Pyroelectric Infrared Sensor Evaluation Board: IMX-070, IMX-060

Quick Start Guide
Pyroelectric infrared Sensor Evaluation Board: IMX-070, IMX-060

• It's a Evaluation Board to know how Pyroelectric Infrared Sensor(IRA-S210ST01) working and performance.

  – Specifications
    • Rated Voltage : 3.3V
    • Output signal : analog, comparator
    • Dimension      : 48×30mm
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Every objects emit IR(=Infra-Red) ray in respond to its temperature.

Pyroelectric Infrared Sensor detects "change" of IR distribution within its sensing area.
* sensing area is determined by lens design.

Amplifier and comparator circuits on evaluation board amplifies sensor’s output signal and generate digital High/Low signal. (Next page)

(Please make sure lens is attached on board.)
Hardware Operation

While there's no IR distribution change, AOUT is 1.65V and COUT is HIGH(=3.3V). When it detects that, AOUT varies and once AOUT crosses threshold, COUT falls to LOW(=0V).

In the sample code, we detect this COUT change with GPIO external interruption and IRQ handler sets a flag which is periodically monitored in main loop.(Next page)
Software Operation : Sample Code Flow Chart

Measurement Start

f_PIR == true

Display “IR change detected!!”

F_PIR = false

Wait 100ms

Interruption Handling

F_PIR = true

Done
Pin connection to each CPU board is also instructed in sample code.

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