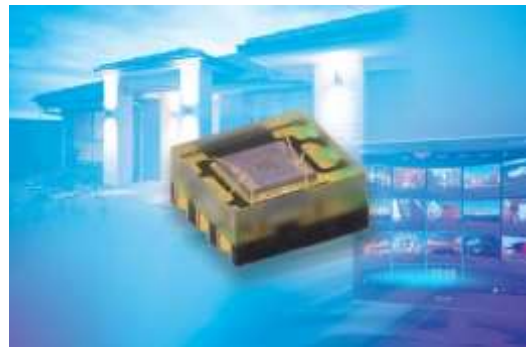


**Author:** Elena Poklonskaya  
**Tel:** +49-7131-67-2903  
**E-mail:** Elena.Poklonskaya@vishay.com

## New Ambient Light Sensor Enables Spectral Sensitivity Similar to Human Eye for Consumer Applications

### Product Benefits:

- Combines a highly sensitive photo-diode, low-noise amplifier, and 16-bit ADC
- Compact 2 mm by 2 mm by 0.85 mm transparent surface-mount package
- Features Filtron™ and O-Trim™ technology
- Offers an interrupt function
- Supports an I<sup>2</sup>C bus interface for simple operation
- Detection from 0 lx to 167 klx
- Resolution down to 0.005 lx/ct
- 100 Hz and 120 Hz flicker noise rejection
- Excellent temperature compensation stability
- Low power consumption
  - 2 µA in operating mode
  - 0.5 µA in shutdown mode
- Supply voltage range of 2.5 V to 3.6 V
- I<sup>2</sup>C bus voltage range of 1.7 V to 3.6 V
- Offered in a lead (Pb)-free, 6-pin package
- RoHS-compliant, halogen-free, and Vishay Green



### Market Applications:

- Display and keypad dimming adjustment and optical switching for mobile devices such as smartphones and GPS units; notebooks and PC computers; LCD TVs, digital picture frames, and digital cameras; and industrial and medical light sensing

### The News:

The Optoelectronics group of Vishay Intertechnology introduces a new high-accuracy digital ambient light sensor for consumer and industrial applications. The Vishay Semiconductors VEML6030 combines a highly sensitive photo-diode, low-noise amplifier, and 16-bit ADC in a miniature, transparent surface-mount package measuring only 2 mm by 2 mm by 0.85 mm. The sensor adopts Filtron technology and features an interrupt function, while supporting an I<sup>2</sup>C bus interface for simple operation.

- Filtron technology enables ambient light spectral sensitivity close to that of the human eye
- O-Trim technology enables output tolerance of ≤ 10 %



- Resolution down to 0.005 lx/ct allows for operation in applications with low-transmittance (dark) lens designs
- As part of smart home lighting control systems, provides accurate and current analysis of ambient lighting to give precise control even during unexpected situations, like fast-moving storm
- Detects fading natural light and can detect the sun rising in the morning to control light levels

## The Key Specifications:

<b>Part number</b>	VEML6030
<b>Ambient light range</b>	0 lx to 167 klx
<b>Ambient light resolution</b>	0.005 lx/ct
<b>Digital output</b>	I <sup>2</sup> C
<b>Supply voltage range</b>	2.5 V to 3.6 V
<b>I<sup>2</sup>C bus voltage range</b>	1.7 V to 3.6 V
<b>Operating temperature range</b>	-25 °C to +85 °C

### Availability:

Samples of the new ambient light sensor are available now. Production quantities will be available in Q2 2016, with lead times of 12 weeks for large orders.

To access the product datasheet on the Vishay website, go to <http://www.vishay.com/ppg?84366> (VEML6030)

### Contact Information:

#### THE AMERICAS

Mr. Dale Henderson  
[dale.henderson@vishay.com](mailto:dale.henderson@vishay.com)

#### EUROPE

Mr. Kai Rottenberger  
[kai.rottenberger@vishay.com](mailto:kai.rottenberger@vishay.com)

#### ASIA/PACIFIC

Mr. Jason Soon  
[jason.soon@Vishay.com](mailto:jason.soon@Vishay.com)