



# GC5004 product brief



## *1/4" QSXGA CMOS Image Sensor*

GC5004 is a high quality 5Mega CMOS image sensor, for mobile phone camera applications and digital camera products. GC5004 incorporates a 2608V x 1976H pixel array, on-chip 10-bit ADC, and image signal processor.

The full scale integration of high-performance and low-power functions makes the GC5004 best fit the design, reduce

implementation process, and extend the battery life of cell phones, PDAs, and a wide variety of mobile applications.

It provides RAW10 and RAW8 data formats with MIPI interface. It has a commonly used two-wire serial interface for host to control the operation of the whole sensor.

## Application

- Cellular Phone Cameras
- Notebook and desktop PC cameras
- PDAs
- Toys
- Digital still cameras and camcorders
- Video telephony and conferencing equipment
- Security systems
- Industrial and environmental systems

## Product Features

- BSI process
- Output formats: Raw Bayer 10bit/8bit
- Support for image sizes: QSXGA, 1080P, 720P
- Interface support:
  - DVP parallel
  - MIPI(1\_lane/2\_lane/4\_lane)
- PLL support
- Windowing support
- Horizontal /Vertical mirror
- Support for sensor gain:
  - Analog gain: 6x
  - Digital gain: 16x
- Image processing module: BLK, defective pixel canceling, and noise canceling

## Product Specifications

- Optical Format: 1/4 inch
- Pixel Size: 1.4um x 1.4um(BSI)
- Active pixel array: 2608x1976
- ADC resolution: 10 bit ADC
- Max Frame rate: full resolution@25fps
- Power Supply:
  - AVDD28: 2.7~3.0V
  - DVDD15: 1.5V±5%
  - IOVDD: 1.7~3.0V
- Power Consumption:
  - Active: TBD
  - Standby: TBD
- SNR: 35.6 dB
- Dark Current: 30 e-/sec@60°C
- Sensitivity: 4800 e-/lux-sec
- Dynamic Range: 59.5 dB
- Operating temperature: -20~70°C
- Stable Image temperature: 0~50°C
- Optimal lens chief ray angle (CRA): 29°(non-linear)
- Package type: CSP/wafer

## Functional block diagram

