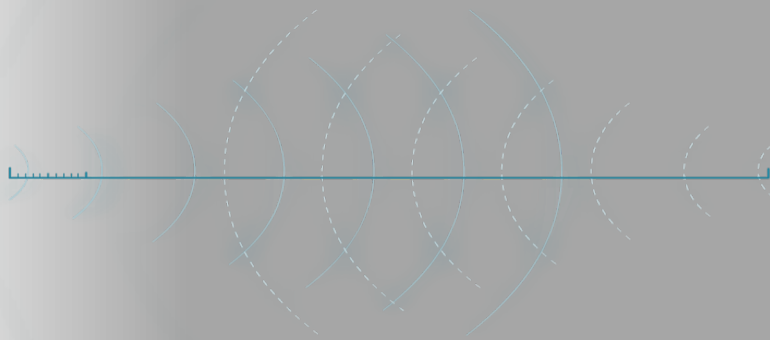
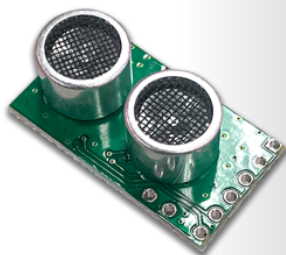


FSSUR0A1

Ultrasonic Distance Sensing Module

Specification



Description

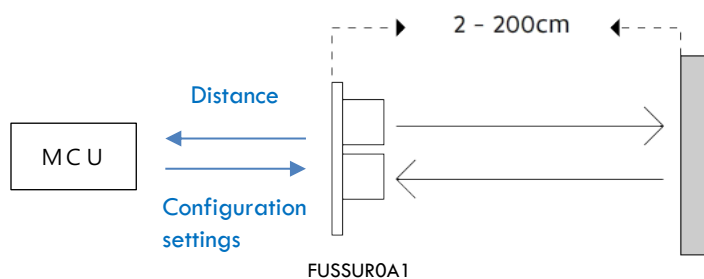
FSSUR01 ultrasonic distance sensor can provide accurate and stable non-contact distance measurement from 2cm to 200cm. The characteristics of sound wave will not be affected by ambient light, material and color. Compared with the products on the market, **FSSUR01** is smaller in size and more suitable for small device applications. The FOV sensed is 60°, which is suitable for sensing objects approaching or whether the target is in the detection range and other related applications.

Features

- Small size: 26.5 x 15 x 8.7 mm
- Detection range: 2-200cm
- Built in algorithm, high stable output
- Integrated driver and receiver solutions for ultrasonic sensing
- Ultrasonic transducer operating at 40 kHz center frequency
- Using I2C communication

Application

- Ranging
- Detect proximity / contactless applications
- Anti theft



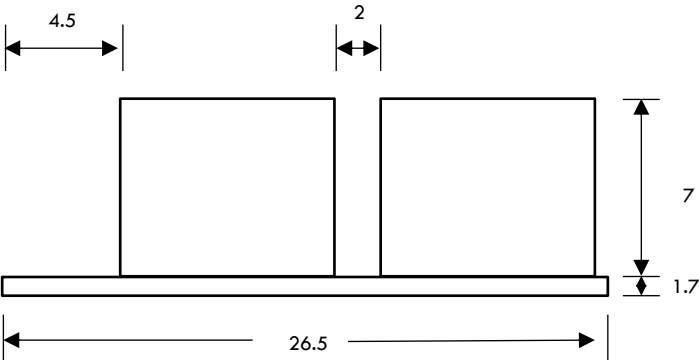
Maximum Ratings

Parameter	CONDITIONS	MIN	MAX	UNIT
Supply Voltage	AVDD	-0.5	3.6	V
	VDD (I/O interface)	-0.5	3.6	V
Operating Junction Temperature	Ambient, biased	-40	125	°C
Storage Temperature	Ambient, unbiased	-40	125	°C

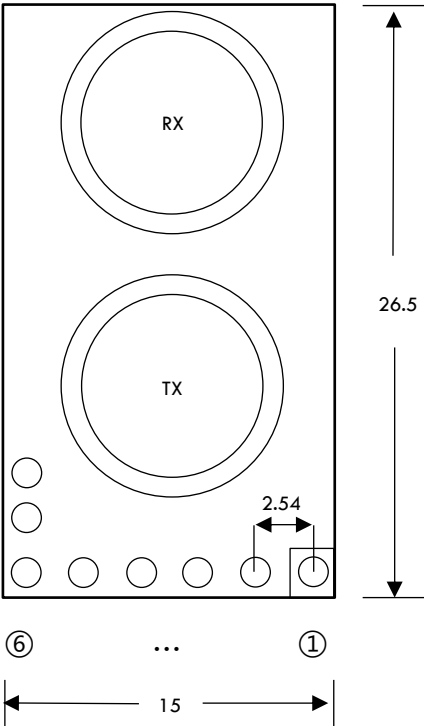
Recommended Operating Conditions

Parameter	Characteristics
Power supply voltage	3.0V ~ 3.6V
Frequency	40±1 KHz
Working Distance	2cm ~ 200cm
Measurement Accuracy	± 2 cm
Control Interface	I2C
FoV	60°
Operating temperature	-20 ~ 85°C

Outline



No.	Pin Name
①	3.3V
②	GND
③	SDA
④	SCL
⑤	Undefine
⑥	Undefine



Unit : mm

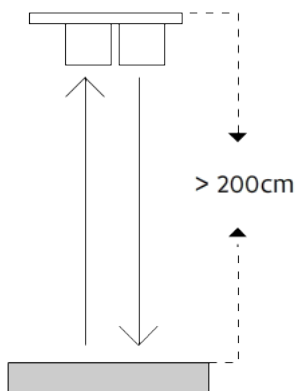
The sensor **cannot** accurately measure the distance to the following objects:

- a. Distance more than 2 meters
- b. The reflection surface is shallow, so the sound wave is not easy to be reflected back to the sensor
- c. The object under test is too small to reflect enough sound waves back to the sensor
- d. If the sensor is installed in the lower position of the equipment, it is possible to detect the acoustic wave reflected from the floor
- e. Objects with soft or irregular surfaces, such as plush animals, may not reflect enough sound waves for accurate detection. They are not suitable for continuous use in humid environments. Dew on the sensor may affect the performance and service life of the device.

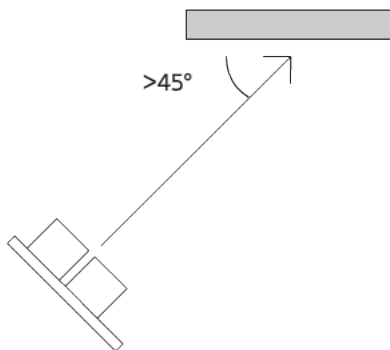
If you have special application requirements, please contact us :

<http://www.socle-tech.com/contact.php>

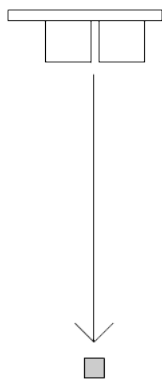
a.



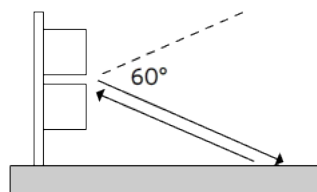
b.



c.



c.



Date	Version	Description
20201005	1.0	Initial version