

# KAS-700-0157 Mics on Flex, 2 Pack, SPH0141LM4H-1, Luiso, Bottom Port PDM



## Knowles robust, SPH0141LM4H-1 high-performance digital microphone mounted on flexible bias boards

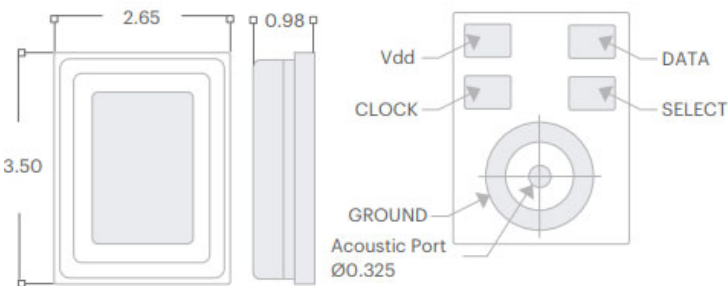
### ASSEMBLY OVERVIEW

- ▶ Bottom Port PDM microphone mounted to flexible bias board.
- ▶ For use with Knowles “Muskie” Microphone Evaluation Kit. Part# KAS-33100-0004
- ▶ 63.5dB Signal-to-Noise Ratio (SNR) in a small footprint, ideal for a wide range of use cases in smartphones and mobile devices
- ▶ 2D barcode for 1:1 product tracking
- ▶  $\pm 1$  dB sensitivity matching and a noise-immune PDM output enhance multi-mic architecture performance and ease system integration

KEY PARAMETERS	SPECIFICATIONS
Signal-to-noise ratio (SNR)	63.5 dB (A) <sup>1</sup>
Acoustic Overload Point (1% / 10% AOP)	108 dB SPL / 120 dB SPL <sup>1</sup>
Low Frequency Roll Off (LFRO)	45 Hz
Current consumption	500 $\mu$ A <sup>1</sup>
Sensitivity and Tolerance	-26 $\pm$ 1 dB FS <sup>1</sup>
Supply voltage	1.6 to 3.6V
Interface	PDM Digital
Clock Rates Supported (Normal Mode)	1.0 to 4.8 MHz
Port location	Bottom Port
Package dimensions	3.50 x 2.65 x 0.98 mm

<sup>1</sup> SPM @1.536MHz, OSR=32

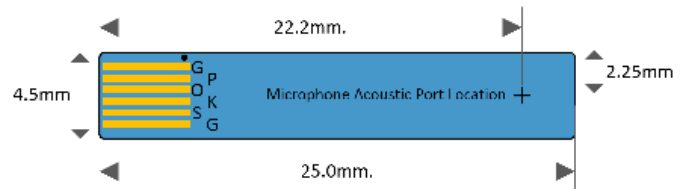
### MICROPHONE DIMENSIONS (MM)



### KAS-700-0057 MIC ON FLEX BOM

- ▶ SPH0141LM4H-1, Bottom port digital microphone
- ▶ BYPASS CAPACITOR, 0.1 $\mu$ F, 0.1 F  $\pm$ 10% 16V, X5R, 0402
- ▶ KC10103 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	G	Ground
2	P	Power
3	D	Data
4	K	Bit Clock
5	S	Select
6	G	Ground

### 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.

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