



# I3C/I2C-Bus $\pm 0.5$ °C Accurate Digital Temperature Sensor

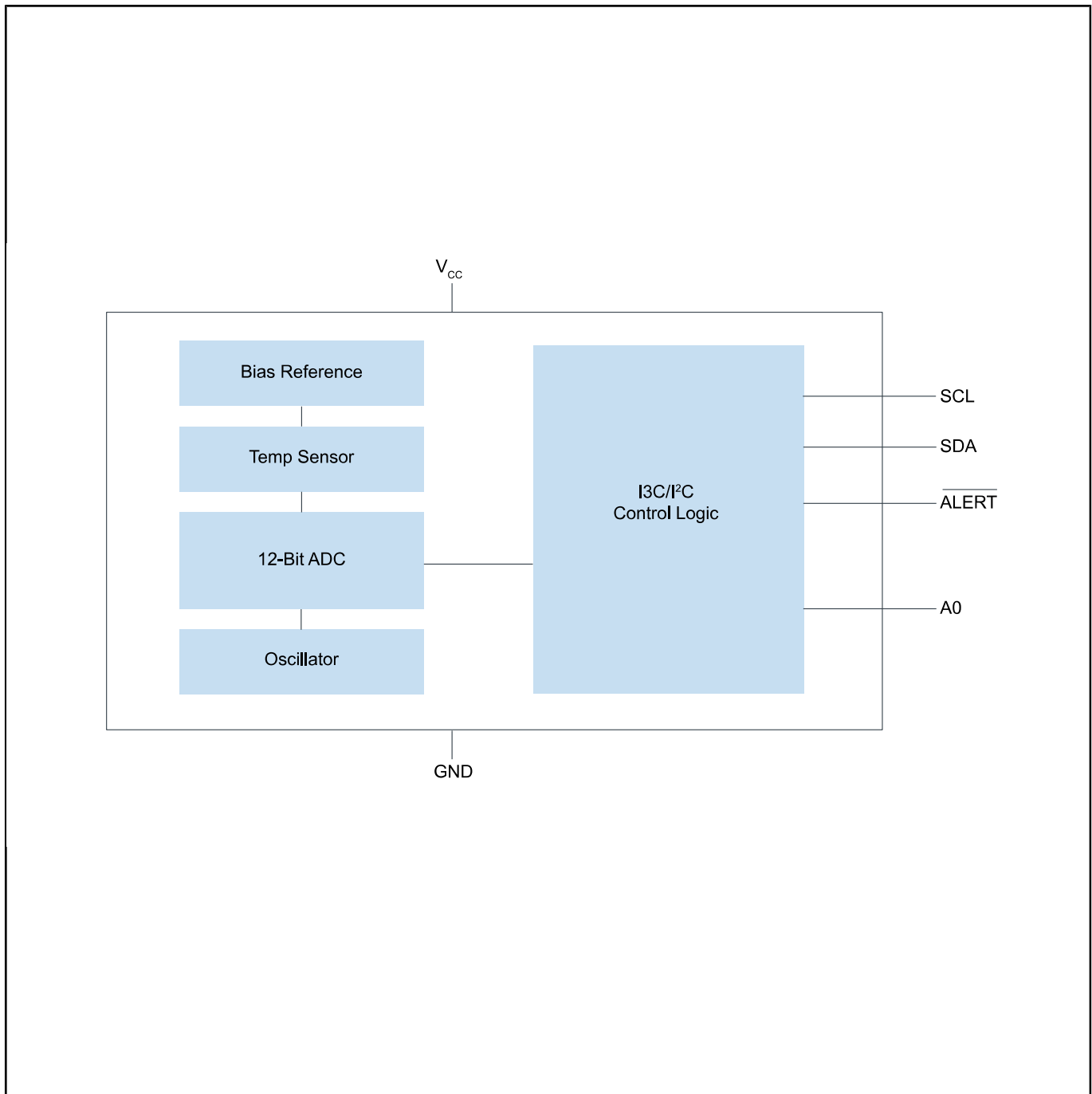
## P3T1085UK

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P3T1085UK is a  $\pm 0.5^{\circ}\text{C}$  accurate temperature-to-digital converter with a  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  range. It uses an on-chip band gap temperature sensor and A-to-D conversion technique with overtemperature detection. The temperature register always stores a 12-bit complement data, giving a temperature resolution of  $0.0625^{\circ}\text{C}$ .

P3T1085UK can be configured for different operation conditions: continued conversion, one-shot mode or shutdown mode. The device supports 2-wire serial I3C (up to 12.5 MHz) and I2C (up to 3.4 MHz) as communication interface. In I2C, the device supports up to four target addresses and an alert function. In I3C, the devices supports in-band interrupt (IBI), where the same bus is used to report the alert interrupts.

## P3T1085UK Block Diagram Block Diagram



View additional information for [I3C/I2C-Bus  \$\pm 0.5\$  °C Accurate Digital Temperature Sensor](#).

**Note:** The information on this document is subject to change without notice.

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