Silicon Labs Introduces the Highest Performance Single-Chip Hybrid TV Tuner

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Si2170 Improves Reception, Simplifies Manufacturing and Reduces Costs

AUSTIN, Texas--(BUSINESS WIRE)--Jun. 29, 2009-- Silicon Laboratories Inc. (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today announced the Si2170, a complete, globally-compliant hybrid TV tuner with analog TV demodulator in a single CMOS IC. Leveraging Silicon Labs' proven digital low-IF architecture, the Si2170 is the industry's first silicon TV tuner to exceed the performance of traditional discrete TV tuners, enabling TV makers to deliver improved picture quality and better reception for both analog and digital broadcasts. The high level of integration eliminates over one hundred discrete components, enabling simpler design, lower manufacturing costs, higher production yields and improved reliability for integrated digital televisions (iDTVs), set-top boxes and PC TV applications.

For years, the industry has attempted to replace the traditional discrete tuner with an integrated silicon tuner to enable cost reductions, reduce complexity, harmonize across standards and improve consumer device form factors. To date, silicon tuners have not been able to achieve these goals and iDTVs still use traditional discrete tuners to achieve the best performance in real-world reception conditions. Simultaneously, the system complexity and cost of these solutions has increased to support reception of hybrid analog and digital broadcasts as well as regional broadcast standards and system requirements.

To exceed the performance of traditional discrete TV tuner implementations, the Si2170 silicon tuner integrates a highly linear RF front-end design incorporating a unique, merged low noise amplifier (LNA) and high-Q tracking filter to provide gain only around the desired channel frequency. This enables superior sensitivity and rejection of strong undesired channels and interference in severe broadcast conditions, translating into reception of more channels, reception of weak signals and improved picture clarity.

Silicon Labs' patented and proven digital low-IF architecture enables the Si2170 to achieve the highest level of performance and integration while addressing the challenges created by hybrid analog and digital reception and multiple regional standards. The architecture allows many functions typically relying on analog and discrete fixed components to be implemented with cost-effective and programmable digital signal processing. This enables TV manufacturers to optimize system parameters and comply with all worldwide cable and terrestrial broadcast standards including ATSC/QAM, DVB-T/C, ISDB-T/C, NTSC, PAL and SECAM.

Additionally, the integrated ATV demodulator creates a universal interface to system ICs further simplifying the customers' design and enabling coordination of tuner and demodulator functions to optimize reception of analog TV signals, eliminating visual beats or artifacts.

Designed in standard CMOS, the high level of integration of the Si2170 eliminates over one hundred discrete components including the tracking filter function, avoiding costly manual inductor tuning/alignment and resulting in significantly lower manufacturing costs. The Si2170 TV tuner not only enables a simpler design, reduced bill of materials, and lower manufacturing costs; the high level of integration also improves reliability, PCB production yields and reduces field returns. Finally, as TV makers continue to design thinner form factors, the PCB footprint of the Si2170 also helps to enable the next generation of ultra-slim flat panel TVs.

"Delivering a silicon TV tuner that offers not only cost savings but also performance advantages over discrete tuners has been an unmet design challenge for the industry," said Tyson Tuttle, vice president of Silicon Labs. "The Si2170 TV tuner leverages our mixed-signal design capability and intellectual property to deliver on the long awaited promise. By designing the tuner in standard CMOS, we are also the only company able to offer customers a viable road map to cost-effective, hybrid single-chip TV receivers, integrating tuner and demodulator functions for both analog and digital reception, enabling a path to further system cost reductions and flexibility for customers."

Pricing and Availability

The Si2170 hybrid TV tuner with analog TV demodulator is available now in a standard 7x7 mm, 48-pin QFN package. Pricing begins at $3.95 USD in quantities of 10K.

Silicon Laboratories Inc.

Silicon Laboratories is an industry leader in the innovation of high-performance, analog-intensive, mixed-signal ICs. Developed by a world-class engineering team with unsurpassed expertise in mixed-signal design, Silicon Labs' diverse portfolio of highly integrated, easy-to-use products offers customers significant advantages in performance, size and power consumption. These patented solutions serve a broad set of markets and applications including consumer, communications, computing, industrial and automotive.

Headquartered in Austin, TX, Silicon Labs is a global enterprise with operations, sales and design activities worldwide. The company is committed to contributing to our customers' success by recruiting the highest quality talent to create industry-changing innovations. For more information about Silicon Labs, please visit www.silabs.com.

Cautionary Language

This press release may contain forward-looking statements based on Silicon Laboratories' current expectations. These forward-looking statements involve risks and uncertainties. A number of important factors could cause actual results to differ materially from those in the forward-looking statements. For a discussion of factors that could impact Silicon Laboratories' financial results and cause actual results to differ materially from those in the forward-looking statements, please refer to Silicon Laboratories' filings with the SEC. Silicon Laboratories disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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