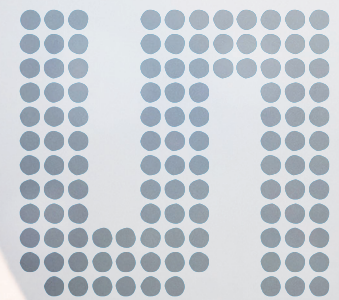


Product Document

Active Noise Cancellation

www.ams.com/ANC



AS3412 – World's smallest high-performance ANC solution

- Latest achievement in the field of high-tech ANC solutions
- Cost-effective design is the best fit for bundling headsets due to the high system integration
- WL-CSP package 2.2x2.2mm enables ultra-small foot print
- Eco-friendly ANC architecture has the lowest power consumption on the market

**Sensing
is life.**

General Description

Active Noise Cancellation technology maximizes the end-user experience in today's advanced world of mobile communications, enabling crystal clear sound during phone conversations or music listening regardless of the surrounding environment noise level. A highly integrated system in combination with lowest power consumption on the market plus a cost-effective price model makes the AS3412 ideally suited for smartphones or other mobile devices.

The AS3412 is targeting feed-forward topology and is able to effectively reduce ambient noise up to 3 kHz. Used in a true wireless ear piece AS3412 even enables state of the art hybrid noise cancellation. Based on over eight years of continuous ANC product development experience combining an innovative approach with best-in-class systems expertise, ams delivers application flexibility, advanced support and high performance expected from an industry leader.

Applications

- Perfect fit for bundled headsets
- Stereo in-ear headsets and earpieces
- Mono True Wireless earpieces

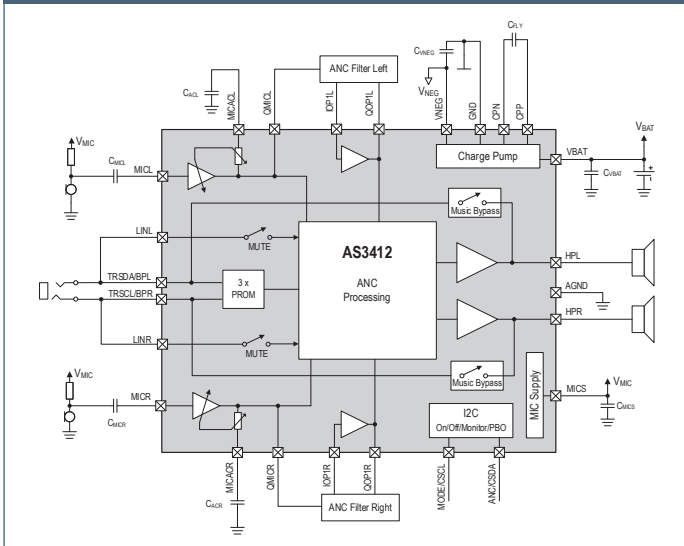
Benefits

- Superior audio quality
- Ultra-compact housing
- High system integration
- Easy implementation
- No extra mechanical switches
- Unparalleled battery life

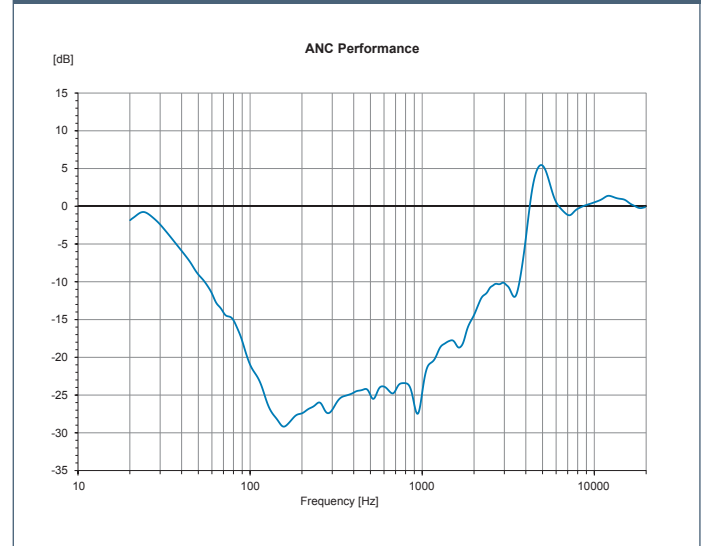
Features

- WL-CSP package 2.2x2.2mm; 0.4mm pitch
- Up to 30 dB noise cancellation
- Power supply range (1.65V-1.8V)
- Unique integrated Bypass (1.5Ohm switch, active unpowered)
- Low power (<10mW)
- Very High SNR of 112.5dB
- High performance true ground headphone amplifier
- 2x34mW, 0.1% THD+N @ 32Ohm load, 1.8V supply
- Up to 90mW output power in differential output operation
- Monitor Mode
- I²C interface
- Full digital control

Block Diagram



Typical Noise Cancelling Performance



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