

# DAE-6™- Fall in Love With Music All Over Again

## Class-D System Solution

Introducing the new DAE-6 – the industry’s first and only complete audio system on a single IC. Intersil D2Audio has combined its unmatched digital audio amplifier technology with the industry’s most respected discrete processing firmware, to produce the easiest- to-use and most powerful platform for creating unique and highly-differentiated audio products.

This new family of Intersil D2Audio products features discrete decoders for Dolby Digital, DTS Digital Entertainment™ and AAC encoded audio streams, captured via integrated S/PDIF receivers and followed by up to 12 channels of audio processing. This processing is configurable with multi-band parametric equalization, assignable filtering, reverb, matrix decoding and bass management. In addition, the DAE-6 family includes automatic algorithms for correcting room acoustic imperfections or performance anomalies in speaker drivers and enclosures.

### Intelligent Digital Audio Engine

At its core, the new DAE-6 is powered by the patented D2Audio Digital Audio Engine™ (DAE™) - the world's only Intelligent Digital Amplifier™. The unique intelligence of the Digital Audio Engine actively "monitors" the system, and uses the world's only all-digital feedback technology to optimize the amplifier's sound, delivering an immersive audio experience with incredible flexibility.

### A Complete System-on-Chip Audio Solution

By integrating a digital signal processor (DSP) with configurable audio processing algorithms, the DAE-6 provides audio system designers with an extremely flexible and feature-rich platform. The Class-D engine is tightly coupled with the DSP which allows processing at the PWM switching rate and provides levels of protection, quality, and performance that are not achievable in multi-chip solutions.



**Three Different Pin-Compatible Levels of Audio Performance**  
**All With the World's Only Intelligent Digital Audio Amplifier**

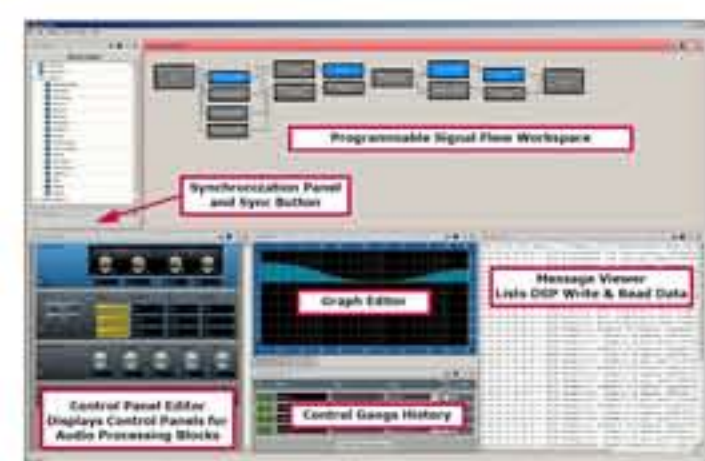
### Smarter Audio System Solutions

The new DAE-6 family offers three different pin-compatible levels of audio performance for easy design migration and flexibility.

- **Premium Audio:** DAE-6 smartly integrates discrete and matrix audio decoders, post processing, and amp control with no need for external memory or glue logic.
- **Premium Value:** Uncompromised Class-D power amp control, optimum power efficiency and performance at a very cost-effective price. This option offers virtually unlimited audio processor configuration using [AudioCanvas™ III](#).
- **MightyCat™:** The [MightyCat line of ICs](#) marries the advanced engineering and technology of the DAE-6, with proprietary tuning technology by audio legend Mark Levinson to produce the ultimate in audio system solutions. [Learn more.](#)

### Powerful Software for Powerful Audio Designs

With D2Audio® [Audio Canvas™ III](#) software, designers can easily and quickly build high quality new amplifier firmware and download it onto the target hardware. Audio Canvas software is a development tool for amplifier and system designs using the D2Audio Digital Audio Engine audio processor and Class-D amplifier controllers. Audio Canvas III allows the user to define the entire audio signal flow and architecture without signal flow limitations to any specific system configuration.



### [Audio Canvas III Information](#)

### DAE-6 Features

- Scalable in power, platforms and channels
- D2Audio SoundSuite™ enhancement and virtualization
- DSP correction for room and speaker performance
- Virtually unlimited processor configurations using Audio Canvas™ III • Integrated Dolby\* Digital, DTS Digital Entertainment™ and AAC Audio Decoder technologies
- Matrix decoding, bass management and post-processing
- Pin- and socket-compatible with DAE-3 for easy design migration

### DAE-6 Applications

- Audio Video Receiver (AVR)
- DTV Soundbar
- Home Theater in A Box (HTIB)
- Multi-Channel Multi-Media (MM) Systems
- Multi-Room Distributed Audio (MRDA)
- Powered Speaker Systems
- Automotive Trunk/Amplified Solutions