Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

intersil™

Digital Red, Green and Blue Color Light Sensor with IR Blocking Filter

ISL29124

The ISL29124 is a low power, high sensitivity, RED, GREEN, and BLUE color light sensor (RGB) with an I^2C (SMBus compatible) interface. Its state-of-the-art photodiode array provides an accurate RGB spectral response and excellent light source to light source variation (LS2LS). The ISL29124 is designed to reject IR in light sources allowing the device to operate in environments from sunlight to dark rooms. The integrating ADC rejects 50Hz and 60Hz flicker caused by artificial light sources. A selectable range allows the user to optimize sensitivity suitable for the specific application. In normal operation mode the device consumes 56µA, which reduces to 0.5µA in power-down mode. The device operates on supplies (VDD) from 2.25V to 3.63V, I^2C supply from 1.7V to 3.63V, and operating temperature over the -40°C to +85°C ambient temperature range.

Features

- 56µA operating current, 0.5µA shutdown current
- Selectable range (via I^2C)
- I^2C (SMBus compatible) output
- ADC resolution 16 bits
- Two optical sensitivity ranges
  - Range 0 = 5.7 mlux to 375 lux
  - Range 1 = 0.152 lux to 10,000 lux
- Operating power supply 2.25 to 3.63V
- I^2C power supply 1.7V to 3.63V
- 4 Ld Optical COB (2.00x1.25mm) package

Applications

- Smart phone, PDA, GPS, tablet PCs, LCD-TVs, digital picture frames, digital cameras
- Dynamic display color balancing
- Printer color enhancement
- Industrial/commercial LED lighting color management
- Ambient light color detection/correction
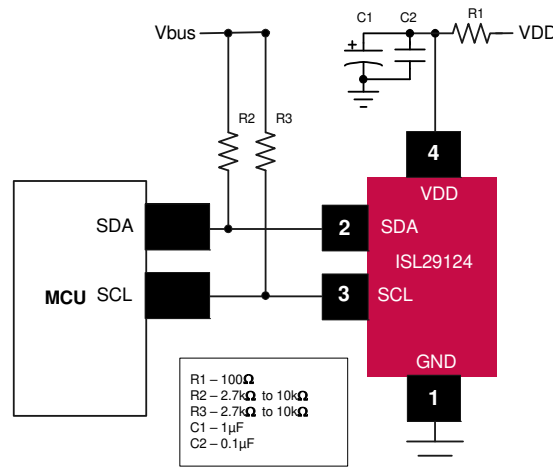- OLED display aging compensation

R1 – 100Ω
R2 – 2.7kΩ to 10kΩ
R3 – 2.7kΩ to 10kΩ
C1 – 1µF
C2 – 0.1µF

FIGURE 1. TYPICAL APPLICATION DIAGRAM

1

For information regarding Intersil Corporation and its products, see www.intersil.com