

## GW8110

### Low Power Digital Temperature Sensor with Two-Wire Serial Interface

#### Description

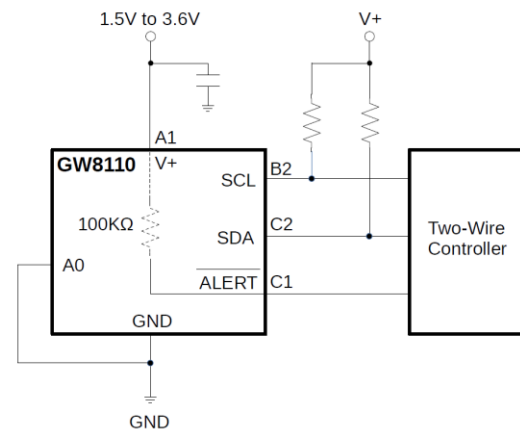
GW8110 is a digital-output temperature sensor with a dynamically-programmable limit window, and under and overtemperature alert functions. These features provide optimized temperature control without the need of frequent temperature readings by the controller or application processor.

The GW8110 features SMBus and two-wire interface compatibility, and allows up to four devices on one bus with the SMBus alert function.

The GW8110 is designed for thermal management optimization in a variety of consumer, computer, and environmental applications. The device is specified over a temperature range of  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

- Under- and overtemperature protection
- Environmental monitoring and HVAC

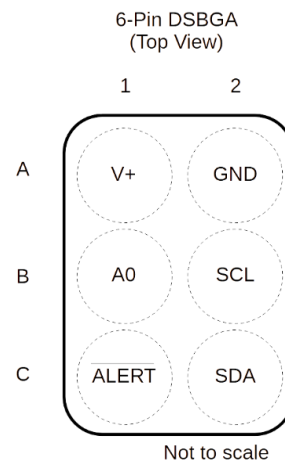
#### Basic Application Diagram



#### Features

- Dynamically-programmable limit window with under- and overtemperature alerts
- Accuracy:
  - $\pm 0.75^{\circ}\text{C}$  (maximum) from  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
  - $\pm 1^{\circ}\text{C}$  (maximum) from  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Low quiescent current:
  - 6  $\mu\text{A}$  active (maximum) from  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Resolution: 16 bits ( $< 0.01^{\circ}\text{C}$ )
- Package: 1.2-mm  $\times$  0.8-mm, 6-ball WCSP

#### Package Information



#### Physical Characteristics

- Supply range: 1.5 V to 3.6 V
- Available in 1.2-mm  $\times$  0.8-mm, 6-ball WCSP Package

#### Typical Applications

- Smartphone and tablet thermal management
- Battery management
- Thermostat control

#### Ordering Information

Device name	Package	Remark
GW8110	1.2mm x 0.8mm 6 ball DSBGA	Die Sized BGA (WCSP)

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