

Ambient Light Sensor

Overview:

The light sensor is a light-to-digital converter that transforms light intensity to a digital signal output capable of SMBus interface. Each device combines one broadband photodiode (visible plus infrared) and one infrared-responding photodiode on a single CMOS integrated circuit capable of providing a near-photopic response over an effective 20-bit dynamic range (16-bit resolution). Two integrating ADCs convert the photodiode currents to a digital output that represents the irradiance measured on each channel. This digital output can be input to a microprocessor where illuminance (ambient light level) in lux is derived using an empirical formula to approximate the human eye response. This light sensor device permits an SMB-Alert style interrupt.

Product Features:

- Approximates Human Eye Response
- Programmable Interrupt Function with User-Defined Upper and Lower Threshold Settings
- 16-Bit Digital Output: SMBus @ 100 kHz
- Programmable Analog Gain and Integration Time Supporting 1,000,000-to-1 Dynamic Range
- Available in 2 mm x 2 mm Surface Mount Package
- Automatically Rejects 50/60-Hz Lighting Ripple
- Low Active Power (0.75 mW Typical) with Power Down Mode
- RoHS Compliant

Specifications:	Details:
Temperature Range(Celcius):	Min:-30 Max:70;
Dynamic Range (Lux):	Min:0.1 Max:40000;
Voltage Range:	Min:2.7 Max:3.6;



Drawings:

