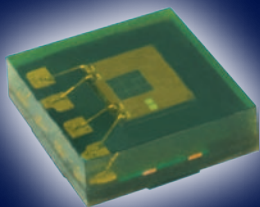




Ambient Light Sensor SFH 5712

Digital sensor technology

OSRAM Opto Semiconductors' new Ambient Light Sensor SFH 5712 detects brightness in the same way as the human eye. Designed for a wide range of applications, it can be used in situations where systems and equipment need to adapt to ambient light conditions as perceived by the human eye. The SFH 5712 can be easily controlled by its integrated I²C interface.



OSRAM
Opto Semiconductors

Ambient Light Sensor SFH 5712



Streetlamp.



Office luminaire.



Ambient light sensor with a digital I²C output.

Small, digital, and extremely economical

The SFH 5712 detects ambient brightness in the same way as the human eye, and offers not only the I²C standard data rates but also high-speed rates of up to 3.4 MHz. Without the need for any additional control commands, an integrated circuit in the sensor automatically provides a measured value twice a second. The sensor has only four connections and takes up very little space. It can easily communicate through its integrated I²C interface. No analog circuit elements are needed. With 150 μ A during operation and only 1.5 μ A in stand-by mode, the sensor consumes extremely little power.

Features

- Well matched to human eye sensitivity
- Very small CHIPLED package
- High accuracy from 3 – 65,000 lx
- I²C bus interface:
100 kbit/s; 400 kbit/s; 1.0 Mbit/s and 3.4 Mbit/s
- Low temperature coefficient of photosensitivity
- Insensitivity to mains-power related 50-60 Hz flickering
- Very low power consumption and stand-by mode

Asia

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Applications

The Ambient Light Sensor is perfect for a variety of applications in which systems and equipment need to be constantly adjusted to available ambient light. It will save energy, which may be wasted otherwise.

Consumer and mobile applications:

- Ambient light measurement
- Control of display and keypad backlighting
- Sunlight sensor

Industrial applications:

- Brightness control for streetlamps, desk lamps etc.

Also for any application where high-precision measurements of the surrounding light conditions are required.

Technical data

SMT CHIPLED package
Size (W x L x H): 2 x 2 x 0.7 mm
0.4 x 0.4 mm sensitive area
Supply voltage: 2.3 – 3V
Sensitivity range: 3 lx – 65 klx

Europe

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Further Ambient Light Sensors: SFH 5711

- High-accuracy opto hybrid
- Perfect IR light suppression
- Automotive qualified

SFH 3410

- Phototransistor
- Good IR light suppression
- Automotive qualified

SFH 3710

- Cost-effective phototransistor
- Very good IR light suppression
- Small package
- Suitable for mobile devices

SFH 2430

- High-performance photodiode
- Very good IR light suppression
- Automotive qualified

Ambient Light Sensor on Internet:

www.osram-os.com/ambient-light-sensor/

USA

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