

TUS9S

Wafer Level Chip Scale Package

World first!
World Smallest!
Infrared thermopile
temperature sensor



Key points

- Smallest
- Space utilization optimization
- Accurate
- Non-contact
- Health tracker



The **TUS9S** is a **mini WLCSP** thermopile temperature sensor for accurate non-contact temperature measurement.

In particular, it can be applied in a very narrow and limited space.

The main application of TUS9S is wearable products, and it can be integrated without obstacles to *TWS earphones*, *smart watches*, *smart bands*, *patch-type thermometers*, which were previously difficult to apply due to size problems.

This device not only has a very small size, but also allows non-contact temperature measurement at a medical level, so users can realize health monitoring wearable products regardless of their product space.



TUS9S

*Smallest!
More
innovative
sensor!*

Ultra-mini
IR temperature sensor
suitable for any small
device you want.

Design and realize our own
dream with Tempus TUS9S
sensor.

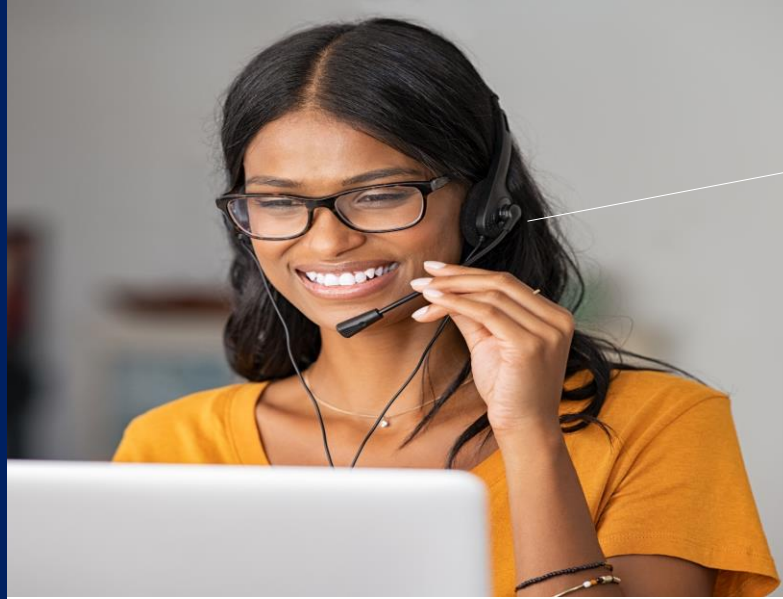
Accurate non-contact
infrared(IR) sensor.

Periodic or aperiodic body
temperature monitoring
can be performed very
accurately and quickly.

Applications



- Healthcare
- True wireless stereo sound system (Ear thermometer)
- Temperature monitoring
- Comfort Index measurement
- Power Management system
- Interactive Power control
- Non-contact thermometer for mobile & IoT application
- Home appliances with temperature control



Our TUS9S mini temperature sensor can be applied in the headset of a telemarketer, where multiple people work in a tight space for a long period of time, enabling continuous body temperature monitoring.

① A reliable Ultra-mini companion "TUS9S"



② This TUS9S can be easily applicable to the small sized application desired by the user.

In the non-contact era, hygiene has become very important in our lives.

Tempus provide the optimized IR temperature sensor for this era that values smart, health and safety.

Through wearables with Tempus TUS9S, realize your smart life that enables continuous self-health monitoring and remote medical support in daily life.

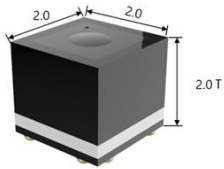


* Note: The application examples provided in this flyer are for reference only. In practical application, please contact Tempus before using the product.

TUS9S

*Smallest!
More
innovative
sensor!*

Meet the needs of the health era!



Specifications

Fully Integrated Digital Far Infrared Thermopile Temperature Sensor

2mm(w) x 2mm(L) x 2mm(H)
WLCSP Package

Create your wearable products with TUS9S! TUS9S optimized for wearables and non-face-to-face!

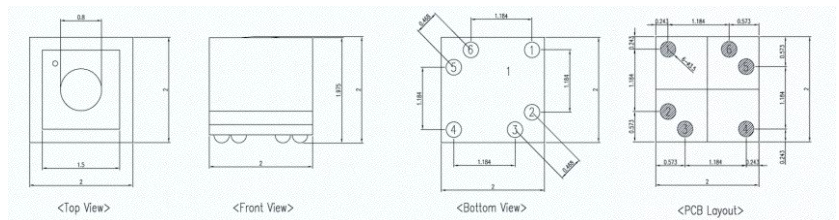
We can check our health in real time anytime, anywhere throughout our life.

The TUS9S is optimized for smart era that values health and safety.

Key Features

- 1.8V to 3.6V single supply continuous operation
- I²C compatible digital Interface
- Temperature resolution
 - 3mK/LSB(TBD) for body temperature sensing
 - ±0.5 K(TBD) for Object temperature sensing
- Operating temperature : -40°C~85°C
- Optics : Spherical lens

Package Dimension (in mm)



* Note: This drawing is subject to change without notice for quality improvement

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