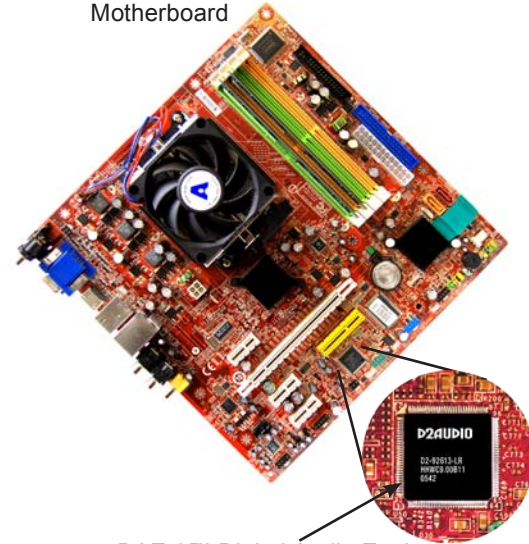# D2AUDIO® Media PC Solutions

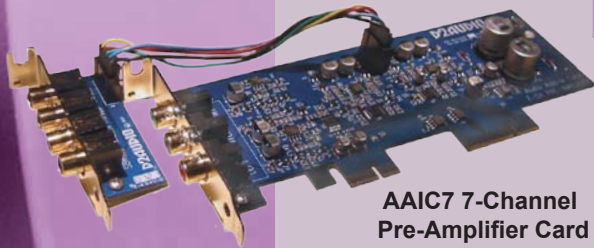### Enabling Next-Generation Media Center PCs with Integrated Audio And Amplification

- D2Audio Intelligent Digital Amplifier™
- Complete HD Audio 'Azalia' Interface
- All-In-One Convergence Platform
- AVR Class Performance
- Uses Existing ATX PC Power Supply (No Cost Adder)
- Interchangeable Internal Amplifier Cards
  - 5x100W Power Amp
  - 7-Channel Pre-Amp
- Essential D2Audio Technologies
  - Small Form Factor - fits PCIe low-profile slot
  - High Thermal Efficiency (No Noisy Fans)
  - Real-Time Power Management

DAE-3™ Intelligent Amplifier Motherboard

DAE-3™ Digital Audio Engine

AAIC7 7-Channel Pre-Amplifier Card
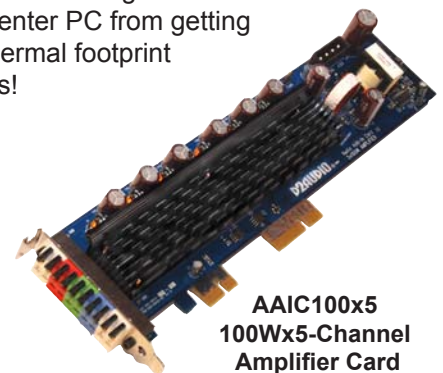
TRUE CONVERGENCE
CONFIGURABLE
AVR CLASS

Quality Sound With Media PC

D2Audio was the world's first and only digital amplifier to meet the stringent THX Ultra2 performance requirements. A world class audio solutions provider, D2Audio is enabling AVR-class audio and amplification in Media PC's with audio-enabled motherboards and add-in cards. D2Audio's Intelligent Digital Amplifier technology includes DSP audio processing intellectual property and embedded Sample Rate Conversion to ensure superior sound quality and performance not previously available for Media PC applications. The DAE-3 engine provides real-time power management to protect against power supply overload and potential Media PC shutdown from loud music or explosive sounds that occur during movies or games. Integrated thermal sensor feedback keeps the Media Center PC from getting too hot under the lid. Inherent high 93% efficiency leaves low thermal footprint inside the box, supporting a quiet box without need of noisy fans!

All-Digital Audio Amplification

Industry standard HDA Digital Audio Interface with a direct connection on motherboard provides integrated support of all digital I/O formats. Pure digital input (32kHz to 192kHz, 8-24 bit support) and digital amplification paths supports the UAA (Universal Audio Architecture) High Definition Audio class software driver. D2Audio's digital solution seamlessly integrates with the UAA enabling easy design, and reduced NRE, offers full range of solutions to address wide range of consumer demands.

D2AUDIO®
DIGITAL AMPLIFIERS

AAIC100x5
100Wx5-Channel
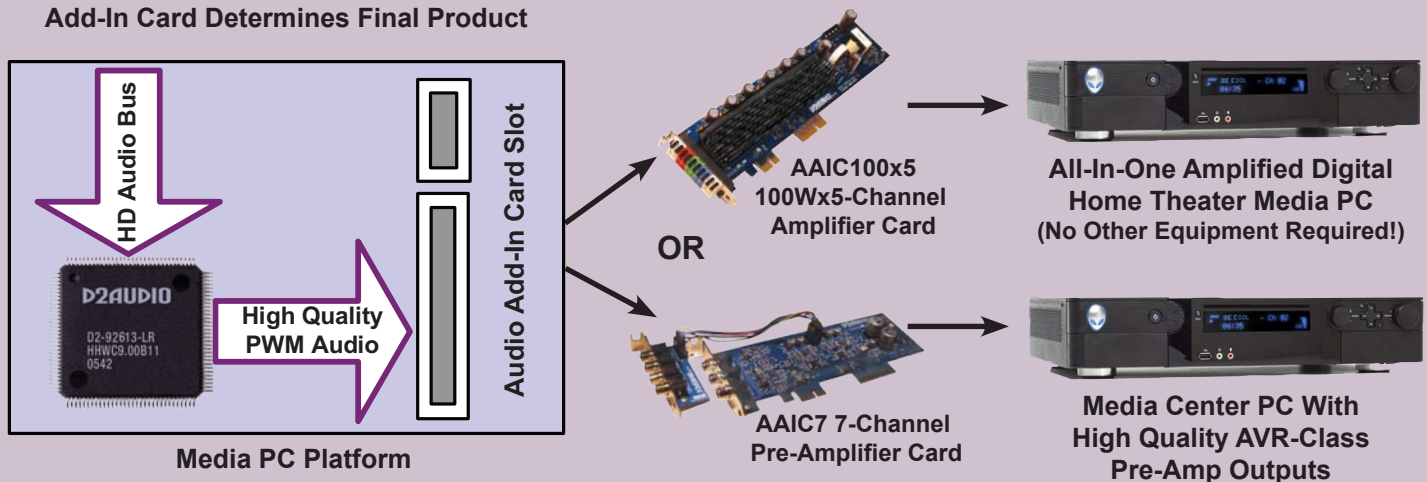Amplifier Card

D2-PS-AAIC--100

D2AUDIO

Achieve An Ultra Low-Profile Media Center PC Design Platform

D2Audio's AAIC7 7-channel pre-amplifier, and AAIC100-5 5-channel 100W amplifier reference design cards, along with the DAE-3 (Digital Audio Engine™) IC integrated on the PC motherboard, provide complete digital amplifier solutions to enable all the audio options needed for today's Media PC. The HD Audio bus interface and full legacy support of standard audio I/O is all integrated on the motherboard. Nothing else is needed. The plug-in amplifier cards provide options for 2-channels to 7-channels of additional amplifier outputs, with direct line level outputs, or power outputs up to 100W or more. Add-in card power is obtained simply from a traditional +5V/+12V interface with a direct connection to a standard ATX power supply. With Reference Design Platform (RDP) Packages from D2Audio, major manufacturers and system integrators can now offer feature-rich Media PC systems with minimal development investment and the ultimate in time-to-market, performance and cost savings.

The D2Audio Brand Name Brings Value

Consumers are becoming more knowledgeable every day and are looking for realistic audio to match beautiful video. The D2Audio Digital Amplifiers logo is synonymous with quality, reliability, sonic performance and power! Significant technology and intellectual property makes this solution robust and dependable like no other.

Configurable Integration At Final System Manufacturing:
Add-In Card Determines Final Product

HD Audio Bus

High Quality PWM Audio

Audio Add-In Card Slot

Media PC Platform

AAIC100x5
100Wx5-Channel
Amplifier Card

OR

AAIC7 7-Channel
Pre-Amplifier Card

All-In-One Amplified Digital
Home Theater Media PC
(No Other Equipment Required!)

Media Center PC With
High Quality AVR-Class
Pre-Amp Outputs

Media PC Implementation

- DAE-3 Functions as Second Audio Codec
- Connects Directly to HD Audio Bus on Motherboard
- Provides Digital Audio PWM Channel Data to Amplifier Cards
- Implementation Integrates with UAA Software Driver Architecture; No Special Software Needed
- Legacy Audio Functions Still Remain on Motherboard
- Cards Fit Into Standard PCIe Card Slot

Add-In Cards

- PCI Express Low Profile Form Factor: Maximum Height of 68.90 mm (2.731 inches)

5-Channel x 100W (AAIC100-5) Card

- 100W Peak, Channel Drive, 8Ω
- THD+N: <0.1%, 1kHz, 1W
- SNR: >105 dB
- Frequency Response: ±0.5 dB (20Hz to 20kHz)
- 93% Efficient Power Amplifier

7-Channel Pre-Amplifier (AAIC7) Card

- High Quality Home Theater Performance
- Line-Level Outputs, 2.0Vrms
- THD+N: <0.01%, 1kHz, -6dBFS
- SNR: >110dB

Note: D2A and D2Audio are registered trademarks of D2Audio Corporation. Other trademarks belong to their respective companies. Specifications listed in this document are subject to change without notice. *Noted Total End-System Media Center PC Amplifier Power is based on industry-accepted HTiB measurement methods. This measurement method applies to Media Center PC systems that include speakers as part of the end-package. For Media Center PC systems that do not bundle speakers, FTC or CEA-490A power measurement methods are recommend.

BRINGING PREMIUM AUDIO TO A HIGH DEFINITION WORLD