



SmartSound™

PRIMARY APPLICATIONS



True Wireless Audio

Earbuds today feature a multitude of microphones. Not only for phone calls, but for noise cancellation, transparency functions, and always-on smart assistants



Smart Homes

With multiple mics configured in an array, the resulting beam pattern makes it easy for products like smart assistants to hear voice commands from across the room



Mobile Devices

Wide dynamic range and high sound to noise ratio produces great results in any environment



Robotics

Advanced semiconductor micro fabrication techniques advance voice recognition technology and further improve the intelligence of interactive robots

FEATURED PRODUCTS

T5837 & T5838



High performance PDM microphones with breakthrough new low power levels as well as an industry leading SNR and AOP, all inside a single standard 3.5 x 2.65 x 0.98 mm package.

T5848



T5848 adds data output formats of SoundWire and I²S respectively. SoundWire allows a high mic count, bi-directional data, and control bits. I²S provides multibit PCM data ready to process.

PRODUCT CATEGORIES

T5837 & T5838

Headsets & Earbuds, Smart Speakers, Game Controllers, Internet of Things

- Industry-leading low power consumption: 50–70% lower than competitors
- High SNR and AOP in all operational modes
- Acoustic Activity Detect w/ programmable thresholds and filters with power consumption as low as 20 μ A
- Available with -37 dBFS sensitivity in HQM (T5837)

T5838

Smartphones, Tablets, Headsets

- High SNR & AOP in all operational modes
- Acoustic Activity Detect w/ programmable thresholds and filters with power consumption as low as 20 μ A

T5838 & T5848

Smartwatches, Wearables, TV Remotes & Set Top Boxes

- Industry-leading, first high SNR & high dynamic range I²S output, high SNR & AOP in all modes (T5848)
- Ultra-low power consumption
- I²S output allows direct connection to a wide variety of SoCs, MCUs (T5848)
- Acoustic Activity Detect w/ programmable thresholds and filters with power consumption as low as 20 μ A

PRODUCT DETAILS

Product Number	Package Size (mm)	Sensitivity (high quality mode)	Sensitivity (low-power mode)	SNR (high quality)	SNR (low-power)	AOP (high quality)	AOP (low-power)	Notes
T5837	3.5 × 2.65 × 0.98 Bottom Port	-37 dB FS \pm 1 dB	-21 dB FS \pm 1 dB	68 dBA	65 dBA	133 dB SPL	117 dB SPL	Industry standard sensitivity
T5838	3.5 × 2.65 × 0.98 Bottom Port	-41 dB FS \pm 1 dB	-26 dB FS \pm 1 dB	68 dBA	65 dBA	133 dB SPL	119 dB SPL	AAD with programmable thresholds & filters with 20 μ A power consumption
T5848	3.5 × 2.65 × 0.98 Bottom Port	-37 dB FS \pm 1 dB	-26 dB FS \pm 1 dB	68 dBA	65 dBA	133 dB SPL	119 dB SPL	Ultra-low power, high SNR, multi-mode I ² S



Scan Here for additional materials and information.