

Safe Harbor Statement and Non-GAAP and Forecast Information

This document includes “forward-looking statements,” as that term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical facts, included or incorporated in this document could be deemed forward-looking statements, particularly statements about the future financial performance of onsemi, including financial guidance for the fourth quarter of 2024. Forward-looking statements are often characterized by the use of words such as “believes,” “estimates,” “expects,” “projects,” “may,” “will,” “intends,” “plans,” “anticipates,” “should” or similar expressions or by discussions of strategy, plans or intentions. All forward-looking statements in this document are made based on our current expectations, forecasts, estimates and assumptions and involve risks, uncertainties and other factors that could cause results or events to differ materially from those expressed in the forward-looking statements. Certain factors that could affect our future results or events are described under Part I, Item 1A “Risk Factors” in the 2023 Annual Report on Form 10-K filed with the Securities and Exchange Commission (the “SEC”) on February 5, 2024 (the “2023 Form 10-K”) and from time to time in our other SEC reports. You are cautioned not to place undue reliance on forward-looking statements. We assume no obligation to update such information, which speaks only as of the date made, except as may be required by law. Investing in our securities involves a high degree of risk and uncertainty, and you should carefully consider the trends, risks and uncertainties described in this document, our 2023 Form 10-K and other reports filed with or furnished to the SEC before making any investment decision with respect to our securities. If any of these trends, risks or uncertainties actually occurs or continues, our business, financial condition or operating results could be materially adversely affected, the trading prices of our securities could decline, and you could lose all or part of your investment. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this cautionary statement.

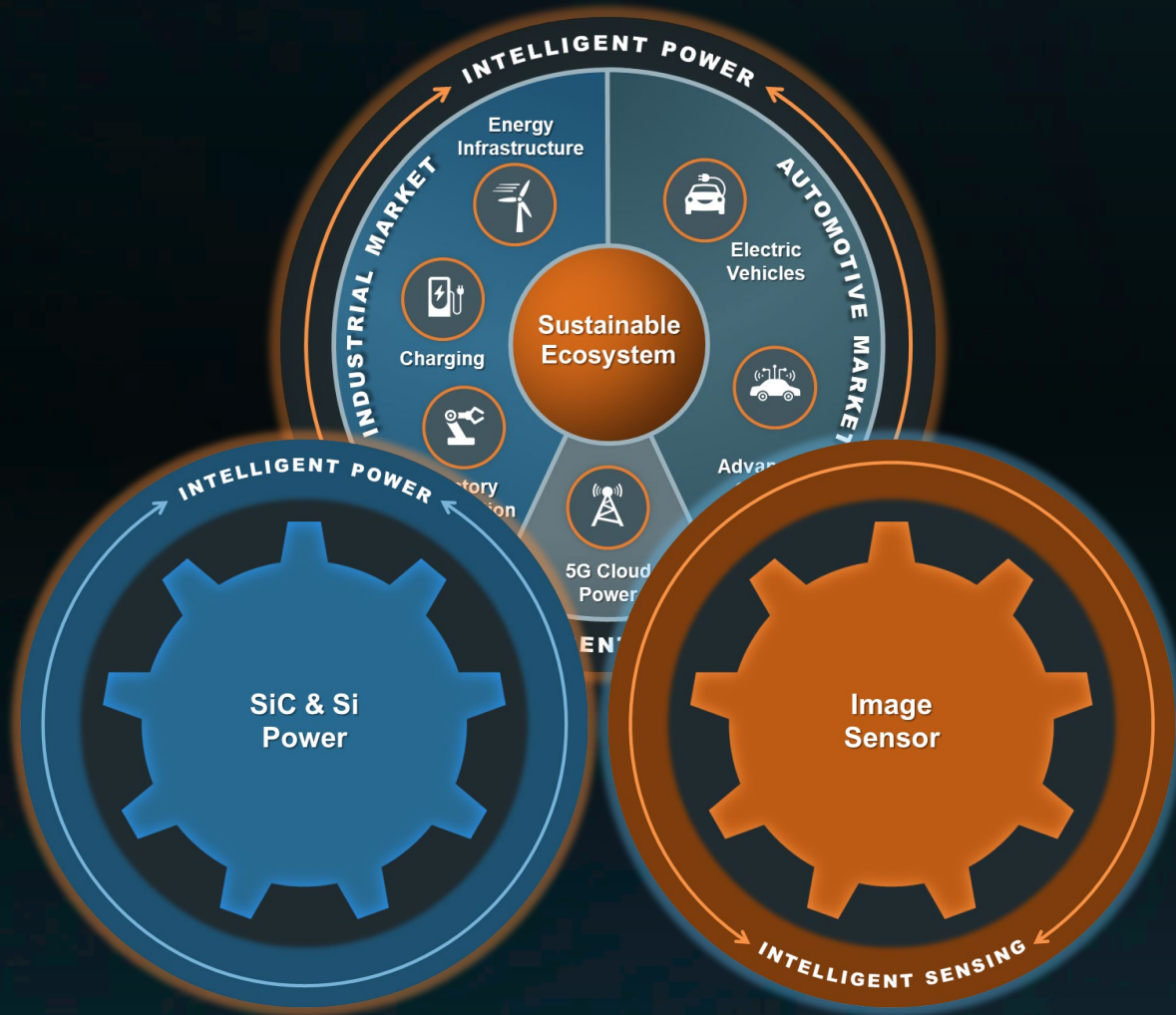
This presentation include certain non-GAAP financial measures. Reconciliations of these non-GAAP financial measures to the most directly comparable measures under GAAP are included in our earnings release, which is posted separately on our website in the “Investor Relations” section.



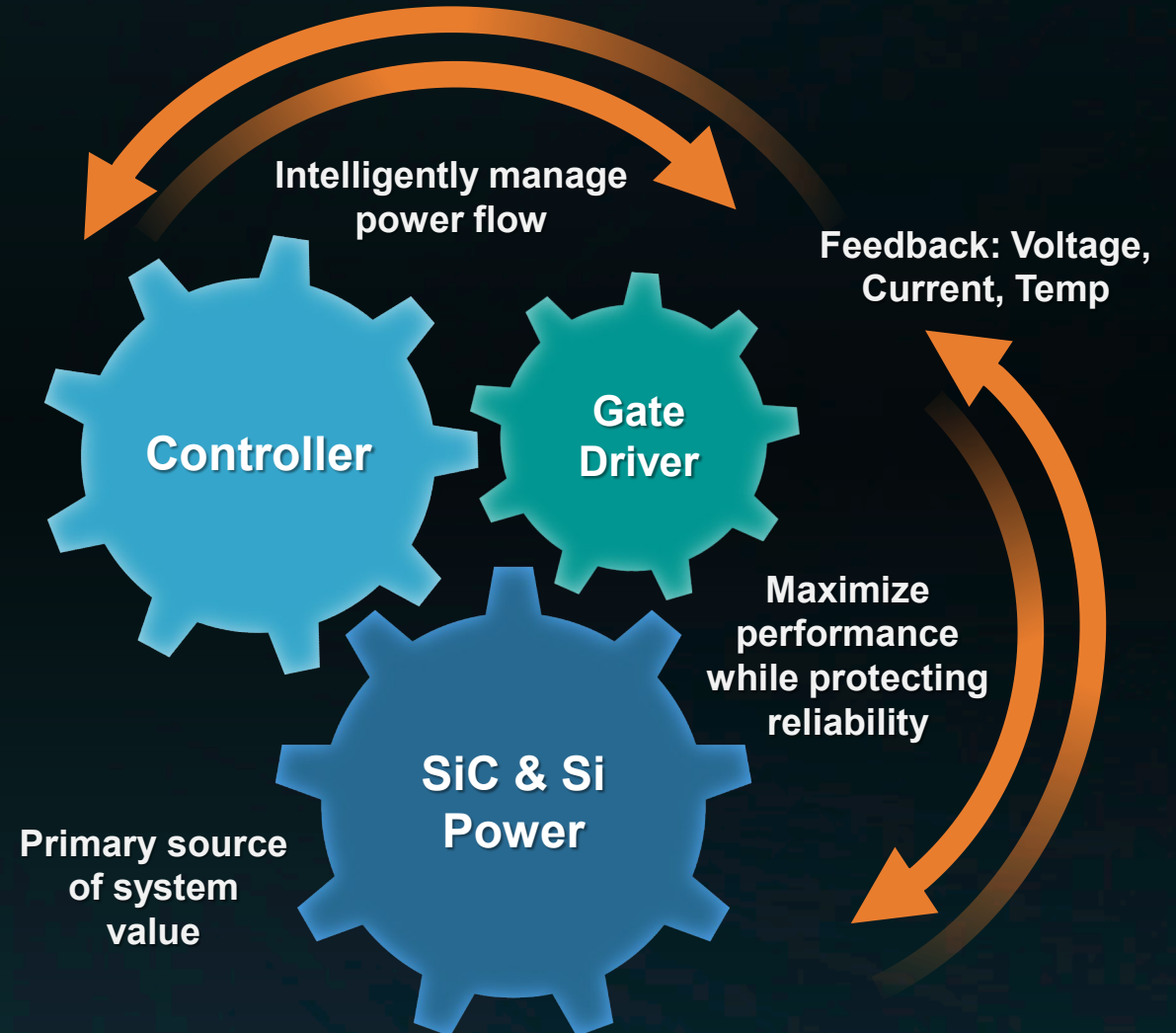
Treo Analog and Mixed-Signal Platform Investor Presentation

November 2024

Winning at the Core



Expanding from the Core



onsemi Aligns Business Groups to Expand Product Portfolio and Accelerate Growth

March 12, 2024

Analog and Mixed-Signal Group (AMG)

Delivering an analog and mixed-signal portfolio that solves our customers' most critical system-level power and sensing problems

AMG provides a suite of novel technologies to optimize next-generation solutions with **high efficiency**, **advanced integration**, and industry **best-in-class performance** for Automotive, Industrial, and AI Data Center

Electronics Weekly.com

NEWS BUSINESS MARKETS DESIGN PRODUCTS BLOG

Home » News » Products » Analogue / Linear / Mixed Signal ICs

By Steve Bush | Posted on 11th November 2024 | Modified on 11th November 2024

65nm 90V BCD process for analogue and mixed signal

Onsemi has installed a 65nm BCD (bipolar CMOS DMOS) process at its fab in East Fishkill, New York, on a line that can handle 300mm wafers.

Called 'Treo Platform' it can produce ICs with rail voltage from 1V to 90V, and that work up to 175°C.

"This provides the foundation for a range of power and sensing solutions," according to the company. "Multiple product families built on the Treo Platform are already sampling, including voltage translators, low-power analogue front-ends, low drop-out regulators, ultrasonic sensors, multi-phase controllers and single-pair Ethernet controllers."

Sanorless vector motor control dev board

RECOMMENDED ARTICLES

Electronic Bi-

onsemi

as a modular arch
ver management,

logMixedSignal
gSolutions #Aut
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View insights

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Thank you to e
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Financial CONTENT

TICKER SYMBOL OR COMPANY NAME GET QUOTE

Markets Stocks ETFs Tools

Overview News Currencies International Treasuries

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

By: onsemi via Business Wire

November 11, 2024 at 18:14 PM EST

The Treo Platform features a modular architecture to accelerate development of intelligent power management device footprint by 50% and extending battery life to several weeks. In

Newseum

1,48

TOOLS VIDEOS

ular Analog and Mixed-Signal

onsemi launches 65 nm platform for automotive and industrial applications

By Aimee Kalnoskas November 11, 2024

onsemi has launched its **Treo Platform**, an analog and mixed-signal platform using Bipolar-CMOS-DMOS (BCD) process technology on a 65 nm node. The platform supports voltage ranges from 1-90 V and operating temperatures up to 175° C, designed to serve automotive, medical, industrial, and AI data

ture helps customers streamline design processes and reduce time-to-sensor interface, and communications solutions. Several product families are currently sampling, including voltage translators, analog front ends (AFEs), phase controllers, and single-pair Ethernet controllers. The products will be m fab in East Fishkill, NY.

ig power demands across industries while meeting stricter environmental cations, ultrasonic sensors built on the platform can double the accuracy of detection of closer objects and improving collision avoidance. For glucose monitoring devices can measure electrical currents at the

electropages

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onsemi Treo: Cutting-Edge Analog & Mixed-Signal Platform

11-11-2024 | By Jack Poland

onsemi

The Treo Platform Built on BCD 65nm

from onsemi

onsemi Treo

Analog and Mixed-Signal Platform

November 11, 2024:

onsemi Enters the High Performance Analog & Mixed Signal Market with Treo



These industries are requiring greater performance from devices such as medical wearables are better efficiency to improve personal care and achieve faster time-to-market for their solutions. (Graphic: Business Wire)

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

onsemi

12th November 2024

Electronic Specifier

Harry Fowle

0

onsemi Treo Platform at electronica 2024, its most advanced analog and mixed-signal platform. Electronic Specifier's Harry Fowle spoke with Koel Appeltans, Director of

- Diverse Product Compatibility:** Multiple product families are already sampling, including voltage translators, ultra-low-power AFEs, LDOs, ultrasonic sensors, and multi-phase controllers, demonstrating the platform's adaptability across sectors.
 - Advanced Manufacturing:** All Treo Platform products are produced at onsemi's 300mm fab in East Fishkill, NY, ensuring high-quality production standards and capacity for scale.
- features a modular architecture that will enable a simpler design process for systems costs and achieve faster time-to-market for their solutions. (Graphic: Business Wire)
- Today's increasing power demands in automotive, industrial, and AI data parallel with stricter environmental regulations are driving a need for greater performance and efficiency. Additionally, low power devices such as medical wearables are being pushed to the limits, requiring more intelligence and better efficiency to improve

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)

Meet the Treo Platform

**onsemi enters
High Perf. Analog &
Mixed Signal market**

Leapfrogging the competition with
market leading technology

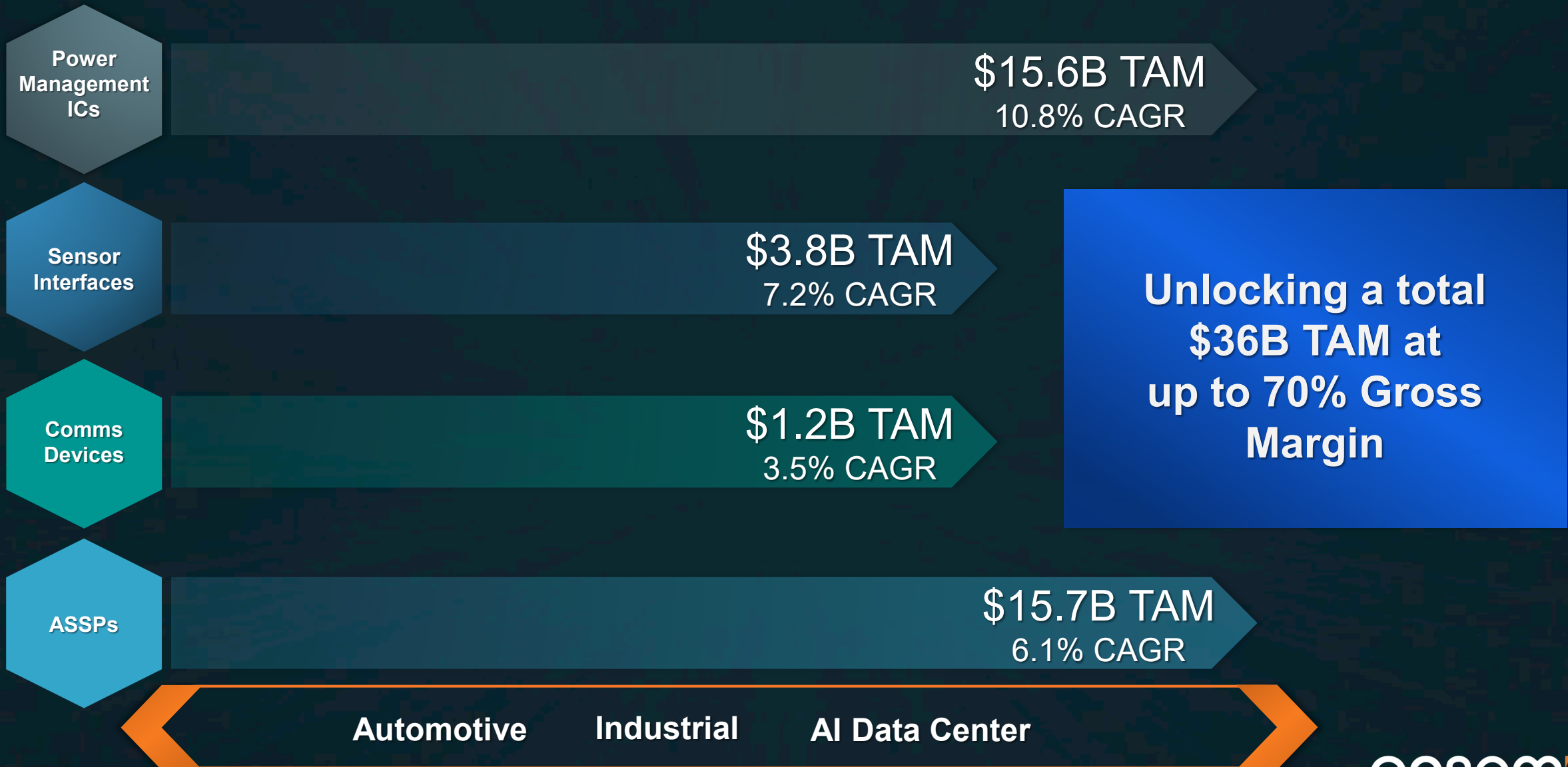
**Competitive
Advantage**

Unprecedented level of integration through a
combination of proprietary BCD65nm process
in a 300mm EFK fab with an SoC-like approach

**Large TAM with
attractive GM**

Expanding into \$36B TAM
Targeting revenue of \$1B by 2030
Gross margin up to 70%

Treo Analog and Mixed-Signal Platform



The industry's most advanced analog and mixed-signal platform for intelligent power and sensing solutions



Best of All Worlds

Unprecedented 65nm BCD process:

1. Bipolar Transistors: Best Analog
2. CMOS: Digital Processing
3. DMOS: High voltage, power

Broadest voltage range: 1 – 90V
Up to 175°C & Automotive Grade 0



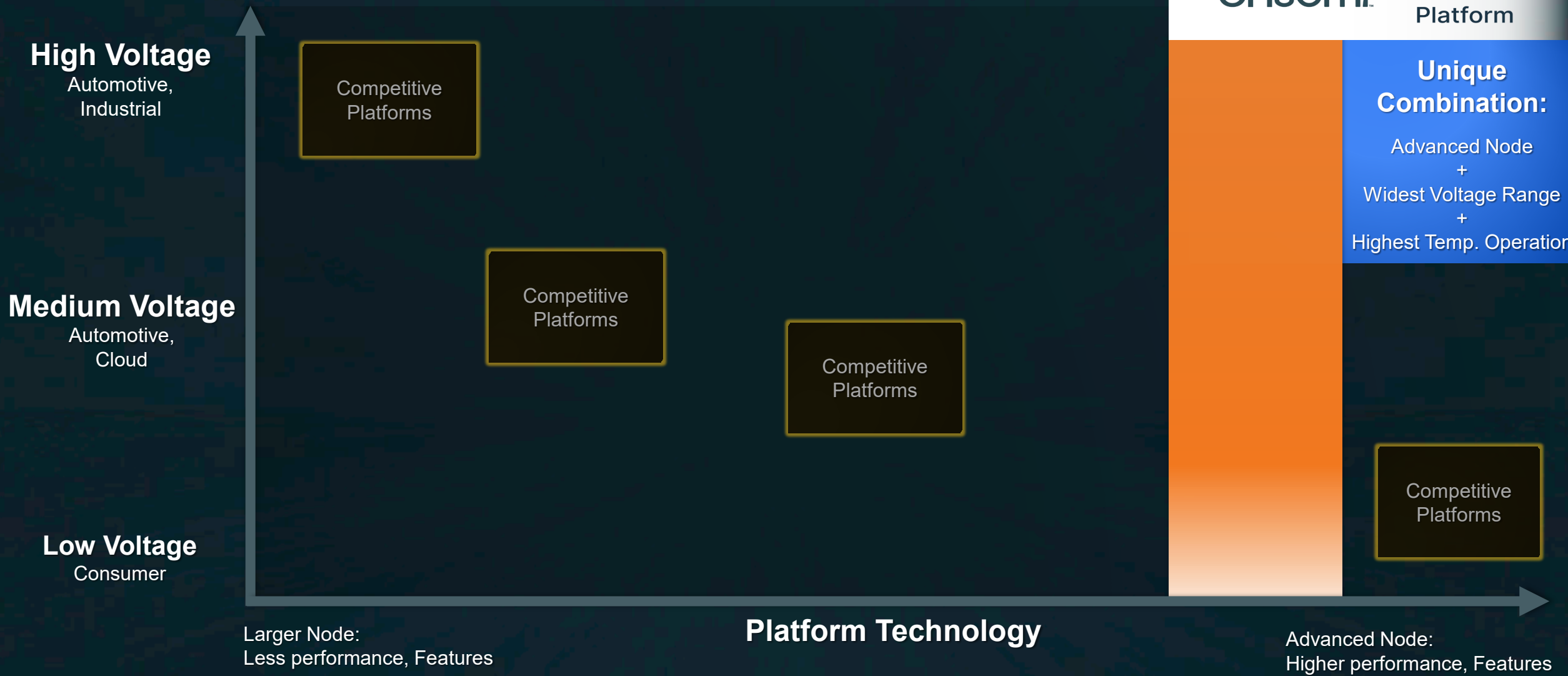
Branches of Product Families

Foundation for a suite of next-gen power management ICs, sensor interfaces, communication devices and ASSPs

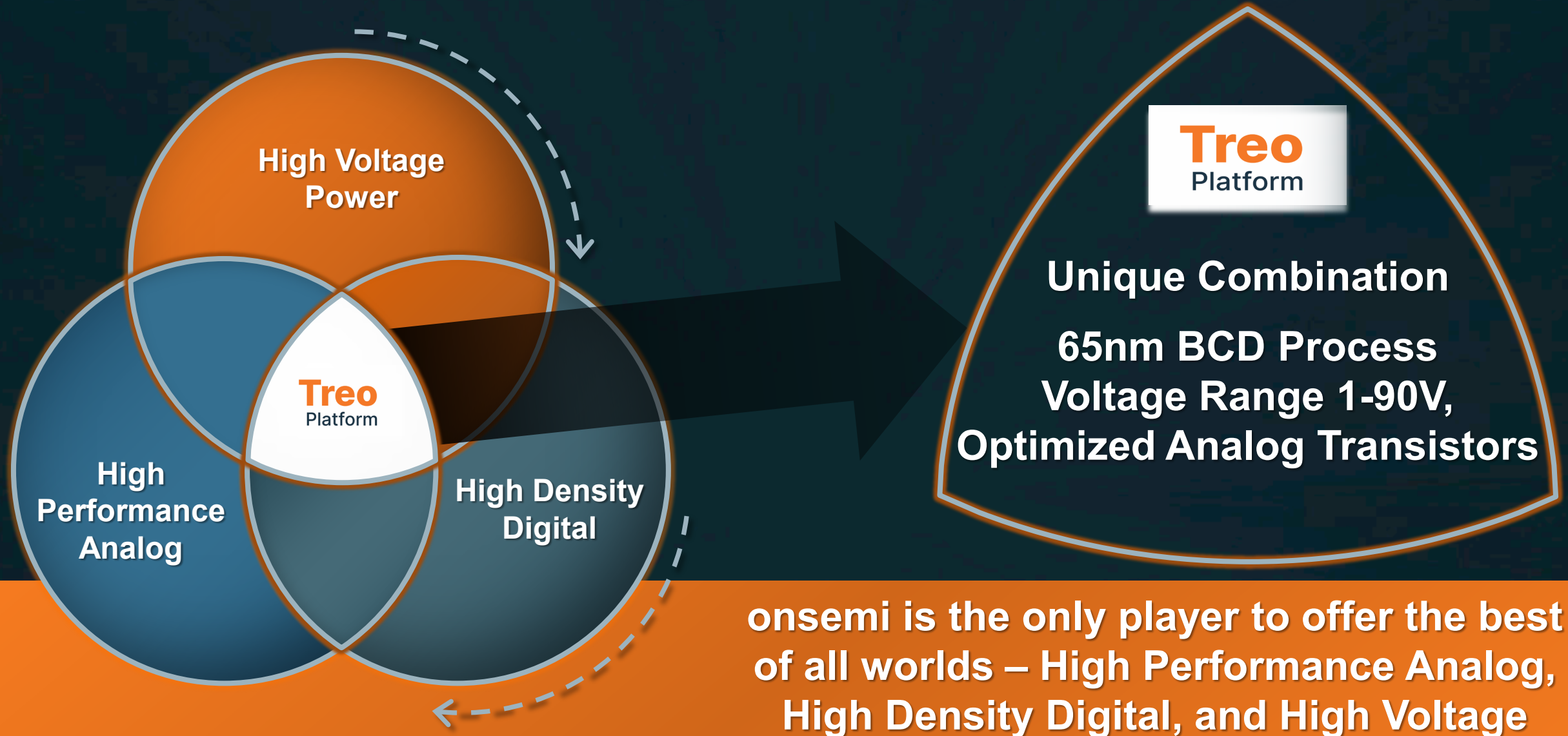


High Performance with Agility

Accelerated development cycle reduces time-to-market to deliver highly differentiated products with best-in-class feature sets and performance

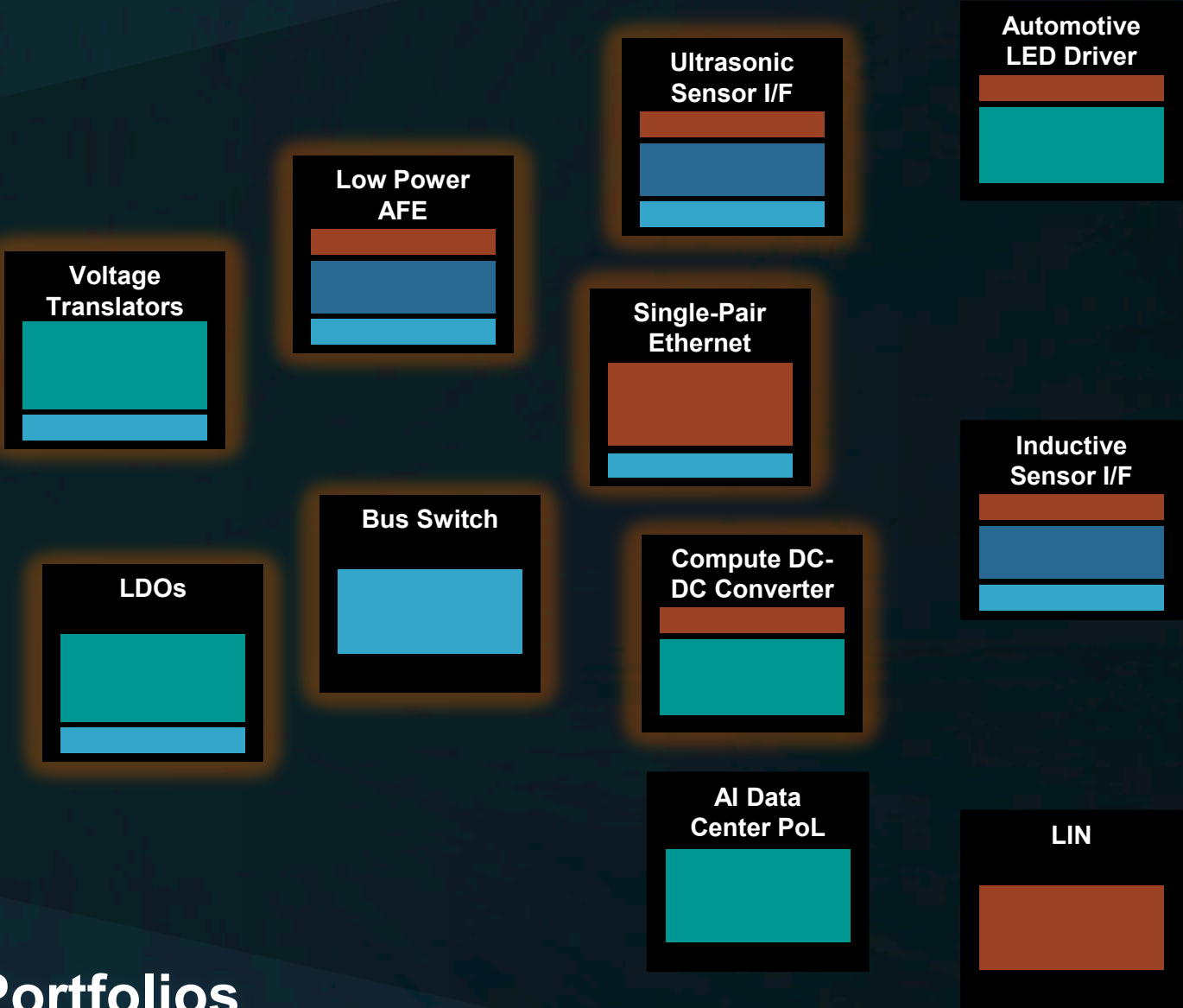
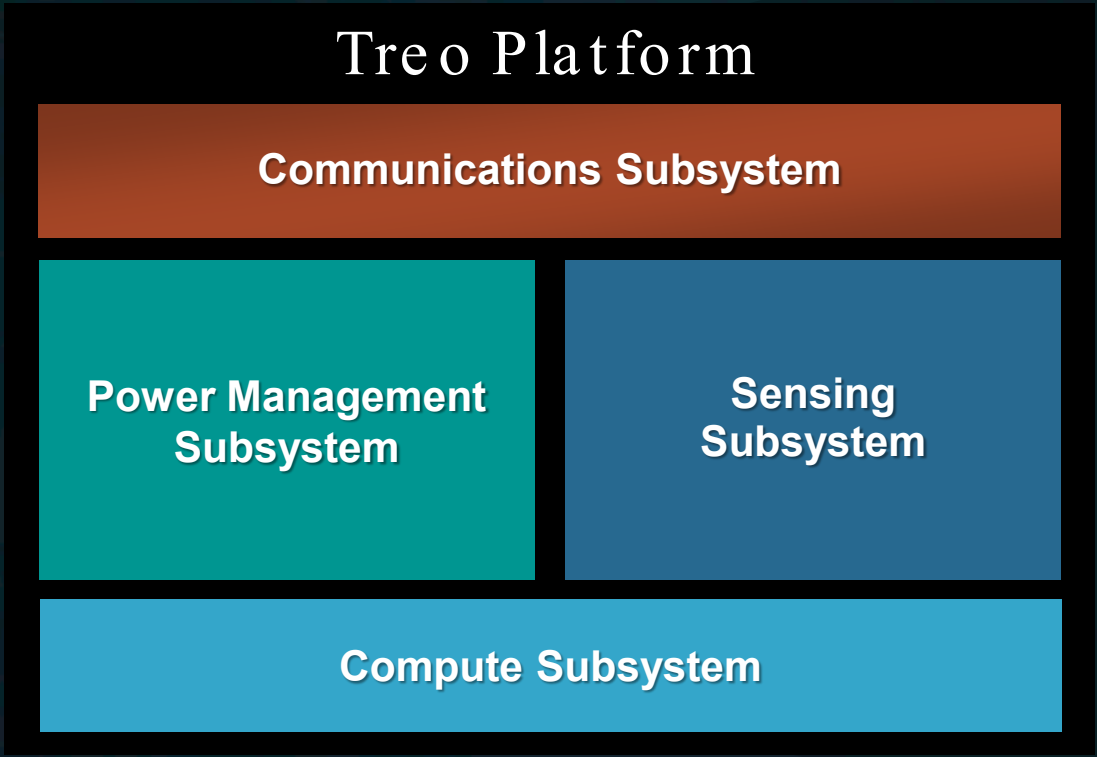


The Most Advanced Analog Mixed Signal Technology on Market



Value Proposition for Next-Generation Analog and Mixed-Signal Solutions

Feature	Why it Matters	Example
Broadest Voltage Range: 1 – 90V	Ability to integrate subsystems across a range of voltages into one silicon solution	Automotive Ethernet: Reduce two chips (separate HV and LV) to single chip
Modular, SoC-like Architecture	Fast time-to-market from accelerated development cycle	Specification to Silicon in 6-9 months
Precision Analog	Higher accuracy, Increased safety	Park Assist: Improve Ultrasonic sensing accuracy by 2x
Embedded Intelligence	Configurable products with advanced features	Inductive Sensing: Real-time position detection 10x more accurate than peers
High Efficiency & Low Power	Reduced power losses leading to lower TCO, Extended battery life	AI Data Center: Smart Power Stages increase efficiency CGM: Days → Weeks Usable Life
High Temperature & Auto Grade 0	Increased system robustness and reliability	Meets most rigorous customer requirements



Enabling Next-Gen **onsemi** Analog and Mixed-Signal Portfolios

Targeting \$1B in Revenue From Treo by 2030



Automotive



Industrial



AI Data Centers

Key
Target
Markets

Selectively target markets and applications to rapidly grow revenue with industry leading technology platform

Gain share through accelerated development cycles to address new and rapidly evolving markets

Leverage broader power portfolio to grow revenue by offering complete solutions

Treo Drives Gross Margin Expansion



Result of two years investment in high value, differentiated products

First Revenue in 1H2025

Sampling 10 products now, will double SKUs by mid-2025

Treo delivers disruptive, high value platform with up to 70% gross margin

Expanding margins with Treo platform replacing existing sunsetting products over multiple years

Leveraging previous brownfield investments in 300mm fab and back-end facilities leading to best-in-class ROIC

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Intelligent Technology. Better Future.

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