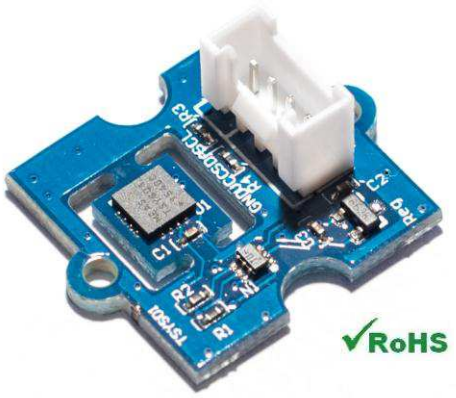



# MEAS TSYS01 SENSOR FOR GROVE SYSTEM

## 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.

## 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

## Specifications

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

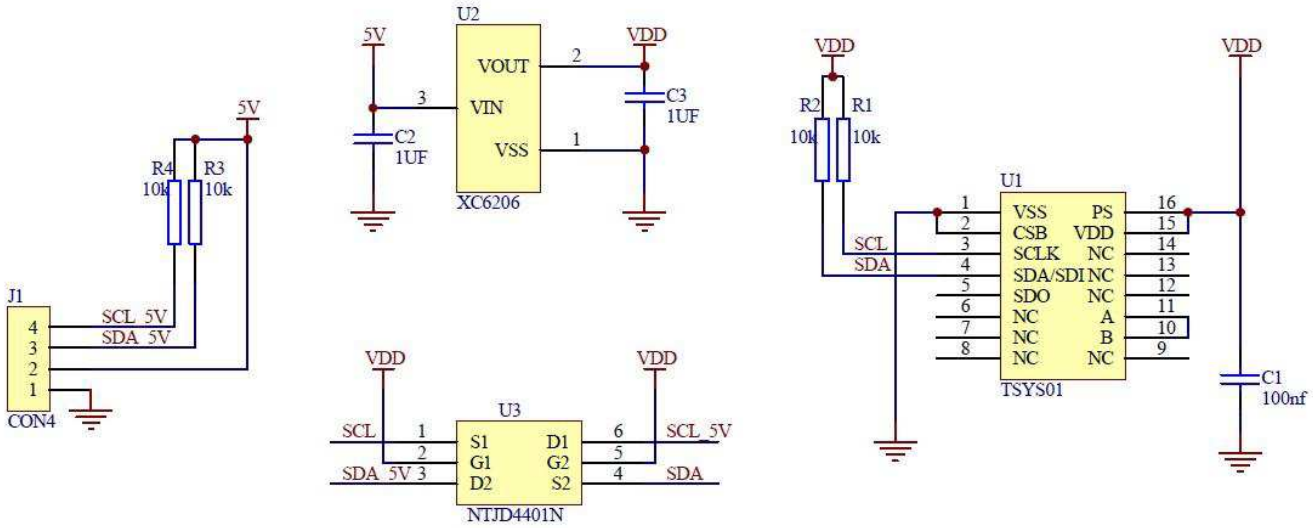
## Features

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

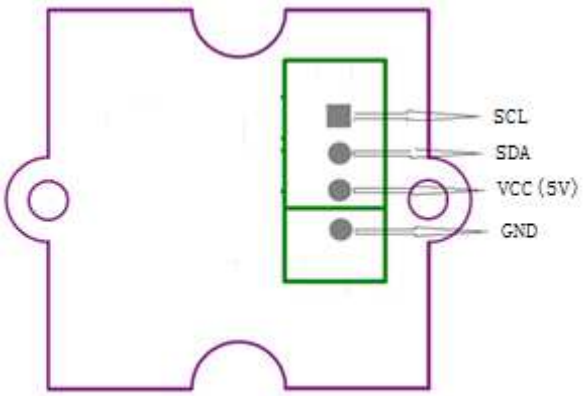


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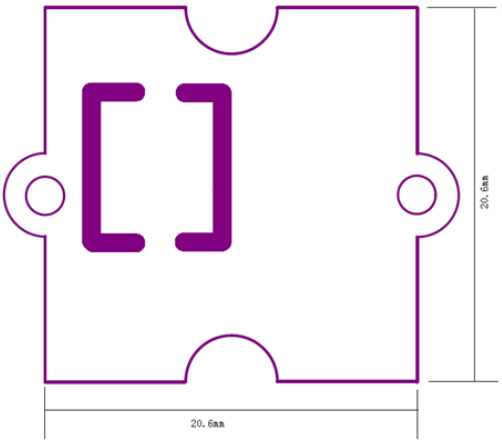
## Schematic




## Connector Pin Assignments (I²C Communications)




## Dimensions (mm)






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## 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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