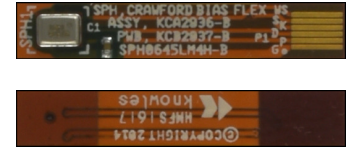


## KAS-700-0137 Mics On Flex, 2 Pack, SPH0645LM4H-B, CRAWFORD, Bottom Port I2S



# Knowles SPH0645LM4H-B SiSonic™ I2S digital microphone mounted on flexible bias boards

## ASSEMBLY OVERVIEW

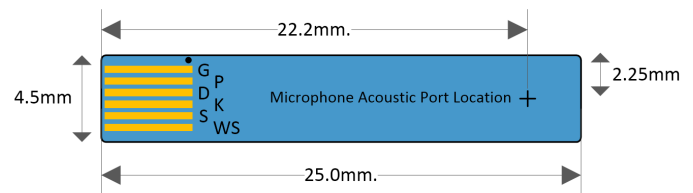
- ▶ Bottom Port I2S microphone mounted to flexible bias board.
- ▶ For use with Knowles “Muskie” Microphone Evaluation Kit. Part# KAS-33100-0004
- ▶ 65dB Signal-to-Noise Ratio (SNR) in a small footprint.
- ▶ The I2S interface simplifies the integration in the system and allows direct interconnect to digital processors, application processors and microcontrollers.

| KEY PARAMETERS                      | SPECIFICATIONS        |
|-------------------------------------|-----------------------|
| Signal-to-noise ratio (SNR)         | 65 dB (A)             |
| Acoustic Overload Point (10% AOP)   | 120 dB SPL            |
| Low Frequency Roll Off (LFRO)       | 45 Hz                 |
| Bandwidth (±3dB)                    | 15 kHz                |
| Current consumption                 | 600 uA                |
| Supply voltage                      | 1.62 to 3.6V          |
| Interface                           | I2S Digital           |
| Clock Rates Supported (Normal Mode) | 1.024 to 4.096 MHz    |
| Port location                       | Bottom Port           |
| Package dimensions                  | 3.50 x 2.65 x 0.98 mm |

## KAS-700-0037 MIC ON FLEX BOM

- ▶ SPH0645LM4H-B, Bottom port digital microphone
- ▶ BYPASS CAPACITOR, 0.1uF, 0.1 F ±10% 16V, X5R, 0402
- ▶ KCB2937 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         | WS           | Word Strobe |

## 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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