# SiTime Solves Critical Challenges in GPS-enabled Defense Systems

*Breakthrough Performance and Reliability of the Endura Epoch Platform Addresses Precision Timing Issues for Aerospace and Defense*

SANTA CLARA, Calif.--(BUSINESS WIRE)--Dec. 7, 2023-- SiTime Corporation (NASDAQ: SITM), the precision timing company, today announced its Endura Epoch Platform ™ built for robust and resilient positioning, navigation and timing (PNT) services critical in defense operations. The ruggedized MEMS oven-controlled oscillator (OCXO) boosts the resilience of PNT systems and other equipment, such as radars, field and airborne radios, satcom terminals and avionics against spoofing, jamming and other disruptions in Global Positioning System (GPS) signals.

"GPS was originally deployed for national security and later adopted for a variety of commercial and industrial applications," said Piyush Sevalia, executive vice president of marketing at SiTime. "In addition to national security applications, GPS plays an essential role in civilian infrastructure, such as aviation, power grid and emergency response. An industry analysis revealed that a total GPS outage would negatively impact the economy by $1 billion per day."

"Over the last few decades, defense systems and business processes have been structured around GPS-based PNT," continued Sevalia. "However, a GPS signal can be disrupted intentionally and unintentionally, which can lead to disastrous consequences on military operations in the space, air, maritime, ground and cyber domains. GPS disruptions can cause equipment malfunctions, increased risk to personnel, or even complete mission failure. In these situations, an ultra-stable, local clock device can provide the accurate time reference for PNT until the trusted GPS signal becomes available again. SiTime's Endura Epoch Platform is a breakthrough precision timing solution that provides this accurate time reference, allowing PNT systems in national security and defense applications to achieve a new level of performance even during the disruption of the GPS signal."

Based upon the transformative precision timing innovations of the Epoch Platform launched in September 2023, the Endura Epoch MEMS OCXOs are specifically designed to meet the challenging shock and vibration conditions found in aerospace and defense. These devices are manufactured using proven semiconductor processes that deliver the reliability and quality expected from silicon devices that cannot be achieved by quartz crystal OCXOs, especially in extreme conditions.

**Key Features of SiTime Endura Epoch Platform**

The Endura Epoch Platform MEMS OCXO greatly simplifies timing system design due to superior performance and delivers a significant improvement in size, weight and power (SWaP). Key features and benefits compared to quartz crystal OCXOs include:

- Programmable frequencies from 10 to 220 MHz
- Up to 70X better g-sensitivity
- Up to 30X better reliability
- Rated at 20,000 g shock survivability, up to 20X better
- Up to 20X better frequency stability over temperature
- Up to 3X better Allan deviation, a measure of short-term frequency stability
- Surface-mountable, small footprint and low height 9.0 mm x 7.0 mm x 3.6 mm
- Low 0.35 g weight, up to 300X lower
- 420 mW steady state power, up to 2X lower

**Availability**

Endura Epoch Platform MEMS OCXO samples will be available for selected customers early in 2024.

**Additional Resources**

- Product page
- Download product image

**About SiTime**

SiTime Corporation is the precision timing company. Our semiconductor MEMS 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 more than 3 billion devices shipped, SiTime is changing the timing industry. For more information, visit www.sitime.com.

**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: (i) the size and growth potential of the markets for our solutions, and our ability to serve and expand our presence in those markets, and (ii) our ability to introduce and ship new products in volume; 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 Form 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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