



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



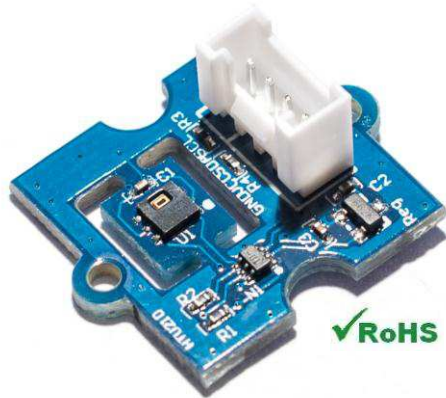
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### Performance

- 0% to 100% relative humidity range
- -40°C to 125°C temperature range
- Very low power consumption
- Operates in 5V.
- Fast response time – 5 seconds typical
- Built-in heater for fast recovery from saturation
- Recovers fully from condensation
- Fast conversion time – 14ms typical

## MEAS HTU21D SENSOR FOR GROVE SYSTEM

### Digital Humidity and Temperature Sensor

The HTU21D provides the necessary hardware to interface the HTU21D digital relative humidity and temperature sensor to any system that utilizes Grove compatible expansion ports configurable for I<sup>2</sup>C communication. The HTU21D sensor is a self-contained humidity and temperature sensor that is fully calibrated during manufacturing. The sensor module works in 5V external, and the sensor has selectable resolution, low battery detection, and checksum capability. The HTU21D has a low power stand-by mode for power-sensitive applications.

### Specifications

- Measures relative humidity from 0% to 100%
- Measures temperature from -40°C to 125°C
- I<sup>2</sup>C communication
- Fully calibrated
- Fast response time
- Selectable resolution
- Very low power consumption

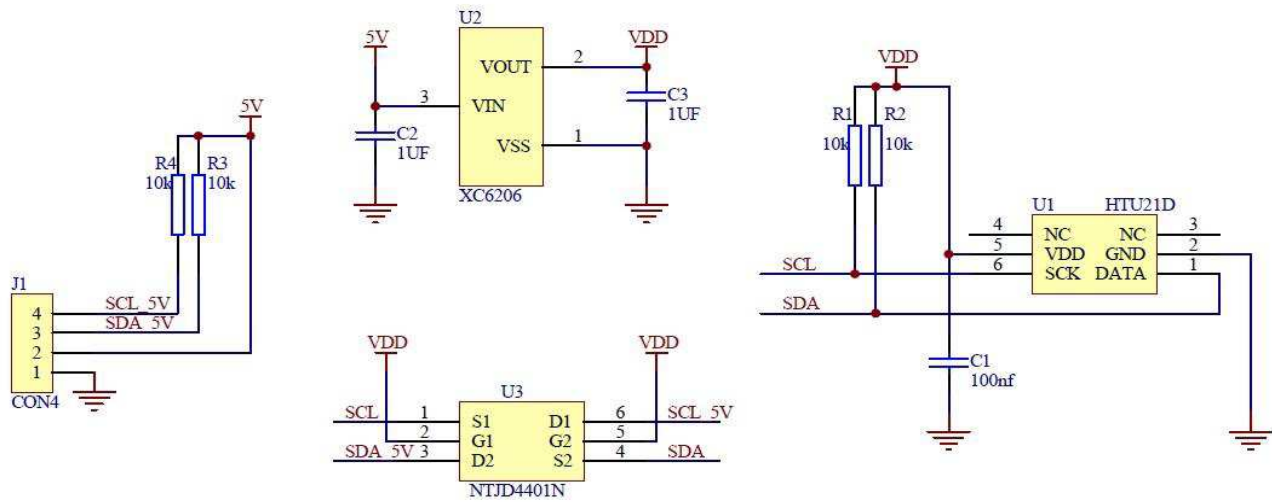
### Features

- 4-pin Grove compatible connector
- I<sup>2</sup>C interface
- Selectable 8-12 bits resolution for humidity
- Selectable 11-14 bits resolution for temperature

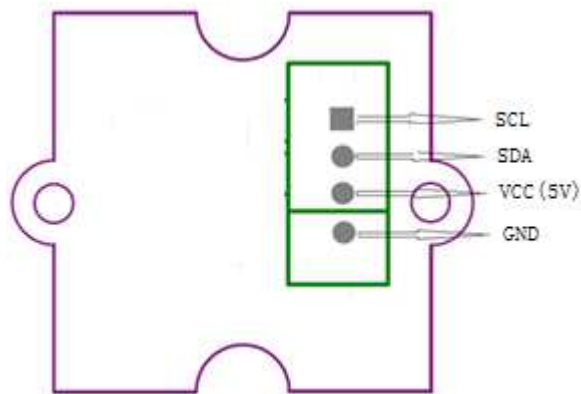
# MEAS HTU21D FOR GROVE SYSTEM

Digital Humidity and Temperature Sensor

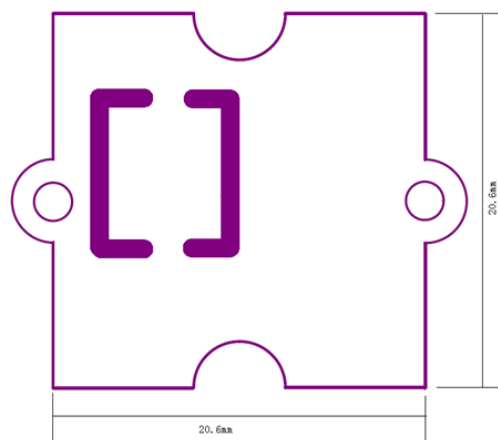
## Schematic



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



## Dimensions (mm)



## MEAS HTU21D FOR GROVE SYSTEM

Digital Humidity and Temperature Sensor

### Detailed Description

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

The HTU21D 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:

- [HTU21D Datasheet](#)

### Ordering Information

| Description        | Part Number |
|--------------------|-------------|
| HTU21D GROVE BOARD | DPP301G000  |

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