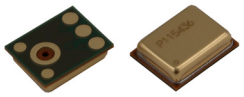
Knowles analog microphone for far-field IoT and ANC Ear applications

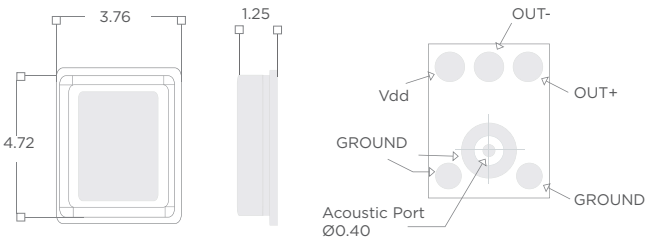


PRODUCT OVERVIEW

- 70 dB Signal-to-Noise Ratio (SNR) enables far-field voice pick up for IoT applications.
- 130 dB Acoustic Overload Point (AOP) provides a large dynamic range for barge-in applications.
- Low phase distortion lends to superior ANC algorithm performance.
- Differential mode configuration improves noise immunity to power supply variations, allowing extension of microphone PCB traces.
- +/-1 dB matching enhances multi-mic array performance.

KEY PARAMETERS	SPECIFICATIONS
Signal-to-noise ratio (SNR)	70 dB (A)
Acoustic Overload Point (10% AOP)	130 dB SPL
Low Frequency Roll Off (LFRO)	< 13 Hz
Bandwidth (±3dB)	13 kHz
Current consumption	285uA @ 2.7V
Sensitivity and Tolerance (dBv/Pa)	-40 +/- 1 dB (Single Ended) -35 +/- 1 dB (Differential)
Supply voltage (V)	2.3 to 3.6V
Interface	Analog (SE/Diff)
Port location	Bottom Port
Package dimensions	4.72 x 3.76 x 1.25 mm

DIMENSIONS (MM)

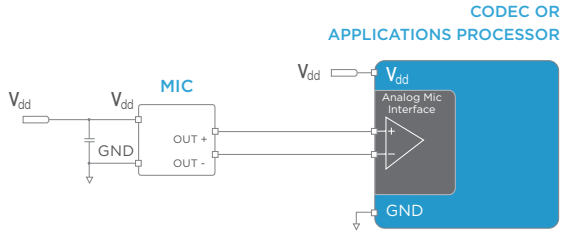


TYPICAL APPLICATIONS

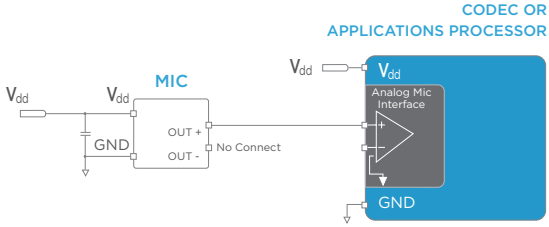
- Mic arrays for voice enabled smart home hubs
- Voice enabled home/ industrial devices (thermostats, bulbs, fans, remote controls, TV)
- Active Noise Cancelling (ANC) Headsets
- Speakerphones, Teleconference systems

APPLICATION NOTES

TYPICAL DIFFERENTIAL MODE APPLICATION CIRCUIT



TYPICAL SINGLE ENDED MODE APPLICATION CIRCUIT



RECOMMENDATIONS FROM THE MANUFACTURER OF THE SPECIFIC CODEC BEING USED ARE EXPECTED TO BE FOLLOWED.

CONTACT

For inquiries, please contact your nearest Knowles representative or Knowles at: memsmicinfo@knowles.com