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No. 3401

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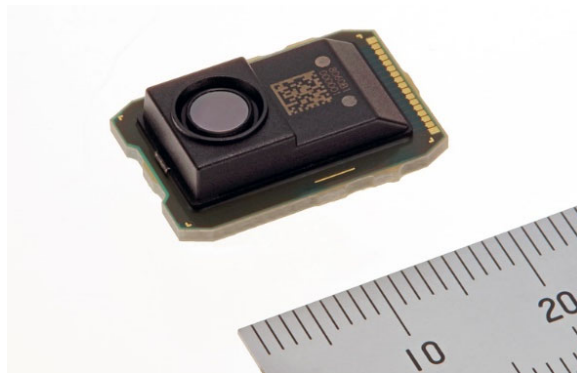
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Mitsubishi Electric to Launch 80x60 pixel Thermal Diode Infrared Sensor

Identifies heat-source types and human behavior in wide areas and with high precision

TOKYO, March 10, 2021 – [Mitsubishi Electric Corporation](http://www.MitsubishiElectric.com) (TOKYO: 6503) announced today that its Mitsubishi Electric Diode InfraRed (MeDIR) sensor lineup will introduce on July 1 a new thermal sensor featuring a wide field of view (FoV) and high 80x60 pixel resolution for applications including security, heating, ventilation and air conditioning (HVAC), people counting, smart buildings and thermal scanners. The new MeDIR sensor accurately distinguishes between humans and other heat sources and enables the identification of specific human behavior, such as walking, running or raising hands.



New MeDIR thermal diode infrared sensor (80x60 pixels)

Product Features

1) Wide field of view and high-pixel resolution

- Wide FoV (78°x53°) and high pixel (80x60) resolution support accurate processing of infrared data.
- Compared to conventional 80x32 pixel MeDIR, detection area is 2–4 times larger and thermal resolution of 100mK, or 0.1°C, is similar.
- Small pixel size of thermal diode infrared sensor achieves same package size as conventional 80x32 pixel MeDIR.

2) **Superior images achieved with faster frame rate and optimized sensitivity correction**

- Compared to a conventional 80x32 pixel MeIDIR, frame rate is double and sensitivity correction is optimized for surrounding area for superior thermal images.
- Accurate identification of fast-moving heat sources supports crime prevention, people counting, animal detection, etc.

3) **User-support tools shorten development time**

- Customers can use application samples, evaluation kit, reference codes and application-specific reference designs to support sample evaluations, product planning and product development.

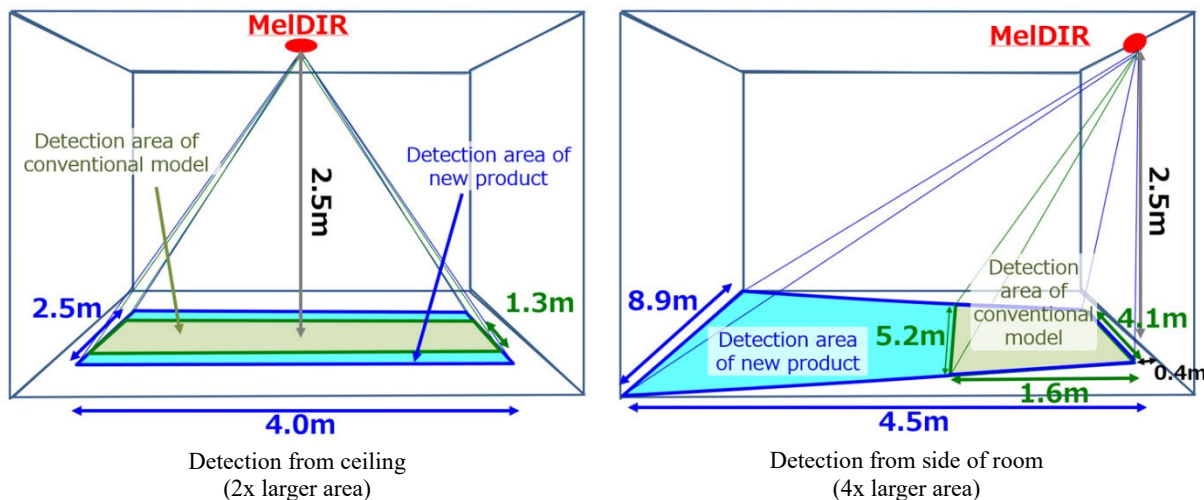


Fig.1 Comparison of detection areas of conventional and new MeIDIRs

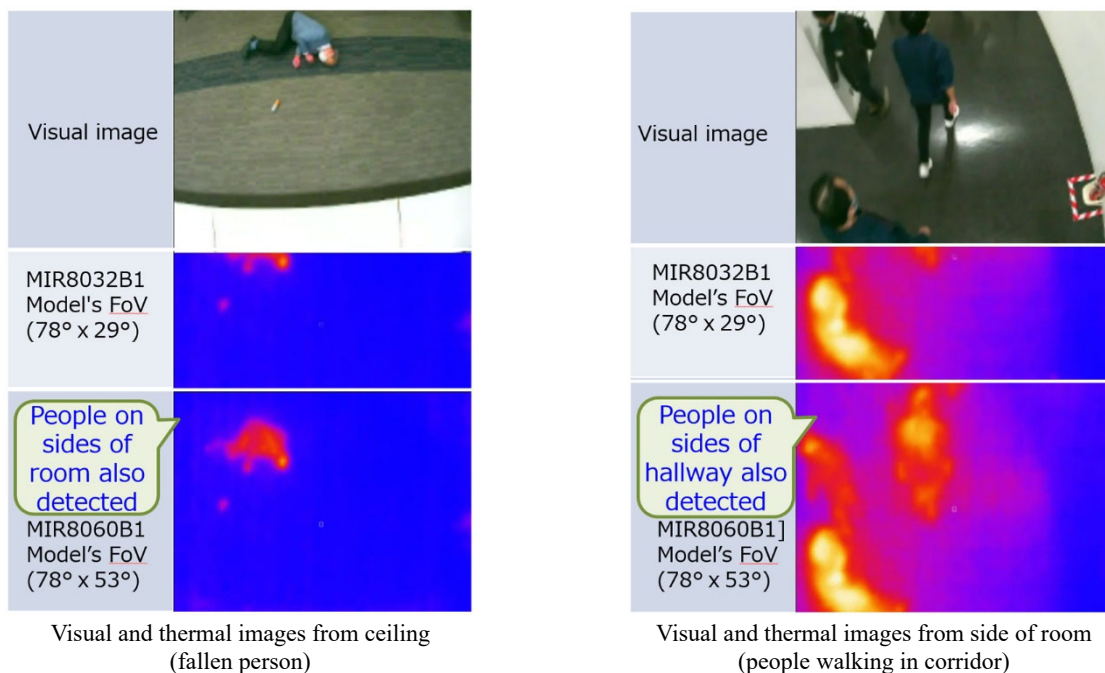


Fig.2 Thermal images captured with new product

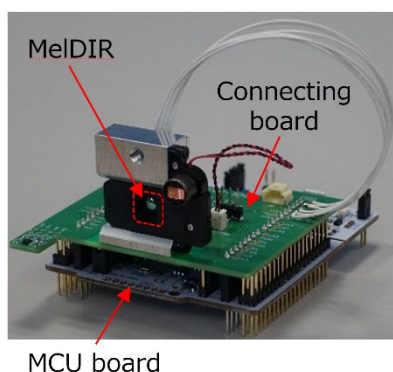


Fig.3 Evaluation kit

Main Specifications

Model	<u>MIR8060B1</u>	MIR8032B1
Pixels	80×60	80×32
FoV	78°×53° (Typ.)	78°×29° (Typ.)
Frame rate	4 / 8 fps (selective)	4 fps (fixed)
Temp. resolution (NETD)	100mK (Typ.)	
Operating voltage	3.3V	
Current consumption	≤50mA	
Product dimensions	19.5×13.5×9.5mm	
Detectable temp. range	-5 to 60°C	
Interface	Serial Peripheral Interface (SPI)	

Background

Infrared sensors that measure temperatures by detecting the infrared radiation of objects are already used widely for security, HVAC, people counting, smart buildings and thermal scanners. The demand is growing, however, for sensors that offer high pixel and thermal resolution to distinguish between humans and other heat sources and to identify specific human behavior. To meet this growing demand, Mitsubishi Electric will soon release a new MeDIR featuring a wide FoV (78°x53°) and both high-pixel (80x60) and high-thermal (100mK) resolution.

Environmental Awareness

This product is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directives 2011/65/EU and (EU)2015/863.

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About Mitsubishi Electric Corporation

With 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its “Changes for the Better.” The company recorded a revenue of 4,462.5 billion yen (U.S.\$ 40.9 billion*) in the fiscal year ended March 31, 2020. For more information, please visit www.MitsubishiElectric.com

*U.S. dollar amounts are translated from yen at the rate of ¥109=U.S.\$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2020