Digital UV Sensor
GUVB-C31SM

Genuine UV Technology
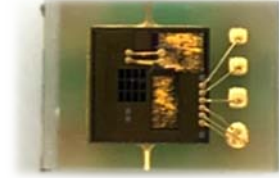**genuv**

Features
- Integrated GaN Sensors for UVB in a single package
- UV index measurement supported(1...>14)
- Programmable Gain and Integration time
- I2C slave interface up to 400KHz
- Power management modes
- Shutdown current : 0.8uA typical
- Supply voltage of 2.6V to 3.6V
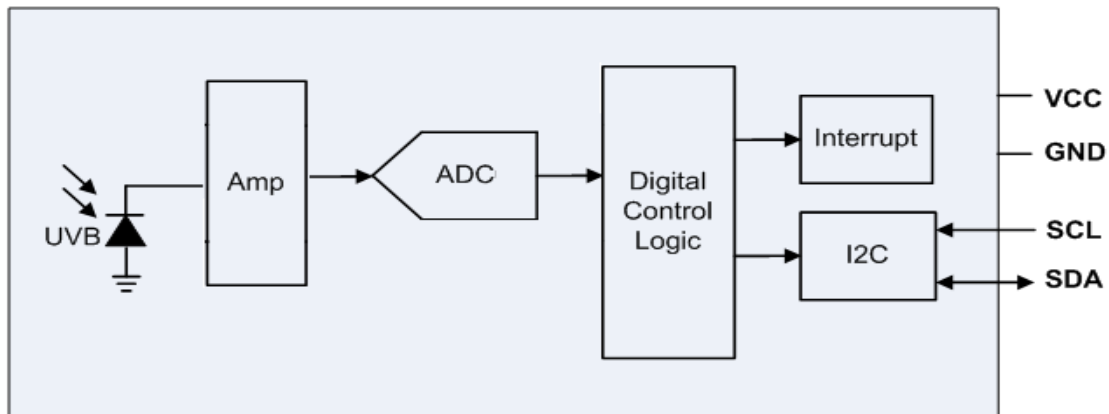- 2.0mm×2.3mm×1.4mm 4-pin OLGA package

Applications

Smartphone, Watch, Weather station, Bicycle Navigation, Gaming, Accessary
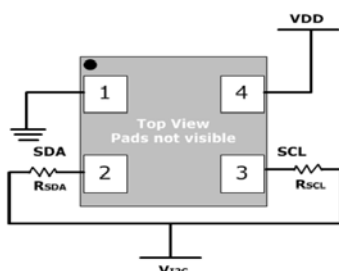
General Description

GUVB-C31SM supports integrated functions of an ultraviolet light sensor such that can be easily configured and used in user applications. This device has photodiodes, amplifiers, ADC, digital control logic and I2C interface circuit to measure the volumes of UVB.

The GUVB-C31SM can acquire the intensity of UVB, respectively and outputs digital count according to the each intensity. By using power management mode properly according to the work to be done, the power consumption can be reduced.

Functional Block Diagram

Application Circuit

Pin Description

PinNo.	Pin Name	Description
1	GND	Ground
2	SDA	I2C data line
3	SCL	I2C clock line
4	VCC	Supply Voltage

General Characteristics

Package	2.0 × 2.3㎟ OLGA
Operating Temperature	-30~+85℃
Soldering Temperature	260℃(Peak Temp:10sec)

Electrical Characteristics

Number of output	1 Channel(UVB)
Output Resolution	16bits
UV Index range	0~14
Sensor conversion time	0.39~800ms
Configurable Gain	×1~×128
Sleep mode control	2~256 times
Power management	4modes : normal, sleep, auto-shutdown,shutdown
I2C clock Frequency	Up to 400KHz
Operational current	100μA, typical
Deep sleep current	<1μA
Supply voltage	2.2~3.6V

Package Information

SOLDER PATTERN