

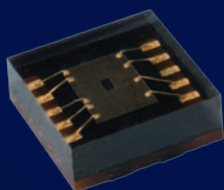


INFRARED

SFH 7770

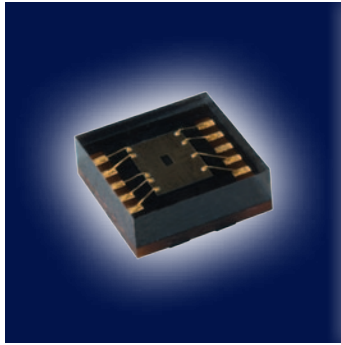
A two-in-one digital solution

The new SFH 7770 from OSRAM Opto Semiconductors ideally combines the functions of a digital ambient light sensor with those of a digital proximity sensor. Our two-in-one solution determines the ambient brightness, detects the presence of an object nearby, and recognizes whether an object is moving closer or further away.



OSRAM
Opto Semiconductors

SFH 7770



SFH 7770



Ambient Light Sensing



Proximity Sensing

Two in one functions

The digital SFH 7770 sensor replaces the ambient light and proximity sensors. Thus we have succeeded in merging two technologies into one. The result is a package with a small footprint of only 2.8 x 2.8 x 0.9 mm, added performance, and a consumption of just 350 μ A during operation and 5 μ A in stand-by mode.

Features

This is what separates the SFH 7770 from the rest.

- Very small chipled package
- I²C bus interface
100 kbit/s; 400 kbit/s; 1.0 Mbit/s and 3.4 Mbit/s
- Measurement modes programmable (STAND-BY, TRIGGERED, FREE-RUNNING)
- Very low power consumption and stand-by mode

Inside SFH 7770

These two outstanding sensor technologies are inside the new SFH 7770.

Ambient Light Sensor

- Closely matches the sensitivity of the human eye
- High accuracy from 3 - 65,000 lx
- Low temperature coefficient of photosensitivity
- Insensitivity to mains-power related 50 - 60 Hz flickering
- Excellent linearity

Proximity Sensor

- Detection range of up to 300 mm
- Gesture recognition possible
- Capable of driving a maximum of 3 IR LEDs with up to 200mA
- Optimized for 850 nm emitters
- Insensitive to ambient light

Applications

The SFH 7770 is a low-power sensor at a very small size. It is therefore perfect for battery-powered consumer devices such as:

- Mobile phones
- Digital cameras
- PDAs and notebooks
- Consumer products

Technical data

SMT Chipled package
Size (W x L x H): 2.8 x 2.8 x 0.9 mm
Supply voltage: 2.3 - 3.1 V
Current consumption:
Operation: 350 μ A
Stand-by: 5 μ A

SFH 7770 on the Internet:

www.osram-os.com/sfh7770

For further information on the available products please visit our product catalog at <http://catalog.osram-os.com>

Asia

OSRAM Opto Semiconductors Asia Ltd.
30/F China Resources Building
26 Harbour Road, Wan Chai
Hong Kong SAR
Phone: +852 3652 5522
Fax: +852 2802 0880
E-mail: prasia@osram-os.com

Europe

OSRAM Opto Semiconductors GmbH
Leibnizstrasse 4
D-93055 Regensburg, Germany
Phone: +49 941 850 1700
Fax: +49 941 850 3302
E-mail: support@osram-os.com

USA

OSRAM Opto Semiconductors Inc.
1150 Kifer Road, Suite 100
Sunnyvale, CA 94086, USA
Main Phone number: (408) 962-3700
Main Fax: (408) 738-9120
Inbound Toll Free: (866) 993-5211
E-mail: info@osram-os.com