产品概览

BELASIGNA 300: 24 位音频处理器，用于便携式通信设备

欲看完整文档，请参阅数据表。

BelaSigna® 300 是一款超低功耗、高保真非立体声音频处理器，用于便携式通信设备，可提供卓越的音频清晰度，而不会增大尺寸或缩短电池寿命。BelaSigna 300 为容易产生噪声和回声的器件提供了实现卓越音频性能的基础。它独特的专利双核结构可以实现多种先进算法的同时运行，同时保持极低功耗。这种微型超低功耗、单芯片方案对电池使用寿命或外形几乎没有影响，适用于便携式设备。安森美半导体以及我们的方案合作伙伴网络拥有业内专业技术和最佳算法，可帮助您快速开发和启动产品。BelaSigna 300 芯片由一套完整的开发工具、实操培训和完整的技术支持提供支持。

特性

- Load-balanced dual-core DSP architecture optimized for audio processing

- Ultra-low power consumption: typically 1-10 mA

- Miniature form factor: 3.63 x 2.68 mm PCB area with few external components

- Input Stage: - 88 dB system dynamic range extendable to 110 dB- A/D sample rates from 8.0 to 60 kHz- 4 independent channels

- Output stage: - High-fidelity Class-D output drives speakers directly- 25 mA maximum acoustic power output

- Flexible Input Output Controller (IOC) to offload digital signal moves from the DSP

- Supports advanced adaptive audio processing algorithms with extremely low group delay
- 128-bit AES advanced encryption to protect manufacturer and user data
- Seamless connection to other systems and HMI devices such as buttons, potentiometers and LEDs
- External clock input up to 40 MHz

  For more features, see the data sheet

优势

- Powerful computing: 24-bit precision computing enables software like advanced adaptive noise reduction and echo can

- Extended battery life: Industry leading ultra-low power consumption enables longer operation in active and standby modes without sacrificing performance or increasing battery size.

- Miniature size: One of the smallest audio processing systems available, the 35-ball WLCSP package can be designed into new or existing PCB layouts with little or no impact on the size of the end product

- Ultra-high audio fidelity: Input A/Ds can be configured to provide a a dynamic range of up to 110 dB. Combined with extremely low system noise and low group delay, the BelaSigna 300 processor is capable of exceptional audio quality.

- Unmatched design flexibility: The CFX/HEAR dual-core architecture has unmatched flexibility with a 24-bit open-programmable DSP core and a highly configurable accelerator signal processing engine. BelaSigna® 300 delivers the flexibility of a generic DSP with the power consumption and size of a fixed-function ASIC.

- Complete solution: Algorithm development, from software building blocks to full algorithm suites, best-in-class development tools, technical support, and training are all available

应用

- Digital Audio Processing

终端产品

- Mobile Phones
- Hands-free kits
- Wireless headsets
- Other portable audio devices
- Electrocardiograph

器件电气规格

产品	Pricing ($/Unit)	Compliance	Status	DSP Core (bits)	Coprocessor Type	MIPS	Dynamic Range (dB)	RAM (kB)	$I_{standby}$ Typ (µA)	Audio Inputs	Audio Outputs	Package Type
B300W35A109XXG		Pb-free Halide free	Active	24	HEAR	-	110	-	60	4	2	WLCSP-35

欲了解更多信息，请联系您当地的销售支援 www.onsemi.cn 。

创建于：5/25/2020