Silicon Labs' Radio Solution Solves Automotive Industry Challenge of Scaling Price Points and Performance

-- Flexible Portfolio of Car Radio Receivers, Tuners and Coprocessors Addresses All Market
Segments and Digital Radio Standards --

AUSTIN, Texas, Aug. 9, 2017 /PRNewswire/ -- Silicon Labs (NASDAQ: SLAB) has introduced the industry's most scalable, flexible and cost-effective car radio solution for the global automotive infotainment market. Silicon Labs' new portfolio of Global Eagle and Dual Eagle AM/FM receivers and digital radio tuners and Digital Falcon coprocessors enables automakers and Tier 1 suppliers to address all market segments, cost and performance levels, and digital radio standards while meeting rigorous automotive quality standards. OEM and aftermarket radio designs based on Silicon Labs' new portfolio can scale from low-cost, single-tuner AM/FM radios to high-performance systems with multiple tuners and antennas, enabling car radio suppliers to leverage their R&D across multiple product lines, all with a common software API.

According to IHS Markit, the global light vehicle market will reach 93.5 million units this year, with radio systems segmented by entry-level, mid-range and premium feature tiers. To address this broad market, radio vendors must develop different radio systems while meeting diverse cost targets, often within the same car models. With existing solutions, it takes substantial R&D investment to address all market segments across numerous car models. Silicon Labs is the only automotive radio solution provider offering a scalable hardware/software platform that enables car radio suppliers to address multiple markets with a common radio hardware and software design. This exceptional flexibility helps customers reduce design, qualification, sourcing and inventory costs.

The <u>Global Eagle (Si4795x)</u> and <u>Dual Eagle (Si4796x</u> and <u>Si4797x</u>) families of analog AM/FM receivers and digital radio tuners set a new standard for scalability and automotive broadcast reception. The Eagle families extend the field-proven performance of Silicon Labs' tuners and receivers, which are deployed by leading automotive OEMs and Tier 1 suppliers worldwide. Si479xx devices leverage Silicon Labs' patented low-IF digital architecture, delivering superior RF performance and interference rejection. In addition, the Si479xx family's comprehensive firmware algorithms dynamically adjust signal reception in moving cars to ensure optimal reception under the harshest field conditions.

The audio subsystem of both Eagle families provides a complete solution to synchronize, process and distribute digital and audio signals in the automotive head unit. To accelerate time to market, Silicon Labs provides four-and six-channel audio post-processing reference designs supporting cabin equalization, loudness compensation, tone control, chime generation and audio source mixing. This flexible architecture enables integration of customer or third-party algorithms.

The <u>Digital Falcon (Si469x)</u> family of digital radio coprocessors provides channel demodulation and source decoding of HD Radio and DAB/DAB+ digital signals delivering audio and data. Digital Falcon coprocessors simplify system design and minimize the bill of materials (BOM) by eliminating the need for an external RAM memory module for channel decoding typically required by third-party digital radio processors. The Digital Falcon family enables designs to scale from low- to high-end systems with its seamless blending capabilities for DAB/DAB+, as well as its support for Automatic Level and Time Alignment (ALTA) for HD systems.

"When Silicon Labs introduced its first single-chip RF-in-CMOS audio ICs 12 years ago, we redefined how AM/FM receivers were designed into consumer electronics products by reducing component count by more than 90 percent and board space by more than 60 percent," said Brian Mirkin, General Manager of Broadcast Products at Silicon Labs. "To date, Silicon Labs has shipped more than 1.5 billion radio-on-a-chip ICs including more than 50 million OEM automotive tuners, culminating with our latest Global Eagle, Dual Eagle and Digital Falcon families, comprising the industry's most advanced, scalable car radio system solution."

Pricing and Availability

Samples and production quantities of Global Eagle and Dual Eagle receivers and tuners and Digital Falcon coprocessors are available now. To accelerate development, Silicon Labs provides comprehensive evaluation kits for designs based on the Global Eagle, Dual Eagle and Digital Falcon families. For IC product and evaluation kit pricing and ordering information, please contact your local Silicon Labs sales representative. For additional product information, please visit www.silabs.com/globaleagle.

Silicon Labs (NASDAQ: SLAB) is a leading provider of silicon, software and solutions for a smarter, more connected world. Our award-winning technologies are shaping the future of the Internet of Things, Internet infrastructure, industrial automation, consumer and automotive markets. Our world-class engineering team creates products focused on performance, energy savings, connectivity and simplicity. www.silabs.com

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