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## Smallest MEMS Microphone Designed for Hearing Aid Applications Features Low Equivalent Input Noise (EIN) and Power Consumption

*Analog Devices ADMP801 MEMS microphone delivers 27 dBA EIN, consumes only 17  $\mu$ A at 1 V supply, and is available in a 7.3 mm<sup>3</sup> package.*

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) (NASDAQ: ADI), a global leader in high-performance semiconductors for signal processing applications, introduced today a high performance [MEMS microphone](#) developed specifically for hearing aid applications. When compared to legacy solutions like electret condenser microphones (ECMs), the [ADMP801](#) is not only smaller in size at only 7.3 cubic millimeters, but also offers greater performance stability over time, temperature, and environmental changes, produces very low equivalent input noise (EIN) at 27 dBA SPL (sound pressure level), and consumes only 17  $\mu$ A at 1V supply -- a fraction of the power consumed by traditional ECMs. The ADMP801 MEMS microphone is available in a tiny surface-mount package measuring only 3.35 mm x 2.50 mm x 0.98 mm that is reflow-solder-compatible with no sensitivity degradation.

**MEMS Microphone  
for Hearing Aids**

7.3 mm<sup>3</sup>  
Package

ANALOG  
DEVICES  
**ADMP801**

- ◆ 27 dBA SPL EIN
- ◆ 17  $\mu$ A (1 V supply)
- ◆ Environmental and Temporal Stability

The graphic features a close-up of a human ear. A US dime coin is placed next to the ear for scale, with a small arrow pointing to the tiny ADMP801 microphone package resting on the coin. Below the coin, the text '7.3 mm<sup>3</sup> Package' is written. At the bottom of the graphic, a list of key features is presented with diamond bullet points. The Analog Devices logo and the product name 'ADMP801' are also visible.

- Download data sheet and view product page: <http://www.analog.com/ADMP801>
- Order samples and evaluation boards: <http://www.analog.com/ADMP801>
- For more information on Analog Devices healthcare solutions visit:

Smallest MEMS Microphone designed for hearing aid applications produces very low EIN of 27 dBA SPL, consumes only 17  $\mu$ A at 1 V supply, and is available in a 7.3 cubic millimeters package. (Photo: Business Wire)

<http://healthcare.analog.com/en/segment/health.html>

"Hearing aids represent an application ideally suited for the advantages MEMS microphones offer including small size, stability, and very low power consumption," said Pat O'Doherty, vice president for the Healthcare Group, Analog Devices. "However, MEMS microphones have not offered the EIN performance levels that meet stringent hearing aid standards until now. The ADMP801 MEMS microphone offers noise performance, package size, and phase and gain stability that is very desirable for advanced hearing aids that incorporate beamforming to facilitate sound or voice localization."

## More About the ADMP801 Omnidirectional MEMS Microphone

The ADMP801 is a high quality, ultralow power, analog output, bottom-ported, omnidirectional MEMS microphone designed specifically for hearing aid applications. It is fully pick-and-place and reflow compatible, offering an option to save on cost using a mechanized assembly process as compared to ECMs that require manual assembly processes. The device offers excellent environmental and temporal stability, and multiple ADMP801 MEMS microphones can be configured in an array to form a directional response, facilitating sound of voice localization.

### ADMP801 Omnidirectional MEMS Microphone Key Specifications

- Microphone EIN: 27 dBA SPL
- Current consumption: 17  $\mu$ A at 1 V
- Stable response over time and temperature
- Package volume: 7.3 cubic millimeters

### Availability and Pricing

Product	Sample Availability	Full Production	Price	Packaging
<a href="#">ADMP801</a>	Now	Now	\$10.78/1K	3.35-mm x 2.50-mm x 0.98-mm surface-mount LGA package
<a href="#">EVAL-ADMP801Z-FLEX</a>	Now	NA	\$95 each	NA

### About Analog Devices

Innovation, performance, and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves over 60,000 customers, representing virtually all types of electronic equipment. Analog Devices is headquartered in Norwood, Massachusetts, with design and manufacturing facilities throughout the world. Analog Devices is included in the S&P 500 Index. <http://www.analog.com>

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