

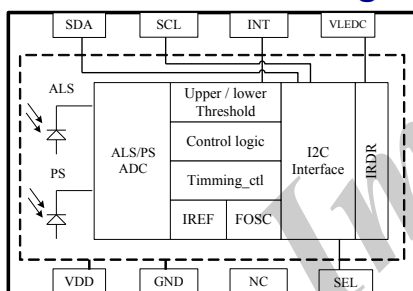
Descriptions

The AP3223 is a low power integrated chip that includes a digital ambient light sensor [ALS] and a proximity sensor [PS] in a RoHS-compliant ODFN package.

The ALS function is ideal for applications of display panel brightness adjustments in mobile devices. This function benefits end users by improving eye comfort, and optimizing device battery life. The proximity function is targeted specifically towards near field application and detects external object with simple configurable zone controlled by registers. With multiple proximity gain control and 10-bit ADC output, this device is designed specially to improve low reflection objects detection, such as black hair.

This device provides a multiple gain function with linear response over various dynamic range of 1023/4095/16383/65535 Lux and is well suited for applications under clear and darkened glass. To reduce power consumption, AP3223 could be operated under programmable waiting modes. Simplified ADC count-to-lux conversion and high manufacturing accuracy makes the device easy to use and minimize calibration needed in mass production.

Function Block Diagram



Features

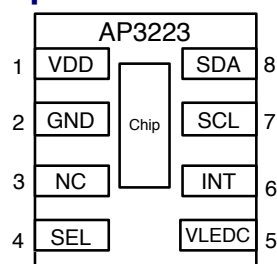
- I²C interface (FS mode at 400k Hz)
- Mode Select: ALS, PS+IR, ALS+PS+IR, PD, SW Reset.
- Built-in temperature compensation circuit
- Wide operating temperature range (-30°C to +80°C)
- Ambient Light Photo Sensor
 - 16-bit effective linear output (0~65535)
 - 4 user selectable dynamic range
 - Anti-flicker rejection (reject 50/60Hz)
 - High sensitivity at darkened glass
- Proximity Detector
 - 10 bit effective linear output (0~1023)
 - 4 programmable IR LED current output
 - High ambient light suppression
 - Cross talk compensation
- Form factor 2.0mm x 2.65 mm x 0.7 mm
- RoHS compliant

Applications

- Mobile phone, Pad
- Personal Navigation Device
- Notebook/Ultrabook
- LCD/PDP TV backlight systems
- Digital Photo Frame

Applications with Capacitive Touch Panel

Pin Description



Ordering Information

Part No.	Packing Type	Package	Quantity
AP3223	Tape and Reel (MSL3)	8Ld Chipled 2.0 x 2.65 x 0.7mm	2,500

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