Silicon Labs Launches Sixth Generation of Industry-Leading Silicon TV Tuners

World's Smallest TV Tuners Enable Lowest BOM Cost for China TV and Set-Top Box Makers and the Global Terrestrial/Cable TV Market

"The smallest footprint and BOM cost, the lowest power and the best RF performance – these are among the many good reasons why nine out of the world's top ten TV makers have standardized on Silicon Labs' proven TV tuner technology, now in its sixth generation of refinements"

AUSTIN, Texas--(BUSINESS WIRE)--Silicon Labs (NASDAQ: SLAB), the leading provider of silicon TV tuners, today introduced the sixth generation of its high-performance, field-proven TV tuner ICs. Silicon Labs' new Si2151 and Si2141 TV tuners address the global hybrid TV and digital TV markets, support both digital and analog video broadcasts, and comply with all worldwide terrestrial/cable TV standards. Leveraging Silicon Labs' industry-leading architecture honed over five generations, the Si2151/41 TV tuners enable developers to enhance their TV and set-top box (STB) designs with unsurpassed linearity and sensitivity, the world's smallest footprint, the lowest bill of materials (BOM) cost and ultra-low power consumption.

The Si2151/41 family provides an ideal, cost-effective silicon TV tuner solution for the world's leading producer of TVs: China. According to DisplaySearch, China has led the world in TV shipments four years in a row. Flat-panel TV shipments (both LCD and plasma models) in China are forecast to grow from 57 million units in 2013 to 62 million units in 2017. Currently, Chinese TV makers provide 23 percent of global flat-panel TV shipments. Ultra-HD TV sets are projected to surge from 1.3 million units in 2013 to 23 million units in 2017, and Chinese manufacturers are expected to ship more than half of these TV units.

Silicon Labs' Si2151/41 tuners fully comply with the China GB/T 26686-2011 general specification for digital terrestrial television receivers and achieve significant margin to the minimum performance requirements defined in the GB/T 26686-2011 specification. Unlike other silicon tuners, which offer a large margin to the China GB/T 26686-2011 specification only for the VHF-Low frequency band, the Si2151/41 tuners deliver a large margin to this specification for the VHF-Low, VHF-High and UHF frequency bands. The current broadcasts in China use the UHF band (in which the Si2151/41 tuners significantly outperform all other silicon TV tuners), and margin in that band translates into tangible reception benefits for the consumer.

The Si2151 tuner has been certified by the China Electronics Standardization Institute (CESI) and its Advanced Digital TV Test Center (ADTC) as a TV tuner solution that fully supports the Digital Terrestrial Multimedia Broadcast (DTMB) standard for mobile and fixed TV terminals used in China, Hong Kong and Macau. The Si2151 was the only CESI-certified TV tuner to be announced at the Information Technology Standardization (ITS) Forum held on July 16, 2014. CESI is the leading Chinese government organization overseeing the DTMB standard.

Available in the TV industry's tiniest package (3 mm x 3 mm QFN), the Si2151/41 devices are the smallest TV tuner ICs available today. This ultra-compact package, combined with minimal BOM count, enables the smallest footprint of any silicon TV tuner in the market today: 0.86 cm^2. As the TV market trends to ever smaller modules and on-board tuner designs and to multi-tuner applications, small footprint and ultra-low power consumption make the Si2151/41 tuners the clear choice for current and future TV and set-top box (STB) designs.

The Si2151/41 tuners deliver the lowest BOM cost of any terrestrial/cable TV tuner in mass production today. Unlike competing TV tuners, the Si2151/41 devices require no balun on the RF input, and they integrate all tracking filter inductors, which dramatically reduces system cost and complexity. The Si2151/41 tuners require no external power transistor for single-supply operation and eliminate the need for external inductive power supply filtering, resulting in the most cost-effective, highest performance on-board TV tuner designs. Improvements in noise figure across the band and greater immunity to undesired signals such as LTE transmissions without any external filtering help the Si2151/41 family to deliver unmatched reception robustness over global real-world scenarios.

"The smallest footprint and BOM cost, the lowest power and the best RF performance – these are among the many good reasons why nine out of the world's top ten TV makers have standardized on Silicon Labs' proven TV tuner technology, now in its sixth generation of refinements," said James Stansberry, senior vice president and general manager of Silicon Labs' Internet of Things and broadcast video products. "Silicon Labs continues to

lead the broadcast industry in TV tuner shipments, exceeding more than 350 million units shipped to date, and with twice the market share of the next-closest competitor."

The Si2151/41 family shares a common application programming interface (API) with Silicon Labs' entire TV tuner portfolio. This shared software API reduces the TV designer's learning curve when migrating from worldwide hybrid HDTVs to regionalized platforms and STB designs. A simple application circuit, common across all of Silicon Labs' TV tuners, makes on-board installations straightforward with immediate cost savings.

About Silicon Labs' Industry-Leading TV Tuner Architecture

Silicon Labs pioneered the industry's first single-chip silicon TV tuners, which were designed to exceed the performance of traditional discrete tuner solutions. Based on dozens of patents issued or pending, Silicon Labs' digital low-IF architecture enables exceptional TV tuner performance and integration while addressing the challenges created by hybrid analog and digital reception and multiple regional standards. Manufactured in standard CMOS, Silicon Labs' highly integrated TV tuners – now in their sixth generation – eliminate more than 100 discrete components, enabling simpler designs, lower manufacturing costs, higher production yields and improved reliability while achieving a new level of reception performance.

Pricing and Availability

Samples and production quantities of the Si2151/41 TV tuners are available now in a 3 mm x 3 mm 24-QFN package. The Si2151 worldwide hybrid TV tuner is priced at $0.72 in 10,000-unit quantities, and the Si2141 worldwide digital TV tuner is priced at $0.70 in 10,000-unit quantities (all prices in USD). To help accelerate development, Silicon Labs offers the Si2151-A-EVB and the Si2141-A-EVB evaluation boards priced at $395 (USD MSRP). For more information about Silicon Labs' silicon TV tuner ICs and to purchase samples and development tools, please visit www.silabs.com/tv-tuner.

Silicon Labs

Silicon Labs (NASDAQ: SLAB) is a leading provider of silicon, software and system solutions for the Internet of Things, Internet infrastructure, industrial control, consumer and automotive markets. We solve the electronics industry's toughest problems, providing customers with significant advantages in performance, energy savings, connectivity and design simplicity. Backed by our world-class engineering teams with unsurpassed software and mixed-signal design expertise, Silicon Labs empowers developers with the tools and technologies they need to advance quickly and easily from initial idea to final product. www.silabs.com

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