

## Hot property: best-in-class ams temperature sensors

**ams' new generation temperature sensors deliver industry-best combination of accuracy and ultra-low power consumption in a tiny wafer level package**

- The AS621x-generation of temperature sensors deliver best-in-class performance across a broad range of applications without paying a power or space penalty
- The tiny 1.5mm<sup>2</sup> Wafer Level Chip Scale Package (WLCSP) means ease of integration into existing or new designs
- Ultra-low power consumption enabling digital temperature sensing into new consumer device designs
- Three accuracy versions to give customers a wide choice to best match their requirements

Premstaetten, Austria (November 11, 2019) -- ams (SIX: AMS), a leading worldwide supplier of high performance sensor solutions, today introduces the AS621x-generation of temperature sensors delivering best-in-class performance across a broad range of products – including a wide range of consumer electronic devices and wearables, health-related monitoring systems and heating, ventilation and air conditioning (HVAC) systems.

In this Internet-of-Things era, the new AS621x family of temperature sensors uniquely enables ams' customers more simply to integrate this tiny 1.5mm<sup>2</sup> Wafer Level Chip Scale Package (WLCSP) into their designs – without paying a power or space penalty. Prototyping and design verification becomes easier than ever before due to the product family's industry-standard serial interface with eight I<sup>2</sup>C addresses and a factory-calibrated sensor. This outstanding combination means that the AS621x family can be used in a broad spectrum of applications ranging from industrial process control solutions, Internet-of-Things applications such as cold-chain monitoring, medical data acquisition through to battery-powered mobile and wearable devices.

"The new AS621x family of temperature sensors from ams is ideally suited for battery-operated devices, including wearables, laptops and tablets. We are making thermal management easy for our customers as the family's ultra-low power consumption – in addition to its tiny size – enables a tight thermal control," says Michael Leitner, Vice President and General Manager for the business line Medical + Specialty Sensors at ams.

### **Best-in-class temperature accuracy in three temperature ranges to match customer needs**

The AS621x family of temperature sensors comes in three accuracy versions to give customers a wide choice to best match their requirements:  $\pm 0.2^{\circ}\text{C}$  for the AS6212;  $\pm 0.4^{\circ}\text{C}$  for the AS6214; and  $\pm 0.8^{\circ}\text{C}$  for the AS6218. The new generation of sensors is all about helping customers to integrate the temperature

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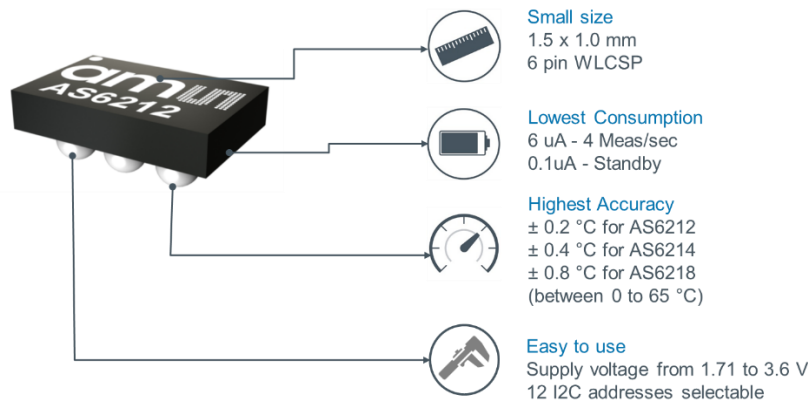
sensor into their system more easily. Not only has ams decreased the supply voltage range to a low level of 1.71 V, but by additionally increasing the number of I<sup>2</sup>C addresses to eight, customers now have the added flexibility to monitor up to 8 hot spots in their systems at minimum effort – especially during prototyping.

As the AS621x is a complete digital temperature system, which has been factory-calibrated to an accuracy up to  $\pm 0.2^{\circ}\text{C}$ , customers only need to solder the sensor solution onto their PCB to enjoy highest accuracy with no further calibration required. For greater sensitivity to temperature change, the resolution of the temperature value output has also increased to 16 bit.

This new generation of temperature sensors has the same small form factor as the preceding generation (AS620x) of sensors from ams at 1.5mm x 1mm (in WLCSP) and the industry-leading low power consumption of a typical current of 6 $\mu\text{A}$  at a measurement rate of four samples per second.

The AS621x temperature sensor family is now available in production volumes. Unit pricing starts at EUR 0.62 in order quantities of 1,000. An evaluation board is available.

For more technical information and for sample requests, go to <https://ams.com/as621x>.



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### About ams

ams is a global leader in the design and manufacture of advanced sensor solutions. Our mission is to shape the world with sensor solutions by providing a seamless interface between humans and technology.

ams' high-performance sensor solutions drive applications requiring small form factor, low power, highest sensitivity and multi-sensor integration. Products include sensor solutions, sensor ICs, interfaces and related software for consumer, communications, industrial, medical, and automotive markets.

With headquarters in Austria, ams employs about 9,000 people globally and serves more than 8,000 customers worldwide. ams is listed on the SIX Swiss stock exchange (ticker symbol: AMS). More information about ams can be found at [www.ams.com](http://www.ams.com)

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