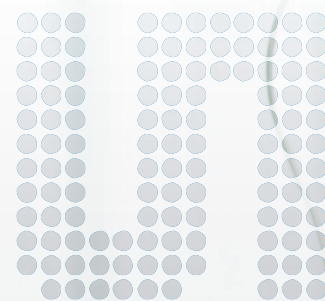


Product Document

Digital Temperature Sensor

www.ams.com/AS6200



**AS6200 – Digital Temperature Sensor
offers a unique combination of:**

- Lowest power consumption
- Smallest size
- High accuracy

**Sensing
is life.**

General Description

The AS6200 is a complete digital sensor system. It offers a unique combination of ultra-low power consumption, small form factor and high accuracy. The AS6200 provides a fully calibrated and linearized sensor system that can easily be accessed via an I²C interface. It provides a resolution of 12 bit over the wide temperature range of -40°C to 125°C. The ultra-low power consumption perfectly meets the requirements of Internet of Things applications.

The integrated alarm functionality enables micro-controller wake-up calls on defined temperature thresholds. An internal voltage regulator allows stable accuracy independent of the supply voltage between 1.8 to 3.6V. For power-sensitive applications, the device can enter a low-power wait mode with 0.1µA current consumption.

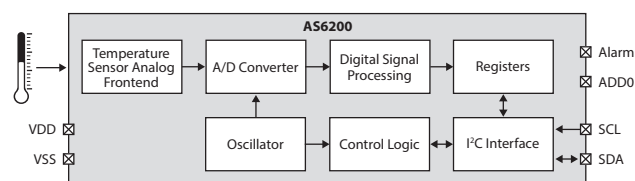
Applications

- Wearables/mobile health
- Mobile devices/tablets
- Cameras
- HVAC and Thermostat control
- Cold chain monitoring
- Industrial automation
- Lab equipment
- Solid State Drive (SSD)

Benefits

- Complete digital temperature sensor system
- Serial bus connection
- Easy-to-Use solution, i.e., no calibration or linearization needed
- Alert functionality for exact temperature control

Block Diagram



Features

- Ultra-low power consumption: 6µA @ 4 samples/sec (typ)
- Small integration size: WLCSP package (1.5 x 1.0mm)
- High temperature accuracy of ±0.4°C (max)
- Easy to integrate; full digital system with I²C interface
- Supply voltage: 1.8 – 3.6V
- Wide range operating temperature: -40°C to 125°C