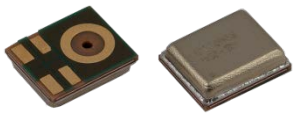
SPW0878LR5H-1
ELLEN

Knowles versatile, high-performance, multi-mode analog microphone

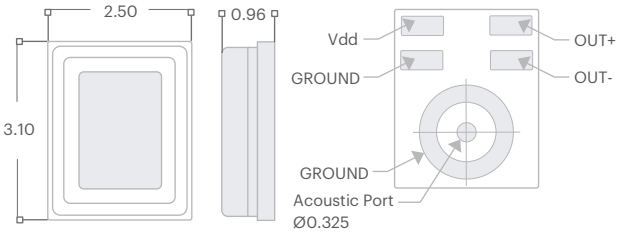


PRODUCT OVERVIEW

- Low (15Hz) LFRO and Tight Phase Tolerance enhance and improve ANC and beam forming algorithm performance
- 1% THD at 131 dB SPL and a large dynamic range enables improved barge-in performance and resilience to wind noise turbulence
- 65dB Signal-to-Noise Ratio (SNR) in a small footprint, ideal for a wide range of use cases and devices
- Multiple operating modes facilitates both high-performance and low-power/Always On applications

KEY PARAMETERS	LPM	SPM
Signal-to-noise ratio (SNR) (Diff/SE)	63 / 64.5 dB (A)	65 / 65 dB (A)
Acoustic Overload Point (1%/10% THD)	128 / 132 dBSPL	131 / 134 dBSPL
Low Frequency Roll Off (LFRO)	15 Hz	
Resonant Frequency	45 kHz	
Current consumption	70 uA	220 uA
Sensitivity and Tolerance	-38 ± 1 dB FS (Diff) / -44 ± 1 dB FS (SE)	
Supply voltage	1.6 to 1.9V	2.3 to 3.6V
Interface	Analog Differential or Single-Ended	
Port location	Bottom Port	
Package dimensions	3.10 x 2.65 x 0.96 mm	

DIMENSIONS (MM)

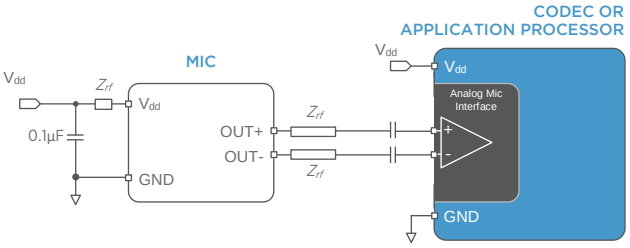


TYPICAL APPLICATIONS

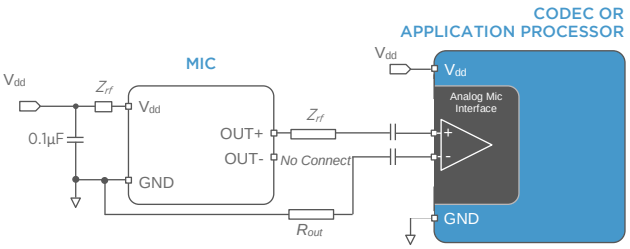
- Headsets
- Action Cameras
- Noise Cancellation
- Speech Enhancement
- Beam Forming

APPLICATION NOTES

TYPICAL DIFFERENTIAL APPLICATION CIRCUIT



TYPICAL SINGLE-ENDED APPLICATION CIRCUIT



Note: The above block diagram is for illustrative purposes only. Specific connectivity recommendations from the CODEC manufacturer should be followed.

CONTACT

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Revision 0.2