

# World's Fastest LMH Amplifiers for Professional and Wideband Video Applications

July 6 2004

---

July 6, 2004 - National Semiconductor Corporation today launched **the world's fastest amplifiers for professional and wideband video applications**. The high-speed LMH6738 and LMH6739, both created using National's proprietary VIP10 process technology, are designed for applications requiring high bandwidth and low distortion. Operating at 750 MHz small signal bandwidth, these high-performance devices drive today's highest-resolution video signals in LCD projectors, multi-media, video switching and routing, conference room and HDTV systems.

"National is focused on providing high-speed, high-performance amplifiers with the highest bandwidth, fastest slew rates, and lowest distortion in the industry," said Erroll Dietz, vice president of National's Amplifier product group. "The LMH6738/39 are prime examples of National providing excellent signal fidelity with low harmonic distortion for high-quality video performance in high-resolution applications."

## **LMH6738/39**

National's LMH6738 is wideband, triple, current feedback ( CFB ) operational amplifier, and the LMH6739 is a wideband, triple, programmable gain buffer ( PGB ), both operating at 750 MHz small signal bandwidth. Both devices have independent disable pins for each amplifier, feature 7.3 nanosecond enable times, and have low crosstalk, allowing them to be used in multiplexing (MUXing) and demultiplexing (deMUXing) applications. With 400 MHz large signal bandwidth

(LSBW), 3300 V/us slew rate, and a 0.1dB gain flatness of 200 MHz, the LMH6738/39 outperform the competition in driving high-resolution red, green, blue (RGB) video signals. Additionally, the high output current of 90mA drives low impedance, high capacitive loads in single-ended cable line driving applications.

### **VIP10 Process**

National's LMH6738/39 are the latest amplifiers in a new series of high-speed products based upon the VIP10 process. Developed in National's wafer fabrication site in Arlington, Texas, VIP10 is a high-speed, dielectrically isolated, complementary bipolar IC process that utilizes deep trench technology on a bonded wafer for complete dielectric isolation and optimal high-speed amplifier performance. VIP10 is the process technology that allows National to design the most power-efficient, performance-oriented high-speed amplifiers on the market today.

The original press release can be found [here](#).

Citation: World's Fastest LMH Amplifiers for Professional and Wideband Video Applications (2004, July 6) retrieved 23 April 2024 from <https://phys.org/news/2004-07-world-fastest-lmh-amplifiers-professional.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--