



SILICON LABS

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Silicon Labs Debuts Next-Generation Demodulator Portfolio for Digital Television Market

New Si218x Demodulator Family Provides DVB-S2X and ISDB-T Support for TV and Set-Top Box Applications

AUSTIN, Texas--(BUSINESS WIRE)-- [Silicon Labs](#) (NASDAQ: SLAB), a leading provider of broadcast video solutions for the television market, today introduced its next-generation digital TV demodulator family offering expanded support for the latest satellite, terrestrial and cable standards. The new Si218x family includes the world's first demodulators supporting the recently launched DVB-S2X specification, which adds new features and higher performance to the DVB-S2 standard. The family also expands Silicon Labs' industry-leading terrestrial demodulator portfolio with support for the Integrated Services Digital Broadcasting-Terrestrial (ISDB-T) standard prevalent in Brazil and other Latin America countries. The Si218x family meets the diverse digital TV reception requirements of TV and set-top box (STB) makers, RF network interface module (NIM) suppliers and DVD/Blu-ray recorder manufacturers worldwide.



Silicon Labs' single-chip Si218x demodulators build on continuous digital demodulation architectural enhancements to support emerging and established standards for terrestrial (DVB-T/T2, ISDB-T), satellite (DVB-S/S2/DSS/S2X) and cable (DVB-C/C2, ITU-T J83 Annex A/B/C) reception. The single-channel Si218x and dual-channel Si218x2 families enable TV and STB manufacturers to simplify complex video front-end designs and to address combinations of multiple broadcast standards with a single field-proven, low-power and cost-effective demodulator solution.

For terrestrial broadcast applications, Silicon Labs holds the industry's highest DVB-T2 demodulator market share in the TV industry. Silicon Labs has embedded its extensive field experience in the terrestrial broadcast market into its third-generation Si218x DVB-T2 demodulators, which now support the popular ISDB-T standard. Developed to deliver high-quality digital video terrestrial reception, ISDB-T was pioneered in Japan and is deployed in Brazil and another 15 countries in South America, Central America, Africa and Asia.

Silicon Labs offers industry-leading demodulators for the global digital TV and set-top box market. (Photo: Business Wire)

"Silicon Labs' ISDB-T demodulator and TV tuner chipset comply with all ABNT NBR 15604:2007vc2008 specifications with significant margin to all items verified," said Dr. Gunnar Bedicks, chief researcher at the Mackenzie Digital TV Laboratory. "The demodulator behaved extremely well in difficult reception test cases with outstanding overall performance, in particular against multipath with pre- and post-echoes and also against Doppler effects."

The Digital TV Laboratory, a part of Mackenzie Presbyterian University located in Sao Paulo, Brazil, is the leading digital TV laboratory for transmission and reception system research. Since 1997, the laboratory has handled ISDB-T compliance and certification tests in cooperation with the Brazilian Broadcasters Association (ABERT), the Society for TV Engineers (SET), the Brazilian Communications Ministry and the Brazilian government regulatory agency, ANATEL.

In addition to complying with ISDB-T, the Si218x family supports the new DVB-S2X extension to the DVB-S2 standard for satellite reception. Demodulators supporting DVB-S2X enable developers to future-proof their TV and STB designs with advanced channel-recovery features and technology to support the upcoming roll-out of 4K Ultra HD TV reception based on high-efficiency video coding (HEVC) capabilities. Already embedded in many TV SoC devices, HEVC decoding technology, combined with DVB-S2X reception, is becoming a "must-have" feature for the TV market.

"As the market leader in advanced digital TV demodulators, we are dedicated to helping our customers worldwide keep pace

with the continuous evolution of digital video broadcast standards," said James Stansberry, senior vice president and general manager of Silicon Labs' Internet of Things and Broadcast products. "Our new Si218x demodulators support the latest DVB-S2X satellite standard and the ISDB-T terrestrial standard for Latin America, helping TV and STB manufacturers future-proof their designs and easily expand into new markets."

The single-channel Si218x demodulators use the same 7 mm x 7 mm QFN-48 package as Silicon Labs' previous demodulator family, providing pin-to-pin compatibility, simplifying board design, and minimizing cost and research and development. The dual-channel Si218x2 demodulators, also pin compatible in an 8 mm x 8 mm QFN-68 package, feature an innovative on-chip crossbar architecture that enables system designers to address a wide range of multi-receiver applications with efficient, cost-effective solutions. The Si218x and Si218x2 demodulators share the same API software, enabling customers to expand and adapt their application software to these new demodulators and upgrade their TV and STB products to ISDB-T and the latest digital video broadcast standards.

In addition to introducing the Si218x/8x2 family, Silicon Labs has updated its existing, best-in-class [Si216x/6x2 DVB demodulator family](#) to deliver new performance enhancements and support the DVB-S2X standard. When combined with Silicon Labs' market-leading [TV tuners](#), the Si216x and Si218x demodulators help TV manufacturers simplify their designs with the highest performance video front-end solutions from RF to baseband.

Pricing and Availability

Samples and production quantities of the single-channel Si218x and dual-channel Si218x2 digital demodulators are available now. The Si2183 universal ISDB-T and DVB-C2/C/T2/T/S2/S/S2X demodulator and Si21832 dual ISDB-T and DVB-C2/C/T2/T/S2/S/S2X demodulator are flagship products within Silicon Labs' complete single and dual demodulator portfolio. For product pricing, please contact your local Silicon Labs sales representative or an authorized distributor. The Si218x demodulator family is supported by a comprehensive set of evaluation boards. Reference design schematics, layout Gerber files and sample driver source code help expedite time to market while reducing development costs.

For more information about Silicon Labs' new digital demodulator products and to obtain samples, please visit www.silabs.com/tv-demodulator.

Silicon Labs

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