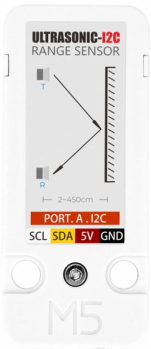
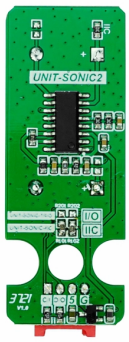
Unit Ultrasonic-I2C

SKU:U098-B1





Description

The **Unit Ultrasonic-I2C** is an **ultrasonic distance measurement** sensor with an **I2C** communication interface. The hardware utilizes the RCWL-9620 ultrasonic distance measurement chip paired with a 16 mm probe, enabling precise distance measurement within a range of **2 cm to 450 cm** (with an accuracy of ±2%). As an I2C slave device, the sensor can share bus resources with other I2C devices, maximizing IO resource savings. It is ideal for applications such as robot obstacle avoidance and liquid level detection.

Note: When measuring distances greater than 3.5 meters, there may be a slight delay in the distance measurement response.

Features

- RCWL-9620
- I2C communication interface (addr: 0x57)
- Range: 2cm-450cm
- Protective cover for stable circuit operation
- Built-in temperature compensation to reduce probe temperature drift
- Supports UIFlow graphical programming

Includes

- 1 x Unit Ultrasonic-I2C
- 1 x HY2.0-4P Grove cable (20cm)

Applications

- Robot obstacle avoidance
- Liquid level measurement
- Posture detection

Specifications

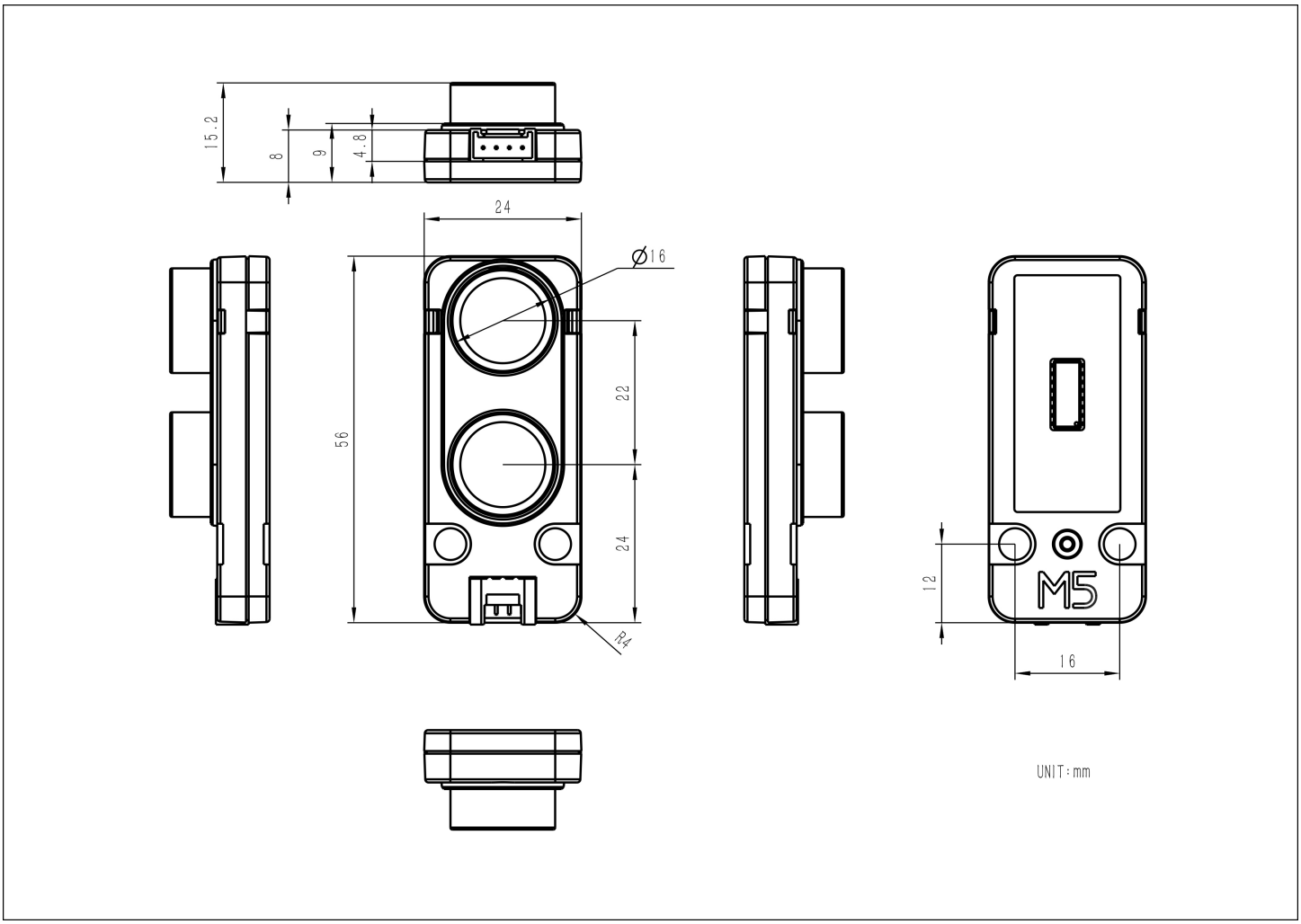
Specification	Parameter
Ultrasonic Ranging SoC	RCWL-9620
Range	2cm ~ 450cm
Communication Interface	I2C @0x57
Probe Specification	16mm
Receive / Transmit Frequency	40KHz
Receiving Sensitivity	-65dB
Directional Angle	60°
Measurement Accuracy	±2%
Measurement Cycle	50ms
Working Current	3mA
Product Size	56.0 x 24.0 x 15.0mm
Product Weight	10.0g
Package Size	75.0 x 45.0 x 30.0mm
Gross Weight	26.0g

PinMap

Unit Ultrasonic-I2C

HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	SDA	SCL

Model Size



Datasheets

- RCWL-9620 Datasheet

Softwares

Arduino

- Unit Ultrasonic-I2C Test Example with M5Atom
- Unit Ultrasonic-I2C Test Example with M5Core
- Unit Ultrasonic-I2C Test Example with M5Core2
- Unit Ultrasonic-I2C Test Example with M5StickC
- Unit Ultrasonic-I2C Test Example with M5StickCPlus

UiFlow2

- Unit Ultrasonic-I2C UiFlow2 Docs

Video

- Unit Ultrasonic-I2C Car Obstacle Avoidance

sonic_i2c_gpio_video.mp4

- UiFlow2 Unit Ultrasonic-I2C