.12um BSI
Frame rate	30fps@QUXGA 60fps@FHD 1080P 90fps@HD 720P
Power consumption	180mW @ 30fps full-resolution
Interface	MIPI 4-Lane
CRA	32.80 degree non-linear
OTP	8K Byte
On-chip functions	Black level calibration 2D-LSC Frame synchronization iHDR

Specifications

- **Active array size**
  3673.60um(H) X 2759.68um(V)
- **Power Supply**
  Analog: 2.8V (Typical)
  Digital Core: 1.2V (Typical)
  I/O: 1.8V/2.8V (Typical)
- **Input Clock Frequency**
  6~27MHz
- **Output Format**
  10bit Bayer Raw
- **Gain**
  Analog : 1.0x~16.0x
  Digital : 1.0x~8.0x
- **Subsampling**
  1/2, 1/4

[Functional Block Diagram]