

Performance

- -5°C to 50°C accuracy: 0.1°C
- -40°C to 125°C accuracy: 0.5°C
- Very low power consumption
- Operates 5V
- Time constant –4 seconds typical in air
- Fast conversion time – 8.22ms typical

MEAS TSYS01 SENSOR FOR GROVE SYSTEM

Digital Temperature Sensor

The TSYS01 provides the necessary hardware to interface the TSYS01 digital temperature sensor to any system that utilizes Grove compatible expansion ports configurable for I²C communication. The TSYS01 sensor is a self-contained temperature sensor that is fully calibrated during manufacture. The sensor model works in 5V voltage external. The TSYS01 has a low power stand-by mode for power-sensitive applications.

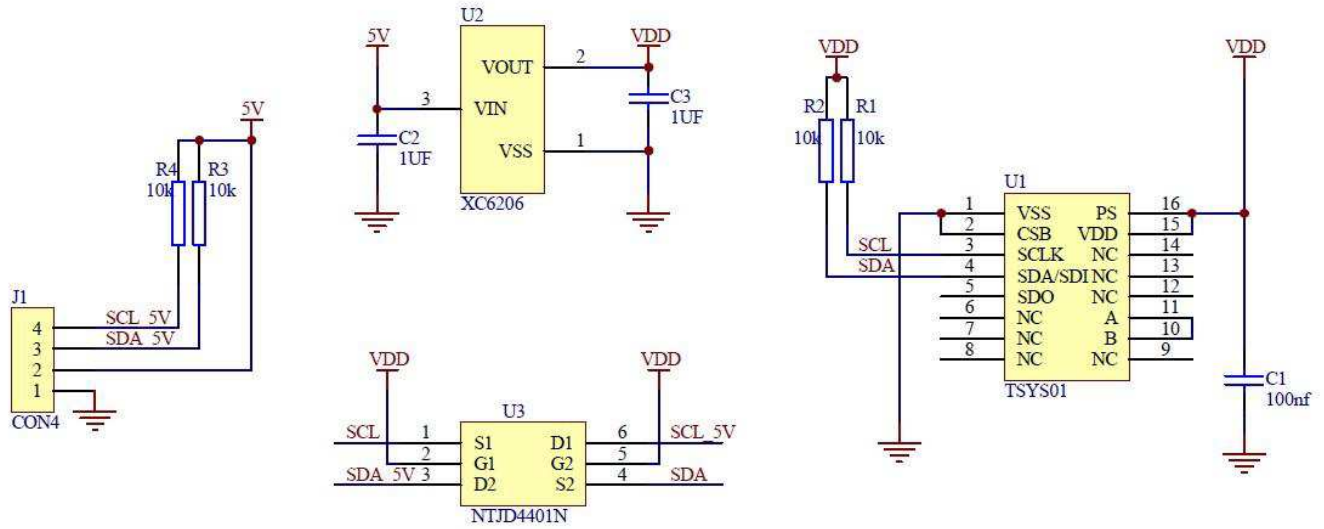
Specifications

- Measures temperature from -40°C to 125°C
- I²C communication
- Fully calibrated
- Fast response time
- Very low power consumption

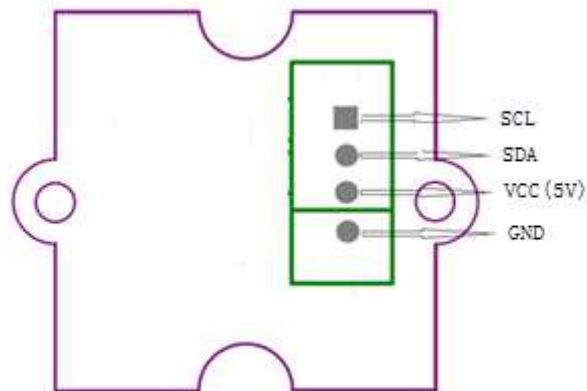
Features

- 4-pin Grove compatible connector
- I²C interface
- 24/16 bit resolution for temperature
- Parameters stored on chip

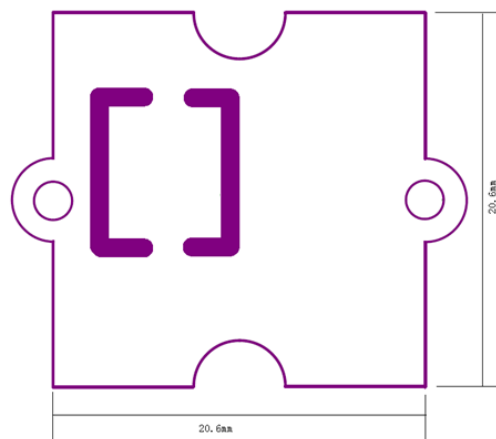
Schematic



Connector Pin Assignments (I²C Communications)



Dimensions (mm)



Detailed Description

I²C Interface:

The TSYS01 Grove compliant module can interface to the host in I²C model with 5V supply, it has a Grove compatible four pins port connector configured for I²C.

External Control Signals 5V supply:

The IC operates as an I²C slave using the standard 2-wire I²C connection scheme. As IC is power rated at 3.6V, the board integrates necessary fixture such as a regulator and electrical level shift so that the SCL and SDA signals could be driven directly from an external 5V I²C lines and power supply.

Reference Material

Detailed information regarding operation of the IC:

- [TSYS01 Datasheet](#)

Ordering Information

| Description | Part Number |
|--------------------|-------------|
| TSYS01 GROVE BOARD | DPP201G000 |

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