

Si1133 Data Sheet

UV Index/Ambient Light Sensor IC with I²C Interface

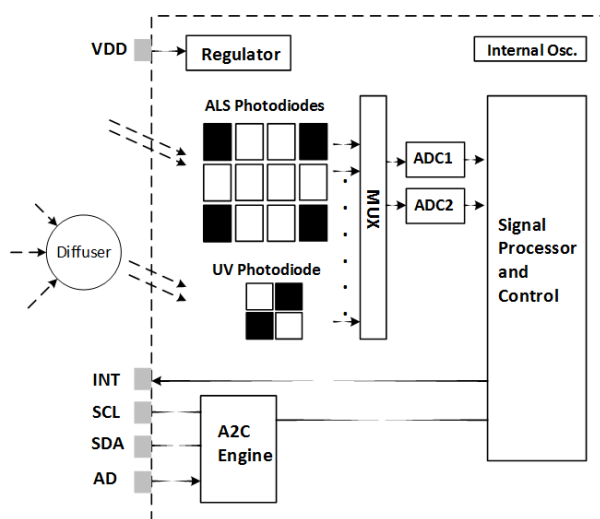
The Si1133 is a UV Index Sensor and Ambient Light Sensor with I²C digital interface and programmable-event interrupt output. This sensor IC includes dual 23-bit analog-to-digital converters, integrated high-sensitivity array of UV, visible and infrared photodiodes, and digital signal processor. The Si1133 is provided in a 10-lead 2x2 mm DFN package and capable of operation from 1.62 to 3.6 V over the -40 to +85 °C temperature range.

Applications

- Wearables
- Handsets
- Display backlighting control
- Consumer electronics

KEY FEATURES

- High accuracy UV index sensor (0 to > 20 uV)
 - Matches erythermal curve
- Ambient light sensor
 - <100 mlx resolution possible, allowing operation under dark glass
 - Up to 128 klx dynamic range possible across two ADC range settings
- Industry's lowest power consumption
 - 1.62 to 3.6 V supply voltage
 - <500 nA standby current
 - Internal and external wake support
 - Built-in voltage supply monitor and power-on reset controller



1. Feature List

- High accuracy UV index sensor
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 - Internal and external wake support
 - Built-in voltage supply monitor and power-on reset controller
- Trimmable internal oscillator with typical 1% accuracy
- I2C Serial communications
 - Up to 3.4 Mbps data rate
 - Slave mode hardware address decoding
- Small package options
 - 10-lead 2 x 2 x 0.65 mm QFN
- Temperature Range: -40 to +85 °C