

Audio Control, Microphone Pre Amplifier, 1.64V to 3.63V, 5 Wire, Serial, WLCSP, 6 Pins, -40 °C

Manufacturers	<a href="#">ON Semiconductor, LLC</a>
Package/Case	6-XFBGA, WLCSP
Product Type	Audio ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for FAN3852UC16X or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The FAN3852 integrates a pre-amplifier, LDO, and ADC that converts Electret Condenser Microphone (ECM) outputs to digital Pulse Density Modulation (PDM) data streams. The pre-amplifier accepts analog signals from the ECM and drives an over-sampled sigma delta Analog-to-Digital Converter (ADC) and outputs PDM data. The PDM digital audio has the advantage of noise rejection and easy interface to mobile handset processors. The FAN3852 features an integrated LDO and is powered from the system supply rails up to 3.63V, with low power consumption of only 0.85mW and less than 20µW in Power-Down Mode.

## Features

Optimized for Mobile Handset and Notebook PC Microphone Applications

Accepts Input from Electret Condenser Microphones (ECM)

Pulse Density Modulation (PDM) Output

Standard 5-Wire Digital Interface

Low Input Capacitance, High PSR, 20 kHz Pre-Amplifier

Low-Power 1.5 $\mu$ A Sleep Mode

Typical 420 $\mu$ A Supply Current

SNR of 62dB(A) for 16dB Gain

Total Harmonic Distortion 0.02%

Input Clock Frequency Range of 1-4MHz

Integrated Low Drop-Out Regulator (LDO)

1.5kV HBM ESD on MIC Input

## Application

ONSEMI

## Related Products



### [SA571N](#)

ON Semiconductor, LLC  
DIP-16



### [SA571NG](#)

ON Semiconductor, LLC  
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### [NCP2811BFCT1G](#)

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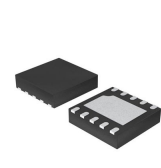
### [SA571DG](#)

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### [SA572N](#)

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