

GX1822 Programmable Resolution 1-wire bus Temperature Sensor

1.FEATURES

- Only one port pin is required for communication using a 1-wire bus interface
- Each chip has an independent 64-bit serial number
- With multi-point distributed temperature measurement function without external components
- Can be powered by the data line.
the supply voltage range is: 2.5V~5.5V
- Measuring Range: -55°C to +125°C (-67°F to +257°F)
- 3v, the transient current of a single working temperature measurement is only 45uA
- 3v, the average current of one temperature measurement per second is only 12uA
- The accuracy is $\pm 0.4^{\circ}\text{C}$ within the range of -10°C~85°C
- Temperature resolution 9-12 bits optional
- Under the highest 12-bit precision, the temperature conversion speed is less than 320ms
- Has user-defined non-volatile temperature alarm settings
- Alarm search command identifies and flags devices exceeding programmed temperature
- Super electrostatic protection ability: HBM 8000V MM 800V
- Available in SMD MSOP8 package and 3-pin TO-92, TO-92S package

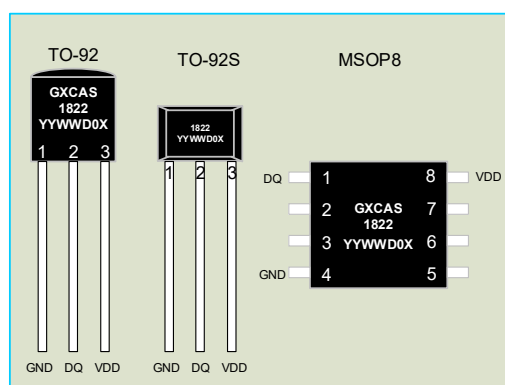
2.Application Scenario

- temperature control
- industrial system
- consumer goods
- grain temperature measurement
- thermometer
- any thermal system

3.DESCRPTION

GX1822 digital thermometer provides temperature measurement with 9 to 12bit resolution, and can realize the lower limit and upper limit alarm of temperature through the programmable non-volatile memory unit. GX1822 uses a 1-wire bus protocol to communicate with the host computer, and only needs one signal line and one ground line. It has a temperature measurement range of -55°C to +125°C (-67°F to +257°F). The test accuracy in the range of -10°C~85°C can reach $\pm 0.4^{\circ}\text{C}$. In addition, it can also work in parasitic mode, directly supplying power to the chip through the signal line, so that no additional power supply is required. Each GX1822 has an independent 64-bit serial number. Multiple GX1822s can be connected in series on the same 1-wire bus for networking. Only one processor can control multiple GX1822s distributed in a large area. This networking method is especially suitable for HVAC environment control, building, equipment, grain temperature measurement and industrial temperature measurement, process monitoring and control and other application fields.computer, consumeren, vironmental,industrial, and instrumentation applications.

4.PIN CONFIGURATIONS



17. Ordering Information

Purchase Number	Device	Package	SPQ	Note
GX1822-Bu	GX1822	TO92(3)	2000	Bulk
GX1822U-T&R	GX1822U	MSOP8	4000	Tape & Reel