

产品概览

LC823455: Low Power & High-Resolution Audio Processing System LSI for Portable Sound Solutions

欲看完整文档，请参阅数据表。



LC823455 is an audio processing System-on-Chip (SoC) for recording and playback with High-Resolution 32-bit & 192 kHz audio processing capability. It provides required key functions for Portable Sound Solutions which are; Dual CPU configuration, DSP providing intensive processing capability, 4316 KB of internal SRAM that supports the implementation of large-scale programs for WLAN applications, and multiple interfaces to extensively increase its connectivity. It features a broad range of functions including SBC/AAC codec and Active Noise Canceller applicable for wearable audio applications.

特性

- ARM® Cortex®-M3 Dual and Proprietary 32 bit DSP (LPDSP) Multi-Core system
 - Internal 4316kB large SRAM for ARM® Cortex®-M3 Dual Core and proprietary 32 bit DSP
 - Shorten ambient acoustic sound path
 - Various proprietary DSP codes for audio processing: MP3 codec, SBC codec, FLAC codec, noise-cancelling, echo cancelling and so forth
 - Hard wired audio functions:
 - ASRC (Asynchronous Sample Rate Converter)
 - Hardware mixer
 - EQ (6 band-Equalizer)
 - Integrated analog functions:
 - 4 channels of Digital MIC PDM I/F
 - Low-power Class D HP amplifier
 - System PLL
 - dedicated audio PLL, ADC
 - Various interfaces:
 - USB2.0 HS device
 - eMMC
 - SD card
 - SPI, I2C
 - High resolution 32 bit & 192 kHz audio processing capable
 - UART w/ DMA & FIFO support low power Bluetooth® audio
 - Miniaturized 4.086mm square WLCSP package
- For more features, see the data sheet

应用

- Portable Audio
- Wearable Audio
- Wireless Audio
- Voice User Interface (VUI)

优势

- 1-Chip solution lowers BOM cost
- No extra memory required for WLAN application
- Enabling ANC function
- DSP code's development cost reduction. Several DSP codes are available with no additional fee such as noise cancelling, echo cancelling and so forth
- Power saving by reducing CPU/DSP load
- Foot-print saving by reducing peripheral BOM count
- Multiple interfaces increase interface extensibility

终端产品

- Sports headset w/ Bluetooth
- Wireless speaker w/ Bluetooth, WLAN
- Voice recorder
- Smart Home Appliance

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
LC823455XATBG	7.4665	Pb-free Halide free	Active	32		170				2	2	WLCSP-120

欲了解更多信息，请联系您当地的销售支援 www.onsemi.cn。

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