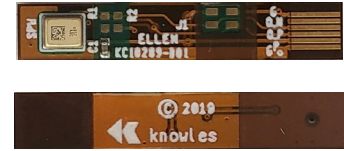


KAS-700-0154

Mics on Flex, 2 Pack, SPW0878LR5H-1, ELLEN, Bottom Port Differential Analog



Knowles differential analog microphone SPW0878LR5H-1 mounted on flexible bias boards

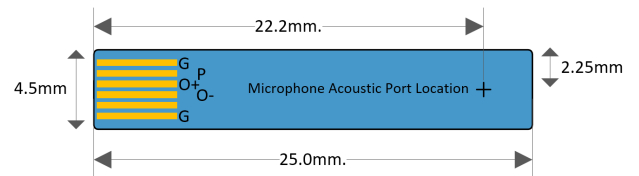
ASSEMBLY OVERVIEW

- ▶ Bottom Port analog microphone mounted to flexible bias board
- ▶ For use with Knowles "Muskie" Microphone Evaluation Kit Part# KAS-33100-0004
- ▶ 65dB Signal to Noise Ratio (SNR)
- ▶ 1% THD at 131 dB SPL and a large dynamic range enables improved barge-in performance and resilience to wind noise turbulence
- ▶ Tight Phase Tolerance, Low LFRO (15Hz)

KAS-700-0054 MIC ON FLEX BOM

- ▶ SPW0878LR5H-1, Bottom port analog microphone
- ▶ BYPASS CAPACITOR, 0.1uF, 0.1µF ±10% 16V, X5R, 0402
- ▶ KC10289 FLEX CIRCUIT PCB

FLEX CIRCUIT DIMENSIONS

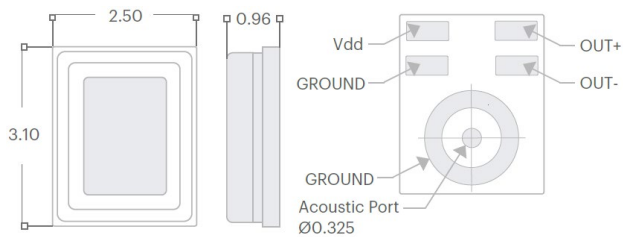


FLEX CIRCUIT PINOUTS

The table below shows the pinout for the flex connector. The same connector can be used for all microphone flexes, regardless of port orientation or electrical interface.

Flex Pin#	Flex Marking	Signal
1	OUT(+)	Output
2	OUT(-)	Output
3	GND	Ground
4	GND	Ground
5	VDD	Power

KEY PARAMETERS	LPM	SPM
	Specifications	Specifications
Package dimensions	L x W x H = 3.10 mm x 2.50 mm x 1.00 mm (7.75mm ²)	
Port Location	Bottom Port	
Interface	Analog	
Supply voltage	1.5 to 1.9V	2.3 to 3.6V
Current consumption	75 uA@1.8V	220 uA@2.75V
Sensitivity and Tolerance	-38 ± 1 dB V / Pa (Diff) : -44 ± 1 dB V / Pa (SE)	
Signal-to-noise ratio (SNR)	63/ 64.5 dB(A) (Diff / SE)	65/ 65 dB(A) (Diff / SE)
1%/10% THD (AOP)	128/132 dB SPL	131/134 dB SPL
DC Output (SE mode)	0.69 V	
Output Impedance	380 Ω	
LFRO (-3dB)	15 Hz	
Resonant Frequency	45 kHz	



ADDITIONAL INFORMATION

For inquiries, please visit the Knowles website at <https://www.knowles.com/subdepartment/evaluation-kits/dpt-microphones/subdpt-sisonic-surface-mount-mems> Or contact your nearest Knowles representative.

DISCLAIMER

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples given herein, any typical values stated herein and/or any information regarding the application of the device, Knowles Electronics, LLC hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

INFORMATION

For further information on technology, delivery terms and conditions and prices, please contact a Knowles representative.

© 2020, Knowles Electronics, LLC, Itasca, IL USA. All Rights Reserved. Knowles and the logo are trademarks of Knowles Electronics, LLC.

