



1/5’’ UXGA CMOS Image Sensor

GC2355

DataSheet

V1.0

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GalaxyCore Inc.

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GC2355 CMOS Image Sensor



1. Sensor Overview

1.1 General Description

GC2355 is a high quality 2Mega CMOS image sensor, for mobile phone camera applications and digital camera products. GC2355 incorporates a 1616V x 1232H pixel array, on-chip 10-bit ADC, and image signal processor.

The full scale integration of high-performance and low-power functions makes the GC2355 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.

1.2 Features

- ◆ Standard optical format of 1/5 inch
- ◆ Output formats: Raw Bayer 10bit/8bit
- ◆ Power supply requirement: AVDD28: 2.7~3.0V
DVDD18: 1.7~1.9V
IOVDD: 1.7~3.0V
- ◆ PLL support
- ◆ Windowing support
- ◆ MIPI interface support
- ◆ Horizontal/Vertical mirror
- ◆ Image processing module
- ◆ Package: NeoPac/wafer/CSP

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1.3 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

1.4 Technical Specifications

Parameter	Typical value
Optical Format	1/5 inch
Pixel Size	1.75um x 1.75um
Active pixel array	1616 x 1232
ADC resolution	10 bit ADC
Max Frame rate	UXGA :30fps@168MHz,DCLK 720p : 30fps@96MHz,DCLK
Power Supply	AVDD28: 2.7~3.0V DVDD: 1.7~1.9V IOVDD: 1.7~3.0V
Power Consumption	140mW(active) <100uA(standby)
SNR	37.5 dB
Dark Current	4.2 mV/s
Sensitivity	1260mV/Lux.sec
Dynamic range	65 dB
Operating temperature:	-20~70°C
Stable Image temperature	0~50°C
Optimal lens chief ray angle(CRA)	28°(non-linear)
Package type	NeoPAC/wafer
Input clock frequency	6-27MHz

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Revision History

Version 1.0 2014.03.26
➤ Document Release

Version 1.0 2014.05.13
➤ Update DC Parameters