

## MEAS TSYS02D SENSOR FOR GROVE SYSTEM

### Digital Temperature Sensor

The TSYS02D provides the necessary hardware to interface the TSYS02D digital temperature sensor to any system that utilizes Grove compatible expansion ports configurable for I<sup>2</sup>C communication. The TSYS02D sensor is a self-contained temperature sensor that is fully calibrated during manufacture. The sensor model works in 5V voltage external. The TSYS02D has a low power stand-by mode for power-sensitive applications.

#### Performance

- -5°C to 50°C accuracy: 0.2°C
- -20°C to 100°C accuracy: 0.5°C
- -40°C to 125°C accuracy: 1°C
- Very low power consumption
- Operates 5V
- Time constant – 4 seconds typical
- Conversion time – 43ms typical

#### Specifications

- Measures temperature from -40°C to 125°C
- I<sup>2</sup>C communication
- Fully calibrated
- Fast response time
- Very low power consumption

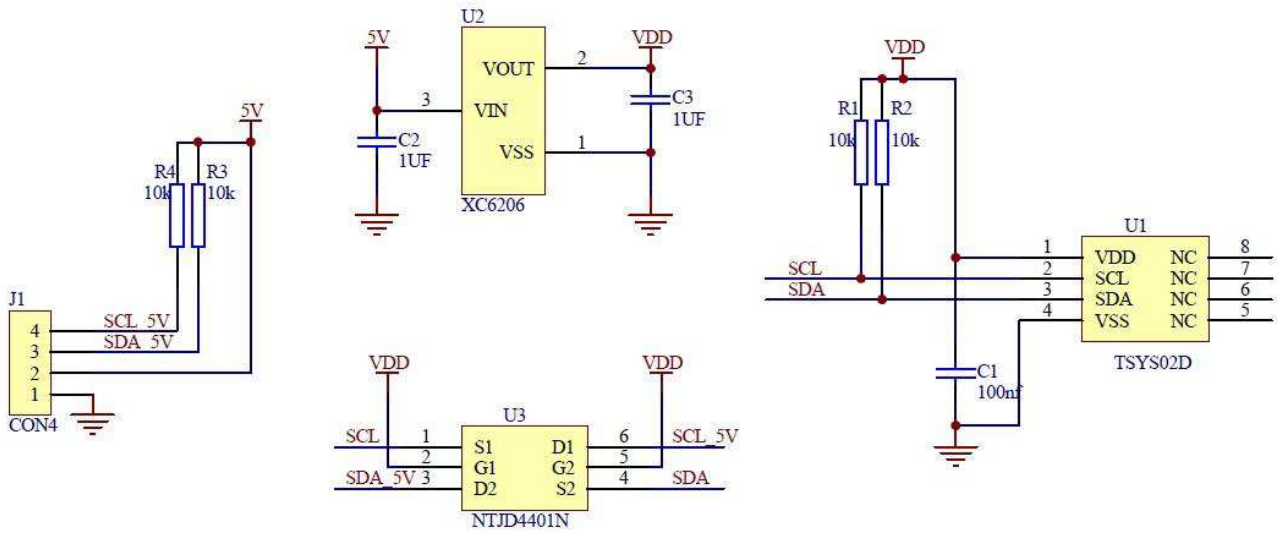
#### Features

- 4-pin Grove compatible connector
- I<sup>2</sup>C interface
- 24/16 bits resolution for temperature
- Parameters stored on chip

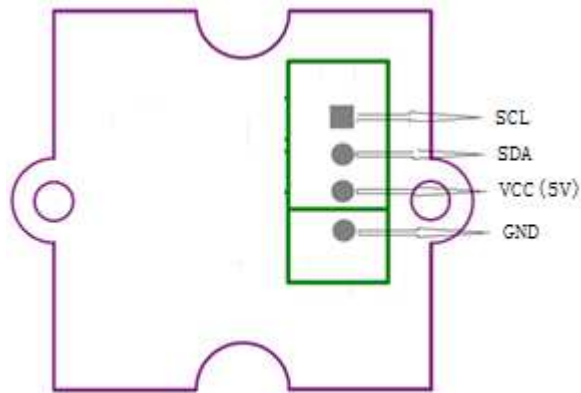
# MEAS TSYS02D FOR GROVE SYSTEM

Digital Temperature Sensor

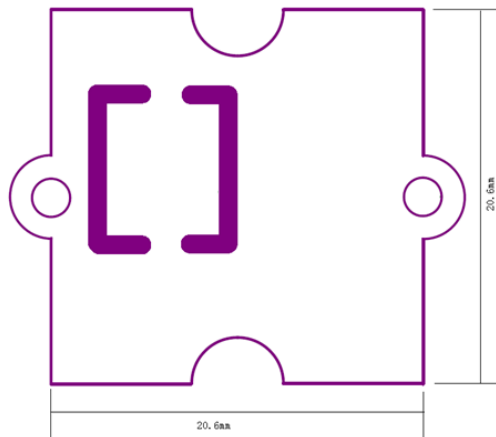
## Schematic



## Connector Pin Assignments (I<sup>2</sup>C Communications)



## Dimensions (mm)



## MEAS TSYS02D FOR GROVE SYSTEM

Digital Temperature Sensor

### Detailed Description

#### I<sup>2</sup>C Interface:

The TSYS01 Grove compliant module can interface to the host in I<sup>2</sup>C model with 5V supply, it has a Grove compatible four pins port connector configured for I<sup>2</sup>C.

#### External Control Signals 5V supply:

The IC operates as an I<sup>2</sup>C slave using the standard 2-wire I<sup>2</sup>C 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 I<sup>2</sup>C lines and power supply.

### Reference Material

Detailed information regarding operation of the IC:

- [TSYS02D Datasheet](#)

### Ordering Information

Description	Part Number
TSYS02D GROVE BOARD	DPP202G000

#### [te.com/sensorsolutions](http://te.com/sensorsolutions)

MEAS, TE Connectivity and TE connectivity (logo) are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2016 TE Connectivity Ltd. family of companies All Rights Reserved.

#### PRODUCT SHEET

MEAS France SAS,  
a TE Connectivity company.  
Impasse Jeanne Benozzi CS 83 163  
31027 Toulouse Cedex 3, FRANCE  
Tel: +33 (0) 5 820 822 02  
Fax: +33 (0) 5 820 821 51  
[customercare.tlse@te.com](mailto:customercare.tlse@te.com)

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9