

1 Features

- Operating Temperature : - 55°C ~ +125°C
- Accuracy : $\pm 0.4^{\circ}\text{C}$ typical. (-25°C ~ +55°C)
- Resolution : 12-bits (0.0625°C)
- Supply Voltage : 1.4V ~ 5.5V
- Conversion Time : 26ms
- Operating Current : 15 μA @12Hz
- Shutdown Current : 0.3 μA
- Digital Output : I²C, SMBus
- Alternative to x75
- Package Information :

PART NUMBER	PACKAGE	BODY SIZE (mm ²)
GX75C	SOP-8	4.90 × 3.90
GX75CU	MSOP-8	3.00 × 3.00
GX75CD	DFN-8	3.00 × 3.00

2 Applications

- Server and Computer Thermal Management
- Telecommunication Equipment
- Office Machines
- Video Game Consoles
- Set-Top Boxes
- Power Supply and Battery Thermal Protection
- Thermostat Control
- Environmental Monitoring and HVAC
- Electrical Motor Driver Thermal Protection
- Industrial Control

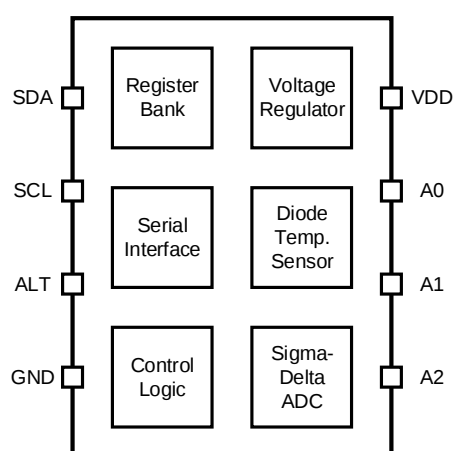
3 Description

The GX75C is a fully integrated digital temperature sensor with a 12-bit ADC that can operate at a 1.8-V supply, and is pin and register compatible with the mainstream x75.

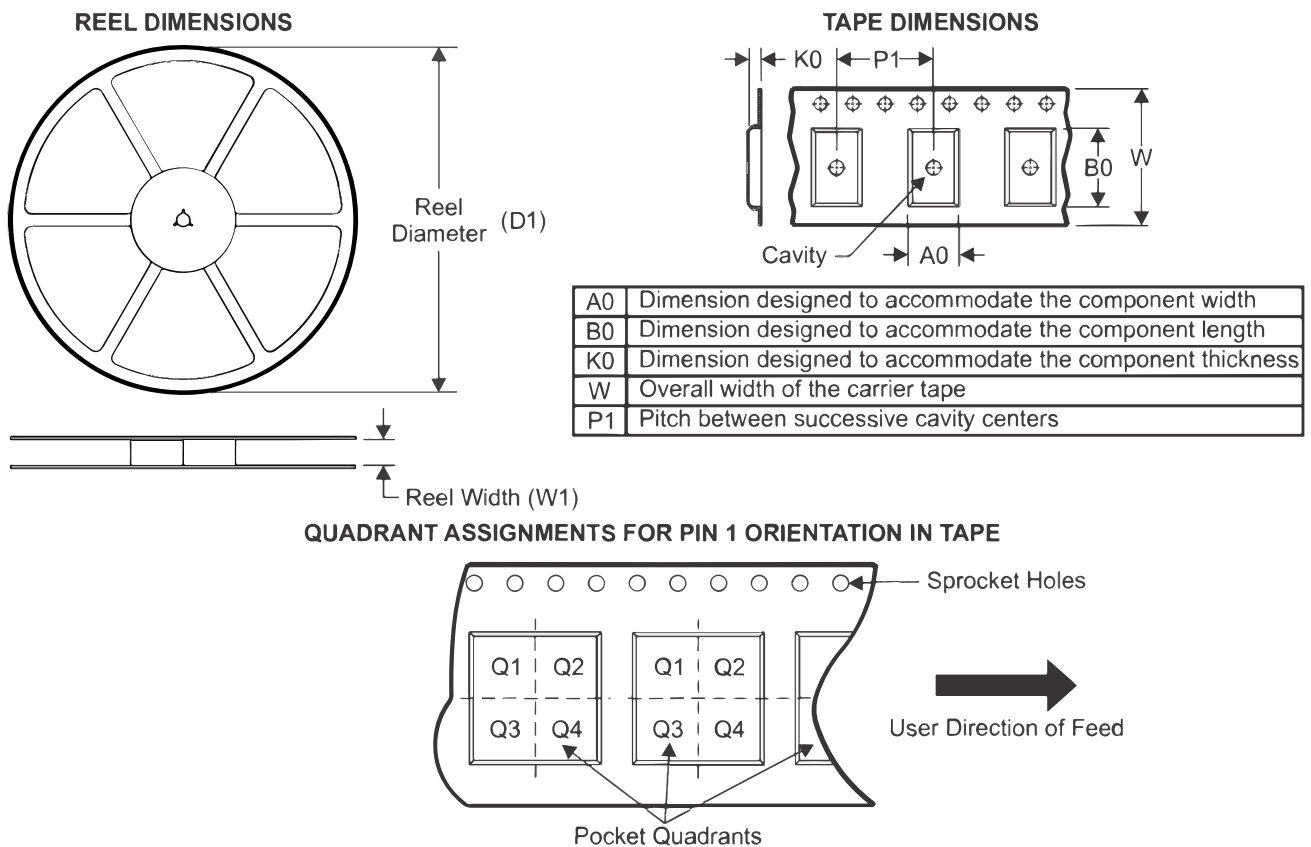
The GX75C requires no external components to sense the temperature. The on-chip 12-bit ADC offers resolution down to 0.0625°C. Each chip is specially calibrated for $\pm 1^{\circ}\text{C}$ (max.) accuracy over -55°C to +125°C range in factory before shipment to customers, eliminating the need for users to make any additional adjustments for temperature output.

The GX75C features SMBus and I²C interface with speed up to 1MHz (2.3MHz at high-speed mode), and allows up to eight devices on the same bus. The programmable temperature limits and the ALT pin allow the sensor to operate as a stand-alone thermostat.

Block Diagram of GX75C



9.4 Tape and Reel Information



Package	D1 (mm)	W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1
SOP-8	330	12.4	6.55	5.30	2.00	8.00	12.00	Q1
MSOP-8	330	12.4	5.40	3.40	1.40	8.00	12.00	Q1
DFN-8	330	13.3	3.30	3.30	1.10	8.00	12.00	Q1

Note : all of the above dimensions are in millimeters.

10 Ordering Information

Order PN	Device	Package	SPQ	Remark
GX75C-T&R	GX75C	SOP-8	4000	tape and reel
GX75CU-T&R	GX75CU	MSOP-8	4000	tape and reel
GX75CD-T&R	GX75CD	DFN-8	4000	tape and reel