

Product Document

11-Channel Spectral Sensor

www.ams.com/AS7341



AS7341 – dramatically improves AWB (Automatic White Balance) function for a range of applications:

- Ambient light flicker detection to distinguish artificial from natural light sources
- Wide range of lighting conditions that can be measured (CCT, lux)
- Ambient light spectra information (e.g.: mixed spectra) improves AWB performance
- Ambient light classification across a wide range of homo & heterogenous light sources

**Sensing
is life.**

General Description

The AS7341 is a complete spectral sensor housed in a 3.1mm x 2.0mm x 1.0mm LGA package with aperture. It is an 11-channel device, which provides highly accurate and precise characterizations of the spectral content of a directly measured light source, or of a reflective surface.

Eight of the channels cover eight equally spaced portions of the visible light spectrum. The device also features a near infrared channel, a clear channel, and a channel dedicated to the detection of typical ambient light flicker at a frequency of 50Hz up to 1kHz.

Beside camera image optimization, the AS7341 spectral sensor also supports various applications, such as general color measurement of materials or fluids, skin tone measurement, and others.

In end products such as mobile phones or accessories, the AS7341 produces more precise spectral measurements in a wider range of lighting conditions. The small dimensions also mean that it is easier to accommodate it in mobile phones and other portable devices.

Applications

- Flicker compensated camera operation of mobile devices or professional cameras
- Improved AWB automatic white point balancing
- Spectral detection of light sources

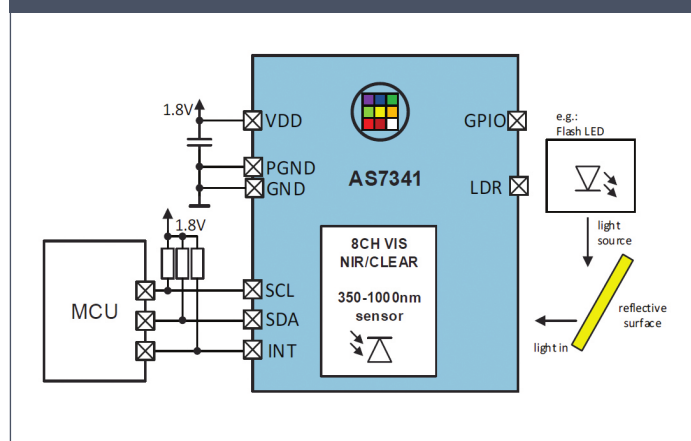
Benefits

- Light source/scene identification
- CCT & lux measurements
- Flicker detection of 50Hz to 1kHz

Features

- 8 optical channels distributed over the visible range
- 3 special purpose channels: Clear, Flicker and NIR channel
- Integrated Flicker detection from 50Hz to 1kHz
- 6 parallel ADCs for signal processing
- Ultra-low-profile package 3.1 x 2 x 1mm

AS7341 Block diagram



AS7341 Spectral responsivity

