SiTime Enables Up to 25% Faster Wireless Charging with MEMS Timing Solution

Innovative Digitally Controlled Oscillator Delivers Up To 90% Area Reduction

SANTA CLARA, Calif.--(BUSINESS WIRE)--Sep. 29, 2021-- SiTime® Corporation (NASDAQ: SITM), a market leader in MEMS timing, today introduced the SiT3901 µPower digitally controlled MEMS oscillator (DCXO) targeting power-sensitive and space-constrained mobile and IoT applications. The SiT3901 improves wireless charging speed by up to 25% while reducing the overall timing solution area by up to 90%. The MEMS oscillator is ideal for wireless charging systems for smartwatches, activity trackers, hearing aids, and wearables.

“As electronics evolve, SiTime’s combination of innovative MEMS, programmable analog, and rapid release methodology continues to solve challenging timing problems quickly,” said Piyush Sevalia, executive vice president of marketing at SiTime. “The power and size requirements of new wireless applications demand a new approach to timing. The SiT3901 DCXO is the industry’s first µPower digitally controlled oscillator, and it delivers by improving charging efficiency and reducing the area.”

Wireless charging standards such as Qi and AirFuel rely on resonant power transfer to enable proximity charging. However, environmental interference may dynamically impact the resonant charging frequency, which slows down the charging process. The SiT3901 enables the charger to dynamically tune the resonant frequency, maximizing power transfer and delivering up to 25% faster charging. The digital control feature on the SiT3901 DCXO eliminates the need for additional passive components on the board, reducing the timing solution area by up to 90%. The resulting charging system works better and is smaller, more manufacturable, and more reliable.

Features of the SiT3901 Digitally Controlled MEMS Oscillator

The SiT3901 DCXO is the latest addition to the SiTime µPower MEMS oscillator family targeting power and space-constrained wearable, hearable, IoT, and mobile applications. µPower MEMS oscillators consume up to 90% less power and up to 90% less space compared to quartz oscillators, enabling environmentally friendly electronics. The SiT3901 offers high resilience to analog noise and includes the following features:

- Ultra-low 105 micro-amps of current consumption (typical)
- Ultra-wide digital pull range (up to 15%) for output frequency
- Stability over temperature of ±50 and ±100 ppm
- Wide temperature range, from -40 ^{o}C to +85 ^{o}C
- Ultra-small 1.5 mm x 0.8 mm package size
- Programmable frequency from 1 MHz to 26 MHz

Learn more about the SiTime SiT3901 µPower digitally controlled oscillators.

Discover the full range of SiTime MEMS-based timing solutions for Mobile and IoT

Download SiTime SiT3901 image.

About SiTime

SiTime Corporation is a market leader in silicon MEMS timing. Our programmable solutions offer a rich feature set that enables customers to differentiate their products with higher performance, smaller size, lower

power, and better reliability. With over 2 billion devices shipped, SiTime is changing the timing industry. For more information, visit www.sitime.com.

Note on Forward-Looking Statements

This press release may contain forward-looking statements regarding future events. These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Readers are cautioned that these forward-looking statements involve risks and uncertainties that could cause our actual results and the timing of events to differ materially from those anticipated in such forward-looking statements, including, but not limited to: our ability to develop, introduce, and ship new products in volume; quality and performance of our products; our customer relationships and our ability to retain and expand our customer relationships; and other risks and uncertainties described more fully in our documents filed with or furnished to the Securities and Exchange Commission. More information about these and other risks that may impact our business is set forth in our more recent Forms 10-K and 10-Q filed with the Securities and Exchange Commission. All forward-looking statements in this press release are based on information available to us as of the date hereof and qualified in their entirety by this cautionary statement, and we assume no obligation to revise or update these forward-looking statements.

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Green Flash Media for SiTime
Donna St. Jean Conti
pr@gflashmedia.com

Source: SiTime Corporation