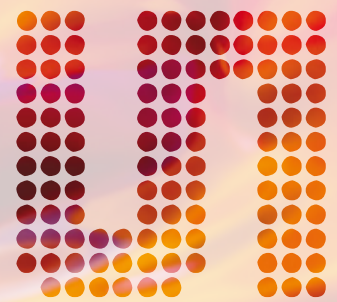# Spectral_ID a new class of Spectral Sensing Products

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AS7262 – Integrated 6-Channel Visible Spectrometer covering 400-700nm wavelengths

- Six 40nm FWHM interference filters spaced at 450, 500, 550, 570, 600, 650 nm (in this example of the product)
- Selectable smart interface (UART) with AT commands or standard I^2C interface for sensor buses
- Integrated LED drivers form an electronic shutter and directly control an LED based light source

We provide innovative analog solutions to the most challenging applications in sensor and sensor interfaces, power management, and wireless.

General Description

AS7262 is a highly integrated six channel spectral radiometer with 40nm FWHM Gaussian filters at 450, 500, 550, 570, 600 and 650 nm. The filter peak wavelength positions, filter shapes and filter bandwidths are typical examples and can be adjusted to meet customer requirements. This allows designers to cost effectively sense spectral information in specific visible bands simultaneously thus reducing component count, physical space and BOM costs in color sensing applications. This device is ideal for spectroscopic techniques such as color measurement, absorbance, irradiance, reflectance and transmittance.

The device comes with either a driverless smart interface (UART) for easy configuration or standard I²C sensor interface should multiple sensors need to be accommodated. There are integrated LED Drivers synchronized to the system clock to control external light source and can form an electronic shutter.
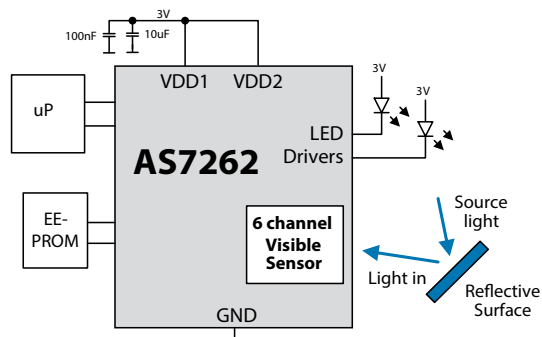
Benefits

- Integrated nano-optic filters on standard CMOS silicon
- Does not require a software driver, ease of programming and standard Sensor Interface
- Electronic shutter directly tied to the system clock reduce BOM costs for integrated light source control
- Enables cost effective 12 channel spectrometer
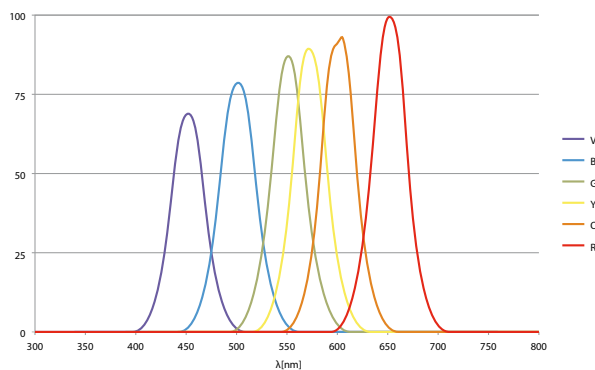- Commercial operating temp range

Features

- Six 40nm FWHM interference filters spaced at 450, 500, 550, 570, 600, 650 nm (in this example of the product)
- Selectable smart interface (UART) with AT commands or standard I²C interface for sensor buses
- Integrated LED drivers form an electronic shutter and directly control an LED based light source
- Easily combines with the AS7263 to offer 12 channels of spectral information
- 0°C to +85°C
- Packaging options
- 20 pin LGA package w/aperture

Block Diagram

Spectral Responsivity

Applications

This device is optimized for detecting wavelengths in the visible wavelengths of the electromagnetic spectrum from 400-700nm. Color measurement, absorbance, irradiance, reflectance and transmittance techniques are well suited to this device.