I3C/I2C-Bus, ±1 °C Accuracy, Digital Temperature Sensor

P3T1750DP

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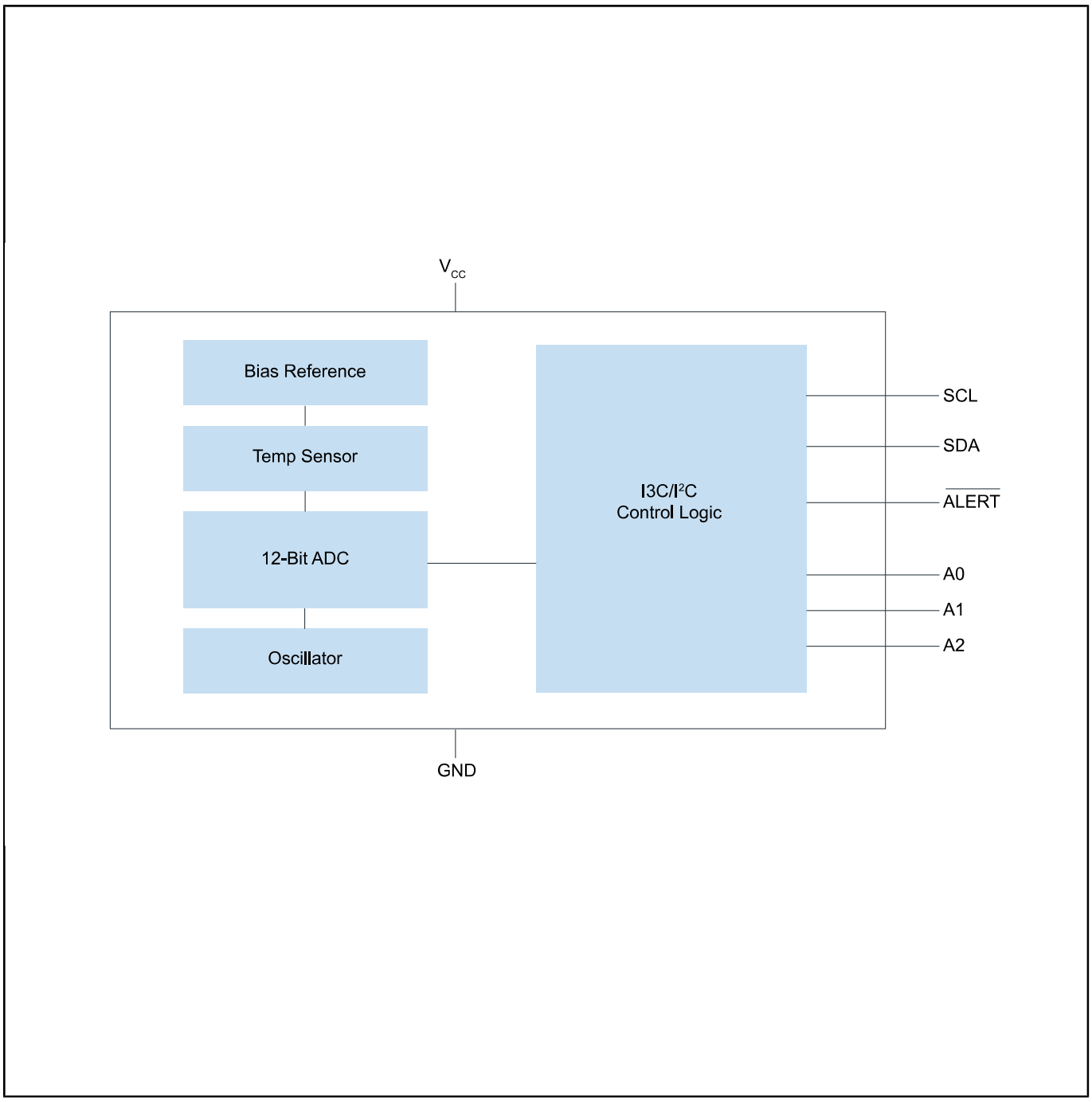
P3T1750DP is a ±1 °C accurate temperature-to-digital converter with a -40 °C to +125 °C range. It uses an on-chip band gap temperature sensor and A-to-D conversion technique with over temperature detection. The temperature register always stores a 12 bit two's complement data, giving a temperature resolution of 0.0625 °C.

P3T1750DP can be configured for different operation conditions: continuous 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.

I3C/I²C-Bus, ±1 °C Accuracy, Digital Temperature Sensor Block Diagram



View additional information for I3C/I2C-Bus, ±1 °C Accuracy, Digital Temperature Sensor.

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