Silicon Labs Strengthens Isolated Gate Driver Portfolio

--New isolated gate drivers cut latency by 50 percent while significantly increasing transient immunity--

AUSTIN, Texas – October 13, 2020 – Silicon Labs (NASDAQ: SLAB), a leading provider of silicon, software and solutions, today introduces new Si823Hx/825xx isolated gate drivers offering an uncontested combination of faster and safer switching, low latency and high noise immunity capabilities that enable a compact PCB design for closer placement of the device to power transistors. New advancements in these gate drivers help power converter designers meet or exceed increasing energy efficiency standards and size constraints while enabling the use of emerging technologies such as SiC, GaN and fast Si FETs.

“Power converter designers in the automotive, industrial and renewable energy markets are managing a dynamic environment with emerging energy efficiency standards and new technology options, while also meeting continued demands for both safety and power,” said Brian Mirkin, vice president and general manager of Power Products at Silicon Labs. “Our new isolated gate drivers deliver the high-performance capabilities power engineers need to meet and exceed industry requirements, including an extended input voltage range, lower latency, high noise immunity, and rapid switching abilities.”

Silicon Labs’ isolated gate driver technology is used across a variety of power applications, including power supplies for data centers, micro inverters for solar power, traction inverters for the automotive market and industrial power supplies.

Differentiated features of the Si823Hx/825xx family are specifically configured to support the needs of designers working in challenging power environments. This Silicon Labs family offers a unique booster device to provide a higher source current for faster FET turn-on. The symmetric 4 A sink/source capabilities mean the source current is almost double that of previous generation drivers, which helps to reduce switching losses. The new isolated gate drivers cut latency in half with a maximum propagation delay of 30 ns that reduces the feedback loop delay for higher system efficiency. The drivers also provide transient noise immunity improvements, ensuring robust operation in inherently noisy environments. Extended input voltage range (VDDIH), from 4.5 to 20 V, allows for direct interface with the power rail of typical analog controllers.

Since space constraints are critical, the Si823Hx/Si825xx has several package options. A compact driver is now available in an 8-pin package versus comparable 16-pin package alternatives, reducing system size and cost. Other new upgraded features include over-temperature protection, which triggers the drivers to automatically shut off when temperatures get too hot. Additional safety features include dead time, overlap protection, and input noise de-glitch to maximize safety.

The new Silicon Labs Si823Hx/825xx isolated gate drivers are planned to be available in automotive grade in Q4 of 2020. The single Si823H9x-IS isolated gate drivers are priced at $1.89 each (USD) in 1,000-unit quantities. The HS/LS Si825xx-IS3 (20 V VDDIH) drivers are priced at $2.92 each in 1,000-unit quantities. For more information, go here.

About Silicon Labs

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