Silicon Labs Enhances Popular Si479xx Automotive Tuner Family with Software-Defined Radio Technology

-- New Capabilities Extend Tuners' Industry-Leading Performance and Scalability to Meet the Needs of the Growing Automotive SDR Market --

AUSTIN, Texas, July 29, 2019 /PRNewswire/ -- Silicon Labs (NASDAQ: SLAB), a leading provider of automotive radio solutions, has introduced new hybrid software-defined radio (SDR) tuners, expanding its portfolio to meet the growing need of automotive radio manufacturers to support all global digital radio standards with a common platform. The new Si479x7 devices are Silicon Labs' first automotive radio tuners supporting the Digital Radio Mondiale (DRM) standard. The Si479x7 tuners are an extension of Silicon Labs' popular family of Global Eagle and Dual Eagle AM/FM receivers and digital radio tuners, providing the same outstanding field performance, pin and package compatibility between single and dual tuners, and bill of materials (BOM) cost advantages.

In addition to introducing new DRM-capable tuners, Silicon Labs is enhancing its Si4790x/5x/6x automotive tuners with unique "SDR-friendly" technology, effectively transforming these devices into hybrid SDR tuners. Silicon Labs' hybrid SDR technology includes advanced DSP-based automotive features such as Maximal Ratio Combining (MRC), Digital Automatic Gain Control (AGC), Digital Radio Fast Detect and Dynamic Zero-IF (ZIF) I/Q. These features enable automotive radio manufacturers to support global digital radio standards with a common radio hardware and software design. This added flexibility helps OEM and Tier 1 customers reduce design, qualification, sourcing and inventory costs while avoiding the complexity and inefficiency of supporting multiple automotive radio platforms.

"Silicon Labs' automotive tuners with hybrid SDR capabilities deliver the highest integration and reception performance and the lowest BOM cost of any automotive SDR tuners in mass production today," said Juan Revilla, General Manager of Broadcast Products at Silicon Labs. "Our tuners with advanced digital radio features enable radio manufacturers to develop a single platform to demodulate and decode worldwide digital radio standards, greatly simplifying car radio designs and reducing system cost. A single digital radio platform can be achieved either with an SDR-based design approach or by using a tuner-plus-coprocessor design."

Silicon Labs' automotive tuner portfolio includes highly integrated single and dual device options with best-in-class AM/FM receiver performance. The portfolio supports all broadcast radio bands including AM, FM, Long Wave, Short Wave, Weather Band, HD Radio, DAB (Band III) and DRM. The tuners are built on Silicon Labs' industry-leading RF CMOS technology, delivering outstanding automotive receiver performance. The tuners' proven mixed-signal, low-IF RF CMOS design provides excellent sensitivity in weak signal environments and superb selectivity and intermodulation immunity in strong signal environments.

About the DRM Standard
Digital radio standards are a primary source of in-vehicle infotainment, providing improved reception, greater coverage and CD-like audio quality. The DRM standard offers a high-quality digital replacement for current analog radio standards operating in the AM and FM/VHF bands. DRM supports two frequency bands: DRM30, operating up to 30 MHz, and DRM+, operating up to 300 MHz. DRM30 is prevalent in India, where more than one million cars include DRM receivers, and DRM+ trials are underway in Russia and South Africa. HD Radio and Digital Audio Broadcasting (DAB) are predominant standards in the U.S. and Europe respectively.

Pricing and Availability
Samples and production quantities of the new Si479x7 DRM hybrid SDR tuners are available now. Single DRM hybrid SDR tuners are available in a 48-pin, 7 mm x 7 mm QFN package fitting a board area of less than 55 mm^2. Dual DRM tuners are offered in a 56-pin, 8 mm x 8 mm QFN package on a board area of less than 79 mm^2. To accelerate development, Silicon Labs provides comprehensive evaluation kits for designs based on Global Eagle and Dual Eagle tuners. For DRM hybrid SDR tuner product and evaluation kit pricing and ordering information, please contact your local Silicon Labs sales representative. For additional product information, please visit silabs.com/globaleagle.

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Connect with Silicon Labs
Silicon Labs PR Contact: Dale Weisman +1-512-532-5871, dale.weisman@silabs.com

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