-14%

I2C Decibel Sound Level Meter Module

£20.00 – £24.00

Accurately monitor sound level in decibel (dB SPL) with our low-power I2C decibel sound level meter for ESP32, Arduino, Raspberry Pi, etc.
[Contains **built-in microphone**]

International Shipping (7-10 days)
Pay with PayPal

Connector 0.1" header (unsoldered) | JST-XH vertical

Type Regular | Spectrum Analyzer

× Clear

~~£22.00~~ **£20.00**

7 in stock

- 1 + ADD TO BASKET

SKU: PCBA-DBM-r3

Category: Modules

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DESCRIPTION ADDITIONAL INFORMATION REVIEWS (0)

The PCB Artists decibel sound level meter module features

- High accuracy of **±2 dB SPL**
- No external microphone needed – contains **built-in MEMS mic**
- Measurement range of **35 dB to 120 dB**
- Frequency Range of **30 Hz to 8 kHz**
- Easy to use – standard **I2C interface**
- Low power consumption, only **5mA @ 3.3V** (measurement) and **100uA** (sleep)
- Selectable response – **A-weighted**, C-weighted, Z-weighted
- Adjustable averaging time in the range of 10ms to 10,000 ms
  125ms (fast mode) and **1,000ms (slow mode)** supported
- **Threshold** detection and interrupt
- 100-reading buffer to allow host MCU to sleep
- Stick to any surface using peel-off adhesive
- **Low cost** and **small in size**

Audio Spectrum Analysis (Optional)

The I2C decibel meter module can be connected to any system with a 3.3V power output and I2C bus for communicating with the sound sensor module.

- Decibel Sensor – Interfacing Guide and Hardware Manual
- Decibel Sensor configuration examples – using sleep, interrupt and other features (coming soon)
- Decibel Sensor – Programming Guide and I2C Register Map (**includes Spectrum Analyzer registers**)
- Mounting guide for SMD type decibel sensor module

Example Projects and Source Code

Here are some sample projects and source code to help you get started quickly with our decibel sensor module.

- Using the dB SPL sensor with Raspberry Pi, includes example source **code in C**
- ESP32 Decibel Logger Demo with ThingsBoard, includes ESP32 **Arduino sketch**
- RP2040 or Pi Pico Sound Level Sensor Demo, includes **MicroPython** code
- Decibel Meter with Arduino UNO and 7-Segment Display, includes **Arduino sketch**

See the Module in Action

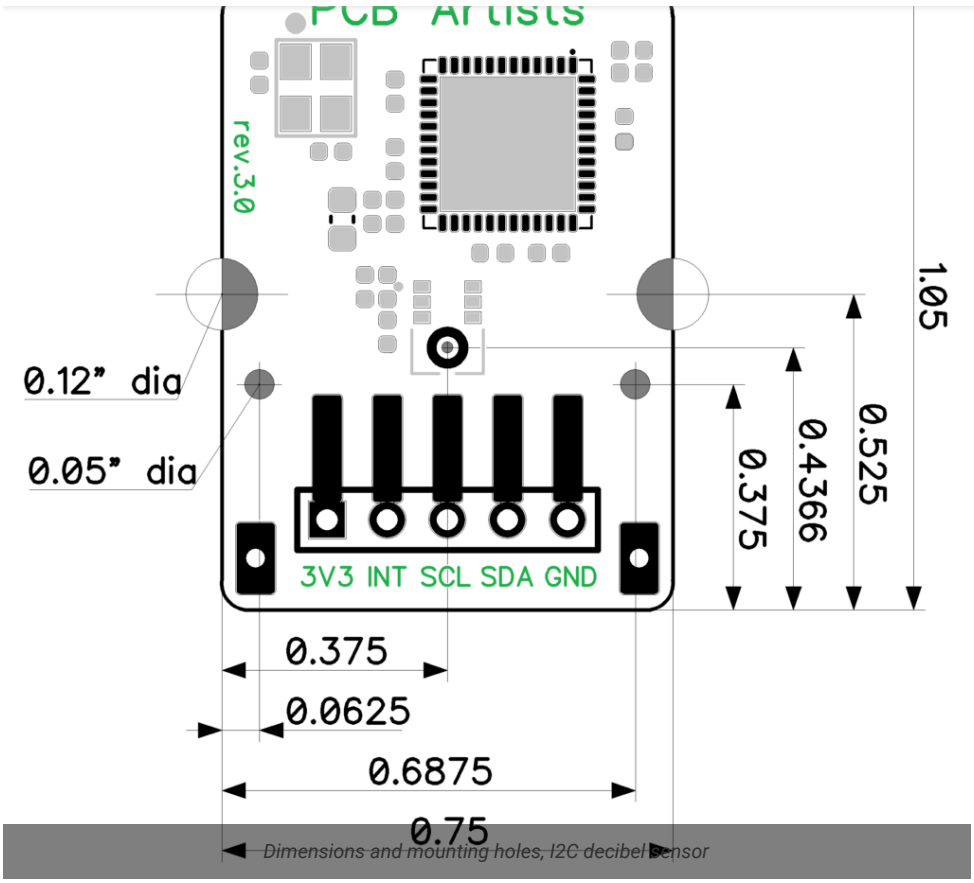
Watch How2Electronics' YouTube video using an **ESP32 devkit and OLED display** to show decibel values acquired from our sensor. At 0:40, you can see how the speaker's properties and the module's A-weighting affects decibel readings based on the sound frequency being measured.

DIY ESP32 Decibel Meter | Professional-Grade Sound Level Measuring Instrument

- Using the decibel meter module with ESP32 + Ubidots

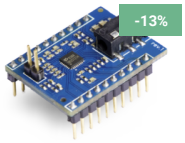
Physical Dimensions

Note that the bottom side of the module has no components to facilitate sticking the module to an enclosure using double-sided adhesive tape. **The sound inlet port of the microphone is located on the bottom side.**



Dimensions and mounting holes, I2C decibel sensor

RELATED PRODUCTS



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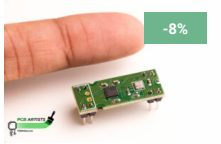
ES8388 Audio Codec Module

Modules

~~£16.00~~ **£14.00**



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ZMOD4510 Module – UART interface

Modules

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I2C Methane Sensor Module

Modules

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