

Ultra-Low Noise Microphone with Differential Output

Product Brief

GENERAL DESCRIPTION

The ICS-40720* is a high-performance, very low noise, low-power, differential analog output, bottom-port omnidirectional MEMS microphone. The ICS-40720 consists of a MEMS microphone element, an impedance converter and an output amplifier. The ICS-40720's low noise and tight sensitivity tolerance make it an excellent choice for microphone arrays and voice control applications.

The ICS-40720 has very high SNR and extended wideband frequency response. Low power consumption enables long battery life for portable applications. The ICS-40720 has a linear response up to 122 dB SPL with a sensitivity specification of -32 dBV.

The ICS-40720 is available in a miniature 4 × 3 × 1.20 mm surface-mount package.

**Protected by U.S. Patents 7,449,356; 7,825,484; 7,885,423; and 7,961,897. Other patents are pending.*

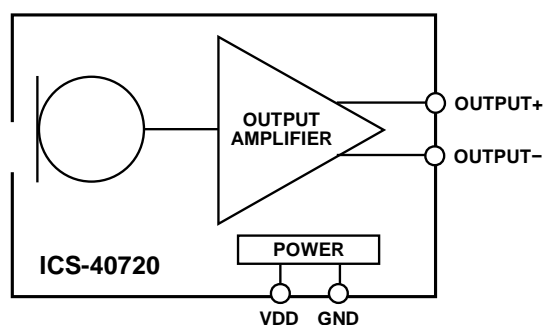
APPLICATIONS

- Smartphones
- Tablet Computers
- Teleconferencing Systems
- Digital Still and Video Cameras
- Bluetooth Headsets
- Notebook PCs
- Security and Surveillance

FEATURES

- High SNR of 70 dBA
- Sensitivity of -32 dBV (Differential)
- ±1 dB Sensitivity Tolerance
- Small, 4 × 3 × 1.2 mm Surface-Mount Package
- Differential Output
- Non-Inverted Signal Output
- Omnidirectional Response
- Extended Frequency Response from 55 Hz to 20 kHz
- Enhanced RF Performance
- Low Current Consumption: 160 µA
- 122 dB SPL Acoustic Overload Point
- High PSR of -80 dBV
- Compatible with Sn/Pb and Pb-Free Solder Processes
- RoHS/WEEE Compliant

FUNCTIONAL BLOCK DIAGRAM



ORDERING INFORMATION

PART	TEMP RANGE
ICS-40720	-40°C to +85°C
EV_ICS-40720-FX	—