

Performance

- 0bar to 2bar pressure range
- -40°C to 85°C temperature range
- Very low power consumption
- Operates 5V
- High resolution module 0.02mbar(0-2bar)
- Fast conversion time – 0.5 ms typical

MEAS MS5837 SENSOR FOR GROVE SYSTEM

Digital Pressure Temperature Sensor

The MS5837 sensor development board provides the necessary hardware to interface the MS5837 digital barometric pressure and temperature sensor to any system that utilizes Grove compatible expansion ports configurable for I²C communication. The MS5837 sensor is a self-contained pressure and temperature sensor that is fully calibrated during manufacture. The sensor module works in 5V voltage external. The sensor module includes a high-linearity pressure sensor and an ultra-low power 24-bits $\Delta\Sigma$ ADC with internal factory-calibrated coefficients.

Specifications

- Measures pressure from 0bar to 2bar
- Measures temperature from -40°C to 125°C
- I²C communication
- Fully calibrated
- Fast response time
- Very low power consumption

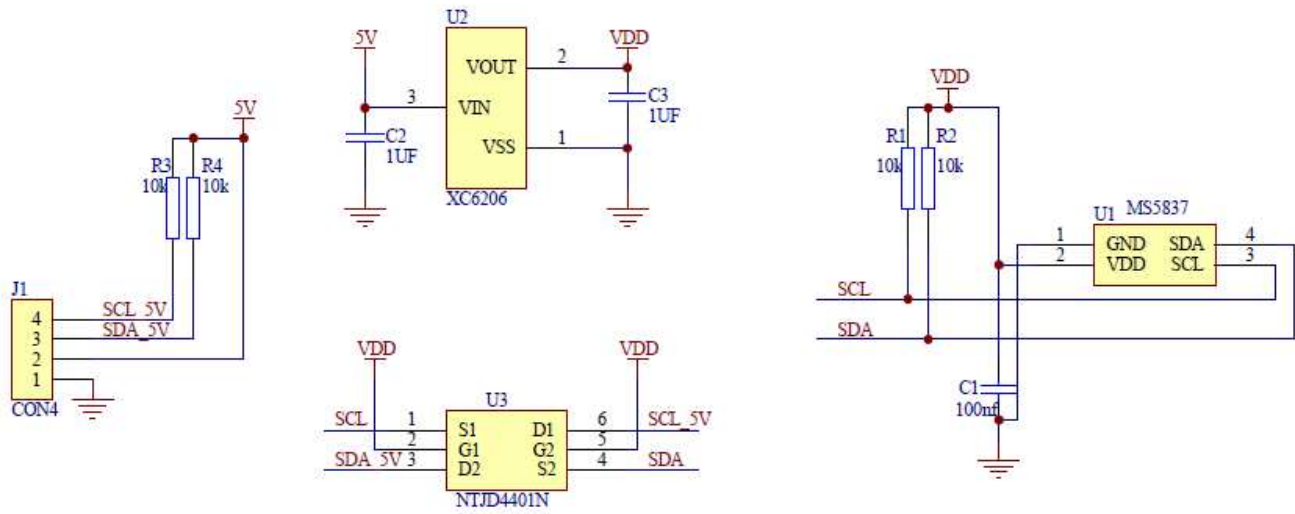
Features

- 4-pin Grove compatible connector
- I²C interface
- Parameters stored on chip

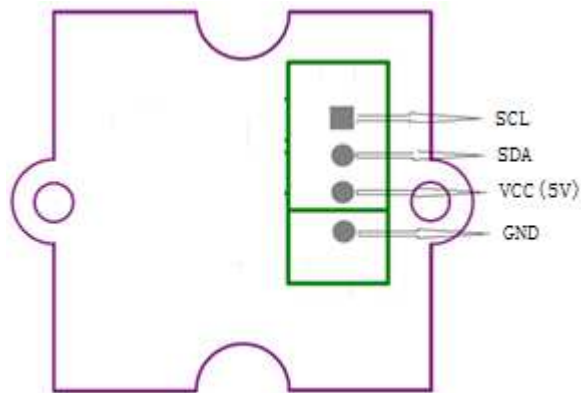
MEAS MS5837 FOR GROVE SYSTEM

Digital Pressure Sensor

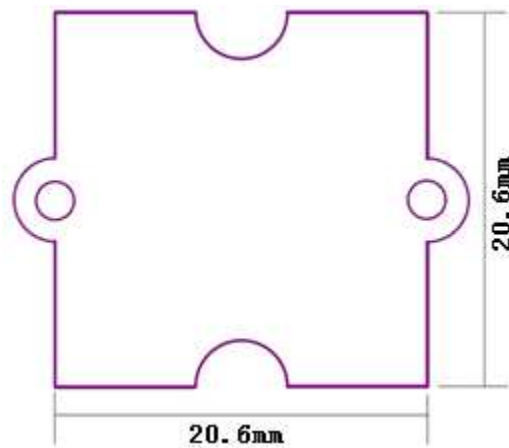
Schematic



Connector Pin Assignments (1²C Communications)



Dimensions (mm)



MEAS MS5837 FOR GROVE SYSTEM

Digital Pressure Sensor

Detailed Description

I²C Interface:

The MS5837 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 the IC is power rated at 3.6V, the board integrates the 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:

- [MS5837 Datasheet](#)

Ordering Information

Description	Part Number
MS5837 GROVE BOARD	DPP103G000

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