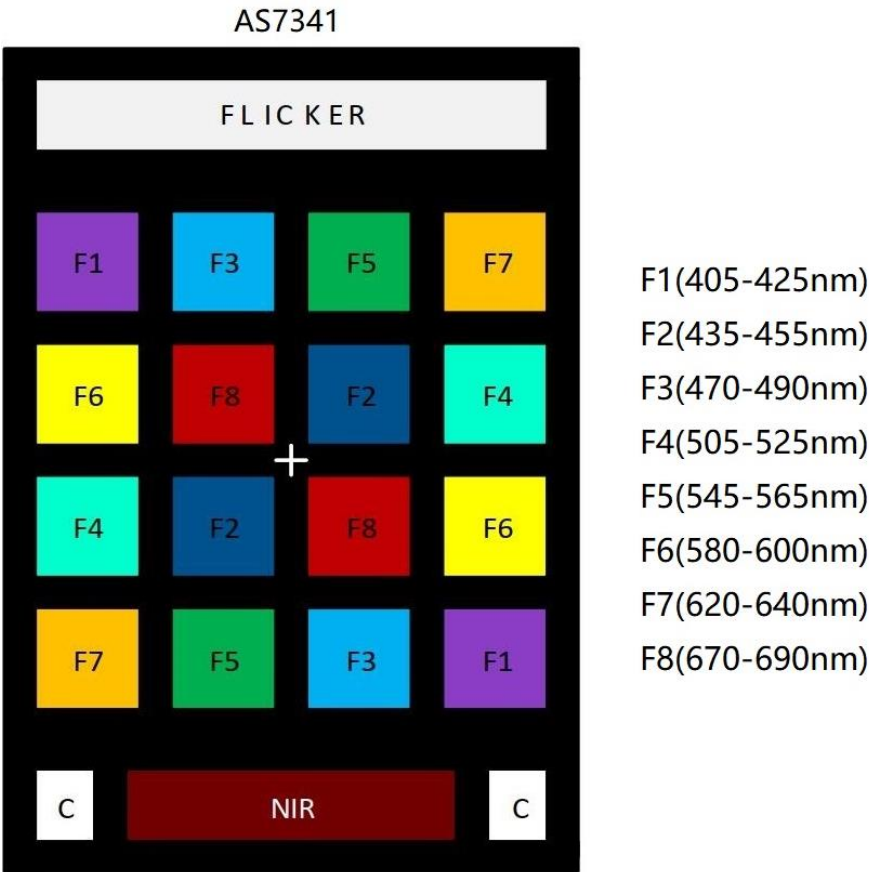# Gravity AS7341 11-Channel Visible Light Sensor

INTRODUCTION

We live in a colorful world, but how much do you really know about color? Your eyes may deceive you, while the sensors don't lie. This Gravity: AS7341 11-Channel Visible Light Sensor can tell you the truth about color.

Gravity: AS7341 11-Channel Visible Light Sensor employs the new generation of AS7341 spectral sensor IC launched by the well-known AMS company. The sensor features eight channels for the visible light, one channel for near-IR, and one channel without a filter. Also, it integrates a dedicated channel to detect ambient light flicker. Besides that, this sensor comes with 6 independent 16-bit ADC channels for data processing in parallel. The two on-board extra-bright LEDs can supply light in a dark environment.

AS7341

FLICKER			
F1	F3	F5	F7
F6	F8	F2	F4
F4	F2	F8	F6
F7	F5	F3	F1
C	NIR		C

F1(405-425nm)
F2(435-455nm)
F3(470-490nm)
F4(505-525nm)
F5(545-565nm)
F6(580-600nm)
F7(620-640nm)
F8(670-690nm)

RGB Color Sensor vs AS7341 Sensor

	Yellow LED	WS2812 Simulated Yellow
Recognition result of RGB color sensor	Red+Green	Red+Green
Recognition result of AS7341 visible light sensor	Yellow	Red+Green

FEATURES

8 optical channels covering the visible spectral range

50Hz and 60Hz ambient light flicker detection

6 independent 16-bit ADC channels

APPLICATIONS

High accuracy color detection and matching

Color mixing effect detection

Lighting color temperature adjustment

Lighting atmosphere control

Modern plant cultivation

SPECIFICATION

Power Supply: 3.3V~5V

Visible Light Detection Range: F1(405-425nm), F2(435-455nm), F3(470-490nm), F4(505-525nm), F5(545-565nm), F6(580-600nm), F7(620-640nm), F8(670-690nm)

Operating Current(LED Off): <5mA

LED Driving Current: Class 1-20 (4-42mA)

I2C Address: 0x39

Operating Temperature Range: -30℃~85℃

Operating Humidity Range: 5%RH~85%RH

Dimension: 22*20mm/0.87*0.79"

SHIPPING LIST

Gravity: AS7341 Visible Light Sensor x1

Gravity-4P I2C/UART Sensor Cable x1