MICRODUL
Customized Swiss Microelectronics

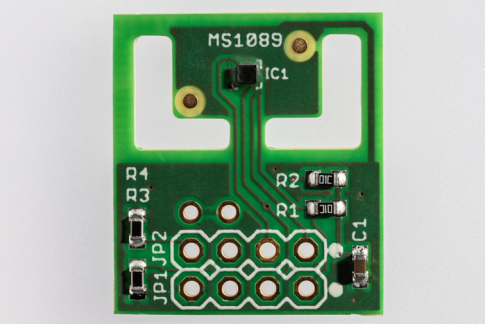
Environmental Monitoring
Nano-Power Temperature Sensor

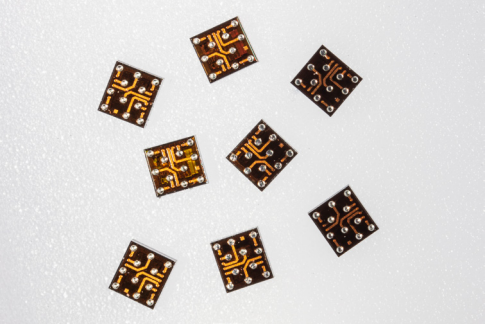
Enabling autonomous temperature sensing

Monitoring temperature has become a part of daily life. Temperature sensors are everywhere, in our buildings, vehicles, cities, work and open places. They measure temperature reliably and more accurately than ever before.

Microdul's MS1089 temperature sensor has almost no standby current, typically just 4nA and an average current of 27nA with one measurement per minute. This kind of performance is ideal for long battery life and autonomous (energy harvesting) applications that want to eliminate battery changes.

Sensor technology from Microdul





The MS1089 is a fully integrated, tested and calibrated I²C digital temperature sensor with a typical accuracy of 0.3°C from 0 to 60°C. Its temperature range is -40°C to 85°C with three selectable resolutions of 0.1°C, 0.05°C and 0.025°C, and a supply range of 1.8-3.6V.

The MS1089 is available in a small 1.22. x 1.145mm chip scale package (CSP). The CSP is supplied in tape and can be soldered like a conventional SMD component.

The pictures on the left show our evaluation board and the chip scale package.

Datasheets, application notes and ordering information can be found on our website www.microdul.com.

About Microdul

Microdul AG is a privately owned Swiss company and an MBO from Philips Semiconductors founded in 1991. We manufacture modules especially for medical applications including active implants and we are both ISO9001 and ISO13485 certified.

Our Semiconductors group develops and supplies ultra-low-power, mixed-signal, custom products as well as standard products. We have extensive experience in IC development for temperature monitoring, capacitive sensing, power management and 32kHz timing.

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