

✓RoHS

MEAS KMA36R SENSOR FOR GROVE SYSTEM

Digital Magnetic Encoder Sensor

The KMA36(A) provides the necessary hardware to interface the KMA36, A universal magnetic encoder for precise rotational measurement. To any system that utilizes Grove compatible expansion ports configurable for I²C communication. The KMA36 sensor feature a system-on chip technology that combines a magneto resistive element along with analog to digital converter and signal processing in a standard small package. The sensor model works in 5V voltage external. By using Anisotropic Magneto Resistive(AMR) technology, the KMA36 can determine contactless the magnetic angle of an external magnet over 360°.

Performance

- User programmable parameters
- Low power mode
- -40°C to 125°C accuracy:1°C
- Sleep and automatic wake-up through I²C
- Programmable zero position
- Device address hardware configurable
- Operates 5V

Specifications

- Contactless angle measurement from 0° to 360°
- Programmable resolution up to 13 bits
- I²C communication
- Very low hysteresis
- Incremental model
- Programmable zero position
- low power consumption

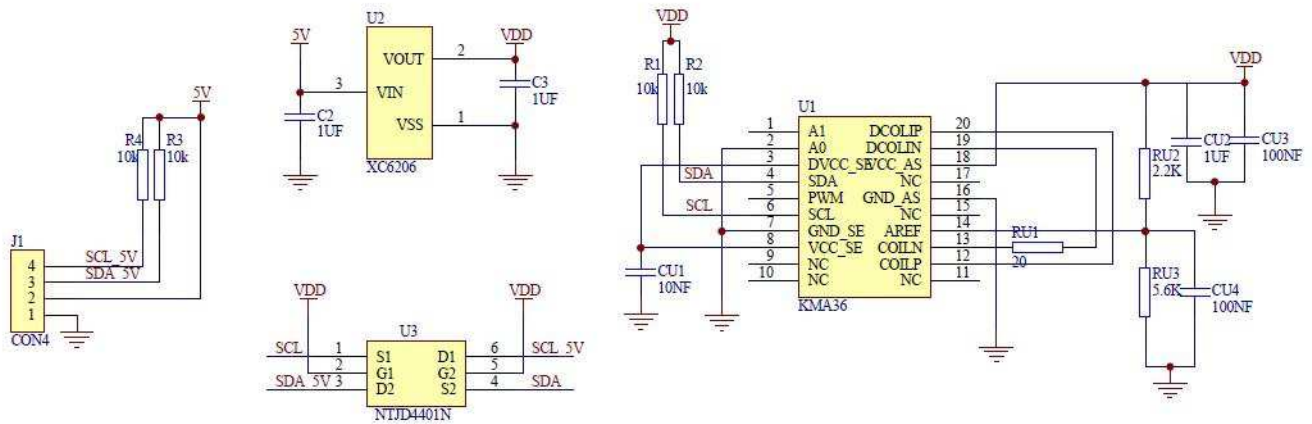
Features

- 4-pin Grove compatible connector
- I²C interface
- Programmable resolution up to 13 bits
- Very low hysteresis
- High accuracy mode

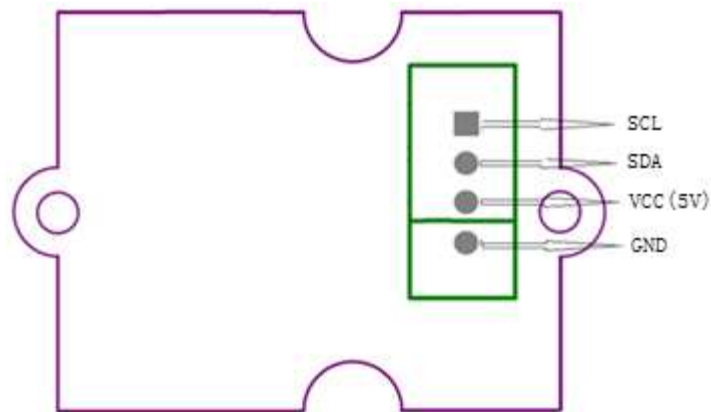
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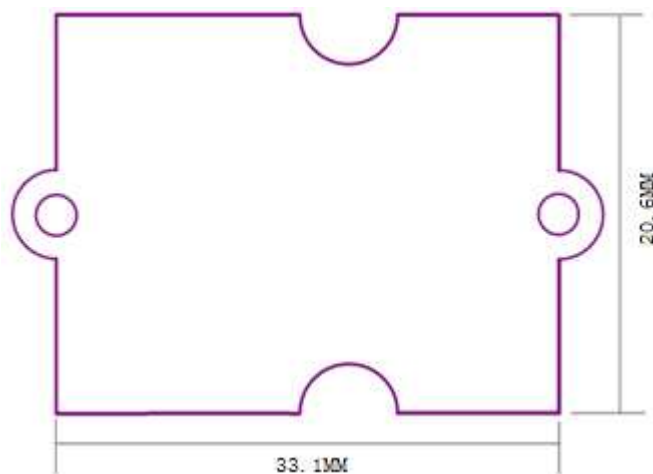
Schematic



Connector Pin Assignments (I²C Communications)



Dimensions (mm)



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Detailed Description

I²C Interface:

The KMA36R 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:

- [KMA36R Datasheet](#)

Ordering Information

Description	Part Number
KMA36 GROVE BOARD	DPP401G000

te.com/sensorsolutions

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PRODUCT SHEET

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