

# 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. 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.



# onsemi to Acquire Qorvo's Silicon Carbide JFET Business

December 2024



# onsemi to acquire Qorvo's Silicon Carbide JFET Business, including United Silicon Carbide Subsidiary

**Disruptive technology further strengthens leadership in high and mid voltage power semiconductors**

## **Disruptive technology to maximize power efficiency needs in AI/Data Center, Auto, and Industrial markets**

- Best power efficiency with the lowest on-resistance and high switching frequency drive the best power efficiency among all semiconductor technologies
- Expected to disrupt Silicon power devices and GaN in key applications

## **Expands market opportunity by \$1.3B by 2030**

- Power solutions for AI/Data Center
- Electric vehicle battery disconnect
- Industrial power supplies, solar power convertors, energy storage systems & solid-state circuit breakers for industrial market

## **Attractive financial profile**

- Accelerate growth leveraging onsemi's customer and eco-system relationships
- Margin expansion with onsemi's vertically integrated Silicon Carbide supply chain

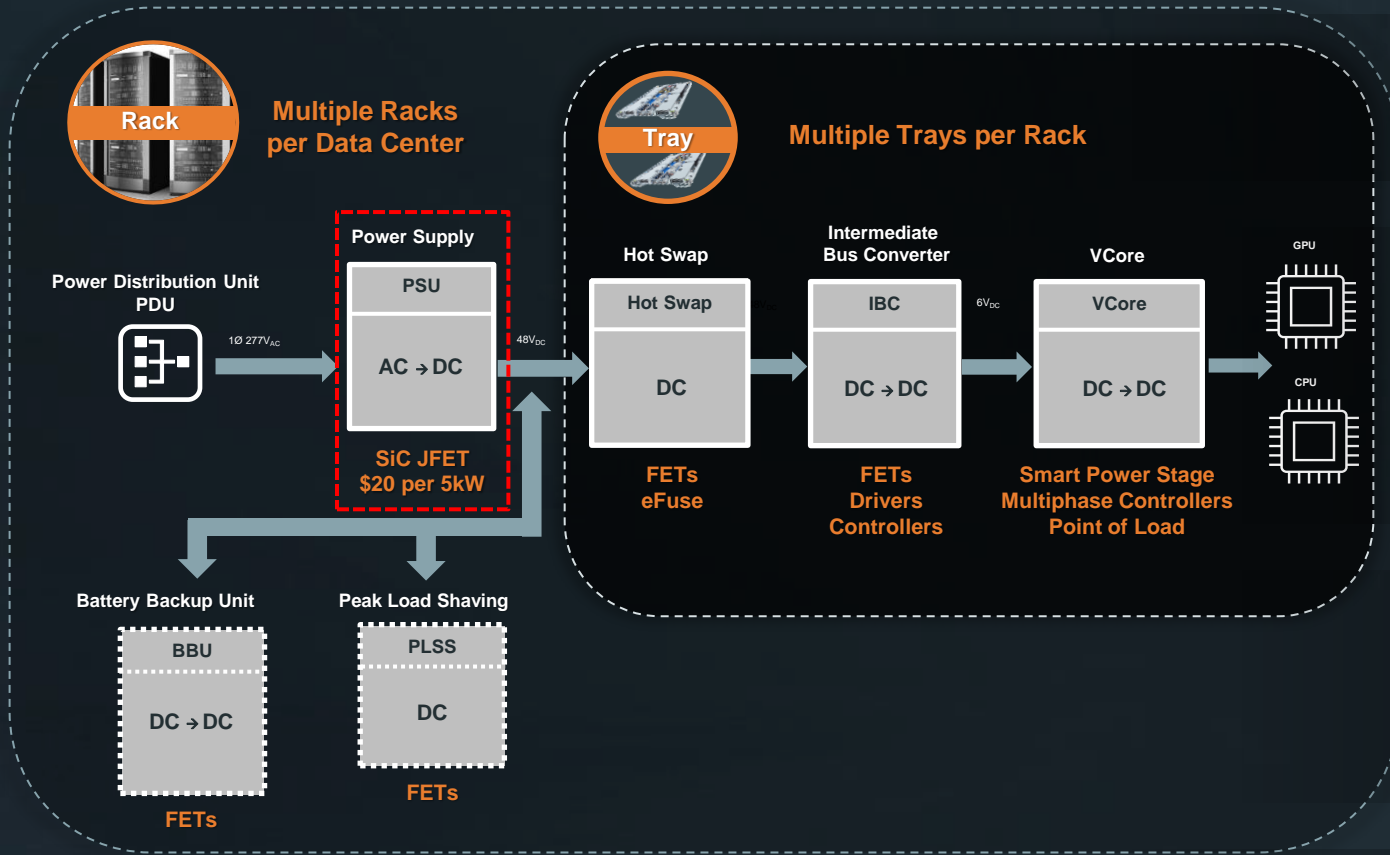
# SiC JFET – Compelling Technology for Fast Growing Markets

## Positioned to Gain Share from Silicon and GaN based solutions

Technology	On-resistance x area	Switching Speed	Die-Size (20mohm)
<b>SiC JFET</b>	<b>0.7Ω-cm<sup>2</sup></b>	<b>500 KHz</b>	<b>4.0 mm<sup>2</sup></b>
SiC FET	1.4Ω-cm <sup>2</sup>	200 KHz	7.2 mm <sup>2</sup>
Si Super-Junction MOSFET	9.8Ω-cm <sup>2</sup>	100 KHz	48 mm <sup>2</sup>
GaN	2.1Ω-cm <sup>2</sup>	1MHz	8.8 mm <sup>2</sup>

- Lowest on-resistance drives highest efficiency among semiconductor technologies in specific applications
- High switching speed enables smaller & more efficient power supplies for AI/Data Center racks
- Smallest die-size and usability with existing drivers reduce system costs
- However, JFETs cannot be easily paralleled, and therefore they are not used in high power applications like traction inverters

# Expanding AI/Data Center TAM



Data Center racks are moving to higher voltages and power

SiC JFETs, with low on-resistance and high switching frequency are best suited for power supply units, and in the future for downstream high voltage DC-DC conversion

With smaller die size and ability to use existing drivers, JFETs offer the lowest overall system costs while offering the best efficiency

SiC JFETs are expected to replace Silicon Super Junction (SJ) MOSFETs and compete with GaN

	SiC JFET	Si SJ	GaN	SiC
On Resistance	0.7Ω-cm <sup>2</sup>	9.8Ω-cm <sup>2</sup>	2.1Ω-cm <sup>2</sup>	1.4Ω-cm <sup>2</sup>
Frequency	500KHz	100KHz	1MHz	200KHz

# Improving Efficiency and Safety in Electric Vehicles

## Long-term opportunity in power distribution

Enable replacement of multiple components with a solid-state switch based on SiC JFET



Solid-state SiC JFET switch



- The battery disconnect unit (BDU) acts as an on/off switch for the main EV battery and protects the EV by disconnecting power during collision or other hazardous events
- All power to the EV's high-power network flows through BDUs
- Today EVs use electromechanical relays for BDUs. These relays oxidize over time and become less reliable
- SiC JFETs are faster, safer and more reliable than electromechanical solutions, and they offer the highest efficiency as their on-resistance is the lowest among all high voltage semiconductor technologies



# Share Gains in Industrial from Silicon



- Key applications include industrial power supplies, certain EV charging topologies, solar power converters, energy storage systems, and solid-state circuit breakers
- SiC JFETs are well positioned to gain share from silicon based super-junction (SJ) MOSFETs and other semiconductor solutions such as GaN in the industrial end-market
- Power efficiency driven by the lowest on-resistance and high switching frequency is key driver of share gains

# Value Creation for onsemi

Expands onsemi's Silicon Carbide market opportunity by \$1.3B

onsemi to leverage its customer and eco-system relationships to accelerate growth in AI/Datacenter, Auto, and Industrial end-markets

Margin expansion through vertically integrated SiC supply chain

Minimal capex needs with most manufacturing infrastructure in place

Deal mildly dilutive in the first year, expected to be neutral in the second year



# Transaction Summary

## Purchase Price

\$115m in cash at close

## Close Expectation

Expected to close in the first quarter of 2025 subject to customary closing conditions

## Employees

Approximately 50 employees, mostly based in the U.S. are expected to join onsemi

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Intelligent Technology. Better Future.

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