



SAB 9805

USB Class-D Audio Controller

Target Applications

- Mobile Phone Headsets
- PC Headsets
- USB Speaker
- USB Docking Stations

AUDIO LISTENING PLEASURE AND SUPERIOR VOICE

The SAB 9805 provides easy access to audio listening pleasure and superior voice quality for the most competitive mobile/portable audio accessories. Using standard USB as the interface to a host the world of mobile and portable applications is broadened to access stereo music playback and recording, voice communication and FM radio listening. Overall system complexity and cost is reduced by adding audio functionality to the existing USB interface, which is used for charging and data communications already.

Highlights

- Excellent Audio and Voice Quality
- > 100 dB Signal-to-Noise Ratio (SNR)
- Low Power Consumption
- FM-Tuner Support
- Product Customization
- Smallest Solution Form-Factor (Wafer-Level BGA Package)

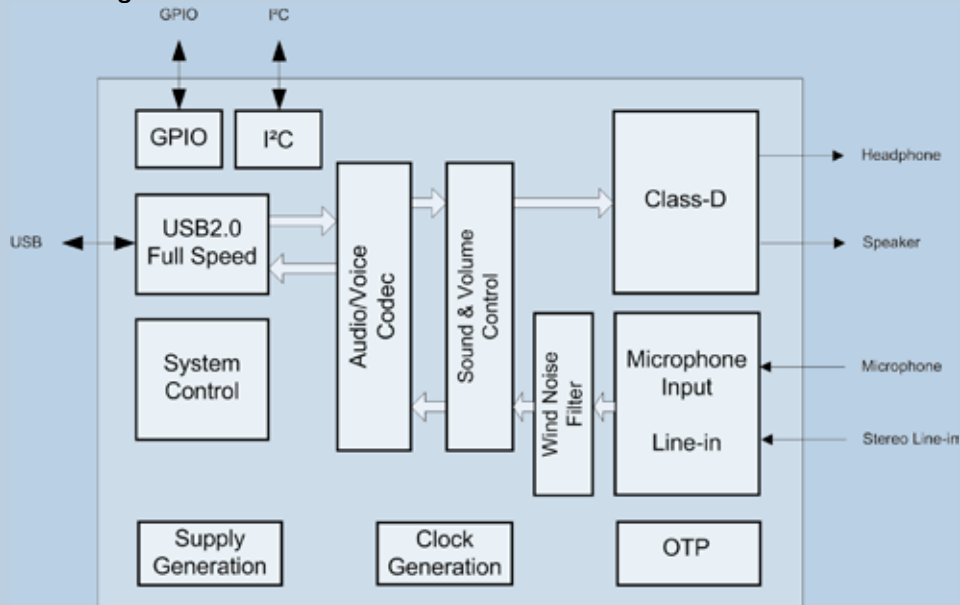
Key Features

- USB2.0
 - Full Speed Device (12MBit/s) compliant with USB OTG or hosts
 - Audio Device Class
 - HID for Control
- Audio/Voice Interfaces
 - Microphone Input - up-to 2 Microphones
 - Stereo Line-in Input
 - Headphone or Speaker Output
- Audio/Voice Processing
 - Sound Control
 - Volume Control
 - Wind Noise Filter
 - Click and Pop Suppression
- up-to 8 General Purpose IOs
- I²C Master and Slave Interface
- USB-Bus Powered with Internal Regulation of all Required Supply Voltages
- One-Time Programmable Memory for Product Customization
- Optimized eBOM

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USB Class-D Audio Controller

Block Diagram



- **USB 2.0**
 - Full-Speed (12MBit/sec) Device
 - USB OTG Compliant
 - USB Host Compliant
 - Audio Device Class
 - HID Device Class
- **Other Interfaces**
 - up-to 8 General Purpose IOs
 - I2C Master/Slave Interface
- **Intelligent Power Management**
- **One-Time Programmable Memory for Product Customization**
- **Wafer-Level BGA Package - World Smallest Solution**
- **Audio/Voice Processing**
 - PCM, PCM8 CODEC
 - Sound Control - Bass & Treble
 - Volume Control
 - Click & Pop Suppression
 - Wind Noise Filter
- **Audio Interfaces**
 - Microphone Input
 - Stereo Line-in Input
 - Headphone Output
 - Speaker Output

Product Summary

Type	Description	Package
USB Class-D Audio Controller	SAB9805T	SG-UFWLB-40
USB Class-D Audio Controller	SAB9805N	PG-VQFN-48
Form-Factor Reference Design	SAB9805RefDesign	
Evaluation Kit	SAB9805EvalKit	

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