

# KAS-700-0149 Mics on Flex, 2 Pack, SPM0687LR5H-1, WINFREY, Bottom Port Differential Analog



## Knowles analog microphone exclusively for far field IoT/ANC applications mounted on flexible bias boards

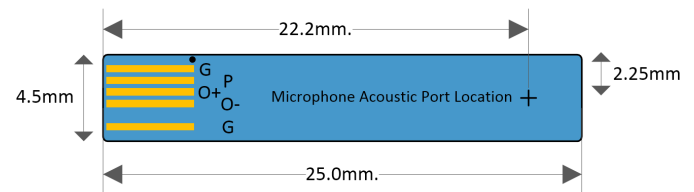
### ASSEMBLY OVERVIEW

- ▶ Bottom Port differential analog microphone mounted to flexible bias board.
- ▶ For use with Knowles “Muskie” Microphone Evaluation Kit. Part# KAS-33100-0004
- ▶ 70dB Signal to Noise Ratio (SNR) enables far-field voice pick up for IoT applications.
- ▶ 130dB Acoustic Overload Point (AOP) provides a large dynamic range for barge-in applications.
- ▶ Differential mode configuration improves noise immunity to power supply variations, allowing extension of microphone PCB traces.

### KAS-700-0049 MIC ON FLEX BOM

- ▶ SPM0687LR5H-1, Bottom port differential analog microphone
- ▶ BYPASS CAPACITOR, 0.1uF, 0.1 F ±10% 16V, X5R, 0402
- ▶ KCB3924 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	O+	Data
4	O-	Bit Clock
5	-	NC
6	G	Ground

KEY MICROPHONE 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 (uA)*	300 uA
Sensitivity and Tolerance	-40 +/- 1 dB (Single Ended) -34.75 +/- 1 dB (Differential)
Supply voltage (V)	2.75 V
Interface	Analog
Port location	Bottom Port
Package dimensions	4.72 x 3.76 x 1.24 mm

### 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.

© 2019, Knowles Electronics, LLC, Itasca, IL USA. All Rights Reserved. Knowles and the logo are trademarks of Knowles Electronics, LLC.

