# Silicon Labs Introduces Industry's First Single-Chip Multimedia Digital TV Demodulator

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AUSTIN, Texas, Jun 16, 2010 (BUSINESS WIRE) -- Silicon Laboratories Inc. (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today introduced the industry's first digital TV demodulator that combines satellite, terrestrial and cable digital video broadcast (DVB) functions in one highly integrated device. The Si2167 multimedia TV demodulator provides the smallest single-chip, multi-standard demodulation solution, simplifying the design of integrated digital TVs (iDTV), set-top boxes (STB), personal video recorders (PVR), network interface modules (NIM), PCTV accessories, and professional video DVB receivers.

Today's iDTV and STB makers rely on multiple demodulators to enable satellite (DVB-S/S2), terrestrial (DVB-T) and cable (DVB-C) reception in a single system. This approach adds cost and complexity to the system design. By supporting DVB-T/C/S/S2 in a single device, the Si2167 eliminates the need for multiple demodulators and greatly simplifies both hardware and software design. The Si2167 IC's DVB-T/C core is an enhanced and field-proven version of the Si2165 IC core, a market-leading terrestrial and cable demodulator that has shipped in high volumes during the last two years.

Available in a tiny 48-pin 7 mm x 7 mm QFN package, the Si2167 IC enables the industry's smallest demodulator footprint for a DVB-S/S2 demodulator despite the inherent complexity of the DVB-S2 standard. Additionally, embedding DVB-T/C into the same device provides a space-saving multimedia demodulator solution that dramatically reduces PCB area, which is an important consideration for NIM manufacturers and systems with multiple front-end designs. The lower pin count simplifies the design process and significantly reduces the overall electrical component bill of material.

"Our objective in the video market is to deliver global front-end solutions that offer size and cost advantages with improved performance," said Dave Bresemann, vice president of Broadcast products at Silicon Labs. "The combination of the Si2167 multimedia demodulator and our award-winning Si217x hybrid silicon tuners provides a small-footprint, high-performance solution for terrestrial, cable and satellite reception."

The Si2167 supports a seamless interface to Silicon Labs Si217x hybrid silicon tuner. Additionally, the Si2167's flexible terrestrial and cable intermediate frequency (standard and low IF) interface is also compatible with any standard mixer oscillator phase-locked loop (MOPLL) based metal can tuners. For DVB-S/S2 applications, the Si2167 supports common Zero IF (ZIF) tuner solutions by integrating two dedicated on-chip analog-to-digital converters.

The Si2167 IC's power dissipation is less than 200 mW in DVB-T/C reception mode, and it also ranges from 450 to 860 mW depending on the DVB-S2 mode and actual field reception conditions. These figures represent significant power savings compared with legacy solutions, which helps minimize overheating inside the module or the equipment cabinet. The Si2167 IC's on-chip oscillator/PLL circuit enables the demodulator to be driven by the tuner's clock sources, eliminating the need for a dedicated crystal for the demodulator.

**Reliable and Efficient Scanning Algorithm**

The Si2167 multimedia demodulator implements a fast, robust blind scan and blind lock algorithm, which streamlines the software development process. This scanning technique allows iDTV/STB equipment makers to minimize development time spent on the critical scanning algorithms while improving the end user experience during set-up.

The Si2167 is able to quickly retrieve frequencies and symbol rates in blind mode in satellite and cable reception during the initial scan or while locking on a given frequency. Built-in algorithms enable unprecedented reliability, eliminating instances of missed channels.

For terrestrial reception, DVB-T scanning time typically can be reduced to an industry-leading 30 seconds. The Si2167 is able to reliably determine when no channel is present or if an analog broadcast is detected. As a result, the host processor can avoid blank or analog channels, immediately stepping to the next frequency.

**Pricing and Availability**

Evaluation boards, samples and pre-production quantities of the Si2167 multimedia DVB demodulator are available today. Pricing in 10,000-unit quantities for the Si2167 is $8.06 (USD). For additional Si2167 product information, please visit www.silabs.com/pr/broadcast.

**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.

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