



Silicon Labs Introduces Industry's First Six-Channel 5 kV Digital Isolators

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New Si86xx Isolators Offer Superior EMI and Noise Performance and Highest Data Rate for Industrial, Medical and Green Energy

AUSTIN, Texas--(BUSINESS WIRE)-- [Silicon Laboratories Inc.](#) (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today introduced a family of digital isolators that offers the highest channel count, performance and data rate for demanding applications with isolation ratings up to 5 kV. The new Si86xx 3.75 kV and 5 kV digital isolators replace optocouplers in target applications requiring robust operation and high levels of insulation protection such as industrial automation and drives, motor control and medical systems. With its 5 kV rating, the Si86xx family offers an ideal isolation solution for systems powered from 220 Vac mains supplies such as isolated ac-dc and dc-dc power supplies, as well as solar panel microinverters, data communications systems and hybrid electric vehicles (HEVs).

Based on Silicon Labs' patented digital isolation technology, the new Si86xx family includes the industry's first six-channel isolators rated to 5 kV, bidirectional isolators suitable for isolating I2C buses in a wide range of applications, and 3.75 kV options that provide higher levels of protection than currently available from 2.5 kV isolators. These higher isolation ratings translate into a longer service lifetime in harsh application conditions. The Si86xx family's unmatched isolation channel count also helps simplify timing and isolation challenges in high-speed systems with wide digital buses by enabling developers to minimize the number of separate isolators, thereby reducing BOM costs and board space.

The Si86xx family offers significant electromagnetic emissions and immunity performance advantages, providing error-free data in noisy environments and up to 20 dB lower electromagnetic emissions than competing solutions. By offering the highest electric field immunity, the Si86xx digital isolators are well suited for use in noisy environments common in motor control, industrial automation and power supply applications as well as green energy applications such as smart meters where tamper protection is a growing concern.

The Si86xx isolators deliver the industry's fastest data rate (150 Mbps) across the widest temperature range (-40 to 125°C), as well as ultra-low power operation of less than 1.6 mA per channel at 1 Mbps for energy-efficient system design. The robust architecture of the Si86xx family ensures that signal integrity is maintained even while operating at high data rates and at high temperatures in harsh environments.

"The new Si86xx family brings the superior EMI performance, high data rates and reliability of Silicon Labs' digital isolator technology to demanding applications requiring isolation ratings up to 5 kV and system cost reduction based on higher channel count density," said Mark Thompson, vice president of Embedded Mixed-Signal products at Silicon Labs. "The Si86xx isolators enable developers to upgrade their optocoupler-based designs with a more reliable, highly integrated and higher-performance digital isolation solution."

Pricing and Availability

Samples and production quantities of the Si86xx digital isolators are available now in a variety of compact packages including wide-body SOIC-16 packages rated at 5 kV and narrow-body SOIC-8 and SOIC-16 packages rated at 3.75 kV. Pricing for the new Si86xx devices in 10,000-unit quantities ranges from \$1.06 for a single-channel, 3.75 kV rated device up to \$3.76 for six-channel versions rated to 5 kV isolation in SOIC-16 packages. (All prices are in USD.)

Silicon Labs offers the Si86xxISO-KIT evaluation kit, priced at \$49.00 (USD), to support basic functional testing and engineering validation of 5 kV isolation product configurations. The Si86ISOLIN-KIT linear isolation reference design, priced at \$149 (USD), provides a comprehensive, high-performance alternative to costly isolation amplifiers used to implement analog signal isolation. The reference design includes three different analog isolation circuits supporting input signal bandwidths from 100 to 500 kHz.

For additional information about Silicon Labs' Si86xx digital isolators and to purchase samples and development tools, please visit www.silabs.com/pr/isolation.

Silicon Laboratories Inc.

Silicon Laboratories is an industry leader in the innovation of high-performance, analog-intensive, mixed-signal ICs. Developed by a world-class engineering team with unsurpassed expertise in mixed-signal design, Silicon Labs' diverse portfolio of patented semiconductor solutions offers customers significant advantages in performance, size and power consumption. For more information about Silicon Labs, please visit www.silabs.com.

Cautionary Language

This press release may contain forward-looking statements based on Silicon Laboratories' current expectations. These forward-looking statements involve risks and uncertainties. A number of important factors could cause actual results to differ materially from those in the forward-looking statements. For a discussion of factors that could impact Silicon Laboratories' financial results and cause actual results to differ materially from those in the forward-looking statements, please refer to Silicon Laboratories' filings with the SEC. Silicon Laboratories disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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