Analog Devices Introduces Industry’s First I2S Digital MEMS Microphone

NORWOOD, Mass. -- (BUSINESS WIRE) -- Analog Devices, Inc. (ADI) today introduced the ADMP441 iMEMS® microphone, the industry’s first high-performance MEMS microphone with an I2S (Inter-IC Sound) digital output. The ADMP441 also features an extended frequency response from 100 Hz to 15 kHz, high SNR (signal-to-noise ratio) of 61 dBA, and high PSRR (power-supply-rejection ratio) of 80 dBFS - features that have become the hallmarks of Analog Devices - award-winning MEMS microphone portfolio. The new MEMS microphone uses patented ADI MEMS and audio signal processing technologies and is available in a thin 4.72 mm × 3.76 mm × 1.00 mm surface-mount package. It is reflow solder compatible with no sensitivity degradation.

“For years, audio designers have been forced to design in additional signal processing in order to convert microphone output signals into standard I2S formats for non-mobile phone use. This increased both system cost and design complexity,” said Kieran Harney, product line manager, MEMS/Sensors Technology Group, Analog Devices.

“The innovative ADMP441 with industry standard I2S output offers plug-and-play use in a small footprint, simplifying audio system design while reducing overall signal chain cost and complexity. The ADMP441 is ADI?s latest installment in a growing portfolio of high performance MEMS microphones that meet the demand for better sound quality and smaller footprints.”

Key Features and Benefits include:

* Digital I²S interface with high-precision 24-bit data provides plug?and-play compatibility with industry standard digital interface for non-handset applications.

* High SNR of 61 dBA enables excellent sound quality and intelligibility in far-field applications.

* Flat frequency response from 100 Hz to 15 kHz produces a well-balanced and natural sound.

* High PSRR of 80 dBFS provides superior RF and electrical noise rejection allowing greater design flexibility for microphone placement and power trace routing.

Additionally, the ADMP441 fully complies with the TIA-920 Telecommunications Telephone Terminal Equipment Transmission Requirements for Wideband Digital Wireline Telephones standard.

To download the datasheet, please visit http://www.analog.com/ADMP441 [1]

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[1] http://www.analog.com/ADMP441