

KAS-700-0146 Mics on Flex, 2 pack, SPW0690LM4H-1, CAMERON, Bottom Port PDM



# Knowles robust, SPW0690LM4H-1 high-performance digital microphone mounted on flexable 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
- 66.5dB Signal-to-Noise Ratio (SNR) in a small footprint, ideal for a wide range of use cases in smartphones and mobile devices
- 10% THD at 135 dB SPL and a large dynamic range enables improved barge-in performance and resilience to wind noise turbulence
- ±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)	66.5 dB (A)	
Acoustic Overload Point (1% / 10% AOP)	120 dB SPL / 135 dB SPL	
Low Frequency Roll Off (LFRO)	45 Hz	
Bandwidth (±3dB)	15 kHz	
Current consumption	1000 uA	
Sensitivity and Tolerance	-41 ± 1 dB FS	
Supply voltage	1.65 to 3.6V	
Interface	PDM Digital	
Clock Rates Supported (Normal Mode)	1.1 to 4.8 MHz	
Port location	Bottom Port	
Package dimensions	3.10 x 2.50 x 0.85 mm	

### MICROPHONE DIMENSIONS (MM)



## KAS-700-0046 MIC ON FLEX BOM

- SPW0690LM4H-1, Bottom port digital microphone
- BYPASS CAPACITOR, 0.1uF, 0.1 F ±10% 16V, X5R, 0402
- KCB3859 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	Р	Power
3	D	Data
4	К	Bit Clock
5	S	Select
6	G	Ground

# ADDITIONAL INFORMATION

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

NFORMATION

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

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