

## RE Partner Solution

# TDK MEMS Microphone



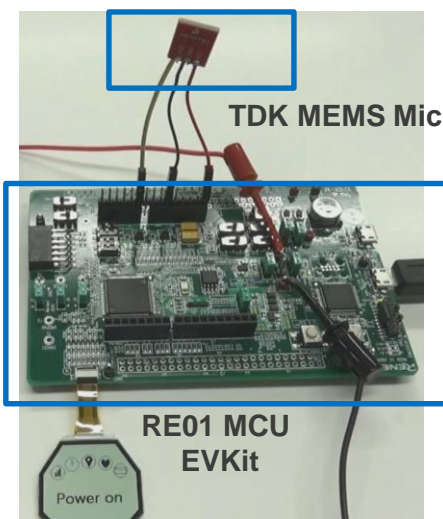
### Solution Summary

TDK provides various ultra-compact MEMS microphones using advanced MEMS techniques, supporting advancement of voice interface technology. Using TDK MEMS microphone **ICS-40212**, [RE MCU](#) enables extreme low power voice recognition. This solution is suitable for wearable devices, home automation and various IoT device which requires long battery life with small size.

### Features/Benefits

- Voice recognition power RE01 MCU + **ICS-40212** MEMS microphone : only 1.5mA
- ICS-40212 Ultra-low power consumption
  - LOW-POWER MODE: Current consumption 55 $\mu$ A, SNR66dBA, AOP 123dB SPL
  - HIGH-PERFORMANCE MODE: Current consumption 165 $\mu$ A, SNR66dBA, AOP128 dB SPL
- Analog output (Single ended)
- High sensitivity -38dBV with  $\pm$ 1dB tolerance

### Diagrams



TDK MEMS Microphone : ICS-40212

TDK MEMS microphone **ICS-40212** and [RE01 Evaluation Kit](#) demonstrates extreme low power voice recognition. It requires only 1.5mA in total.

### Target Markets and Applications

- Wearable Devices
- Home Automation
- IoT Product



## About TDK TDK at a Glance

(FY March 2020)

Corporate Name	TDK Corporation
Corporate Headquarters	2-5-1 Nihonbashi, Chuo-ku, Tokyo, 103-6128, Japan <a href="#">Map (PDF:684KB)</a> >
Date of Establishment	December 7, 1935
Authorized Number of Shares	480,000,000 shares
Number of Shares Issued	129,590,659 shares
Number of Shareholders	21,922
Common Stock	32,641,976,312 yen
Securities Traded	Tokyo Stock Exchange
Consolidated Net Sales	1,363.0 billion yen
Consolidated Net Income	57.8 billion yen
Number of Employees	107,138
Ratings	Corporate ratings (As of May, 2020) : A3 (Moody's) , A- (Standard & Poor's) , A+ (R & I) Short-term bond (As of May, 2020) : A-2 (Standard & Poor's)
Global Network	More than 200 factories, R&D, and sales offices in more than 30 countries
Main Businesses	<ul style="list-style-type: none"><li>• Passive components</li><li>• Sensor application products</li><li>• Magnetic application products</li><li>• Energy application products</li><li>• Others</li></ul>

[https://www.tdk.com/corp/en/about\\_tdk/tdk\\_at\\_a\\_glance/index.htm](https://www.tdk.com/corp/en/about_tdk/tdk_at_a_glance/index.htm)