

Ultra-Low Noise Microphone with Differential Output

GENERAL DESCRIPTION

The ICS-40730 is an ultra-low noise, differential analog output, bottom-ported MEMS microphone. The ICS-40730 includes a MEMS microphone element, an impedance converter, a differential output amplifier and an enhanced RF package. The ICS-40730's 74 dB SNR and ± 2 dB sensitivity tolerance make it an excellent choice for microphone arrays and far field voice control applications.

The ICS-40730 has a linear response up to 124 dB SPL with a differential output sensitivity specification of -32 dBV. It can be used in a single-ended mode with -38 dBV sensitivity and the same high SNR.

The ICS-40730 is available in a 4.72 mm \times 3.76 mm \times 3.50 mm surface-mount package.

APPLICATIONS

- Smart Home Devices
- Smartphones
- Teleconferencing Systems
- Security and Surveillance
- Microphone Arrays
- Voice Control and Activation

FEATURES

- Ultra-High 74 dBA SNR
- -32 dBV Differential Sensitivity, -38 dBV Single-Ended Sensitivity
- ± 2 dB Sensitivity Tolerance
- 4.72 \times 3.76 \times 3.5 mm Surface-Mount Package
- Non-Inverted Signal Output
- Extended Frequency Response from 25 Hz to 20 kHz
- Enhanced RF Performance
- 285 μ A Current Consumption
- 124 dB SPL Acoustic Overload Point
- -77 dBV PSR
- Compatible with Sn/Pb and Pb-Free Solder Processes
- RoHS/WEEE Compliant

FUNCTIONAL BLOCK DIAGRAM

