



## New Reference Design from Power Integrations Meets Latest ENERGY STAR(R) Standby Power Specification for Audio-Amplifier Power Supplies

### PeakSwitch<sup>(R)</sup> Integrated PSU Controller / MOSFET IC Powers 5.1-Channel Home Audio Systems up to 650 Watts

SAN JOSE, Calif., Apr 15, 2009 (BUSINESS WIRE) -- Power Integrations (Nasdaq:[POWI](#)), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced the availability of a new Reference Design Kit ([RDK-203](#)), a dual-rail power supply with high loop bandwidth and peak power for home theater systems with up to 650 watts audio power rating. The new reference design enables developers to easily meet new and emerging standby power usage regulations for consumer audio-video equipment.

RDK-203 is based on Power Integrations'PKS607YN, a member of the [PeakSwitch](#) product family. With a response time of 40 microseconds, amplifiers powered by *PeakSwitch*-based power supplies can keep up with high-crest-factor, high-frequency audio signals common in high quality digital music and DVD movie soundtracks. By actively managing power delivery as required by the audio amplifier, *PeakSwitch* prevents the power rail voltage from falling during sustained high-energy segments without requiring a large bank of output capacitors. This ensures that the listener experiences very low audio distortion due to clipping or dynamic range compression caused by a reduction in the amplifier's power supply voltage. Independent rail regulation eliminates any coupling between the positive and negative supplies, further reducing distortion and increasing audio quality.

The RDK circuit consumes less than 0.9 watts at 240 Vrms input, easily beating the stringent power efficiency regulations established by ENERGY STAR, CEC (California Energy Commission), EISA (U.S. Energy Independence and Security Act), EC EuP (European Commission Energy-using Products Eco-design Directive), and EC CoC (European Commission Code of Conduct).

Comments Andrew Smith, product marketing manager for Power Integrations: "Designers have traditionally used large, inefficient linear power supplies in audio amplifiers. This practice is rapidly changing with the emergence of strict standby power usage standards. The current ENERGY STAR specification for audio products<sup>(1)</sup> allows a standby power maximum of just one watt." Continues Smith: "The new *PeakSwitch* reference design from Power Integrations makes it easy for developers to achieve superior audio amplifier performance with a switch-mode power supply while meeting all energy-efficiency specifications."

*PeakSwitch* ICs are available now in a wide variety of package options and power levels, making the product family scalable for audio applications ranging from MP3 docking stations up to large amplifiers requiring hundreds of watts of peak power.

For more information about energy efficiency standards and standby energy waste, please visit Power Integrations' Green Room website at [www.powerint.com/greenroom](http://www.powerint.com/greenroom).

#### References:

- Energy Star Program Requirements for Consumer Audio and Products (version 1)  
1. [http://www.energystar.gov/ia/partners/prod\\_development/revisions/downloads/audio\\_video/Audio-DVD%20Version%201.0.pdf](http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/audio_video/Audio-DVD%20Version%201.0.pdf)

#### About Power Integrations

Power Integrations is the leading supplier of high-voltage analog integrated circuits used in energy-efficient power conversion. The company's innovative technology enables compact, energy-efficient power supplies in a wide range of electronic products, in AC-DC, DC-DC and LED lighting applications. Since its introduction in 1998, Power Integrations' *EcoSmart*<sup>(R)</sup> energy-efficiency technology has saved an estimated \$3.4 billion of standby energy waste and prevented millions of tons of CO<sub>2</sub> emissions. The company's Green Room web site ([www.powerint.com/greenroom](http://www.powerint.com/greenroom)) provides a wealth of information about "energy vampires" and the issue of standby energy waste, along with a comprehensive guide to energy-efficiency standards around the world. Reflecting the environmental benefits of *EcoSmart* technology, Power Integrations is included in clean-technology stock indices sponsored by the Cleantech Group (Amex:CTIUS) and Clean Edge (Nasdaq:CELS). For more information, please visit [www.powerint.com](http://www.powerint.com).

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