

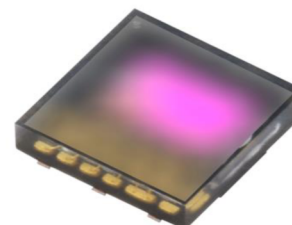
INFRARED LIGHT SENSOR

P/N: RDD-2430-S000



Features

- 10~16bit ADC resolution
- Specially coated photo diode with an optical response similar to human eyes
- High resolution (0.0033Lux/count)
- 50Hz/60Hz flicker noise and IR rejection
- Amplifier with adjustable gain (x1, x4, x8, x32, X96)
- Individual programmable low and high threshold for interrupt function
- Programmable integration time
- The product itself will remain within RoHS compliant version
- Compliance with EU REACH
- Compliance Halogen Free(Br < 900ppm, Cl < 900ppm, Br+Cl < 1500ppm)



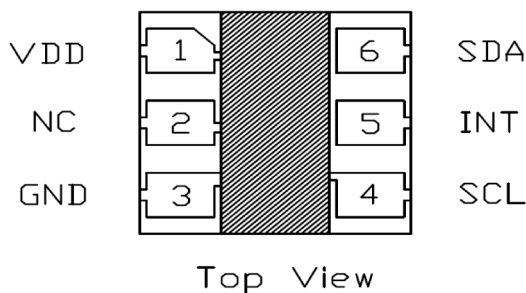
Description

The Ambient light sensor is a digital output ambient light with I²C interface and interrupt. It has a flexible and wide operating range for the ambient light sensor with a maximum resolution of 0.0033Lux/count and a maximum detectable illumination of 83000Lux. The sensor built-in an optical filter for IR rejection, and providing a spectrum which is close to the human eye's response. Dual-channel output (human eye and clear), so it has excellent light ratio under different light conditions.

Applications

- Detection of ambient for controlling the backlight of TFT LCD display.
- Automatic residential and commercial lighting management.
- Automatic contrast enhancement for electronic signboard.
- Mobile phone, Smart phone, PDA, Tablet PC.

I/O Pins Configuration



Pad Description

Pin	I/O Type	Pin Name	Description
1	PWR	VDD	Power supply
2	NC	NC	No connection
3	GND	GND	Ground
4	I	SCL	I ² C serial clock line
5	O	INT	Interrupt pin
6	I/O	SDA	I ² C serial data line

Direction denotation:

I/O Type	Dir.	I/O Type	Dir.
O	Output	GND	Ground
I	Input	I/O	Input / Output
PWR	Power	NC	Not Connect



Electrical and Optical Characteristics ($T_a=25^\circ\text{C}$)

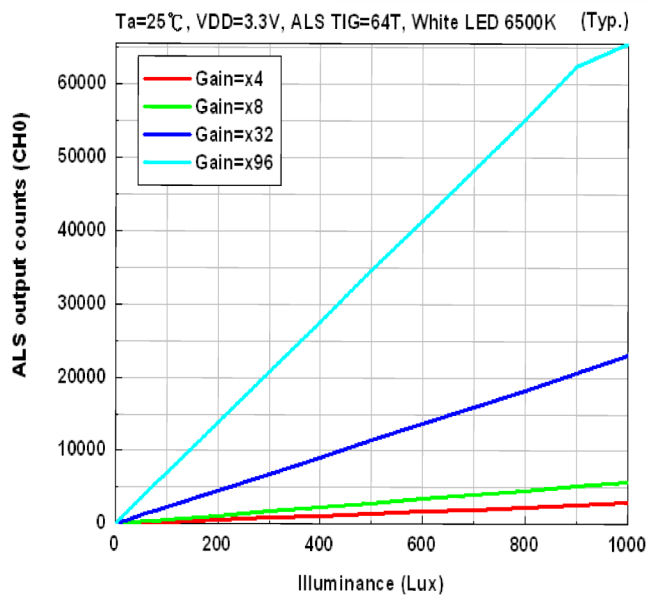


Fig.1 ALS output data vs. ALS Gain (for CH0)

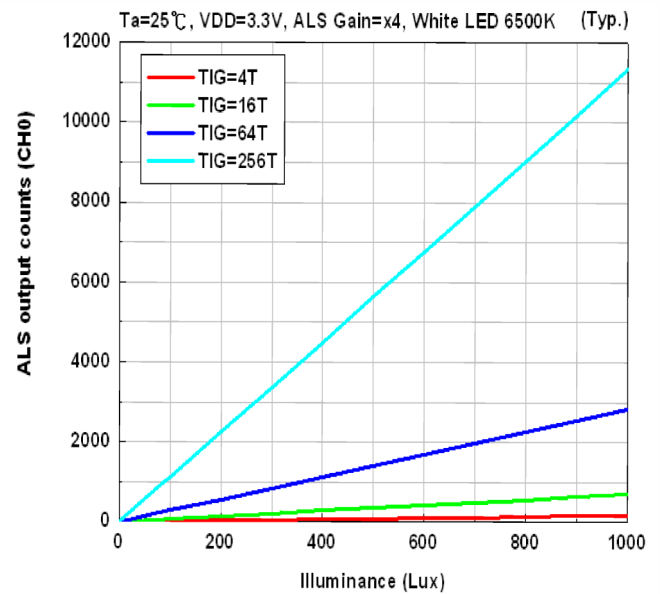


Fig.2 ALS output data vs. ADC TIG (for CH0)

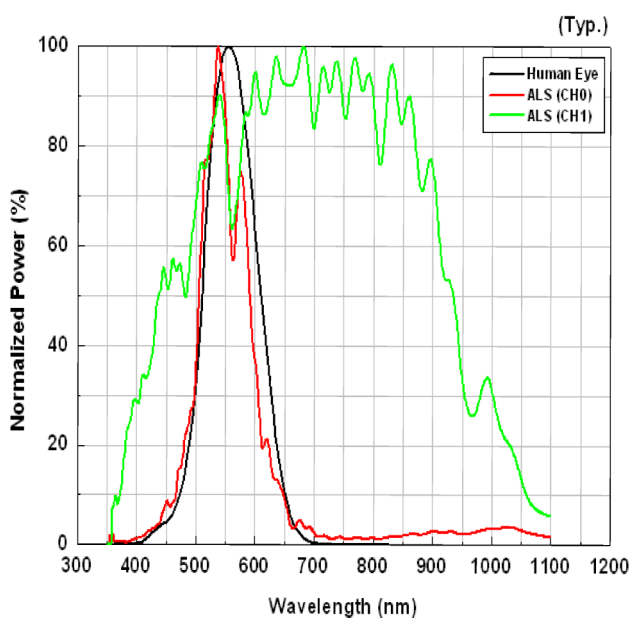


Fig.3 Spectral vs. Wavelength

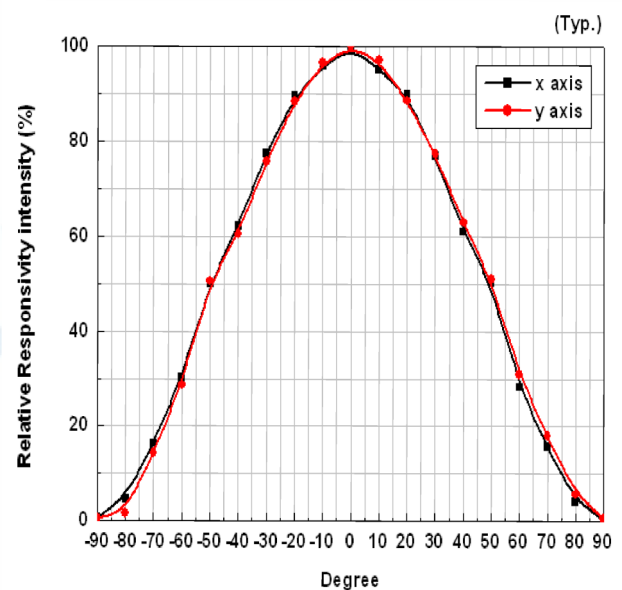


Fig.4 ALS view angle (for CH0)