



## onsemi Introduces the Industry's Most Advanced Analog and Mixed-Signal Platform

November 11, 2024


*The Treo Platform features a modular architecture to accelerate development of intelligent power management, sensor interface and communications solutions*

### NEWS HIGHLIGHTS

- The Treo Platform is built on BCD process technology on a 65nm node and supports the industry's widest voltage range of 1-90V and operating temperatures up to 175° C
- The Platform will allow customers to simplify their design processes, reduce system costs and achieve faster time-to-market for their solutions in automotive, medical, industrial, and AI data centers
- Multiple product families built on the Treo Platform are already sampling including voltage translators, ultra-low-power AFEs, LDOs, ultrasonic sensors, multi-phase controllers, and single-pair Ethernet controllers
- Products built on the platform will be manufactured at onsemi's world-class 300mm fab in East Fishkill, NY

SCOTTSDALE, Ariz.--(BUSINESS WIRE)--Nov. 11, 2024-- **What's New:** Today, onsemi introduced the Treo Platform, an analog and mixed-signal platform built with Bipolar-CMOS-DMOS (BCD) process technology on an advanced 65nm node. This platform provides the foundation for a wide range of power and sensing solutions from onsemi including high-performance and low-power sensing, high-efficiency power management, and purpose-built communications devices. Using this single, scalable solution, customers can simplify and accelerate product development for existing applications, and rapidly respond to emerging market opportunities.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/2024111318383/en/>

 The Treo Platform features a modular architecture that will enable a simpler design process for customers, reduce systems costs and achieve faster time-to-market for their solutions. (Graphic: Business Wire)

**Why it Matters:** Today's increasing power demands in automotive, industrial, and AI data center markets in parallel with stricter environmental regulations are driving a need for greater energy efficiency at the same time these industries are requiring greater performance and functionality in end applications. Additionally, low power devices such as medical wearables are becoming more sophisticated, requiring more intelligence and better efficiency to improve personal care and reduce device costs. This creates the need for highly integrated, advanced power and sensing solutions capable of delivering greater intelligence while simultaneously delivering greater energy efficiency across the entire power spectrum.

The Treo Platform features a modular architecture that will enable a simpler design process for customers, reduce systems costs and achieve faster time-to-market for their solutions. (Graphic: Business Wire)

The Treo Platform is uniquely positioned to address these growing needs offering superior performance and features, while supporting the industry's widest voltage range on a leading node. Products built on

the Treo Platform can achieve significant improvements in accuracy, performance and efficiency that result in an improvement in function, safety and overall quality of life. For example:

- In automotive, high-performance ultrasonic sensors can improve accuracy by a factor of two, meaning they can detect objects that are much closer to the vehicle than before in park assist applications. With the ability to detect objects at closer distances, the park assist system can provide better collision avoidance and improve overall safety by helping drivers avoid obstacles more effectively when parking.
- In healthcare, ultra-low-power Analog Front Ends (AFE) for continuous glucose monitoring (CGM) devices can more accurately measure very small electrical currents, down to the nanoampere (nA) level. This precision is crucial for detecting the tiny signals generated by glucose sensors, ensuring accurate glucose readings. By integrating multiple functions into a single, compact chip, the platform is able to cut the required footprint in half and extend the battery life to several weeks. This means the overall CGM device can be smaller and more comfortable for the patient to wear with fewer replacements to save on healthcare costs.

- In data centers, the Treo Platform will enable more compact onsemi smart power stages, contributing to efficiency improvements in power delivery to GPUs and CPUs. This can lead to reduced cooling requirements and substantial energy savings, resulting in lower operational costs and a smaller, more sustainable environmental footprint.

**How It Works:** The Treo Platform features a modular, SoC-like architecture with a robust set of ever-evolving IP building blocks that make up the compute, power management, sensing, and communications subsystems. Built on the 65nm process node, the Treo Platform offers advanced digital processing capabilities and better analog IP performance. With these capabilities, the platform can deliver local intelligence and compute for flexible configuration, as well as significantly improve performance and accuracy in end applications. Additionally, the platform supports the industry's widest voltage range of 1-90V and operating temperatures up to 175° C, which allows customers to integrate a range of low-to-high power functionality. These capabilities enhance onsemi's ability to deliver solution-optimized and customized product portfolios that allow customers to get to market faster than ever before.

Initial product families built on the Treo Platform are sampling today, including voltage translators, ultra-low-power AFEs, LDOs, ultrasonic sensors, multi-phase controllers, and single-pair Ethernet controllers. Through 2025, onsemi will deliver an even broader array of product families adding even more system-level value, including: high performance sensors, DC-DC converters, automotive LED drivers, electrical safety ICs, connectivity, and more.

**Investor Webinar:** onsemi will host a webinar for the financial community on Monday, November 18 at 4:30 p.m. Eastern Time (ET) to learn more about the Treo Platform. A live webcast will be available on the Investor Relations page of the company website at <http://www.onsemi.com>. The replay will be available approximately one hour following the live broadcast and will remain available for 30 days.

**More Information:**

[Treo Technology Platform](#)

**Whitepaper:**

[TND6465 Delivering Best-in-class Precision Analog with the Treo Platform](#)

**About onsemi**

**onsemi** (Nasdaq: ON) is driving disruptive innovations to help build a better future. With a focus on automotive and industrial end-markets, the company is accelerating change in megatrends such as vehicle electrification and safety, sustainable energy grids, industrial automation, and 5G and cloud infrastructure. **onsemi** offers a highly differentiated and innovative product portfolio, delivering intelligent power and sensing technologies that solve the world's most complex challenges and leads the way to creating a safer, cleaner and smarter world. **onsemi** is recognized as a Fortune 500® company and included in the Nasdaq-100 Index® and S&P 500® index. Learn more about **onsemi** at [www.onsemi.com](http://www.onsemi.com).

*onsemi and the onsemi logo are trademarks of Semiconductor Components Industries, LLC. All other brand and product names appearing in this document are registered trademarks or trademarks of their respective holders.*

View source version on [businesswire.com](https://www.businesswire.com/news/home/20241111318383/en/): <https://www.businesswire.com/news/home/20241111318383/en/>

**Krystal Heaton**

Director, Head of Public Relations

onsemi

(480) 242-6943

[Krystal.Heaton@onsemi.com](mailto:Krystal.Heaton@onsemi.com)

Source: onsemi