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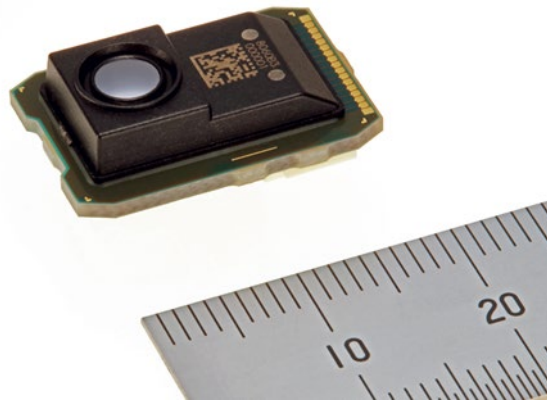
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## **Mitsubishi Electric to Ship Samples of 80x60-pixel Thermal-diode Infrared Sensor Capable of Measuring Temperatures up to 200°C**

*Accurately measures high temperatures in kitchens and factories for enhanced convenience and safety*



Thermal-diode infrared sensor (MeldIR) capable of measurements up to 200°C

**TOKYO, December 6, 2022** – [Mitsubishi Electric Corporation](https://www.mitsubishielectric.com) (TOKYO: 6503) announced today that it will begin shipping samples of a new thermal sensor capable of measurements up to 200°C on February 1, 2023. The company’s existing MeldIR, launched in 2019, measures temperatures from -5°C to 60°C for applications including heating, ventilation and air conditioning (HVAC), security, people counting, and smart buildings. In response to demands for measuring higher temperatures in kitchens and factories, however, the new MeldIR “MIR8060B3” uses advanced signal processing and an optimized lens to measure temperatures up to 200°C. It also is expected to help shorten the lead time between product planning and production by user support tools such as thermal- imaging examples, demonstration kits and reference designs.<sup>1</sup>

### **Product Features**

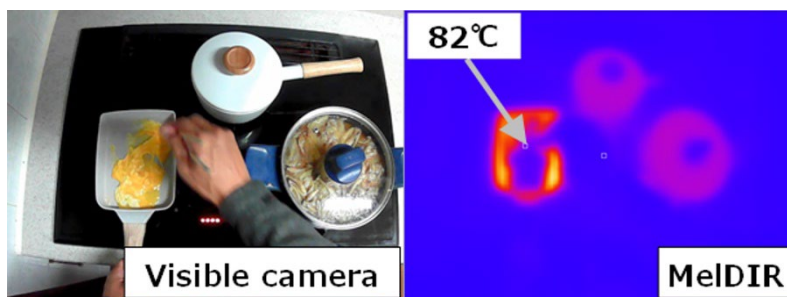
#### ***1) Capable of much higher temperature measurements than conventional thermal sensors***

- Advanced signal processing and an optimized lens enable temperature measurements of up to 200°C, significantly higher than the 60°C limit of conventional sensors.<sup>2</sup>
- The lens’s wide viewing angle (78°x53°) and high pixel count (80x60) enable wide areas to be monitored to distinguish between humans and other heat sources, and also to identify specific human behavior.

<sup>1</sup> Information for software and hardware design

<sup>2</sup> MIR8060B1 and MIR8032B1

- Detection of high temperatures can be used to help humans avoid contact with dangerously hot items and to identify equipment abnormalities to help optimize factory operations.



Temperature distribution of cooking ingredients

## 2) *User support tools<sup>3</sup> that help users to shorten product-development time*

- New MIR8060B3 sensor is used in various solutions from Mitsubishi Electric, such as thermal-imaging examples for kitchens and factories, easy-to-use downsized<sup>4</sup> demo kits and reference designs for new software and hardware, all of which support planning, evaluation, etc. to enable users to shorten product-development time.



Compact demo kit (78mm×54mm×13mm)

### **Main Specifications**

Model	MIR8060B3	MIR8060B1	MIR8032B1
Detectable temp. range	-5 to 200°C	-5 to 60°C	-5 to 60°C
Pixels	80×60	80×60	80×32
FOV	78°×53° (Typ.)	78°×53° (Typ.)	78°×29° (Typ.)
Frame rate	4 / 8 fps (selective)	4 / 8 fps (selective)	4 fps (fixed)
Temp. resolution (NETD)	400mK (Typ.)	100mK (Typ.)	100mK (Typ.)
Current consumption	≤50mA		
Product dimensions	19.5×13.5×9.5mm		
Interface	Serial peripheral interface (SPI)		

### **Example applications**

Some of the possible applications of the MIR8060B3 infrared sensor include:

- Figure 1-1. Detecting temperatures of stir-fry ingredients.
- Figure 1-2. Detecting temperatures of frying oil and ingredients.
- Figure 1-3. Detecting temperatures of boiling water and ingredients.
- Figure 1-4. Detecting dangerously hot objects near humans.

<sup>3</sup> Shipment of user support tools will begin on Feb. 1, 2023.

<sup>4</sup> Substrate area reduced about 45% and maximum thickness after assembly reduced about 25% vs. existing Shrink demo kit.

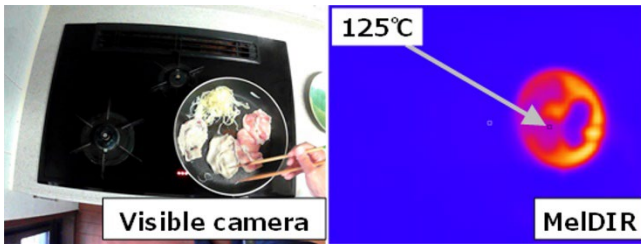


Figure 1-1. Stir-frying

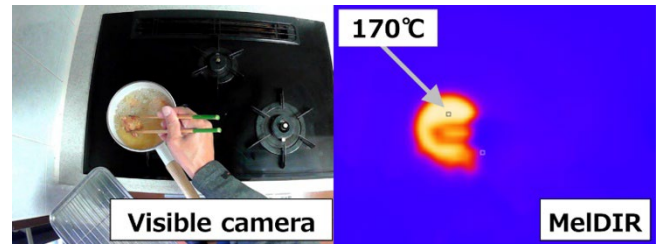


Figure 1-2. Frying

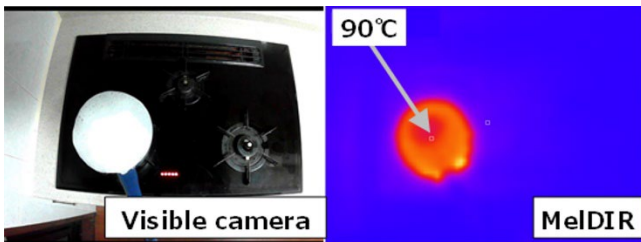


Figure 1-3. Boiling

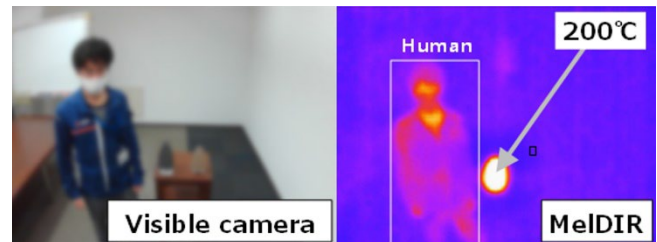


Figure 1-4. Hot object (iron) near human

### **Future Development**

Mitsubishi Electric will launch sales of the MIR8060B3 in May 2023 and will continue to explore potential uses for its new MeIDIR thermal-diode infrared sensors in wider markets in support of increased safety, health and comfort in global society.

### **Trademark**

MeIDIR is a registered trademark of Mitsubishi Electric Corporation.

### **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 more than 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 4,476.7 billion yen (U.S.\$ 36.7 billion\*) in the fiscal year ended March 31, 2022. For more information, please visit [www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)

\*U.S. dollar amounts are translated from yen at the rate of ¥122=U.S.\$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2022