

Product Overview

NOA1213: Ambient Light Sensor with Dark Current Compensation

For complete documentation, see the data sheet.

The NOA1213 is a very low power ambient light sensor (ALS) with an analog current output and a power down mode to conserve power. Designed primarily for handheld device applications, the active power dissipation of this chip is less than 8 μ A at dark and its quiescent current consumption is less than 200 pA in power down mode. The device can operate over a very wide range of voltages from 2 V to 5.5 V. The NOA1213 employs proprietary CMOS image sensing technology from ON Semiconductor, including built-in dynamic dark current compensation to provide large signal to noise ratio (SNR) and wide dynamic range (DR) over the entire operating temperature range. The photopic optical filter provides a light response similar to that of the human eye. Together the photopic light response and dark current compensation insures accurate light level detection.

Features

- Photopic Spectral Response
- Senses Ambient Light and Provides an Output Current Proportional to the Ambient Light Intensity
- Dynamic Dark Current Compensation
- Three Selectable Output Current Gain Modes in Approximately 10x Steps
- Power Down Mode
- Less than 18 μ A at 100 lux Active Power Consumption in Medium Gain Mode (Less than 8 μ A at Dark)
- Less than 200 pA Quiescent Power Dissipation in Power Down Mode at All Light Levels
- Linear Response Over the Full Operating Range
- Senses Intensity of Ambient Light from ~0 lux to Over 100,000 lux
- Wide Operating Temperature Range (-40°C to 85°C)

For more features, see the data sheet

Applications

- Mobile Devices with Displays or Backlit Keypads
- Saves display power in applications such as: Cell Phones, PDAs, MP3 players, GPS, Cameras, Video Recorders
- LCD TVs and Monitors, Digital Picture Frames
- Laptops, Notebooks, Digital Signage

End Products

- Cell phones, PDAs, MP3 players, GPS
- Internet Mobile Devices (IMD)
- Cameras, video recorders
- Mobile devices with displays or backlit keypads

Part Electrical Specifications

Product	Compliance	Status	I _{O Typ} (μ A)	Output Interface	V _{in Min} (V)	V _{in Max} (V)	T _{A Min} (°C)	T _{A Max} (°C)	Package Type
NOA1213CUTAG	Pb-free Halide free	Active	64	Analog	2	5.5	-40	85	CUDFN-6

For more information please contact your local sales support at www.onsemi.com.

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