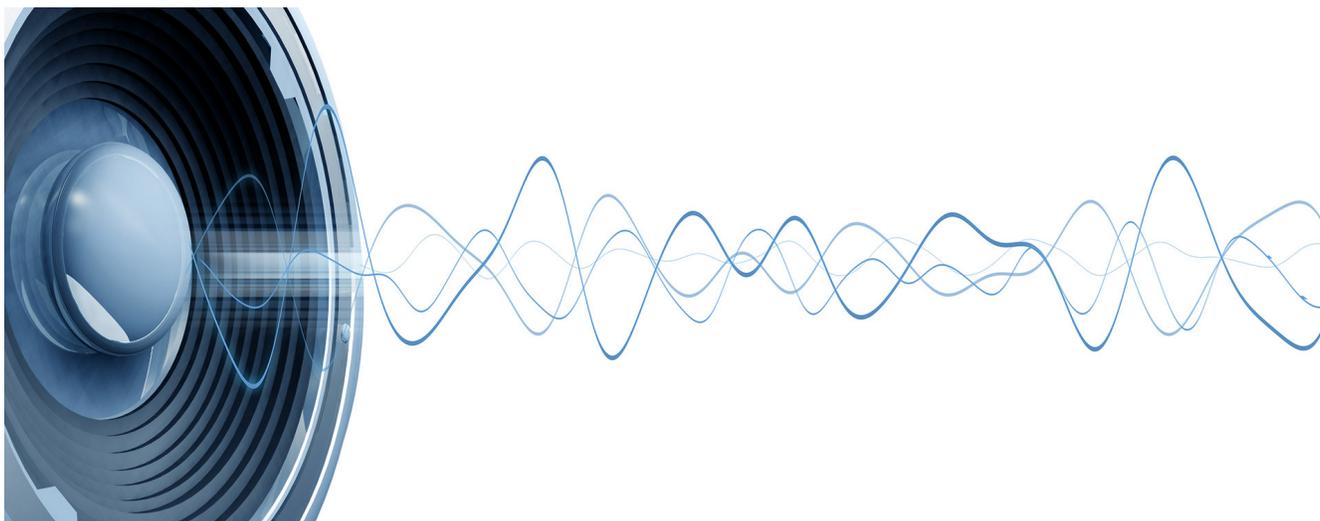


# TI Burr-Brown™ Technology: Always on the Edge of Audio Innovation

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In 1982, Burr-Brown demonstrated a 16-bit monolithic digital-to-analog converter (DAC) that transformed the playback and distribution of music forever. Music became not only portable but could also be reproduced with the same fidelity as a recording studio at a fraction of the cost. Since then, Burr-Brown technology has been synonymous with premium audio.

Since acquiring Burr-Brown in 2000, Texas Instruments has continued to develop [Burr-Brown™ Audio devices](#) for professional audio, smart home and automotive applications.

## Company History

Burr-Brown's roots extend back to the inception of high-fidelity audio. The company was founded in 1956 by engineers Robert Page Burr and Thomas R. Brown Jr. to explore potential applications of an exciting new technology: the transistor.

Working out of Brown's 400-square-foot garage in Tucson, Arizona, the company developed and marketed high-quality transistor-based instruments mounted inside wooden boxes. The firm's first audio milestone occurred in 1957. The Model 130 was the world's first solid-state operational amplifier (op amp), a technology that still lies at the heart of every modern, premium audio system. Today, TI Burr-Brown products include an extensive line of op amps.

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**Learn about the most important trends in today's rapidly evolving audio market.**

[Read the white paper here](#)

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Although Burr-Brown began its journey during the analog era, by the mid-1970s the company recognized that digital technology was about to revolutionize the audio industry. The CD player would soon reveal an opportunity to bring Burr-Brown technology and innovation into the world of digital audio. In 1975, the company released the ADC80 and DAC80, which became the industry standard for 12-bit data converters.

In early 1982, Burr-Brown demonstrated a 16-bit monolithic DAC. This device helped drop the price of CD players, helping lead the transition from analog phonograph records to digital CDs and digital audio media. In 1989, Burr-Brown introduced the OPA627, now considered an audio technology classic, as the industry's first junction field-effect transistor input op amp to deliver the very low noise and distortion performances audio applications demand.

### **A New Era with TI**

By the late 1990s, Burr-Brown was producing more than 1,500 microelectronic components and had more than 25,000 buyers worldwide. TI's acquisition of Burr-Brown combined Burr-Brown's precision signal-chain technological expertise with TI's advanced semiconductor process technologies and manufacturing expertise.

Today, audio system manufacturers turn to TI Burr-Brown technology for innovation in areas ranging from mobile devices to vehicle infotainment systems to home theaters to virtual assistants. The commercial applications of Burr-Brown Audio technologies include numerous products designed to help theater, video production and recording studio audio system developers solve technological challenges.



# Texas Instruments Burr-Brown Audio

### **A Next-generation Audiophile**

Until relatively recently, building a great personal sound system was a major and expensive undertaking. Few possessed an understanding of how premium audio technology worked, not to mention having the money, time and space needed to assemble and configure a high-end system.

Today, largely due to technology breakthroughs made possible by Burr-Brown technology, audiophiles from casual to professional can have it all: exceptional sound experiences at surprisingly affordable costs. Distortion-free amplifiers drive an array of innovative speakers, soundbars, headphones and earbuds, making access to premium audio practically ubiquitous.

### **Looking to the Future**

Today, TI continues to advance the industry by delivering high-fidelity Burr-Brown Audio devices, including high-performance Class-D amplifiers, data converters and, of course, op amps.

Beyond breakthroughs in digital-to-analog and analog-to-digital conversion and audio processing, Burr-Brown Audio SmartAmp technology uses advanced digital modeling and smart amplifiers to squeeze deep, rich sound out of smaller speakers (such as those in vehicles and smartphones) while still maintaining high audio quality.

TI continues to innovate both with device architecture and design, and the technology used to manufacture those devices. New advances in process technology improve the linearity of components, which enable even lower-distortion, high-fidelity signal processing. These advances also integrate digital technology with high-performance, high-voltage analog audio to allow devices to perform both simple and complex sound functions.

TI remains dedicated to building on its historic Burr-Brown foundation of best-in-class sound quality and industry firsts.

### **Additional Resources**

- Explore featured TI Burr-Brown Audio devices, including:
  - [TLV320ADC5140](#), a high-performance quad-channel audio ADC for smart home applications.
  - [TAS6421-Q1](#), a digital-input 1-channel Class-D audio amplifier for automotive applications.
  - [OPA1656](#), an audio op amp with ultra-low noise and distortion for professional audio applications.

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