GXTR3032

4 Channel (3-Remote and 1-Local), High Accuracy Temperature Sensor

Datasheet_V1.2
Nov. 2025

1 Features

- Temperature range：-55°C ~ +150°C
- Typical accuracy: ±0.5°C
- High resolution: 0.0625°C / 16bits
- Conversion time per channel: 16ms
- Digital output:

  SMBus, I²C interface compatibility
- Supply voltage range: 2.7V ~ 5.5V
- Low quiescent current: (3.3V, 27°C)

  Average current: 17μA (0.0625Hz) /

  50μA (1Hz) / 110μA (4Hz)

  Local Channel: 180μA

  Remote Channel: 380μA

  Shutdown current: 0.4μA
- Series Resistance Cancellation, Automatic Beta Compensation, η-Factor Correction
- Package Information：

Part Number	Package	Body Size (mm²)
GXTR3032U	MSOP(10)	3.00 × 3.00
GXTR3032D	DFN(10)	0.70 × 0.90

2 Applications

- MCU, GPU, FPGA, DSP, CPU
- Servers, Desktops, and Notebooks
- Industrial and Medical Equipment

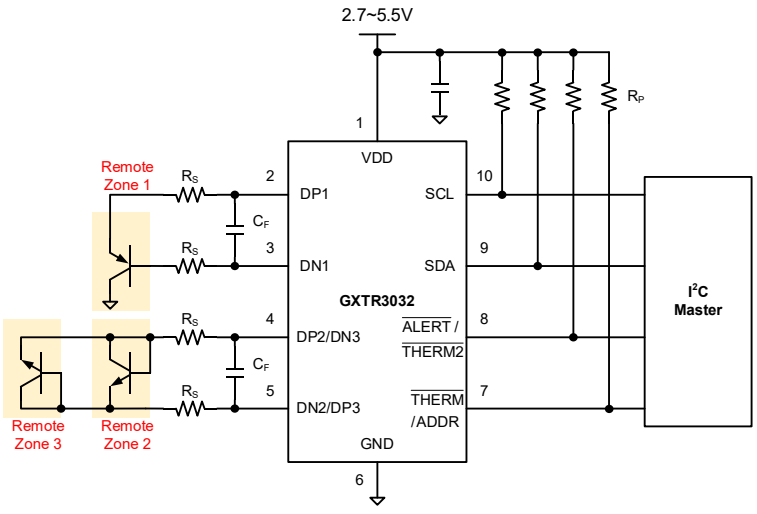
3 Description

GXTR3032 is a high-precision, low-power digital temperature sensor compatible with SMBus and I²C interfaces. Up to three remote diode-connected temperature zones can be monitored simultaneously in addition to the local temperature. GXTR3032 features series resistance cancellation, programmable η factor correction, β value detection and automatic compensation, and programmable temperature thresholds, providing a reliable temperature monitoring solution with high accuracy and low power consumption.

GXTR3032 is especially suitable for temperature measurement using remote transistors (NPN / PNP Type) in servers and processors integrated in advanced processes. GXTR3032 supports automatic compensation of transistor-connected PNP (0.09<β <21.36) to achieve high-precision temperature measurement.

The typical accuracy of GXTR3032's local and remote channel is ±0.5°C. GXTR3032 provide a measurement resolution of 0.0625°C and a measurement range of -55°C ~ 150°C. GXTR3032 are available in 3.0mm×3.0mm, 10 pin MSOP and 3mm × 3mm, 10 pin DFN packages.

Figure 1 Typical Application Schematics



10 Ordering Information

Order Number	Chip Model	Package	SPQ	Note
GXTR3032AD-T&R	GXTR3032AD	DFN-10	4000	Tape & Reel
GXTR3032BD-T&R	GXTR3032BD	DFN-10	4000	Tape & Reel
GXTR3032CD-T&R	GXTR3032CD	DFN-10	4000	Tape & Reel
GXTR3032AU-T&R	GXTR3032AU	MSOP10	3000	Tape & Reel
GXTR3032BU-T&R	GXTR3032BU	MSOP10	3000	Tape & Reel
GXTR3032CU-T&R	GXTR3032CU	MSOP10	3000	Tape & Reel