

# Innovative Audio Amplifier Improves RF Suppression in Wireless Notebooks and Other Portable Devices

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National Semiconductor Corporation today introduced a new Boomer audio amplifier that features innovative internal circuitry that suppresses RF signals from passing through the amplifier. This is important because certain types of RF signals can create distracting noise that is heard through the speaker. National's LM4884 is designed to suppress strong RF signals and produce clean sound in notebook computers enabled with WiFi/802.11, GSM cards or modems. The device also suppresses RF noise generated by cell phones or other wireless devices operating in close proximity to the notebook computer.

"Notebook designers and notebook users value audio solutions that not only sound great but can also help solve system problems," said Mike Polacek, vice president of National Semiconductor's Audio group. "With our LM4884 Boomer audio amplifier, designers and consumers can enjoy high-quality audio output even in noisy wireless environments which are typical today. National's device provides up to a 28dB improvement in RF suppression over previous designs on the market. Reducing RF issues will shorten design time and ensure high-quality audio performance for notebook PCs and portable electronic devices."

In addition to RF suppression circuitry, National's LM4884 Boomer audio amplifier offers four flexible gain selections from 6dB to 21.6dB, using a two-bit gain select. When operating on a single 5V supply, it delivers 1.2W, 1.9W or 2.1W (typical) of output power to an 8 Ohm, 4

Ohm or 3 Ohm bridge-tied load (BTL), respectively. The LM4884 delivers high-quality output power from a surface-mount package, requires few external components, has an active-low micropower shutdown mode input and provides thermal shutdown protection.

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