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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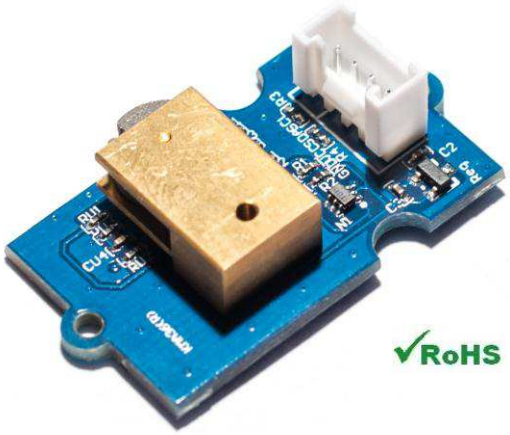


MEAS KMA36R SENSOR FOR GROVE SYSTEM

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

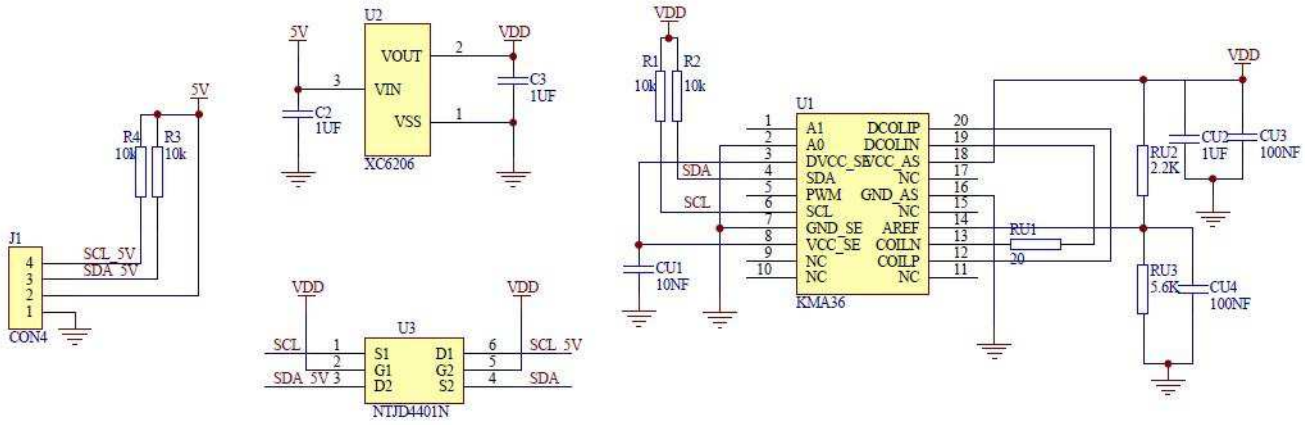
Specifications

- 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

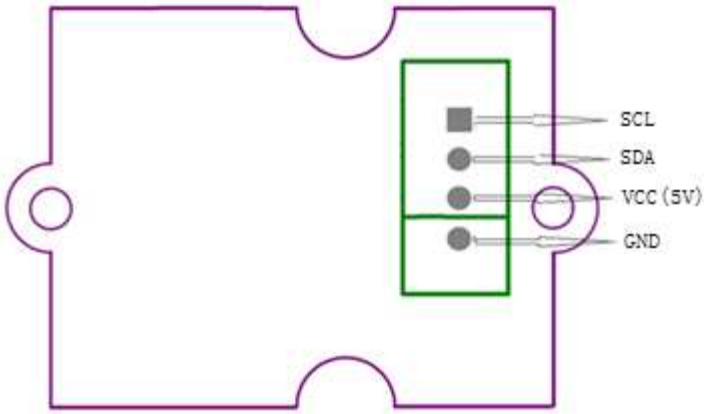
Features

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

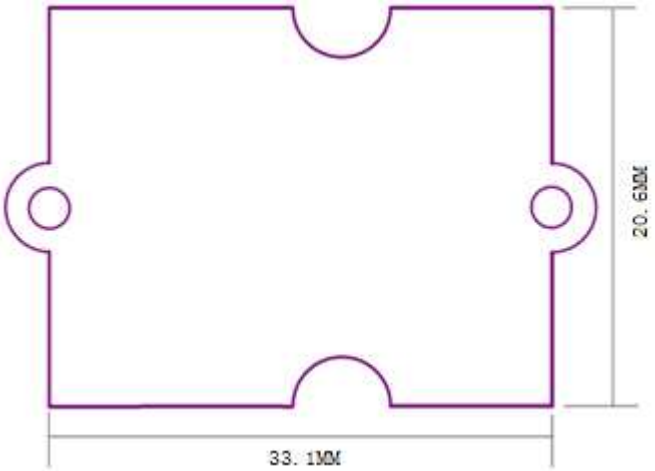
Schematic



Connector Pin Assignments (I²C Communications)



Dimensions (mm)



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

PRODUCT SHEET

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a TE Connectivity company.
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