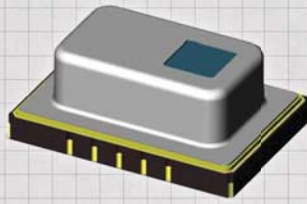
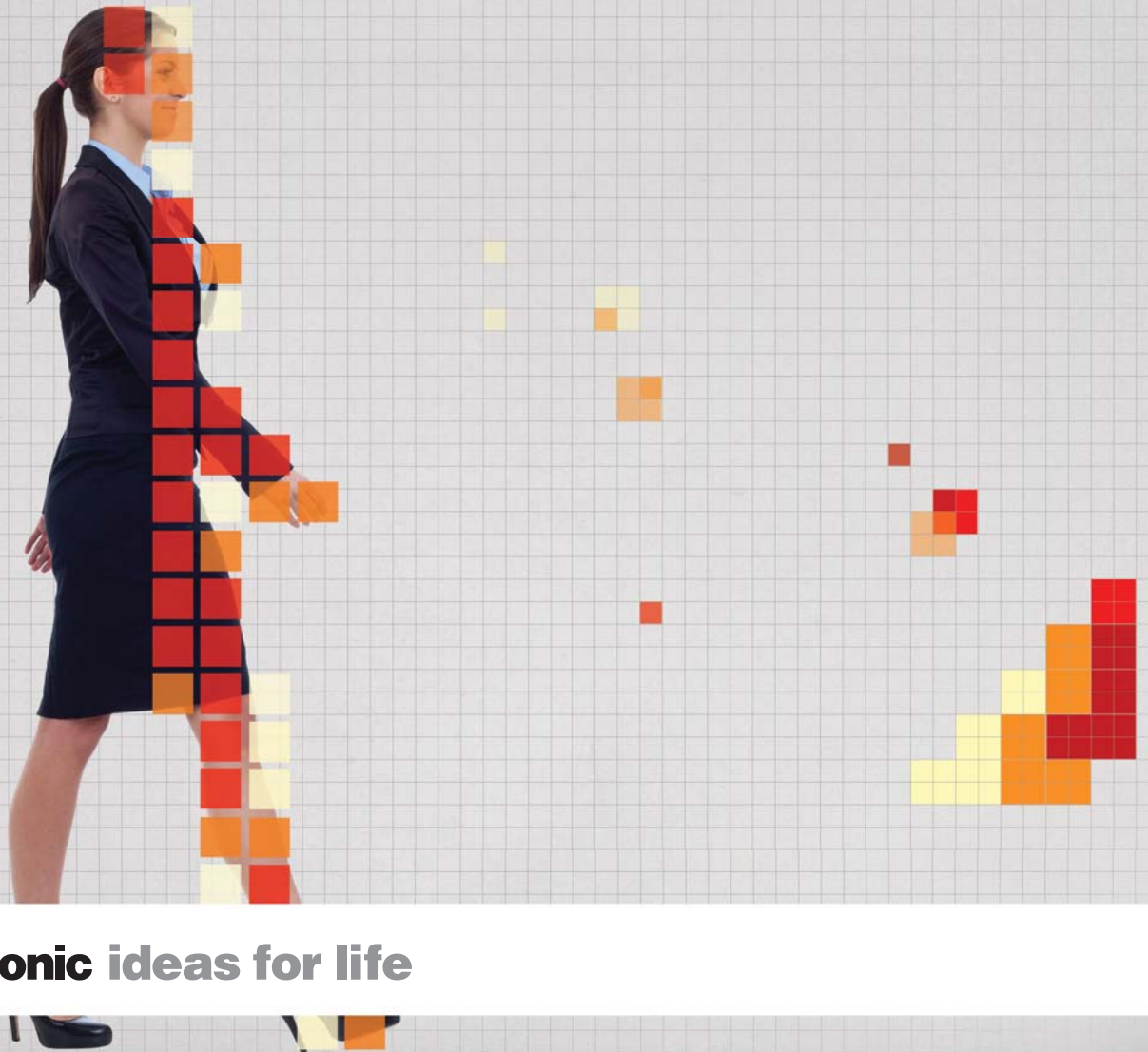


Grid-EYE

Infrared Array Sensor



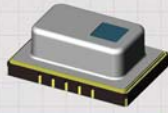
Panasonic Electric Works of America



Panasonic ideas for life

Grid-EYE

Infrared Array Sensor



- Senses Thermal Gradients to Detect Motion/Motionless Presence
- 5m Detection
- 8x8 (64) Pixel Range
- Digital Output (I²C)
- SMD Package (Reflow Compatible)
- 11.6 (L) x 8.0 (W) x 4.3 (H) mm

Grid-EYE is a thermal array sensor capable of simultaneously detecting the direction of moving objects and the presence of motionless objects.

With an array of detection elements, Grid-EYE can use passive infrared detection to determine temperature differentiation, allowing it to detect multiple objects simultaneously. For example, a moving person and a coffee maker would be detected as unique items.

The infrared array sensor is able to measure actual temperature and temperature gradients, providing thermal images and identifying direction of movement.

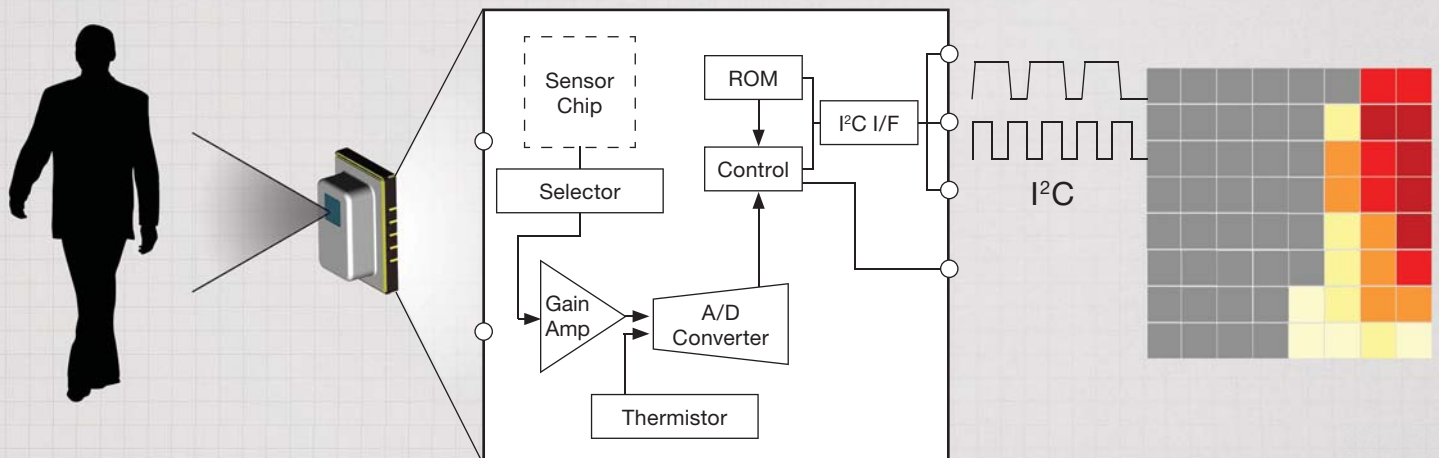
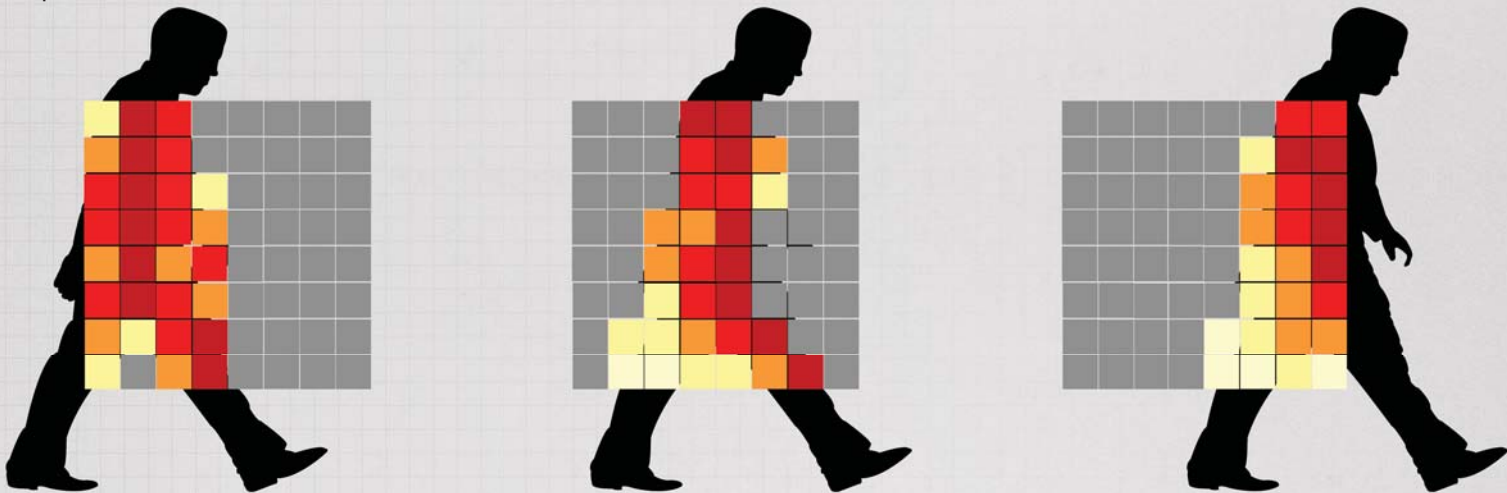
Typical applications include people counting, security, lighting control, simple gesture recognition, and presence detection for energy saving devices.

Grid-EYE has an I²C digital output for direct connection to a microcomputer, covers a wide detection area with a 60° field of view, has a selectable frame rate with a maximum 10 FPS and three operating modes, normal, sleep and stand-by.

Options include an amplification setting, high gain for a wider temperature range detection and low gain for higher temperature accuracy.

Basic Operation

Grid-EYE operates by sensing temperature difference between the ambient environment and a detected object within the field of view. Individual elements are highlighted in a color range for illustrative purposes, with red signifying the highest temperature difference.



Applications



Medical Imaging

- Patient Detection
- Movement Detection
- Positioning
- Lighting



Simple Gesture Control

- Non-Contact Operation
- Horizontal, Vertical, Forward & Backward



Clean Rooms

- Device Control
- Entryway Control
- Security



Kiosk / ATM

- Energy Saving Display
- Advertisement Timing
- Control



Security

- People Counting
- Detect Movement Direction
- Multiple Person Detection

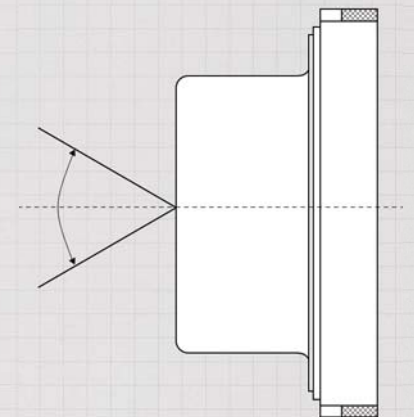


Lighting Control

- Energy Savings
- Detection Without Movement
- Targeted Lighting

Specifications

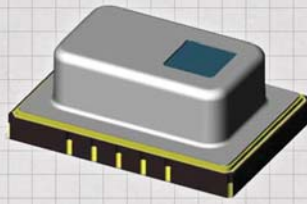
Power Voltage	3.3±10%, 5.0V±10%
Current Consumption	4.5 mA
Viewing Angle	60°
Absolute Temperature Accuracy	± 2.5° C
Frame Rates (Selectable)	1 or 10 FPS
Ambient Temperature Range	-20 ~ +80° C
Detection Temperature Range	-20 ~ +100° C
External interface	I2C
Operating Modes (Selectable)	Normal, Sleep, Stand-by



60° Viewing Angle

Grid-EYE

Infrared Array Sensor



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