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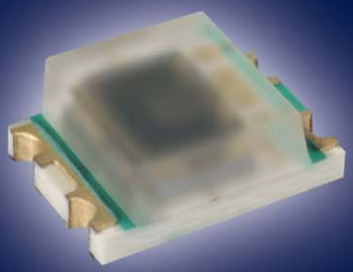
INFRARED

# Ambient Light Sensor SFH 5711

## Visionary sensor technology

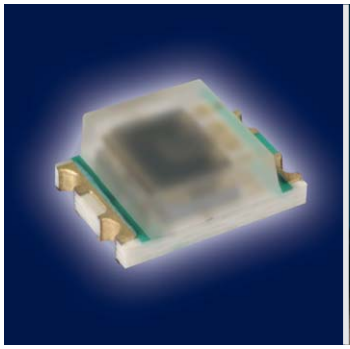
Seeing is believing: OSRAM Opto Semiconductors' new Ambient Light Sensor SFH 5711 detects brightness in the same way as the human eye. Designed for a wide range of applications, it can be used in situations where systems and equipment need to adjust to ambient light conditions as perceived by the human eye. The SFH 5711 is the latest addition to our Ambient Light Sensor product line.



**Opto Semiconductors**

OSRAM

# Ambient Light Sensor SFH 5711



*Ambient Light Sensor.*


*Display.*


*Mobile device.*

## Advantages

The new Ambient Light Sensor SFH 5711 will change your point of view.

### Just like the human eye

The SFH 5711 perceives brightness in exactly the same way as the human eye. Even small changes in light can be detected accurately. This allows for light adjustment in tiny steps (nearly continous dimming), so that devices controlled by the SFH 5711 are always visible.

### Precision and cost-saving

The SFH 5711 has a logarithmic output to ensure maximum precision over the complete range of brightness levels: from darkness to sunshine. It is far superior to the results achieved with linear sensors. Linear output systems switch back and forth between various resolutions using different resistances.
With the SFH 5711, which dispenses with the so-called "resistor grid for gain switching". This saves space on the board and reduces costs as well.

## Features

The Ambient Light Sensor SFH 5711 is a top performer.

- The Ambient Light Sensor comes with a perfect V-lambda characteristic, which means virtually perfect eye-like sensitivity.
- The logarithmic output of the SFH 5711 allows for precise operation over a wide illumination range.
- The SFH 5711 has a low temperature coefficient, thus performing with great accuracy over a wide range of temperatures.
- Supply voltage is 2.3–5 V.
- Samples are available. Please feel free to request one.
- Automotive approved

## Applications

The Ambient Light Sensor is perfect variety of applications:

### Mobile devices

- Keypad and display backlight controls for PDAs, mobile phones and notebook PCs and digital cameras

### Automotive

- Displays
- Dashboards
- Headlamp controls
- Head-up displays

And in any application where high-precision measurements of the surrounding light conditions are required.

## Products

Ambient Light Sensor SFH 5711
- High accuracy opto hybrid
- Perfect IR light suppression
- Automotive approved

## Technical Data

Size (W x L x H): 2.8 x 2.2 x 1.1 mm
0.4 x 0.4 mm sensitive area
Signal @ 1,000 lx:
30 mµA logarithmic/10 mµA/decade
Supply voltage: 2.3–5 V
Sensitivity range: 3 lx–80 klx
Accuracy: +/– 3 % deviation from logarithmic curve

### Further Ambient Light Sensors:

**SFH 3410**
- Phototransistor
- Good IR light suppression
- Automotive released

**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 released

**Ambient Light Sensor on Internet:**
www.osram-os.com/ambient-light-sensor/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