

GXHTC3

Temperature and Humidity Sensor IC

1 Features

- Ultra-low power consumption
- I²C protocol compatibility
- Wide supply voltage range (1.6V-5.5V)
- Small DFN6 package (2×2×0.75mm³)
- Typical accuracy: ±3 %RH and ±0.3 °C
- Factory calibrated and reflow solderable

2 Applications

- Consumer electronics
- Cold chain transportation
- Smart home
- Smart agriculture
- Communication equipment
- Photovoltaic energy storage



Figure 1. Chip Rendering

3 Description

The GXHTC3 is a temperature and humidity sensor designed for consumer electronics applications. It fulfills requirements of the consumer electronics field in terms of package size, power consumption, supply voltage range and cost performance. The GXHTC3 implements a complete temperature and humidity sensor system on

a single chip, including capacitive humidity sensing unit, PN junction temperature measurement unit, 16-bit ADC, digital signal processing circuit, calibration data storage unit and I²C digital communication interface circuit.

The GXHTC3 adopts a miniaturized DFN6 package with a size of 2×2×0.75mm³, which enables applications in the most limited of spaces. The GXHTC3 covers a humidity measurement range of 0 ~ 100%RH and a temperature measurement range of -45°C ~ 135°C. The supply voltage range is 1.60 ~ 5.5V and the energy consumption of 2μJ make the GXHTC3 suitable for mobile or wireless communication devices powered by batteries. Each GXHTC3 is fully calibrated before leaving the factory to ensure the consistency and accuracy of the chip. Tape and reel packaging together with suitability for standard SMD production process requirements.

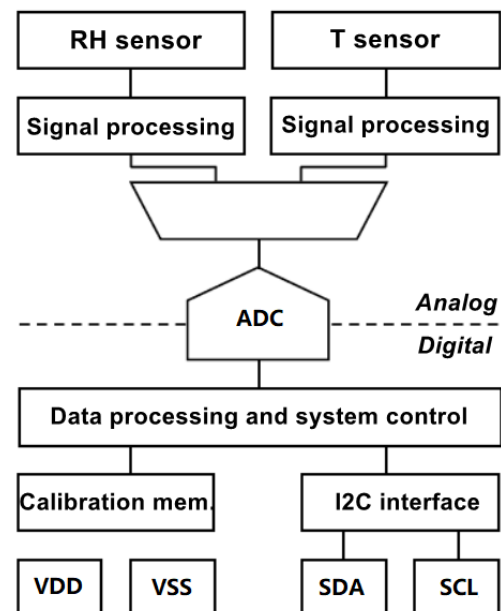


Figure 2. Functional block diagram of the GXHTC3.

10 Chip description and Ordering information

Order number description:

GXHTC3-T&R: GXHTC3 represents the product number, T&R represents packaged form is tape and reel.

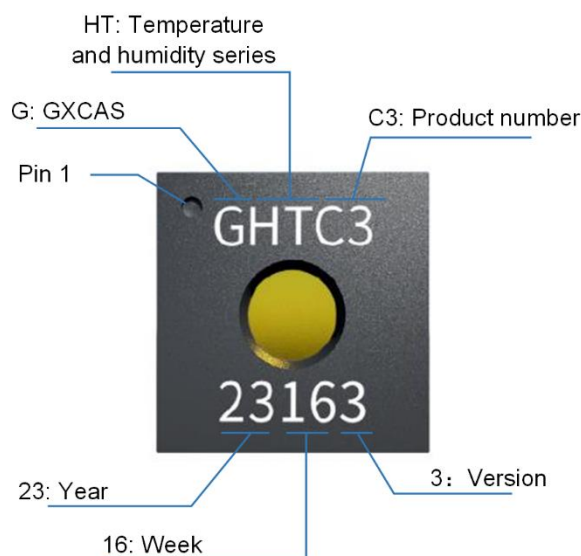
Model Coding:

(1) GXHTC3: GX represents the trademark of the company GXCAS, which can also be represented by G; HT represents temperature and humidity series products; C3: represents the chip number

(2) GXHTC3C: GX represents the trademark of the company GXCAS, which can also be represented by G; HT represents temperature and humidity series products; C3: represents the chip number; C: Indicates that the chip is covered with a dustproof and breathable film, which cannot be removed and provides protection for the chip.

(3) GXHTC3CF: GX represents the trademark of the company GXCAS, which can also be represented by G; HT represents temperature and humidity series products; C3: represents the chip number; CF: Indicates that the chip is coated with a conformal coating film, which needs to be removed after Painting

GXHTC3 LOGO description:



Ordering Information:

Purchase Number	Device	Package	SPQ	Note
GXHTC3-T&R	GXHTC3	DFN6 2mm*2mm	2000	Tape and reel
GXHTC3C-T&R	GXHTC3C	DFN6 2mm*2mm	2000	Tape and reel; covered with a dustproof breathable film
GXHTC3CF-T&R	GXHTC3CF	DFN6 2mm*2mm	2000	Tape and reel; covered with a conformal coating film