

Wolfspeed Investor Day

Wolfspeed  NOVEMBER 17, 2021

Welcome

Wolfspeed  TYLER GRONBACH, VP OF INVESTOR
RELATIONS

FORWARD-LOOKING STATEMENTS AND NON-GAAP MEASURES

Note on Forward-Looking Statements

This presentation includes forward-looking statements about Wolfspeed's business outlook, future financial results and targets, product markets, plans and objectives for future operations, and product development programs and goals. These statements are subject to risks and uncertainties, both known and unknown, that may cause actual results to differ materially, as discussed in our most recent annual report and other reports filed with the U.S. Securities and Exchange Commission (SEC).

Important factors that could cause actual results to differ materially include risks relating to the ongoing COVID-19 pandemic, including the risk of new and different government restrictions that limit our ability to do business, the risk of infection in our workforce and subsequent impact on our ability to conduct business, the risk that our supply chain, including our contract manufacturers, or customer demand may be negatively impacted, the risk posed by vaccine resistance and the emergence of fast-spreading variants, the risk that the COVID-19 pandemic will lead to a global recession and the potential for costs associated with our operations during current and future years to be greater than we anticipate as a result of all of these factors; the risk that we may not obtain sufficient orders to achieve our targeted revenues; the risk that the markets for our products will not develop as we expect, including the adoption of our products by EV manufacturers; the risk that our device pipeline will not convert into orders and revenue at the rates that we have assumed or historically experienced; price competition in key markets; the risk that we may experience production difficulties that preclude us from shipping sufficient quantities to meet customer orders or that result in higher production costs, lower yields and lower margins; our ability to lower costs; the risk that our results will suffer if we are unable to balance fluctuations in customer demand and capacity, including bringing on additional capacity on a timely basis to meet customer demand; the risk that longer manufacturing lead times may cause customers to fulfill their orders with a competitor's products instead; product mix; risks associated with the ramp-up of production of our new products, and our entry into new business channels different from those in which we have historically operated; risks associated with our factory optimization plan and construction of a new device fabrication or materials manufacturing facilities, including design and construction delays and cost overruns, issues in installing and qualifying new equipment and ramping production, poor production process yields and quality control, and potential increases to our restructuring costs; the risk that we or our channel partners are not able to develop and expand customer bases and accurately anticipate demand from end customers, which can result in increased inventory and reduced orders as we experience wide fluctuations in supply and demand; the risk that the economic and political uncertainty caused by the tariffs imposed by the United States on Chinese goods, and corresponding Chinese tariffs and currency devaluation in response, may negatively impact demand for our products; risks related to international sales and purchases; ongoing uncertainty in global economic conditions, infrastructure development or customer demand that could negatively affect product demand, collectability of receivables and other related matters as consumers and businesses may defer purchases or payments, or default on payments; risks resulting from the concentration of our business among few customers, including the risk that customers may reduce or cancel orders or fail to honor purchase commitments; the risk that our investments may experience periods of significant market value and interest rate volatility causing us to recognize fair value losses on our investment; the risk posed by managing an increasingly complex supply chain that has the ability to supply a sufficient quantity of raw materials, components and finished products with the required specifications and quality; the risk we may be required to record a significant charge to earnings if our remaining goodwill or amortizable assets become impaired; risks relating to confidential information theft or misuse, including through cyber-attacks, cyber intrusion or ransomware; our ability to complete development and commercialization of products under development; the rapid development of new technology and competing products that may impair demand or render our products obsolete; the potential lack of customer acceptance for our products; risks associated with ongoing litigation; the risk that customers do not maintain their favorable perception of our brand and products, resulting in lower demand for our products; the risk that our products fail to perform or fail to meet customer requirements or expectations, resulting in significant additional costs; risks associated with strategic transactions, including the possibility that we may not realize the full purchase price contemplated in connection with the sale of our former LED Products or Lighting Products business units; and other factors discussed in our filings with the SEC, including our report on Form 10-K for the fiscal year ended June 27, 2021, and subsequent reports filed with the SEC.

The forward-looking statements in this presentation were based on management's analysis of information available at the time the presentation was prepared and on assumptions deemed reasonable by management. Our industry and business is constantly evolving, and Wolfspeed undertakes no obligation to update such forward-looking statements to reflect new information, future events, subsequent developments or otherwise, except as may be required by applicable U.S. federal securities laws and regulations.

Note on Non-GAAP Measures

This presentation includes certain non-GAAP financial measures and targets. Wolfspeed's management evaluates results and makes operating decisions using both GAAP and non-GAAP measures included in this presentation. Non-GAAP measures exclude certain costs, charges and expenses which are included in GAAP measures. By including these non-GAAP measures, management intends to provide investors with additional information to further analyze the Company's performance, core results and underlying trends. Non-GAAP measures are not prepared in accordance with GAAP and non-GAAP measures should be considered a supplement to, and not a substitute for, financial measures prepared in accordance with GAAP. Investors and potential investors are encouraged to review the reconciliations of non-GAAP financial measures to their most directly comparable GAAP measures attached to this presentation. Please see the Appendix at the end of this presentation.

AGENDA

1 — STRATEGIC OVERVIEW

Gregg Lowe – President
& CEO

2 — TECHNOLOGY OVERVIEW

John Palmour - CTO

3 — WOLFSPEED BUSINESS REVIEW

Jay Cameron - SVP & GM, Power
Gerhard Wolf – SVP & GM, RF Power
Cengiz Balkas – SVP & GM, Materials

4 — BREAK

5 — CUSTOMER FIRESIDE CHAT

Moderated by Kenric Miller – VP, Global Sales
& Marketing, Automotive

6 — PIPELINE DEVELOPMENT - COMPONENTS

Thomas Wessel – SVP, Global Sales &
Marketing

7 — CAPACITY UPDATE

Rex Felton – SVP, Fab Operations

8 — LONG-TERM OUTLOOK

Neill Reynolds – EVP & CFO

9 — QUESTION & ANSWER SESSION

Strategic Overview

Wolfspeed[®] GREGG LOWE | PRESIDENT & CEO

WOLFSPEED AT A GLANCE

Company Overview

~\$16B

Market Cap

Substantial

IP Position

Largest

Silicon Carbide
Provider

1987

Founded

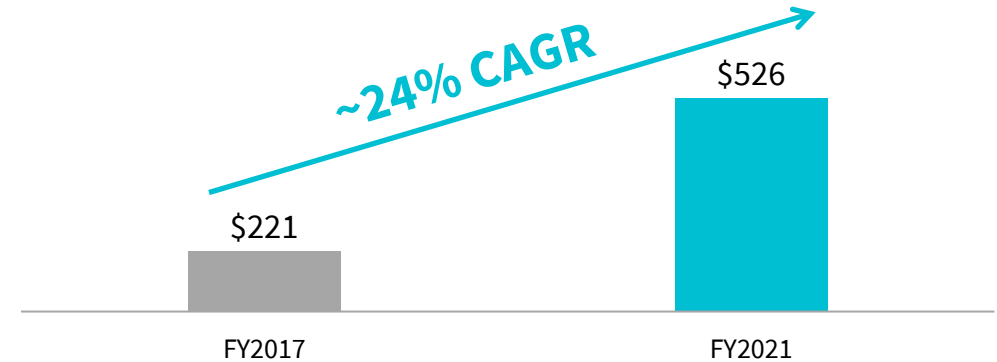
~3,500

Employees

30+ Years

Leadership

Wolfspeed Revenue (M)⁽¹⁾



Recent Highlights

\$18B+



Current Device Pipeline

~\$2.9B



Design-In Awards in FY2021

~\$9B



Device SAM by 2026

\$1B+



Net Investment Over Last 8 Quarters

~1,100



Number of Design-Ins in FY2021

~\$1.3B+



Materials LTAs

Source: Company Filings; Market Data as of October 2021 | (1) Fiscal year end in June

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SINCE WE LAST MET

The industry has been hit by several near-term headwinds....

2020

March:



Global pandemic hits all parts of the world

May:



Demand begins to pick up as world adjusts to new normal

September:



Continued trade tensions between the U.S. and China

2021

March:



Industry-wide supply chain lags as demand strengthens

May:



Mounting concern regarding inflationary pressure and rising prices

August:



Semiconductor chip shortage becomes acutely felt

September:






Continuation of a challenging inflationary environment coupled with decreased labor supply







SINCE WE LAST MET

...but we've still managed to transform into a global semiconductor powerhouse

2020

- March:**  Quickly Adapted to the New COVID-19 Operating Environment
- April:**  Announced \$575M Convertible Senior Notes Offering
- June:**  Announced Strategic Partnership with the Yutong Group

2021

- February:**  Completed \$500M ATM Equity Offering
- March:**  Completed Sale of LED Business
- August:**  Secured a Record ~\$2.9B of Design-ins During FY21
- October:**  Listed on the NYSE under the ticker 'WOLF'
-  Formally Changed Name to Wolfspeed
-  Announced Strategic Partnership with GM

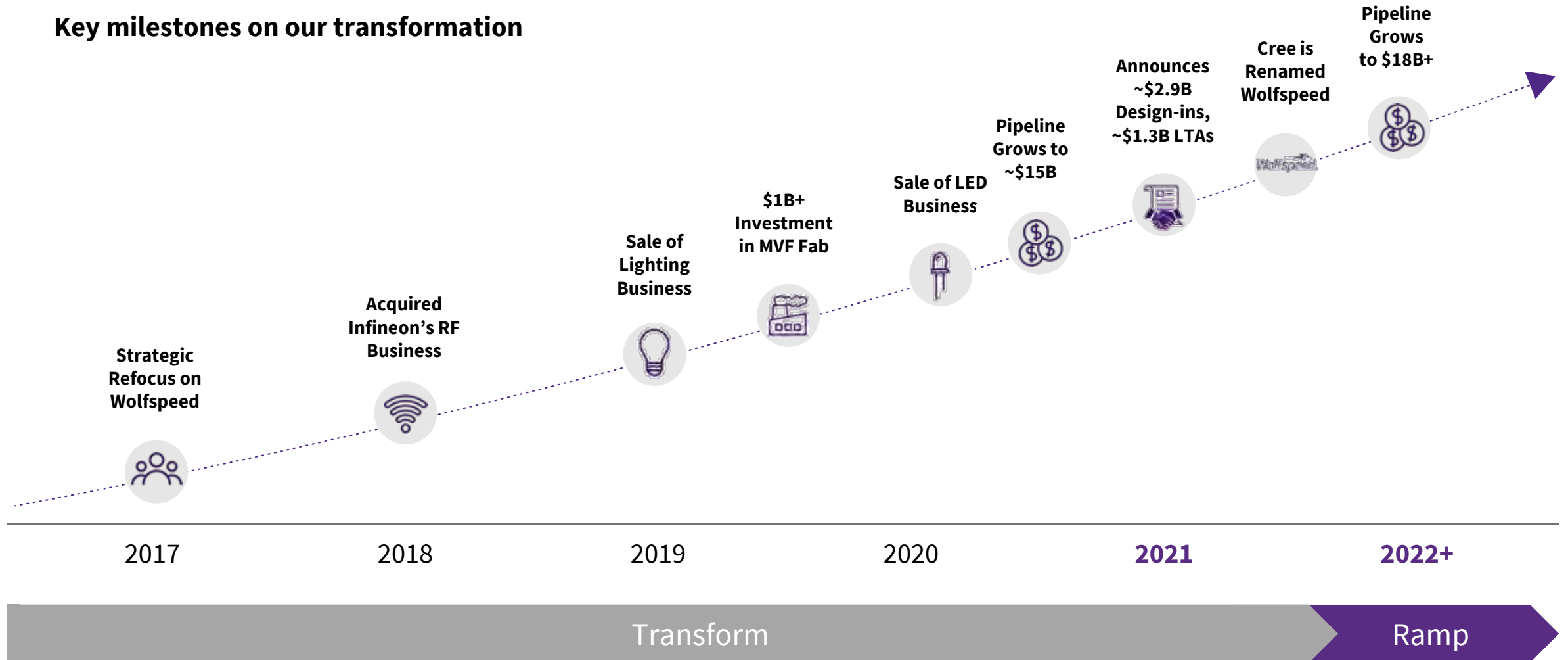
I TOOK A BIKE RIDE RECENTLY...



... here's what I learned.

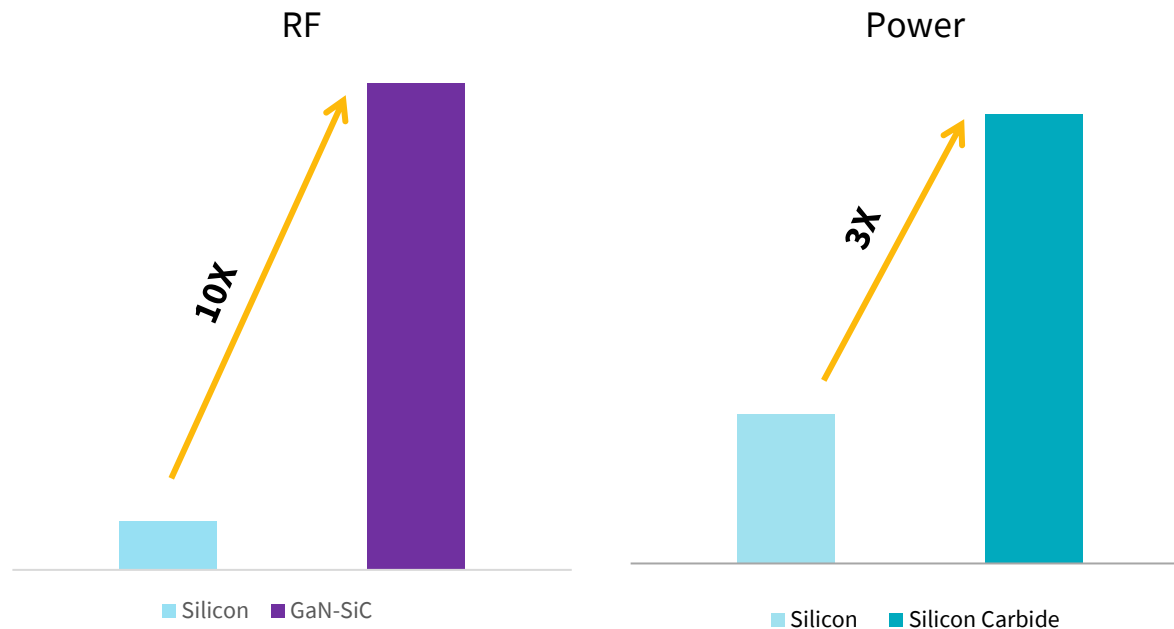
WOLFSPEED IS AT AN INFLECTION POINT

Key milestones on our transformation



THE NEXT GENERATION IN POWER SEMICONDUCTORS WILL BE DRIVEN BY SILICON CARBIDE TECHNOLOGY

Power Density Comparison vs. Silicon



Source: Company estimates

SiC Inverters | OBCs are:

- Lighter
- Smaller
- More efficient, 5% - 10% increase in vehicle range

GaN-Silicon Carbide in 5G enables:

- Increased capacity and coverage
- 2X more users per tower
- More than 10X increase in data

SILICON CARBIDE IS UNLOCKING A NEW ERA OF ENERGY EFFICIENCY



ENERGY SAVED ON ENERGY INVESTED (ESOI) FOR AN EV SEDAN APPLICATION

13 : 1

800V bus Silicon Carbide
MOSFET solution to 400V
bus Si IGBT solution

Source: Biophysical Economics Institute Report

ACCELERATING EV ADOPTION DRIVING \$330B+ INVESTMENT

Global OEMs and Corporates have made significant commitments to EVs



Committed to 30 new EVs by 2025; plans to spend \$35B on EV product development



Announced Model S and Model X extended ranges with SiC power electronics



All electric; 150K in annual production capacity with plans to expand capacity



Expects EVs to represent half of vehicle sales by 2030, followed by nearly all in 2040



Mercedes-Benz

Plans to spend over €40B on EVs by 2030



Targets 40% of US sales to be electric by 2030; expects all new Nissan vehicles to be electric by early 2030s



Aims to have 40% of global volume electric by 2030, plans to spend >\$30B on EVs



Plans to become a fully electric vehicle company by 2030



Expects 50% of its global sales to consist of fully electric vehicles by 2030



Deploying 100k custom all electric delivery vehicles by 2030; plan to be net-zero carbon by 2040

AUTOMOTIVE OUTLOOK FROM 2019 – SPLIT BETWEEN PHEV & BEV

GM, Volkswagen Say
Goodbye to Hybrid
Vehicles

THE WALL STREET JOURNAL

AUG. 12, 2019

Study Expects More EVs
Than ICE Vehicles Will Be
Sold By 2033

INSIDE EVS

JULY 6, 2021

Experts Predicted All Cars
Would Be Hybrid by 2020.
Why Were They Wrong?

WCE
News

SEPT. 1, 2021

The Battery Is Ready
to Power the World

THE WALL STREET JOURNAL

FEB. 5, 2021

Volvo Plans to Sell
Only Electric Cars by
2030

The New York Times

MARCH 3, 2021

Ford Will Build 4
Factories in a Big
Electric Vehicle Push

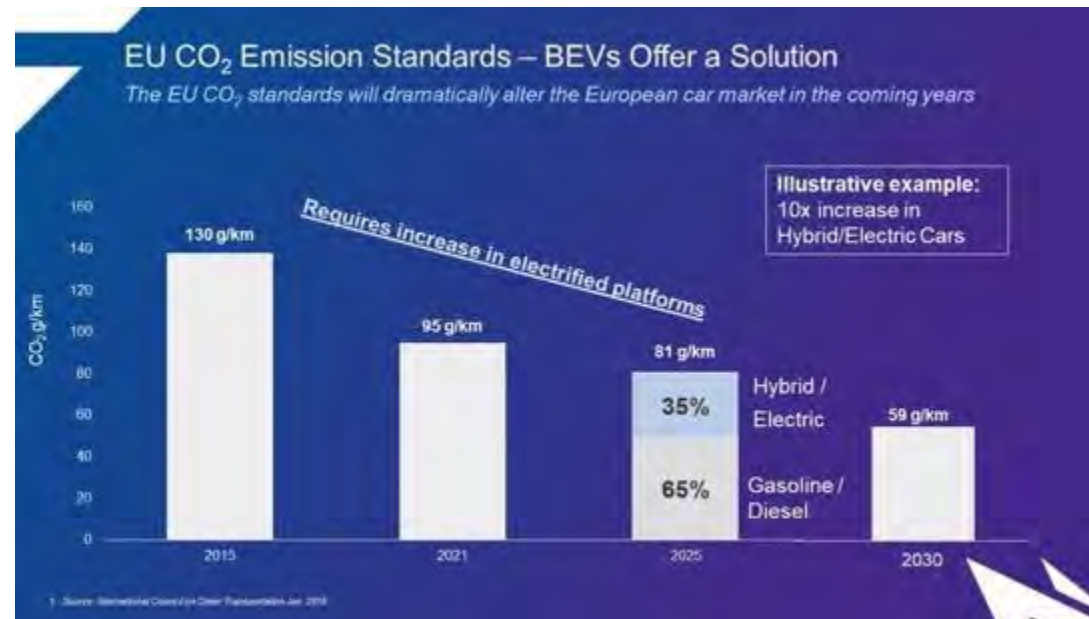
The New York Times

SEPT. 27, 2021

VW Group Doubles EV
Deliveries in Q3 as New
Models Land

AUTOWEEK

OCT. 18, 2021



From Cree Investor Day 2019

SILICON CARBIDE GAINING MOMENTUM ACROSS A WIDE RANGE OF INDUSTRIAL APPLICATIONS

Wolfspeed's value proposition spans several different applications



EV charger



Scalable charger



Portable power supply



Tropospheric scatter communications



Off board charger system for industrial trucks



Air conditioning motor drive



7.5kW bi-directional DC-DC



Rack mounter server power supply for cloud provider



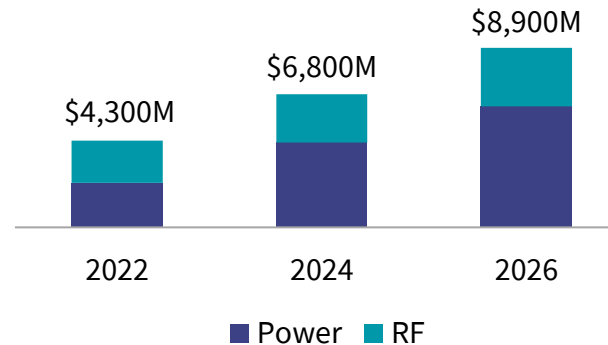
Robotic arm



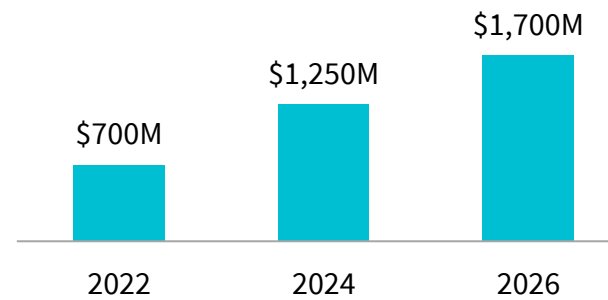
Vertical take off and landing vehicle

ATTRACTIVE MARKETS WITH AMPLE RUNWAY TO SUPPORT RAPID GROWTH

Serviceable Market Opportunity (M)



- Auto devices account for 50% of the opportunity, with a 30% CAGR
- As device cost decreases, Industrial markets expand, creating a \$40B+ opportunity



- Demand is expected to outstrip capacity
- Overall supply will continue to increase, but nominal impact on overall market share as 150mm to 200mm transition continues to reduce overall wafer cost

Source: Yole and Company estimates

SUPPLY HAS BECOME A KEY ISSUE

Auto industry experts: chip shortage likely to last through 2023



OCT. 29, 2021

Chip Shortage Slams Auto Industry



FEB. 9, 2021

Global Chip Shortage 'Is Far From Over' as Wait Times Get Longer

THE WALL STREET JOURNAL.

OCT. 28, 2021

Semiconductor shortage that has hobbled manufacturing worldwide is getting worse

The Washington Post

SEPT. 23, 2021

The global chip shortage is continuing to wreak havoc for the car giants



OCT. 28, 2021

MARCH 2020 – MOHAWK VALLEY



An aerial photograph of a large industrial facility, the Mohawk Valley Fab, featuring several large white-roofed buildings and extensive parking lots. The facility is surrounded by greenery and access roads.

OCTOBER 2021

Building Efficiency

LEED

Our new Mohawk Valley Fab is planned to be LEED certified

Energy Savings

5000+ MWh

of annual energy savings are built into the design of our new fab

Renewable Energy

50%

of our electricity will be from carbon-free or low carbon sources

Water Savings

500k+ gal

of annual water savings are built into the design of our new fab

Water Recycling

60k gal

of water planned to be recycled per day at our new fab

EV Charging

14

new electric vehicle (EV) charging stations planned to be installed



MATERIALS EXPANSION IN NORTH CAROLINA

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BUILDING A WORLD-CLASS, CUSTOMER-CENTRIC ORGANIZATION TO SUPPORT A MULTI-DECADE GROWTH OPPORTUNITY



Attracting talent at every level from large-scale semiconductor companies to support biggest device shift in the analog market in decades

350+ years of semiconductor leadership experience across key areas including manufacturing excellence, automotive and finance

University partnerships in NC and NY are supporting burgeoning Internship program and cultivating leadership pipeline

Building on 30+ year heritage of Silicon Carbide leadership to engineer a more sustainable future and a new era in energy efficiency

WHY WE WIN - FOCUSED ON STEEPENING DEMAND CURVE FOR SILICON CARBIDE SOLUTIONS

Expanding leading market position with strong barriers to entry while driving the market transition to Silicon Carbide

Executing on growth plans to create a global semiconductor powerhouse

Growing and diversified \$18B+ pipeline supported by secular trends in attractive end markets

Investing in capacity and people to support multi-decade growth opportunity

Southbank

**Silicon Valley,
meet Silicon Carbide.**

WOLF
LISTED
NYSE



Wolfspeed.

SILICONVIEW.COM



**We harness the power of Silicon Carbide
to change the world for the better**



Technology Overview

Wolfspeed  JOHN PALMOUR | CTO

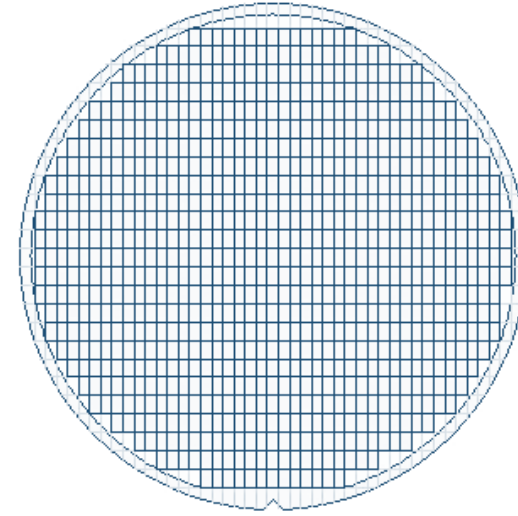
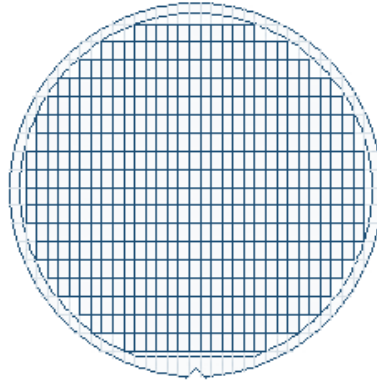
AGENDA

- 1 — MOSFET DEVELOPMENT**
650 V family and 1200 V Gen 3+
- 2 — MODULES FOR INVERTERS**
Power module demonstration
- 3 — 200mm SUBSTRATES**
200mm bulk growth update
- 4 — DOES SiC SAVE ENERGY?**
Joint study with BPEI on ESOI
- 5 — CONCLUSIONS**

CURRENT STATUS OF 200mm SUBSTRATES

INCREASED DIE COUNT ADVANTAGE OF MOVING TO 200mm SiC WAFERS

32 mm² die



	150mm	200mm
# whole die	448	845
% edge die	14	7

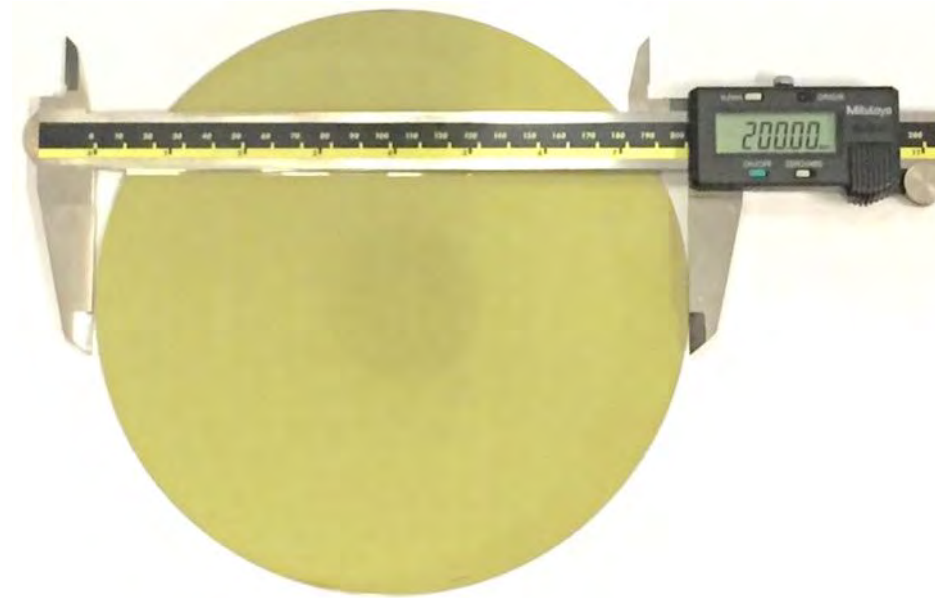


- produce more devices from a single wafer
- enhanced productivity and efficiency

FIRST ANNOUNCEMENT OF 200mm IN 2015

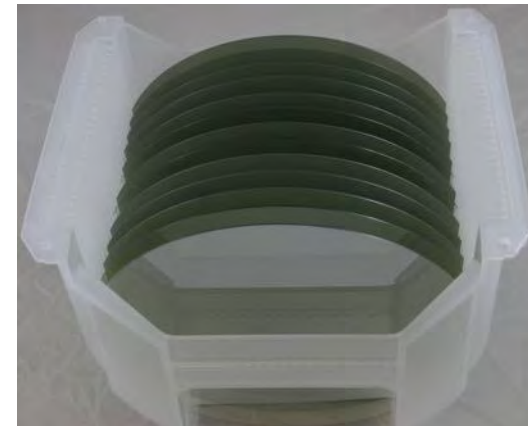
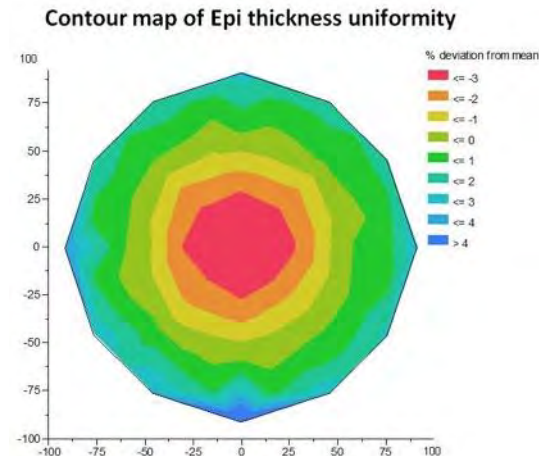
200mm Substrate

- Micropipe Density
 - 2.03 micropipes/cm²
- Lattice Plane Radius Curvature
 - >75 meters

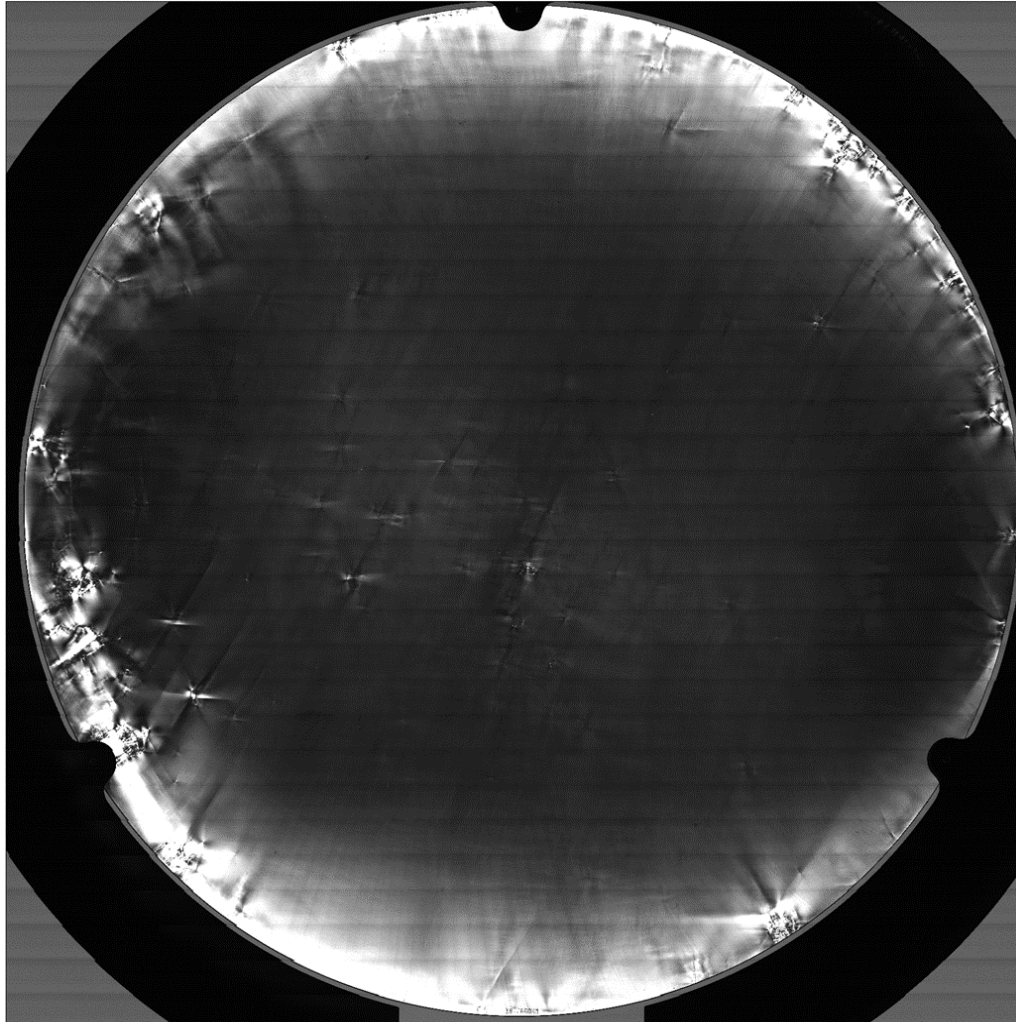


200mm Epiwafer

- Radial Doping
 - $N_{\text{avg}} = 3.2 \times 10^{15} \text{ cm}^{-3}$
 - $\sigma/\text{mean} = 1.9 \%$
- Epitaxial Thickness
 - mean = 8.3 microns
 - $\sigma/\text{mean} = 2.2 \%$

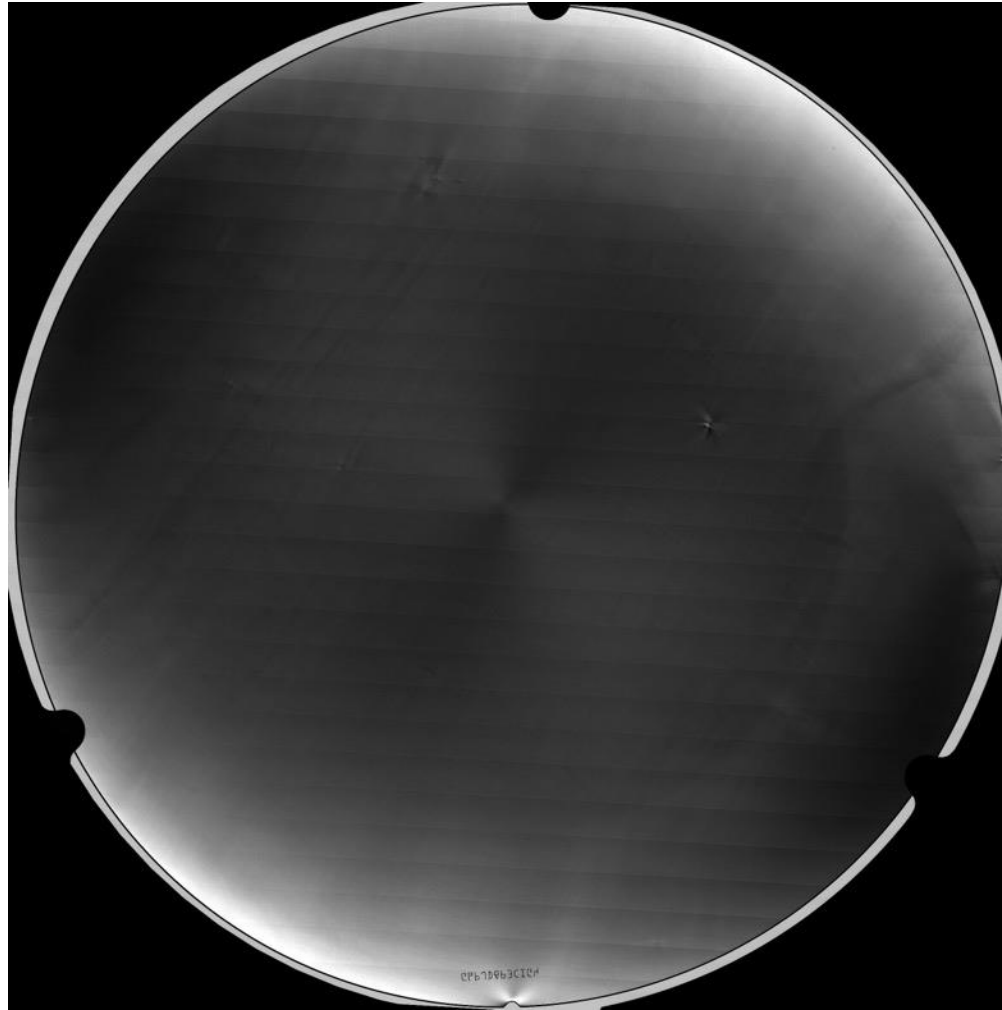


CROSS POLARIZATION (XPOL) IMAGE OF A 200mm WAFER FROM DEC 2019



Cross-polarizer image highlights crystalline structural imperfections

200mm QUALITY IMPROVEMENT STATUS – HIGH CONTRAST XPOL



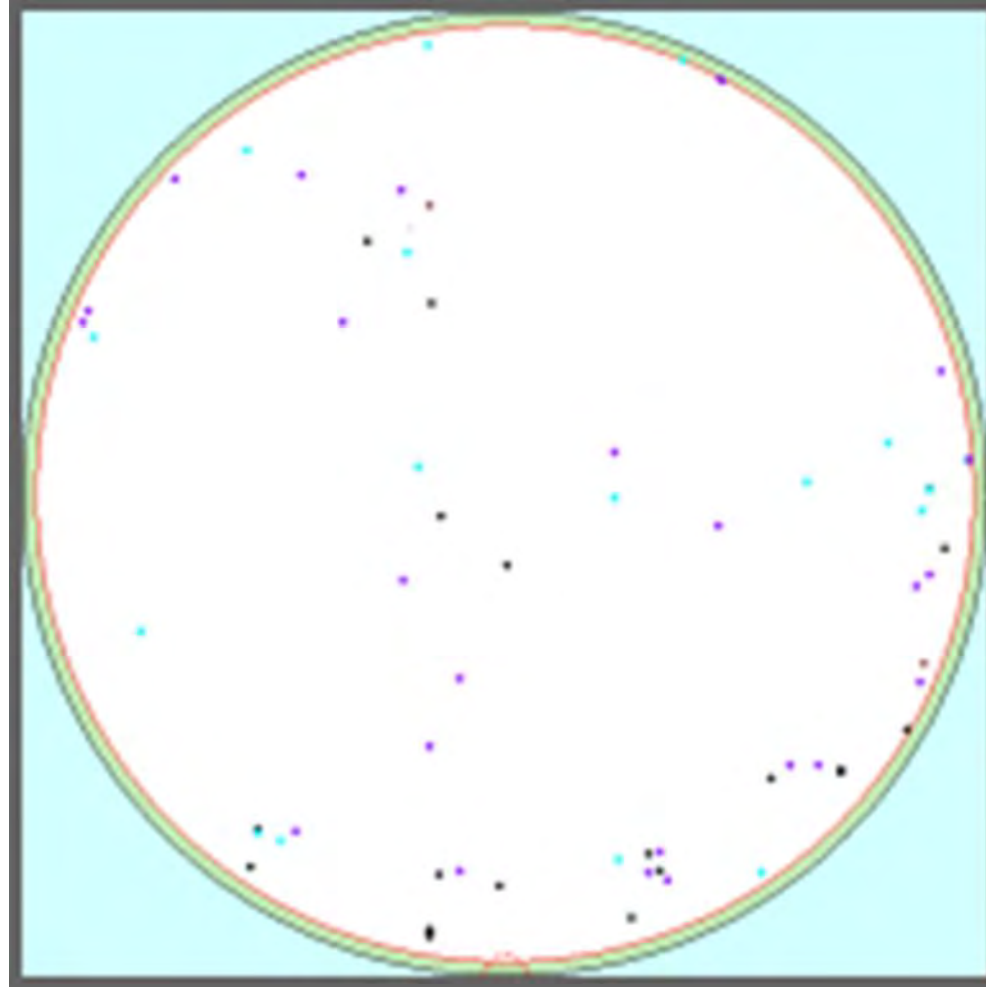
Best Dislocation Densities

Basal Plane Dislocation Density (BPDs) = $309 / \text{cm}^2$

Threading Screw Dislocation Density (TSDs) = $289 / \text{cm}^2$

Cross-polarized image shows very good structural quality

200mm – SURFACE QUALITY AFTER CHEMO-MECHANICAL POLISH (CMP)



Projected Yield (Material Defects Only)

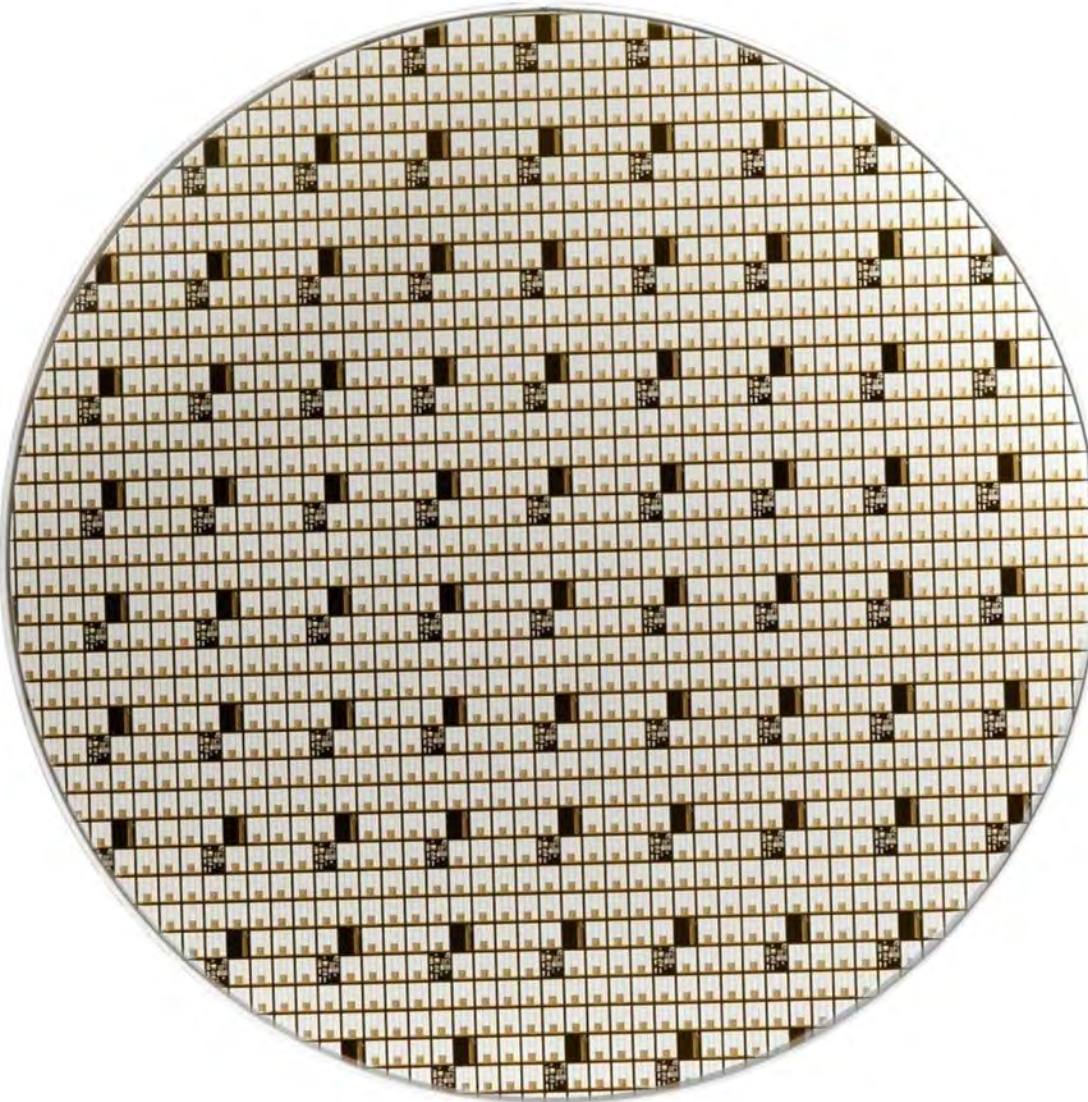
5x5 mm Die Yield = 96.1%

2x2 mm Die Yield = 99.2%

Total Defects = 66

Surface scan shows excellent CMP process and surface quality

FULLY FABBED 200mm MOSFET WAFER FROM SUNY POLY PILOT LINE



LATEST SiC MOSFET DEVELOPMENTS:

- 650V MOSFET FAMILY**
- GEN 3+ 1200 V MOSFETs**

WOLFSPEED C3M 650V SiC DISCRETE POWER MOSFETS

$R_{ds(on)}$ (25°C)	Voltage	Package
15mΩ	650V	TO-247-4L, TO-247-3L
25mΩ	650V	TO-247-4L, TO-247-3L
45mΩ	650V	TO-247-4L, TO-247-3L
60mΩ	650V	TO-247-4L, TO-247-3L, TO-263-7L
120mΩ	650V	TO-247-4L, TO-247-3L, TO-263-7L

Available Packages



TO-247-4L
(K)

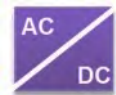


TO-247-3L
(D)

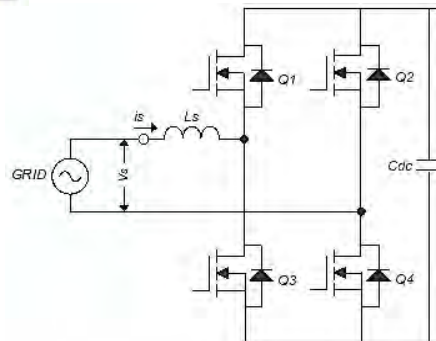


TO-263-7L
(J)

TARGET TOPOLOGIES



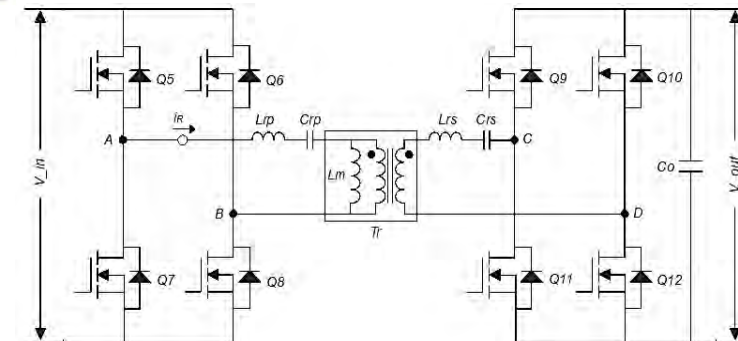
BRIDGELESS TOTEM-POLE AC/DC TOPOLOGY



- Server/Telecom power supplies
- Automotive Battery Chargers (OBC)
- Consumer Electronics

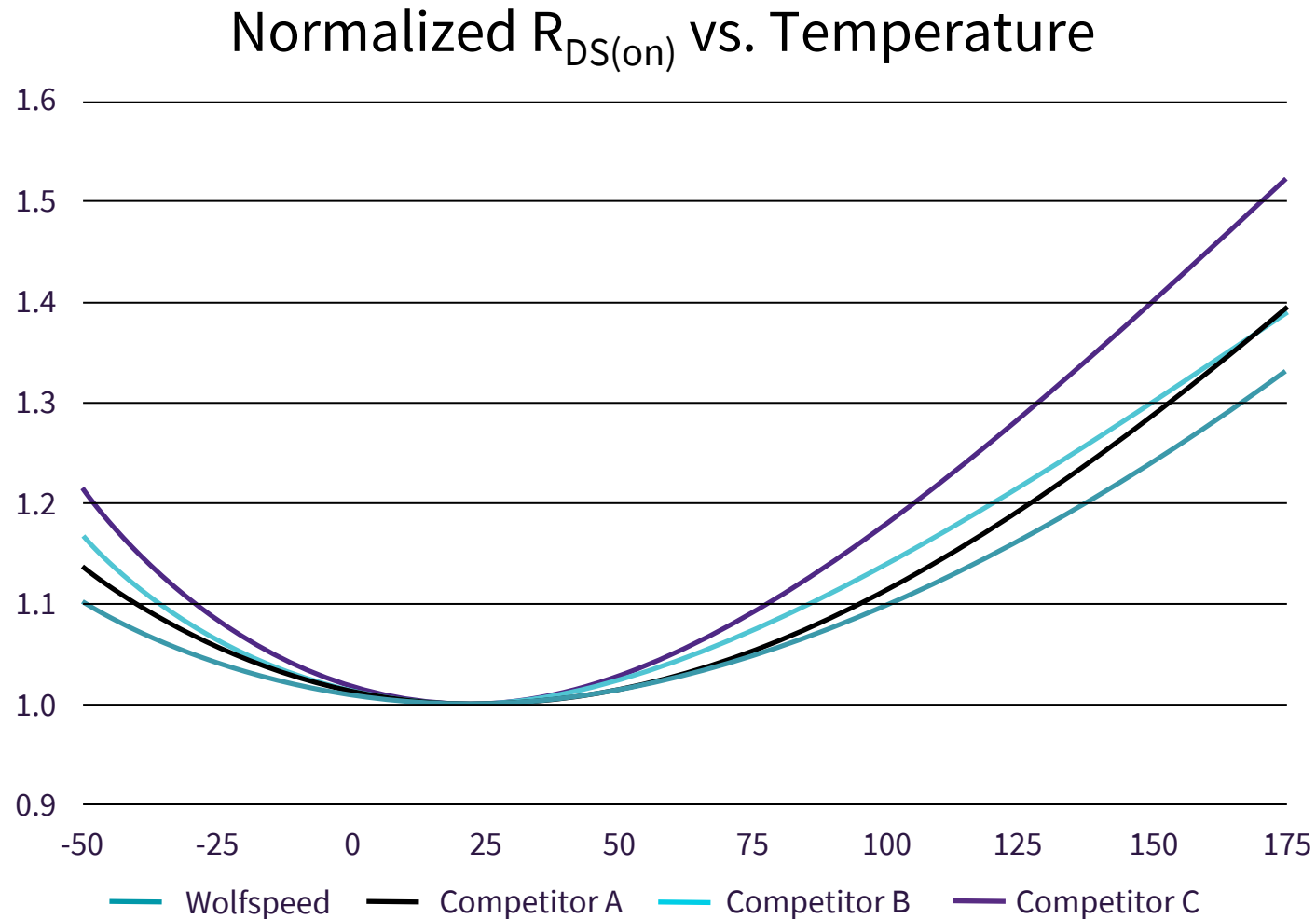


BI-DIRECTIONAL DC/DC (CLLC) TOPOLOGY



- Energy storage systems (ESS)
- Automotive battery chargers (OBC)
- Industrial Power Supplies

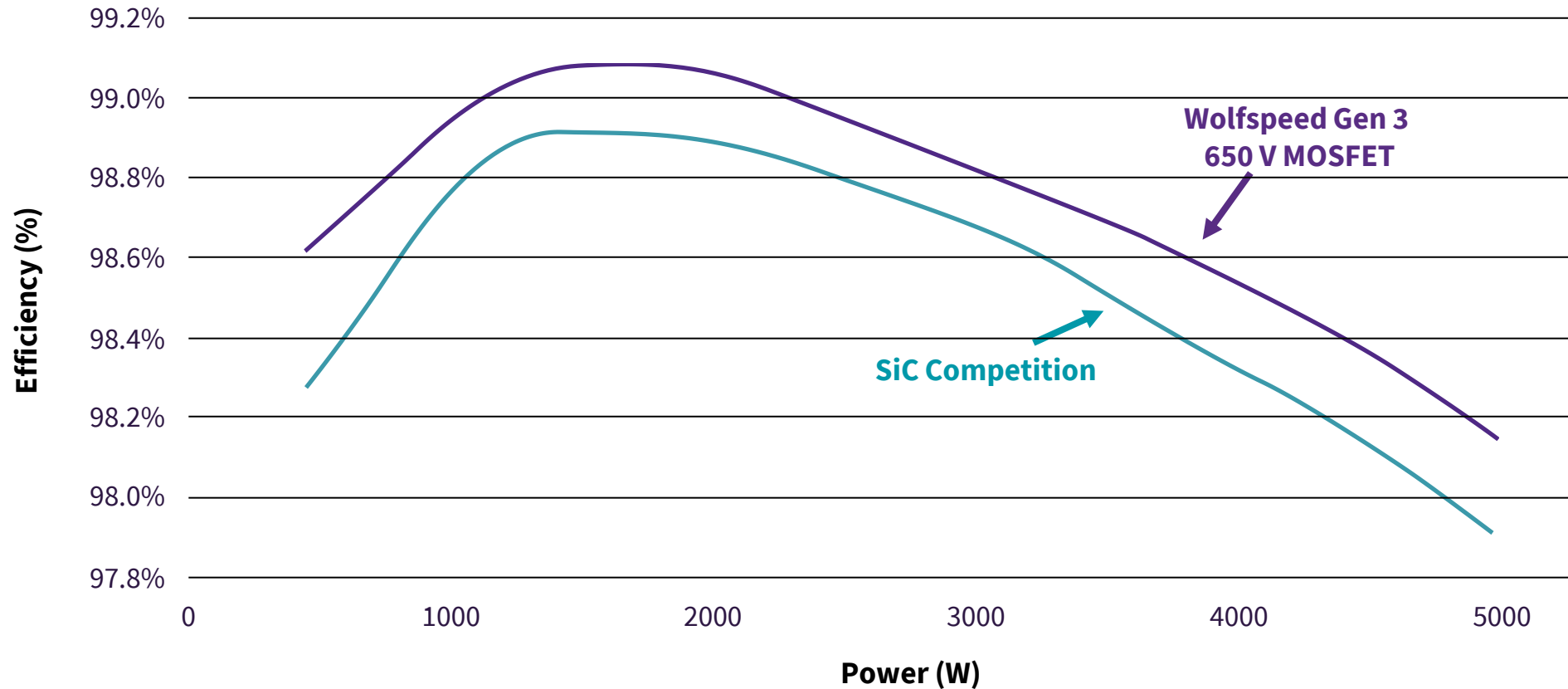
INDUSTRY-LEADING PERFORMANCE: SiC VS SiC



Source: Company and competitor data sheets

SYSTEM EFFICIENCY: SYNCHRONOUS DC/DC BOOST CONVERTER

Wolfspeed 650V SiC MOSFET vs Competition in a Sync. Boost Converter



Test Platform

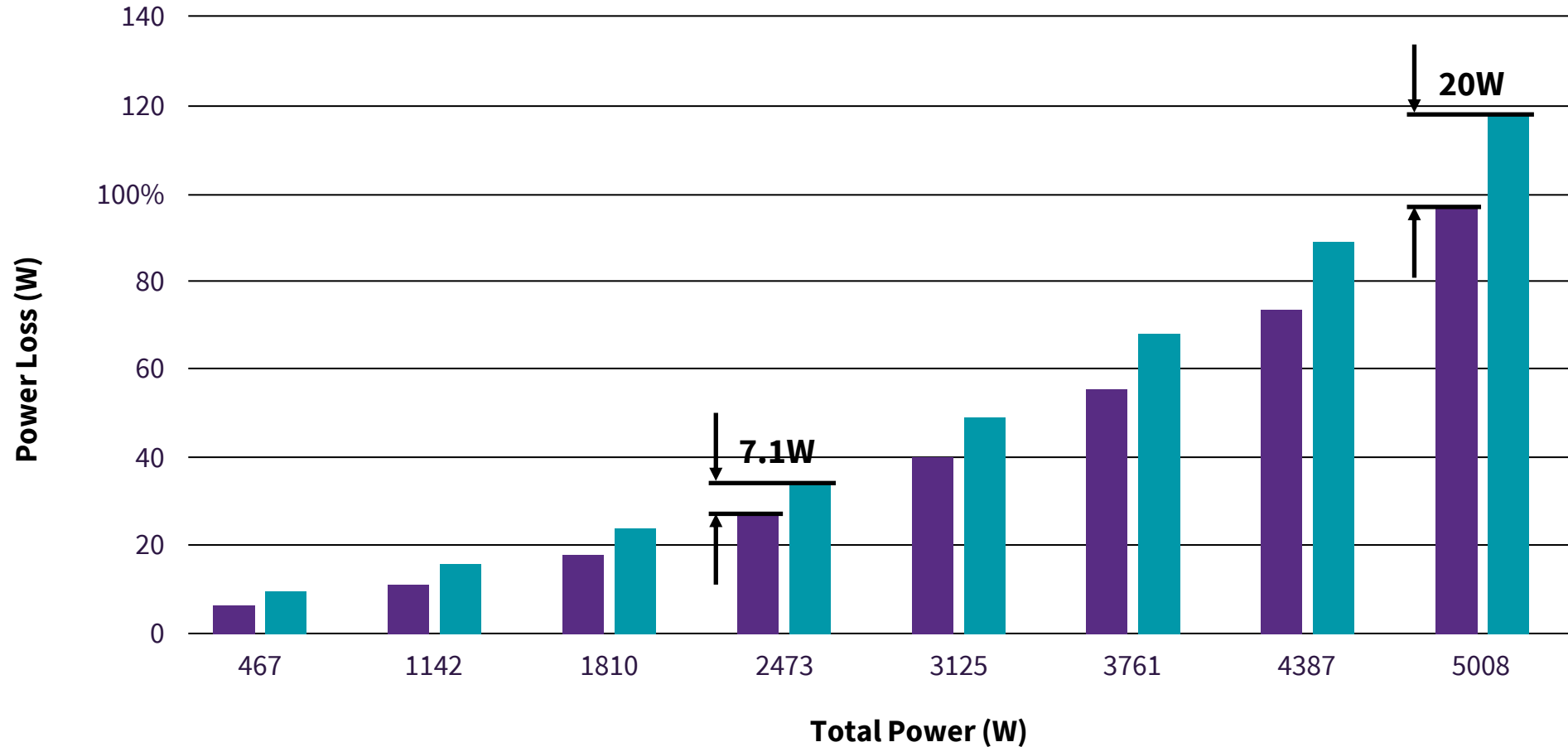
Buck/Boost Board – Sync.
Boost Mode

Sync Conditions

60 kHz, 5kW
 $V_{IN} = 200$ VDC
 $V_{OUT} = 400$ VDC

Wolfspeed 650V MOSFET has both lower switching loss and lower conduction loss

SYSTEM EFFICIENCY: POWER LOSS vs OUTPUT POWER



Test Platform

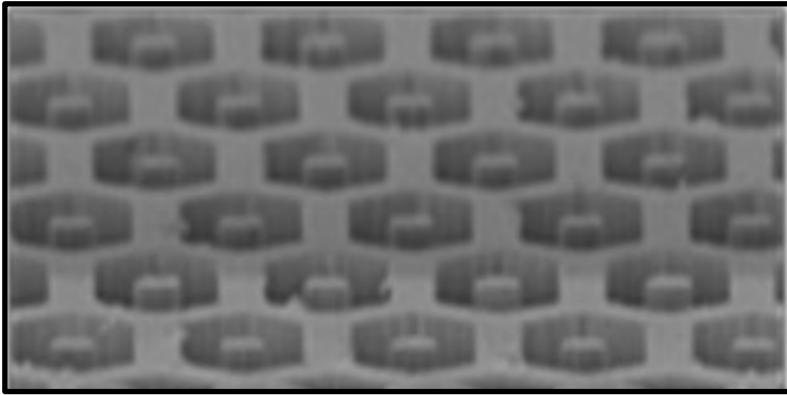
Buck/Boost Board – Sync.
Boost Mode

Sync Conditions

60 kHz, 5kW
 $V_{IN} = 200$ VDC
 $V_{OUT} = 400$ VDC

Wolfspeed 650V SiC
SiC Competition

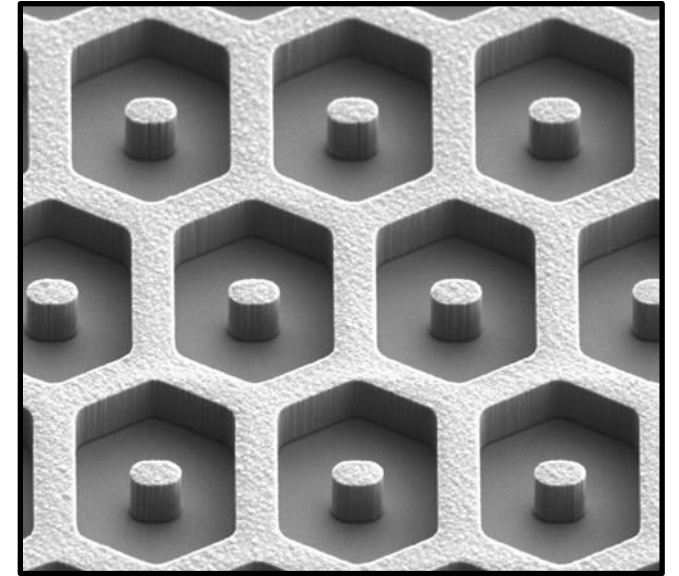
HEX CELL FOR INCREASED CHANNEL DENSITY IMPLEMENTED ON 650V GEN 3



Hex Cell Performance

650V Gen 3

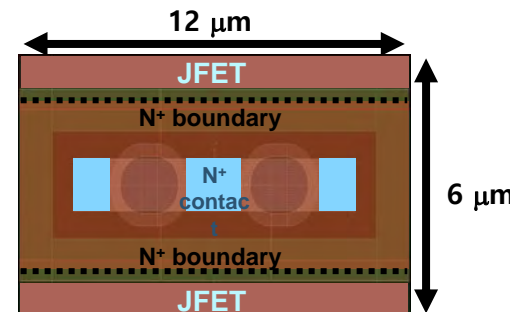
- $R_{\text{dson-spec.}} = 2.3 \text{ m}\Omega\text{-cm}^2$
- Minimum $V_{\text{br}} > 700\text{V}$



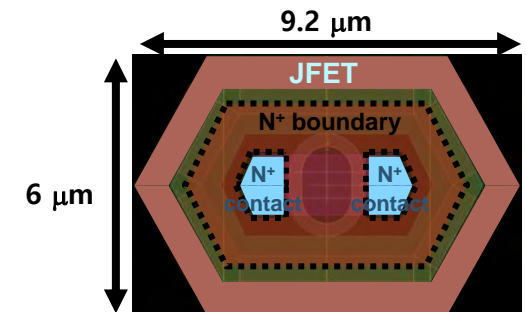
- Hex cell originally implemented on C3D and E3D 650V MOSFETs

- Gate oxide identical to all Gen 3 products

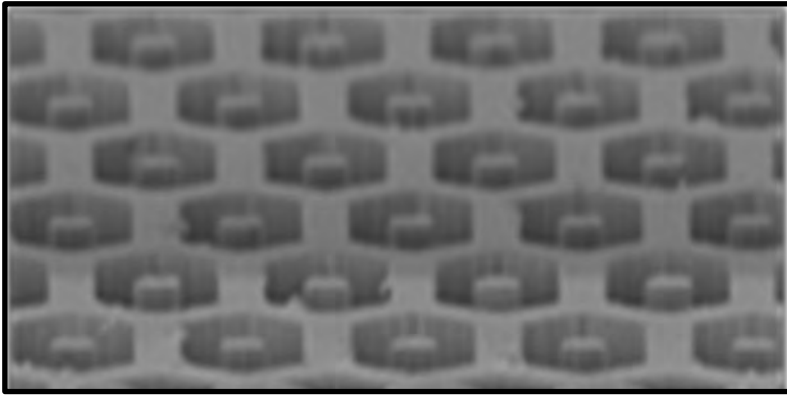
Linear Unit Cell in Gen 3



Hexagonal Unit Cell



HEX CELL FOR INCREASED CHANNEL DENSITY IMPLEMENTED ON 1200V GEN 3+



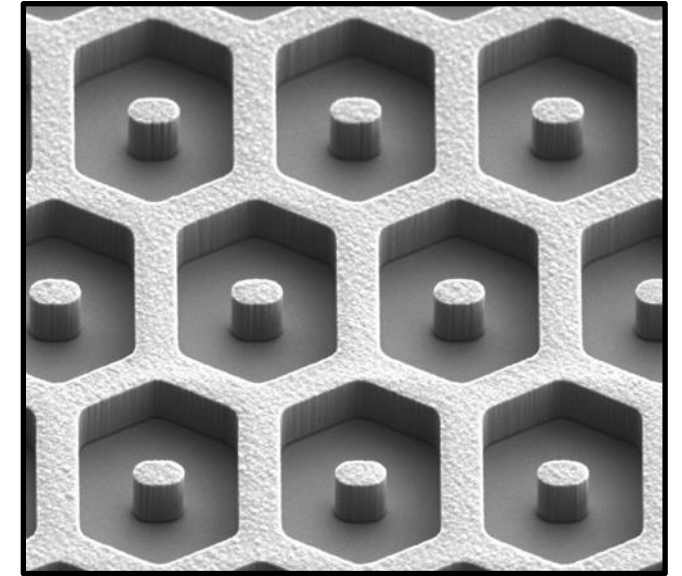
Hex Cell Performance

650V Gen 3

- $R_{\text{ds-on-spec.}} = 2.3 \text{ m}\Omega\text{-cm}^2$
- Minimum $V_{\text{br}} > 700\text{V}$

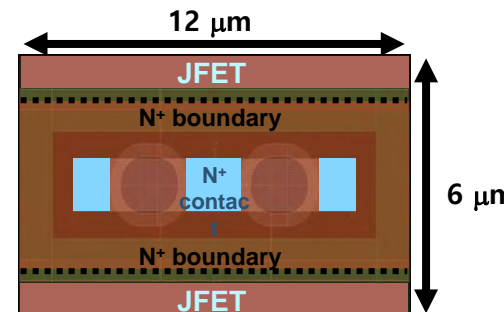
1200V Gen 3+

- $R_{\text{ds-on-spec.}} = 2.7 \text{ m}\Omega\text{-cm}^2$
- Minimum $V_{\text{br}} > 1400\text{V}$

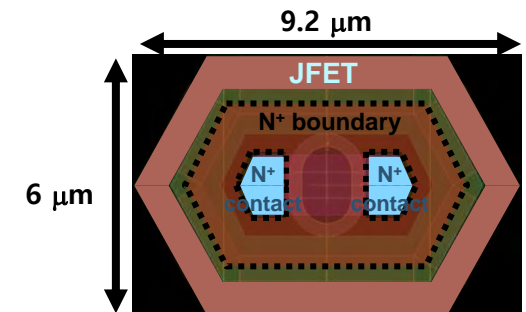


- Hex cell originally implemented on C3D and E3D 650V MOSFETs
- Reduced $R_{\text{ds-on}}$ by 16% compared to a striped layout
- Gate oxide identical to all Gen 3 products
 - All lifetime data on Gen is valid for Gen 3+

Linear Unit Cell in Gen 3



Hexagonal Unit Cell



SiC POWER MODULE CAPABILITIES

SiC POWER SOLUTIONS

Medium- to High-Power Solutions Complete the Design Continuum

Discrete Product Portfolio

- Complete 650V/900V/1200V/1700V
- >50 products in different package and $R_{ds(on)}$
- Auto grade and Industrial grade



Discrete Solutions

High Power Module Solutions

1 kW

10 kW

50 kW

100 kW

600 kW

Wolfspeed WolfPACK™ Family



Discrete Design Goals

- Maximize topology flexibility
- Enable multi-source capability
- Minimize total BOM cost

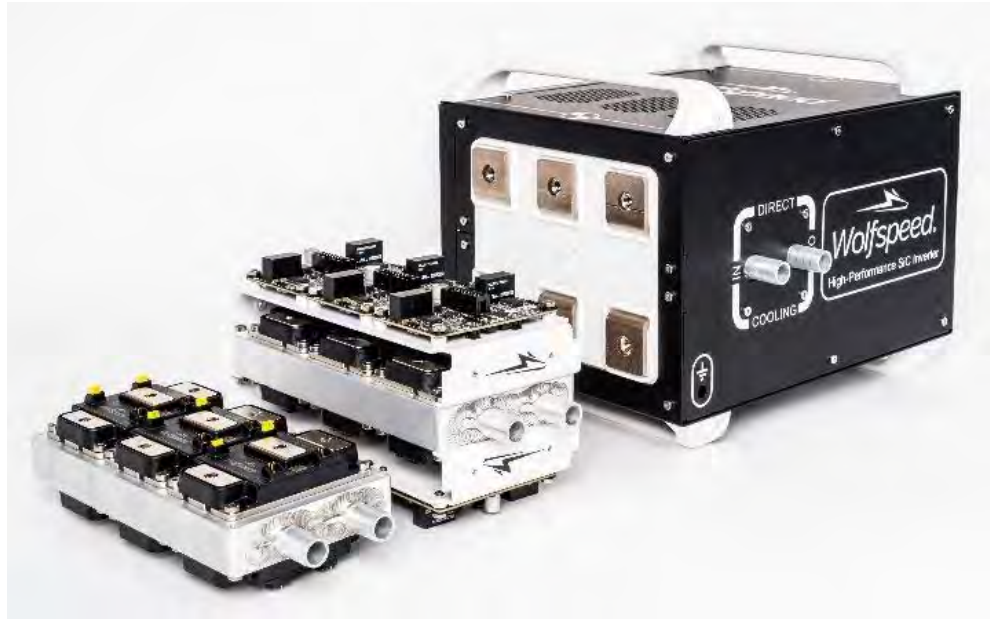


Module Design Goals

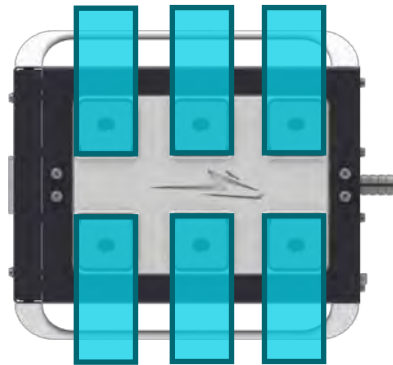
- Maximize power density
- Simplify layout and assembly
- Enable scalable systems / platforms
- Minimize costs of labor and system components
- Highest reliability and maintenance



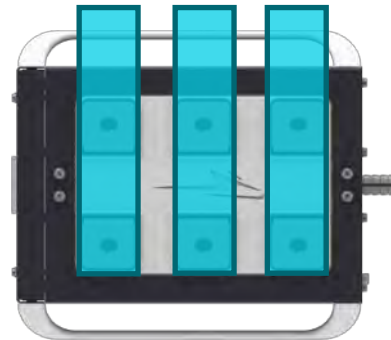
XM3 DUAL INVERTER SYSTEM



-
- Compact metal enclosure only **8.6 L** and 9.7 kg
 - Dimensions: 204 x 267.5 x 157.5 mm
 - Output terminals enable application flexibility
 - Phase outputs can be used as dual inverter or paralleled for higher output current
-



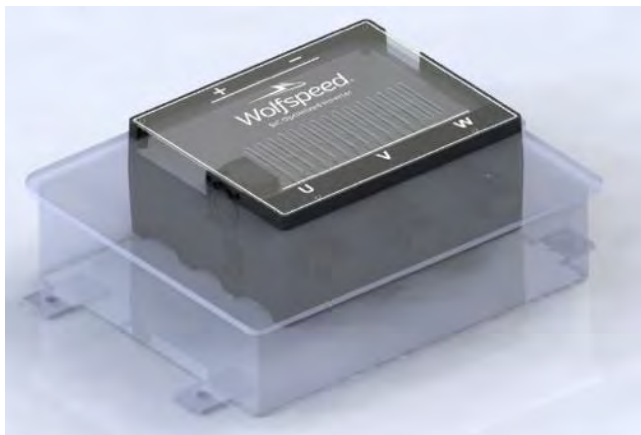
Dual Inverter
375A per phase



Single Inverter
750A per phase

INCREDIBLE POWER DENSITY ALLOWED WITH THE XM3 MODULE

	Competitor	CRD300DA12E-XM3	CRD600DA12E-XM3
Semiconductor	Si IGBT	SiC	SiC
Type	Single Inverter	Single Inverter	Dual Inverter
Output Power	250 kW	300 kW	<u>624 kW</u>
Volume	12.6 L	9.3 L	8.6 L
Power Density	19.8 kW/L	32.2 kW/L	72.5 kW/L



3.6X Si

INCREDIBLE POWER DENSITY ALLOWED WITH THE XM3 MODULE

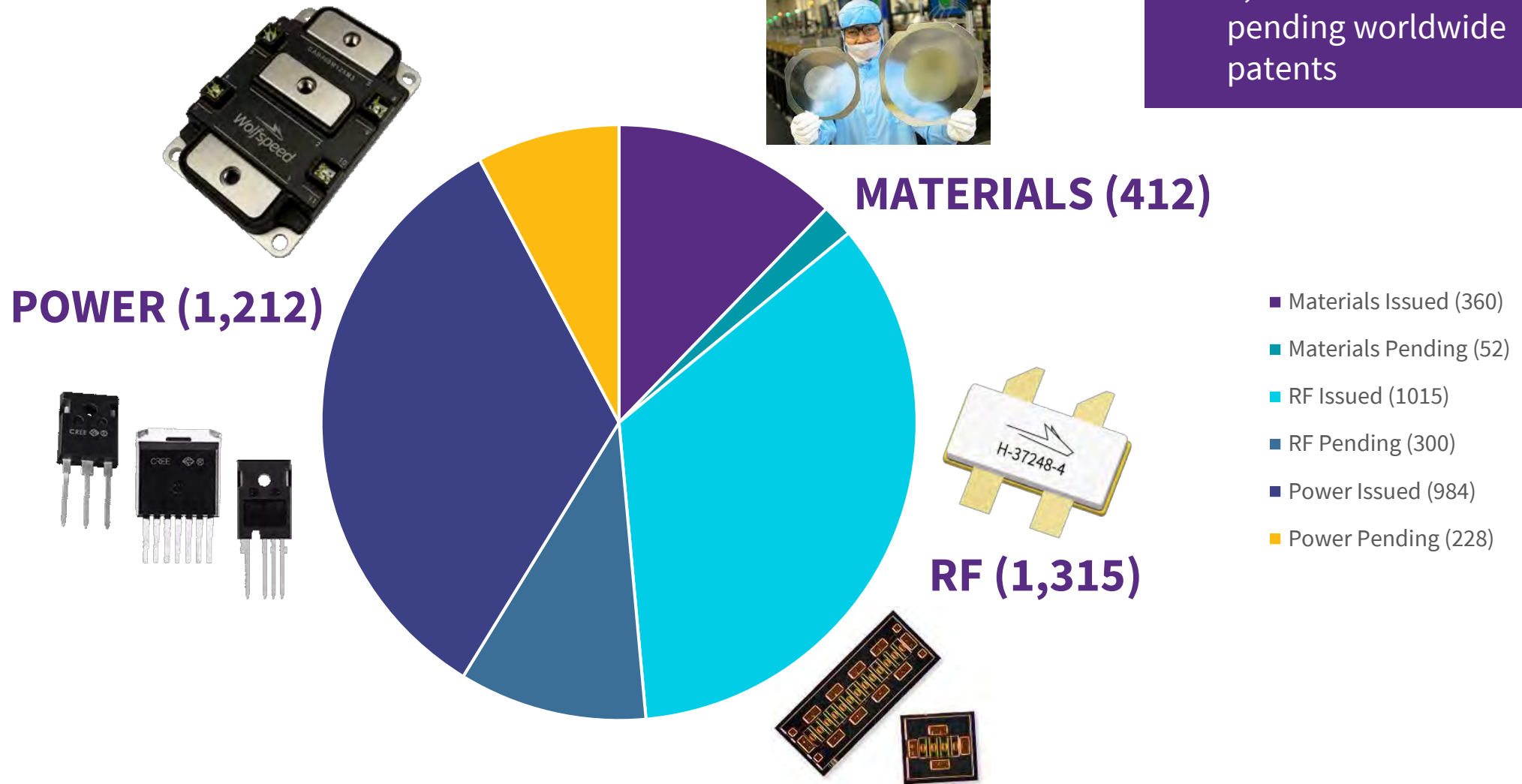
How big is 8.6 liters?

A regulation soccer ball is 5.8 liters



WOLFSPEED'S STRONG PATENT POSITION

2,939 issued and pending worldwide patents





BIOPHYSICAL
ECONOMICS
INSTITUTE

**DO SILICON CARBIDE
MOSFETS ACTUALLY SAVE
ENERGY OVERALL?**

**ESOI – ENERGY SAVED ON
ENERGY INVESTED AS METRIC**

Invested
in the
Nature of
Energy



ACCOUNTED FOR ALL ENERGY REQUIRED TO MAKE SiC MOSFETS

Sources of Embedded Energy

Percentage of Embedded Energy

Electricity: Accounted for all electricity required to grow SiC boules, wafer them, polish, grow epitaxy and do cleanroom fabrication

78.2%

Embodied Energy: All raw materials, chemicals & consumables. How far did they travel? What method of travel?

18.1%

Natural Gas: Used to control cleanroom humidity and burn-off effluents

3.7%

Tools and Machinery Transport: Weight of Process Equipment, distance traveled, and years of expected operation, divided by wafers per year of output

<0.1%

ESOI – EV SEDAN APPLICATION RETURN ON EXTRA ENERGY

400V Si IGBT to
400V SiC MOSFET
7:1

400V Si IGBT to
800V SiC MOSFET
13:1

800V SiC MOSFET
Taxi/Uber Scenario*
24:1

Increasing bus voltage from 400V to 800V:

- reduces total chip area (assumption is by 20%)
- reduces marginal energy investment by ~1 GJ
- increases ESOI by 85%

*Taxi / Uber scenario increases lifetime miles from 200k to 500k



ENERGY SAVED PER CAR USING SILICON CARBIDE

Equivalent of 5.5 barrels
of oil saved per sedan



Owners save over \$233*
of electricity



Lifetime GHG emissions reduced by
690 kg CO_{2,eq}, equal to the CO₂ in 77
gallons of gasoline



In 2030, if 35M BEVs use Silicon Carbide, the lifetime savings for that 1 model year would be:

Equivalent of **192M**
barrels of oil

\$8.2B of electricity

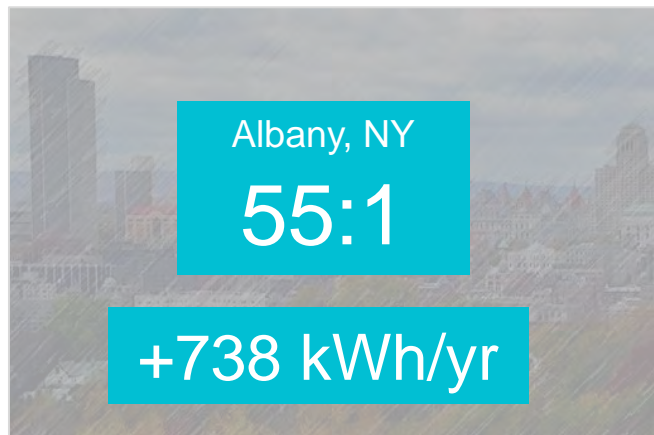
Lifetime GHG emissions
equivalent to **2.7B gallons**
of gasoline

*Assumes US average residential electricity price: \$0.1371/kWh

THE ESOI FOR SiC MOSFETS IS EVEN MORE DRAMATIC FOR INDUSTRIAL APPLICATIONS



ESOI FOR 50 kW PV SYSTEM WITH SiC STRING INVERTER



WHY WE WIN – TECHNOLOGY

200mm wafers show very good structural quality with minimum birefringent contrast over the entire 200mm wafer

200mm BPD Densities as low as 309 /cm², and TSD Densities as low as 289 /cm²

Hex cell planar MOSFETs are very competitive at 650V

For 1200V Gen 3+ devices, Hex gives a 16% reduction in $R_{ds(on)}$ to 2.7 mΩ-cm²

- Future Gens will not only drive down $R_{ds(on)}$, but also focus on how to deliver more usable amps to maximize the benefit of SiC

Power Modules optimized for SiC allow unprecedented power densities 72.5 kW/L

SiC does indeed save a very significant amount of energy over Si IGBT incumbent, even though it requires more “embedded energy” to make the SiC MOSFETs



**We harness the power of Silicon Carbide
to change the world for the better**

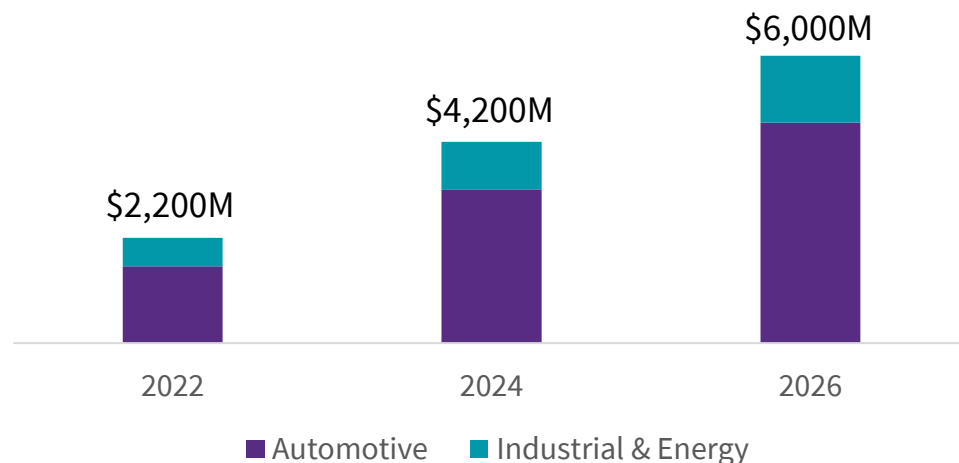


Power

Wolfspeed  JAY CAMERON | SVP & GM, POWER

WOLFSPEED POWER DEVICE OPPORTUNITY

Power Device Market Forecast (M)



Source: Company estimates

Growth Drivers for Silicon Carbide TAM

- Battery Electric Vehicle (BEV) ramp
- Energy efficiency requirements in Industrial
- Power density and solution size in Industrial & Energy
- Electric vehicle charging infrastructure momentum
- New applications enabled by Silicon Carbide

Growth Drivers for Wolfspeed Power Devices

Flexible business model in automotive (products, supply chain)

- Products: chips, modules, discrete devices
- Customer engagement: Automaker, Tier 1, and Tier 2

Strength of sales channel

- Focused accounts with Wolfspeed sales team
- Broad reach with Arrow Electronics
- Digital engagement platforms and content

Capacity

Advance investment gives confidence in future supply

Device technology

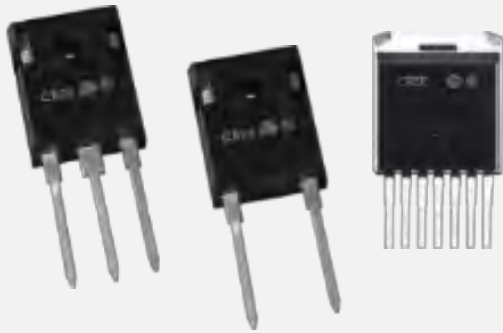
Enabling system level performance and reliability

Materials technology and manufacturing leadership

Ecosystem, reference design, and tools focus

POWER DEVICE PORTFOLIO

Discrete Power Devices



Broad applications across Automotive and Industrial & Energy

Portfolio Characteristics

- Broadest portfolio
- Broadest customer base
- “Low power” applications
- Standard plastic packages

Power Die Products



Devices in chip form for customers with internal packaging capability

Portfolio Characteristics

- Targeted customers: module makers & Automotive OEM/Tier 1s
- “High power” applications

Power Modules



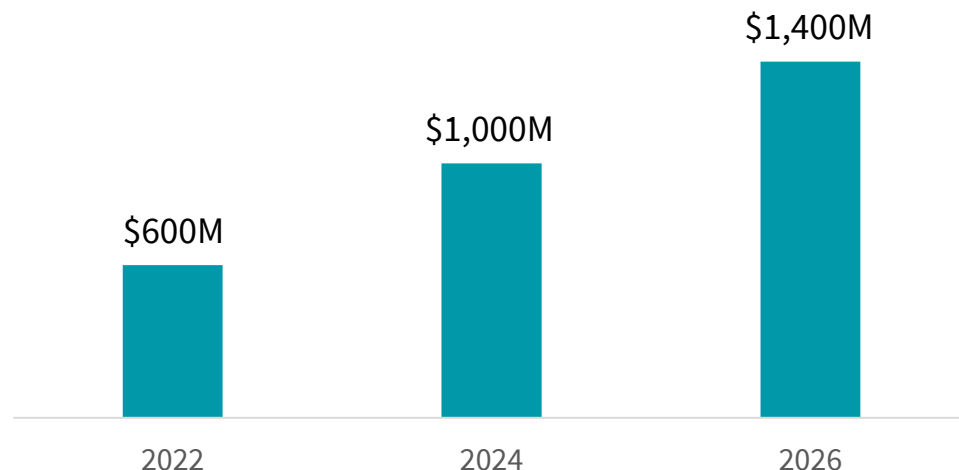
Modules for high power applications in Automotive and Industrial & Energy

Portfolio Characteristics

- Broad portfolio
- Broad customer base
- Standard and Silicon Carbide optimized footprints
- “High power” applications

WOLFSPEED POWER DEVICE OPPORTUNITY: INDUSTRIAL & ENERGY

Industrial & Energy Market Forecast (M)



Source: Company estimates

Growth Drivers for Industrial & Energy

- Electric vehicle fast charging infrastructure
- Energy efficiency standards & operating cost reductions via less wasted electricity
- Renewable energy market growth
- Smaller and lighter industrial system trends

Industrial & Energy Market

Meaningful size
\$1.4B in 2026

Applications
Power supplies and motor drivers

Existing market grows & converts from silicon

New markets enabled by Silicon Carbide









Highly fragmented

- Thousands of customers
- Hundreds of products
- Dozens of applications

Long production cycles





POWERFUL SECULAR TRENDS DRIVING GROWTH OPPORTUNITIES IN INDUSTRIAL & ENERGY DEVICES

Industrial

	Market Segment	Trend
	Air Conditioners	Efficiency standards, smaller systems
	Trains	Improving operating economics
	Test & Measurement	Automotive electrification
	Heating & Welding	Smaller, more portable solutions
	Aerospace	Electric vertical takeoff and landing (eVTOL), reduced weight, range emphasis
	Motion & Motor Drive	Efficiency standards, system size reduction
	Enterprise Power	Efficiency standards, operating cost reduction
	Power Supplies	Efficiency and system size improvements

POWERFUL SECULAR TRENDS DRIVING GROWTH OPPORTUNITIES IN INDUSTRIAL & ENERGY DEVICES

Energy

Market Segment	Trend
 Solar	Higher voltage, paired with storage, increased share of energy production
 Energy Storage	Paired with solar, surge and backup capability, scalable implementations
 Smart Grid	DC microgrid, solid state transformer, on premise storage solutions
 Fast Chargers	Charging time reduction, business model variants, vehicle-to-everything (V2x), scalable solutions

SILICON CARBIDE WINS IN INDUSTRIAL & ENERGY

Silicon Carbide Advantages

Higher efficiency

- Meet stringent energy standards
- Improved operating costs
- Simplified cooling system design

Higher power density

- Smaller and lighter systems
- Increased portability

Higher voltage

- More powerful systems

Why Wolfspeed Wins

Sales channel matched to opportunity

- Wolfspeed for focus accounts
- Arrow Electronics for breadth and scale
- Digital platforms for maximum reach

Broad portfolio on unified technology platforms

- Discrete, Module, and Die Products
- MOSFET and Schottky Diode Technology

Systems and applications expertise

- Power supply and motor drive circuits
- Models, demo boards, and reference designs

WOLFSPEED POWER DEVICE OPPORTUNITY: AUTOMOTIVE

Automotive Market Forecast (M)



Source: Company estimates

Growth Drivers for Automotive Opportunities

- Automakers transition aggressively from internal combustion engine (ICE) to battery electric vehicle (BEV)
- Electric vehicles switch from silicon to Silicon Carbide
- Silicon Carbide benefits both 400V & 800V architectures
- Silicon Carbide provides value from premium to economy vehicles

Automotive Market

Market trends

- Favorable regulatory environment for electric vehicles
- BEV market share outlook increases, hybrid outlook diminishes
- Fast charging ecosystem investment is increasing

Technology trends

- Range from battery (kilometers per kWh) emphasis
- 800V architectures preferred for faster charging
- Bi-directional charging grows for Vehicle-to-Anything (V2x)

Automotive OEM trends

- Large investments in battery technology & manufacturing
- Semiconductor shortages driving need for new engagement model

SILICON CARBIDE WINS IN AUTOMOTIVE

Silicon Carbide Advantages

Supply Chain Capability

- Effectiveness of battery investments
- More amps per wafer of capacity

Regulatory & Environmental

- Carbon fleet regulations
- Consumer consciousness

Automakers

- Battery costs & capital efficiency
- Smaller/lighter inverters
- Reduced solution cost vs silicon
- 800V architectures

Consumer Needs

- Eliminate range anxiety
- Faster charging times

Silicon Carbide Fundamental Advantages

Higher efficiency	➡	Range, cooling system
Higher power density	➡	Size, weight, industrial design
Higher voltage	➡	Faster charging, lower losses

Why Wolfspeed Wins

Performance & Technology

- Comprehensive Silicon Carbide expertise & intellectual property
 - › Crystal growth, epitaxy, device architecture, packaging, and system
- Design emphasis on system level results
- Strong roadmap for future enhancements

Quality & Reliability

- Automotive expertise in quality and manufacturing
- Comprehensive understanding of reliability drivers

Manufacturing Scale

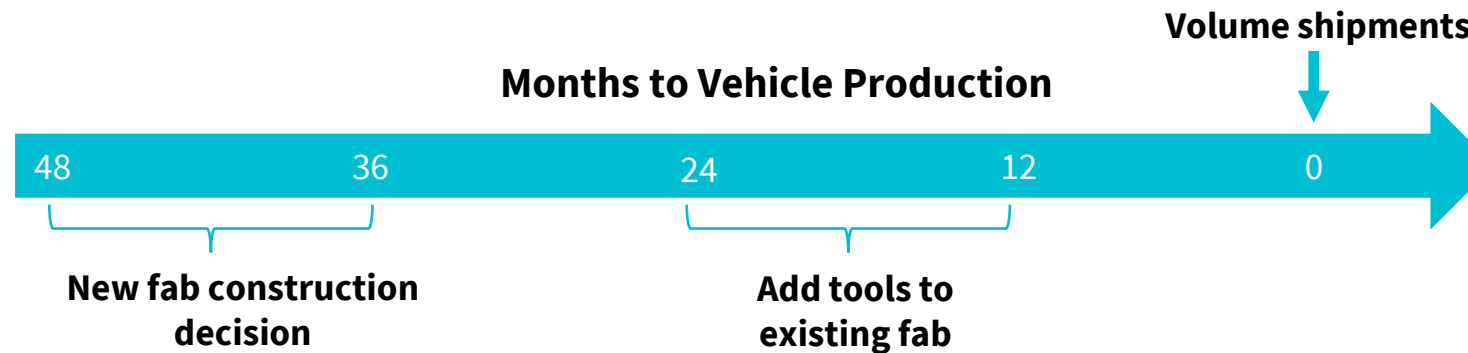
- \$1B+ capex investment
- Mohawk Valley ramp and continued Materials factory expansion
- Automated 200mm wafer fab supplied with Wolfspeed 200mm substrates

WOLFSPEED ASSURANCE OF SUPPLY PROGRAM: A SUPPLY CHAIN SOLUTION

Traditional automotive industry sourcing mechanics commit orders inside one year

Capacity planning decisions made 1-4 years in advance, require large capital outlays for construction and tools

Mismatched timelines creates risk for manufacturers and automakers



SOLUTION: WOLFSPEED ASSURANCE OF SUPPLY PROGRAM (AOSP)

Wolfspeed AoSP Fundamental Principles:

- Silicon Carbide is a critical technology in the BEV architecture, with a more complex supply chain
- Addresses future supply challenge by applying today's lessons to EV programs
- Strategy matches to automaker investments in battery technology and manufacturing

Wolfspeed AoSP aligns Wolfspeed and automaker interests:

- Wolfspeed: Improved visibility allows intelligent capital allocation in a dynamic growth market
- Automakers: Secured supply for critical devices

WHY WE WIN - POWER

Market conditions for Silicon Carbide adoption are **favorable across Automotive and Industrial & Energy**

Industrial & Energy brings **breadth and diversity** to our customer base and revenue profile

The electric vehicle transition in automotive creates a **large opportunity** for Silicon Carbide

The combination of our technology, manufacturing, and sales strategy positions us to deliver **consistent long-term growth** inside our three target markets



**We harness the power of Silicon Carbide
to change the world for the better**

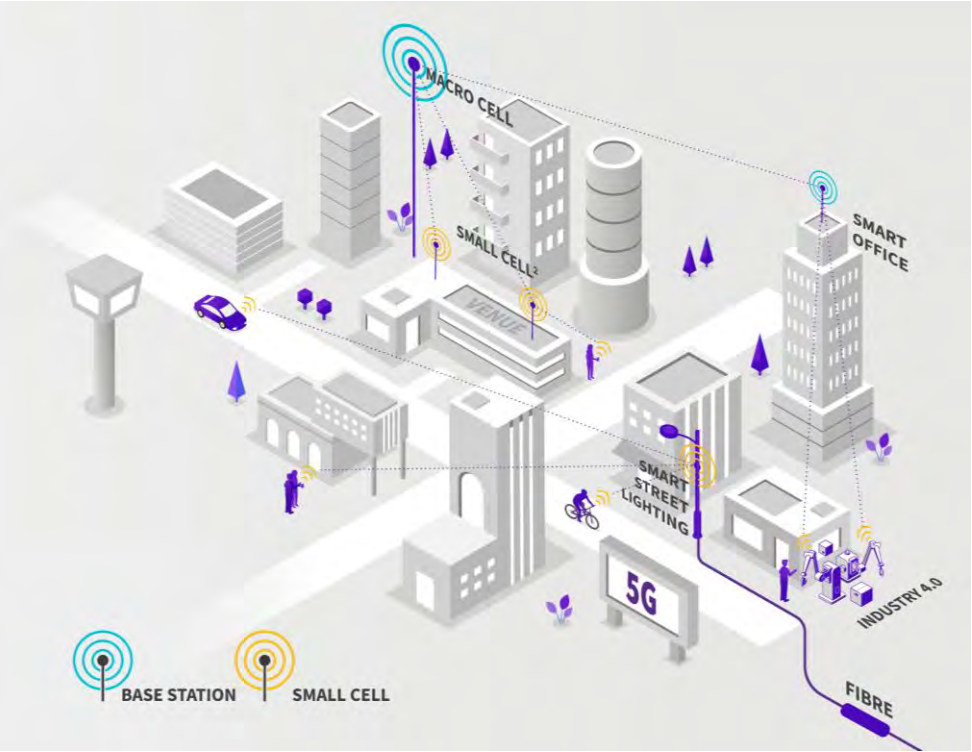


RF Power

Wolfspeed  GERHARD WOLF | SVP & GM, RF POWER

COMMUNICATION INFRASTRUCTURE INDUSTRY TRENDS – CONNECTIVITY EVERYWHERE & EXPLOSIVE GROWTH IN DATA TRAFFIC

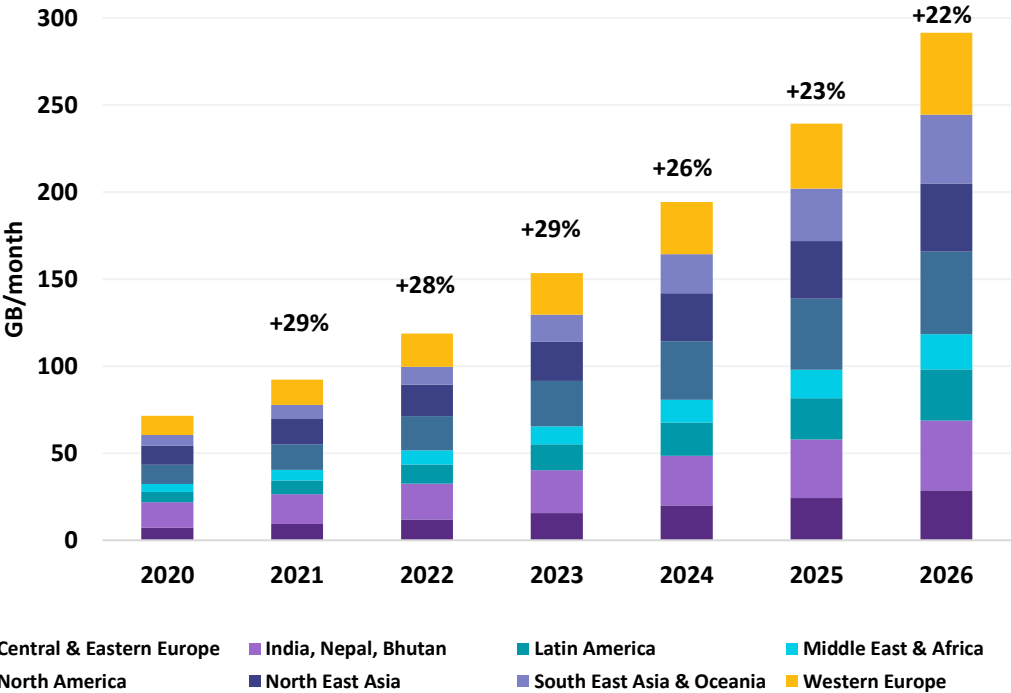
Significance of 5G network



Typical 5G Ecosystem

- Data rates (up to 20Gb/s)
- Low latency (<1ms)
- More connections/base-station (~1 million/km2)

Forecasted worldwide mobile data traffic

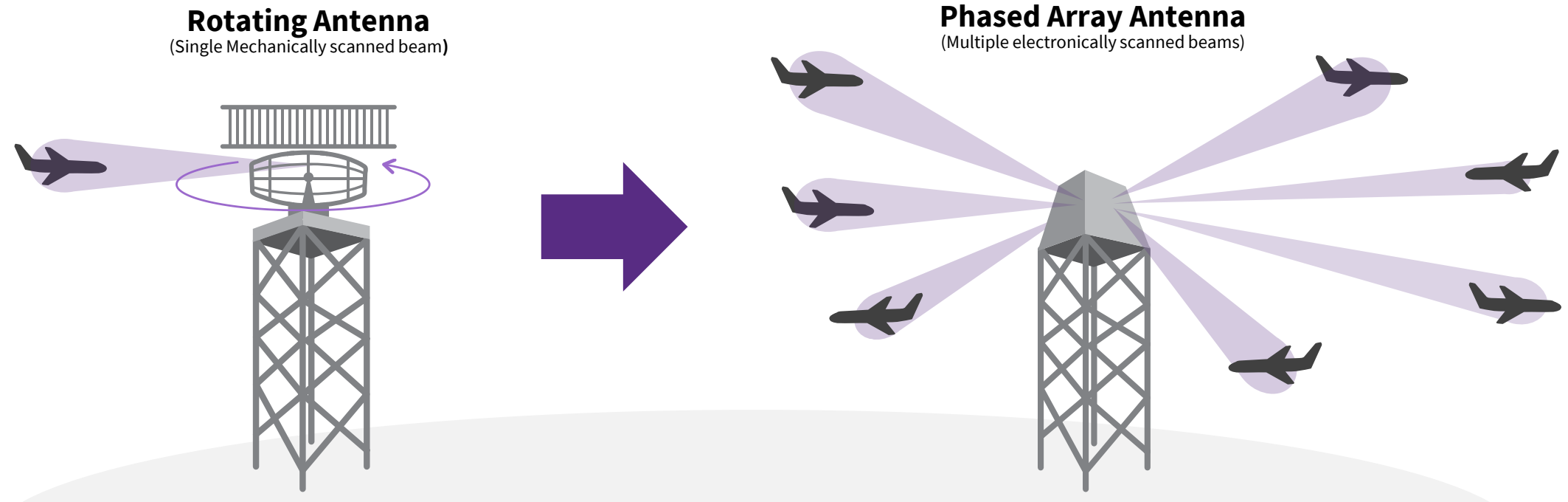


Forecasted worldwide mobile data traffic per device measured in GB/month per phone
(Source: Ericsson mobility report, June 2021)

- Explosive growth in 5G data traffic
- Data driven by 5G ecosystem, connectivity everywhere
- Fusion of both Macro & mMIMO technology

AEROSPACE & DEFENSE INDUSTRY TRENDS – RADAR SYSTEMS MIGRATING TO PHASED ARRAY ANTENNAS

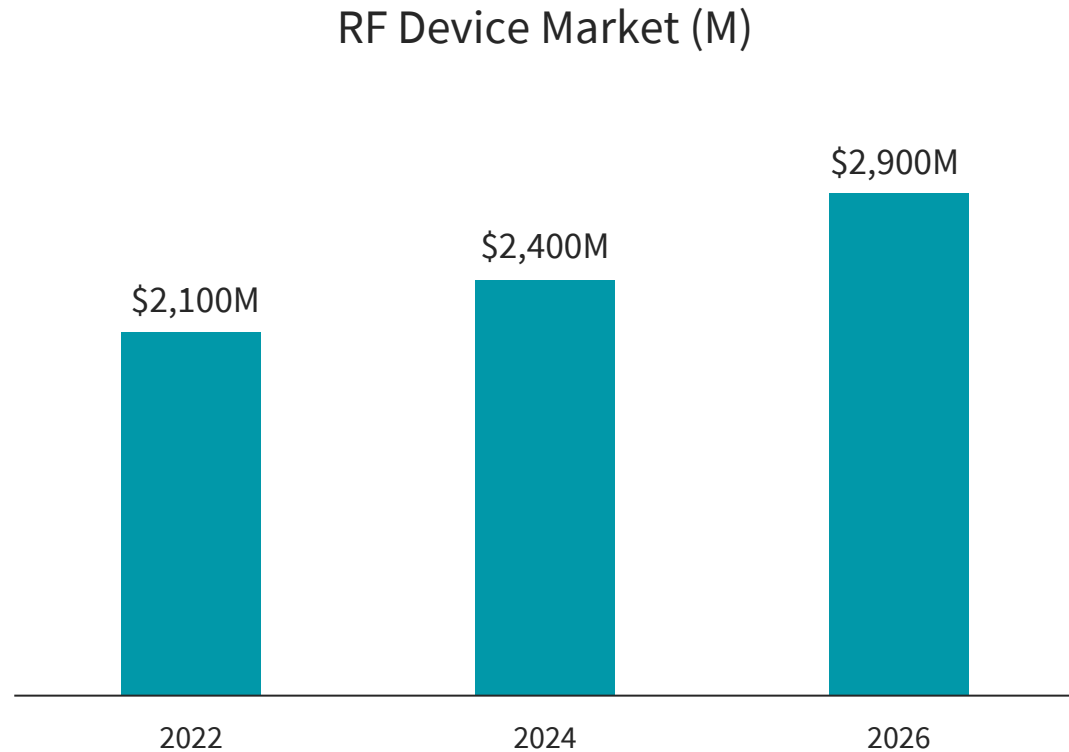
Modern radar systems are moving from rotating antennas to electronically scanned active arrays for improved performance






- Single target track
- Update rate limited to mechanical RPMs
- Centralized transmitter, single point of failure

- Multi-target track
- Near-instantaneous update rate
- One PA/element → graceful degradation

RF DEVICE MARKET EXPANDING TO \$2.9B



Drivers

-  5G revolution driven by significant rise in data rate and bandwidth requirements
-  High-performance next generation aerospace and defense systems
-  Improved performance, higher efficiency commercial and industrial equipment

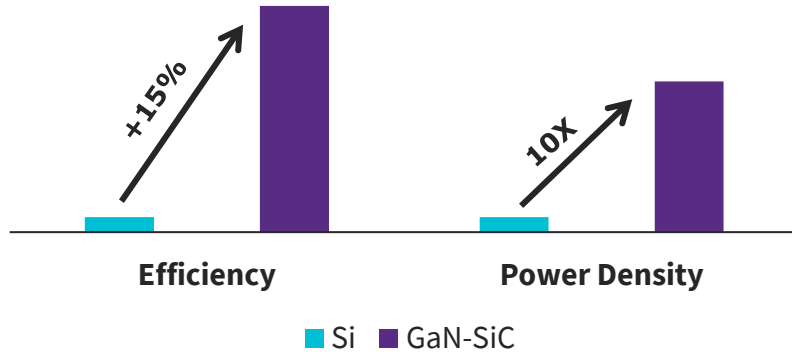
High efficiency and power density motivates GaN adoption

GaN-on-SiC forecasted to be vast majority of RF device market in 5 years

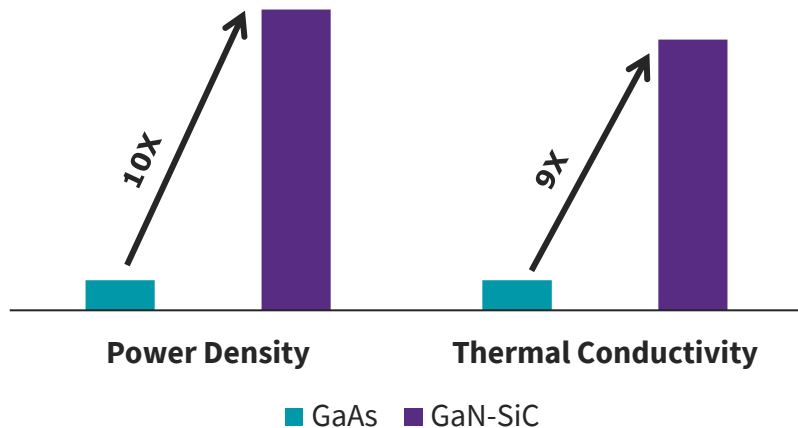
Source: Company estimates

WHY GALLIUM NITRIDE-ON-SILICON CARBIDE?

Advantages of GaN-on-SiC over Si



Advantages of GaN-on-SiC over GaAs



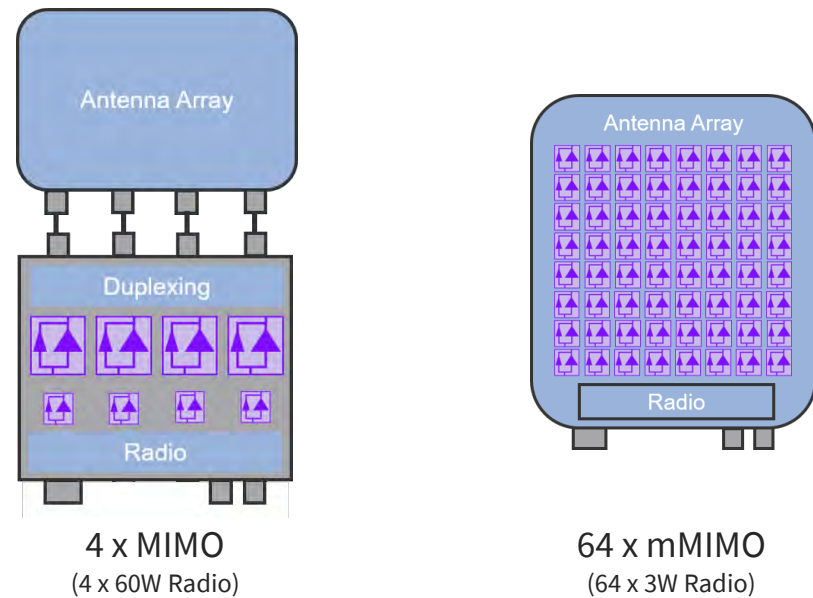
Customer Benefits

- ✓ High efficiency solutions → Lower power consumption
- ✓ High power density → Compact solutions
- ✓ High thermal conductivity → Savings on cooling cost
- ✓ High reliability → Savings on maintenance cost
- ✓ High bandwidth → Broadband solutions

GaN APPLICATIONS & ADVANTAGES IN COMMUNICATIONS INFRASTRUCTURE

APPLICATIONS AND DRIVERS

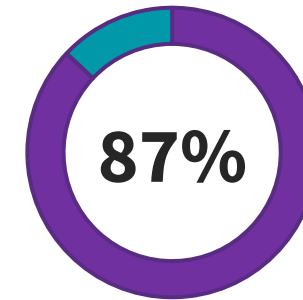
- High power density of GaN-on-SiC PAs enable compact solutions
- High efficiency of GaN-on-SiC supports smaller housing



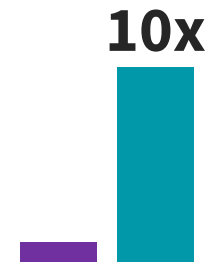
Typical MIMO implementation example

SOLUTION: GaN-on-SiC BASED 5G SYSTEM

- Compact systems
- Increased frequency bandwidth
- Lower carbon footprint
- Lower cost/bit/second for the operator



Up to **87%**
less power/Mb



More than **10x**
increase in data

GAN-ON-SiC IMPROVES SYSTEM PERFORMANCE ACROSS MULTIPLE APPLICATIONS

APPLICATIONS AND DRIVERS

- Lower power consumption with higher performance
- Smaller, lighter equipment



Satcom



Weather Radar



Test and Measurement



Broadcast



Air Traffic Control



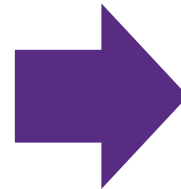
Mil Aero



Industrial

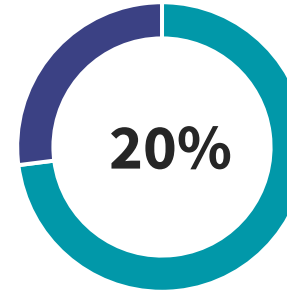


RF Heating

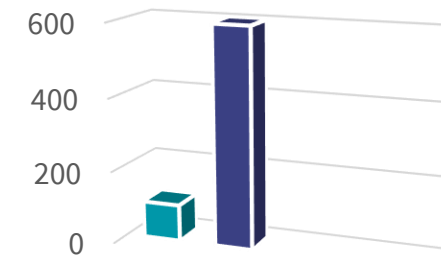


SOLUTION: X-Band PHASED ARRAY RADAR

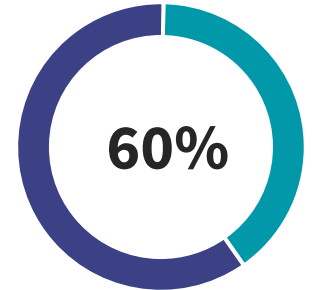
- GaN-on-SiC versus GaAs Transmit Module Amplifier Comparison



Up to **20%** more efficient per Output Power Amp



Up to **6X** more Output Power



Up to **60%** More Radar Detection Range

Source: Company estimates

RF POWER BUSINESS STRATEGY



Drive value with vertical integration and technology leadership



Support Communication Infrastructure customers with focused product and worldwide application



Serve Aerospace and Defense markets with select distribution partnerships

WHY WE WIN – RF POWER

**MORE THAN
15 YEARS**

Of commercial
GaN HEMT
production
experience

**MORE THAN
50 MILLION
DEVICES**

Successfully
fielded to date

**800+ BILLION
FIELD HOURS**

Failure-in-time
rates lower
than Si

**ACCREDITED
AS A CATEGORY
1A TRUSTED
FOUNDRY**

By the U.S.
Department of
Defense



**We harness the power of Silicon Carbide
to change the world for the better**



Materials

Wolfspeed[®] CENGIZ BALKAS | SVP & GM, MATERIALS

WOLFSPEED MATERIALS: MISSION

Accelerate the industry conversion
from silicon to Silicon Carbide in power and
RF semiconductors by being the preferred
and trusted supplier of Silicon
Carbide and GaN materials

MATERIALS STRATEGY: INTACT AND UNCHANGED



Maintain leading global market share

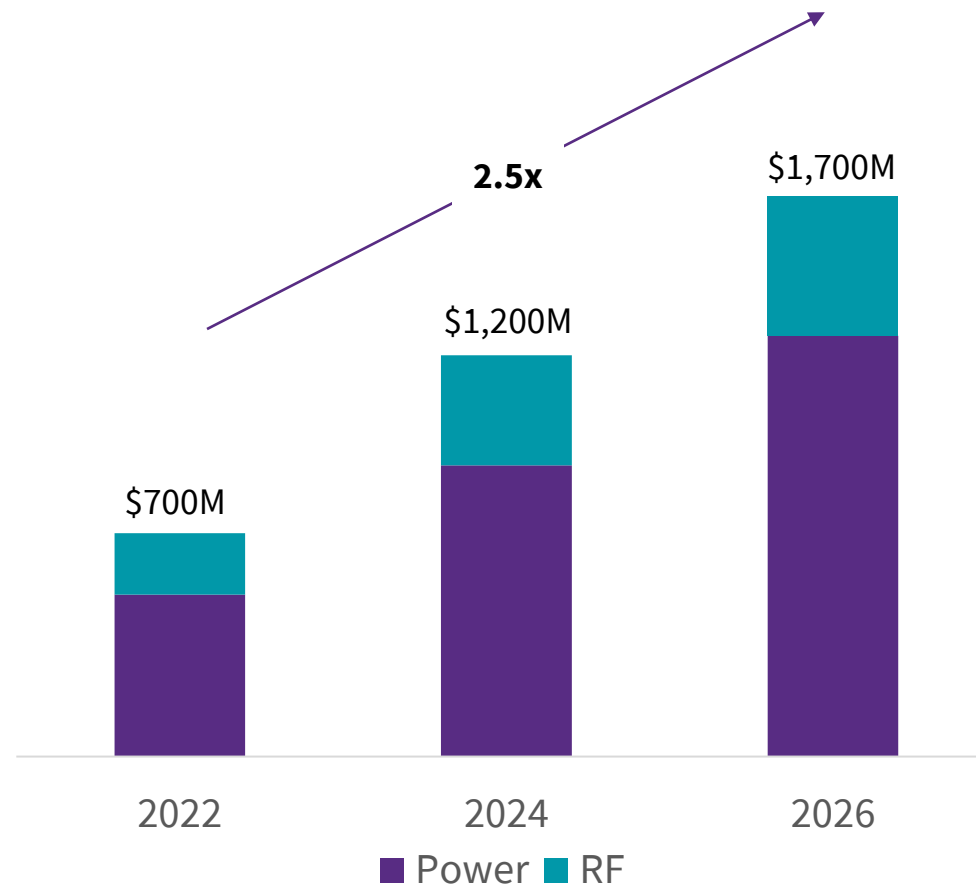


Expand capacity to accelerate industry transition from silicon to Silicon Carbide



Use scale to drive innovation, quality and cost reduction improvements

SILICON CARBIDE MATERIALS MARKET EXPANDING TO \$1B+ BY 2024



Source: YOLE and company estimates

Drivers

Value proposition validated in applications that are driving significant growth



EV applications driving significant volume in power wafer market



Significant adoption in broad industrial power market applications



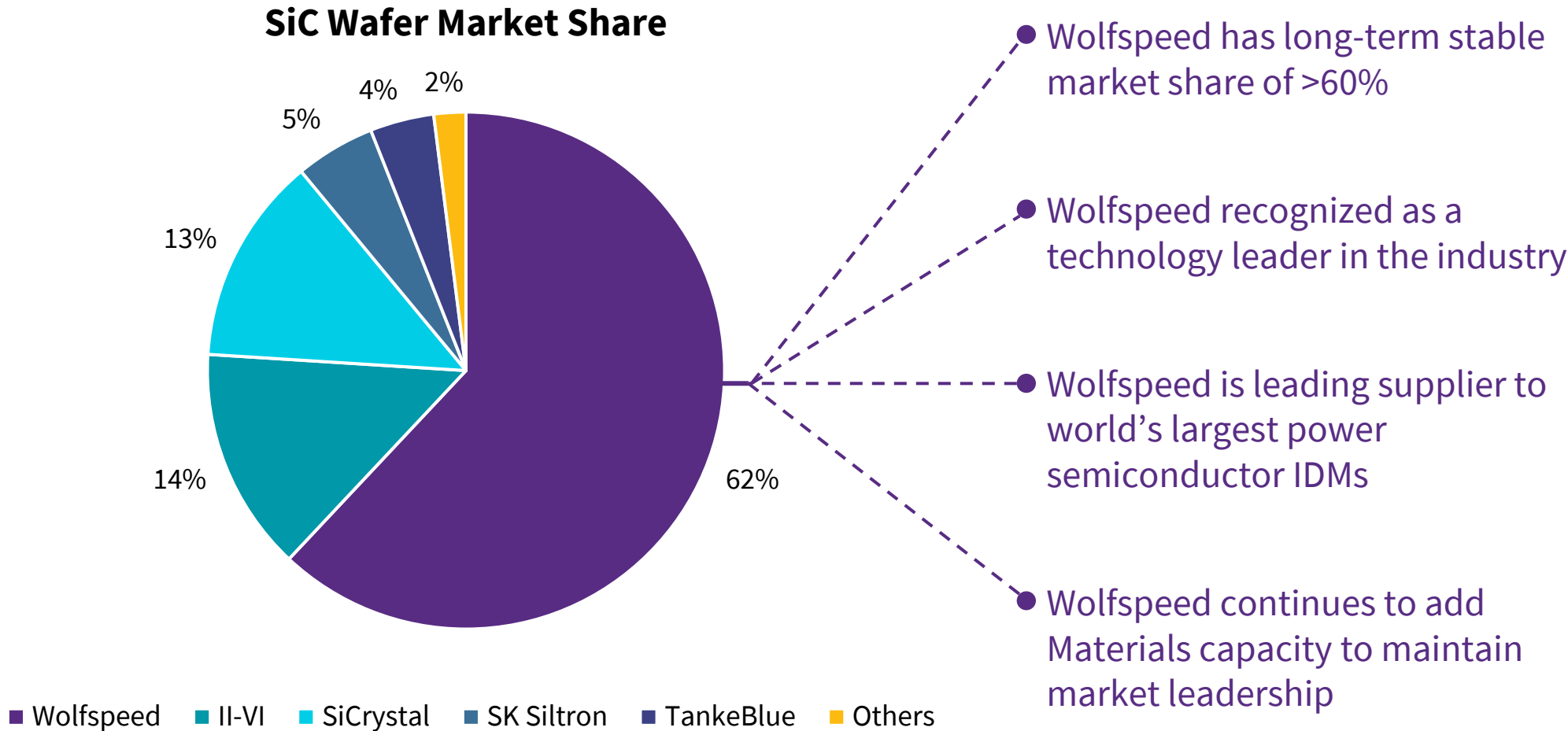
Telecom/5G commercial growth with major RF players



Epitaxial services markets growing as every bare wafer requires epitaxy

MARKET LEADERSHIP

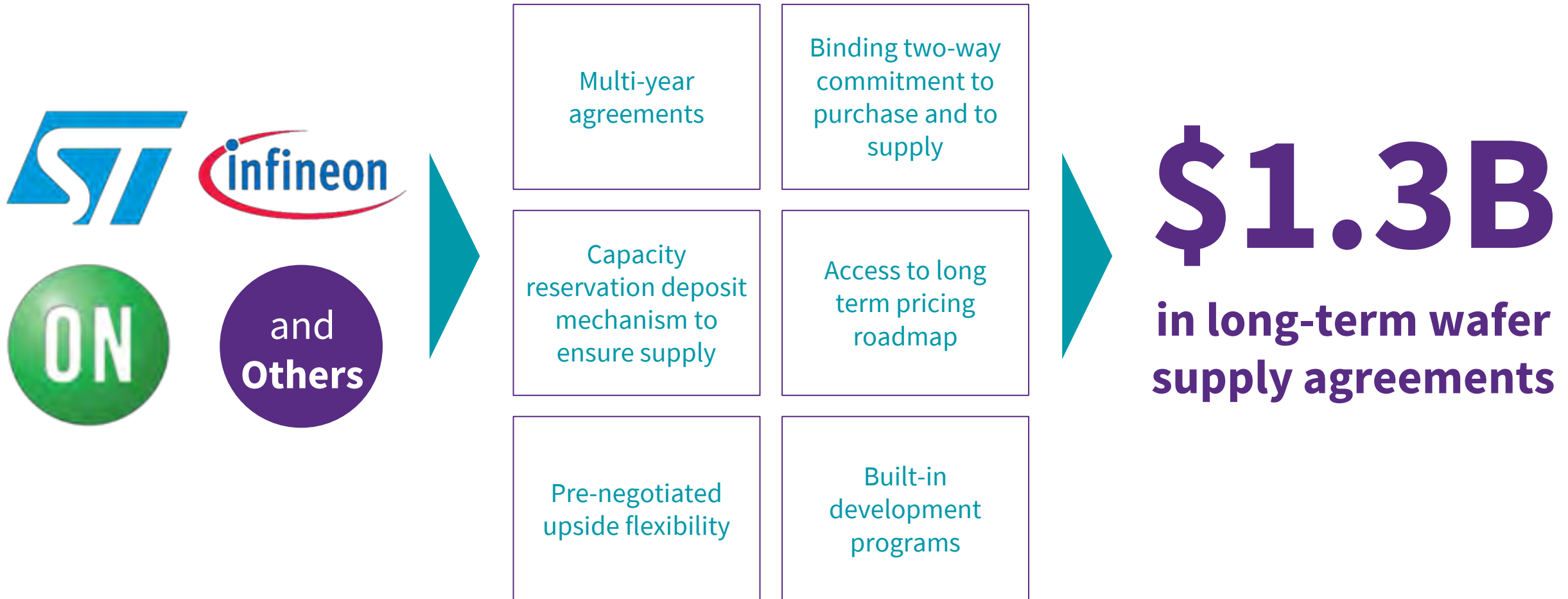
Wolfspeed is the premiere Silicon Carbide wafer supplier with leading-edge technology



Source: YOLE and company estimates

WINNING IN MATERIALS – KEY DEALS ANNOUNCED

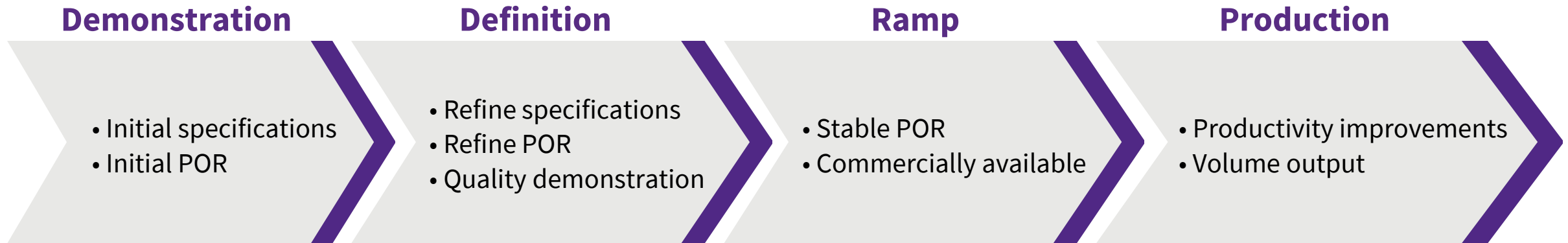
Wolfspeed wafers are driving the transition in the power semiconductor industry from silicon to Silicon Carbide



SCALE AND CYCLES OF LEARNING



FROM DEMONSTRATION TO FULL MANUFACTURING FOR SILICON CARBIDE WAFERS TAKES YEARS



Wafer demonstration to full production stability is around 5 years



Customer acceptance and ramp highly dependent on device fabs coming online



Lifetime of individual wafer diameter usually around a decade



Monitoring market transition timeline through close customer engagements

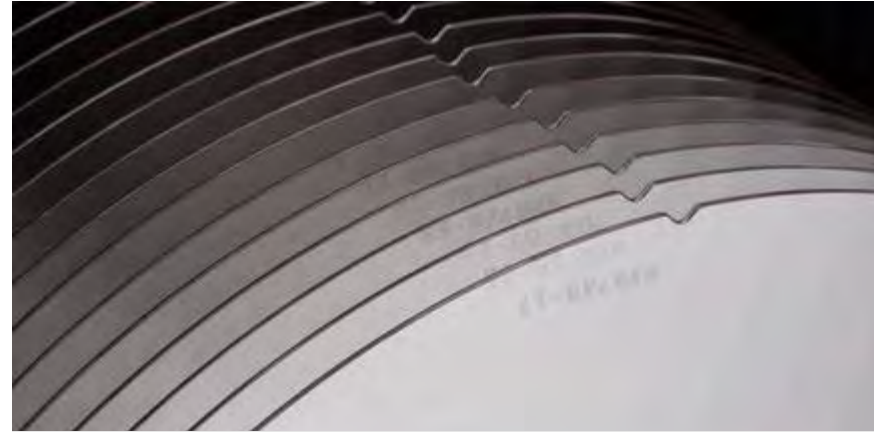
MATERIALS PRODUCT PORTFOLIO

Wolfspeed is the only commercial provider of a full suite of Silicon Carbide and GaN materials



Power Materials

- 150mm Silicon Carbide N-type wafers
- 150mm Silicon Carbide epitaxy
- 150mm thin device epitaxy ($\leq 30\mu\text{m}$)
- 150mm thick device epitaxy ($> 30\mu\text{m}$)
- Customer-defined MOSFET and SBD structures

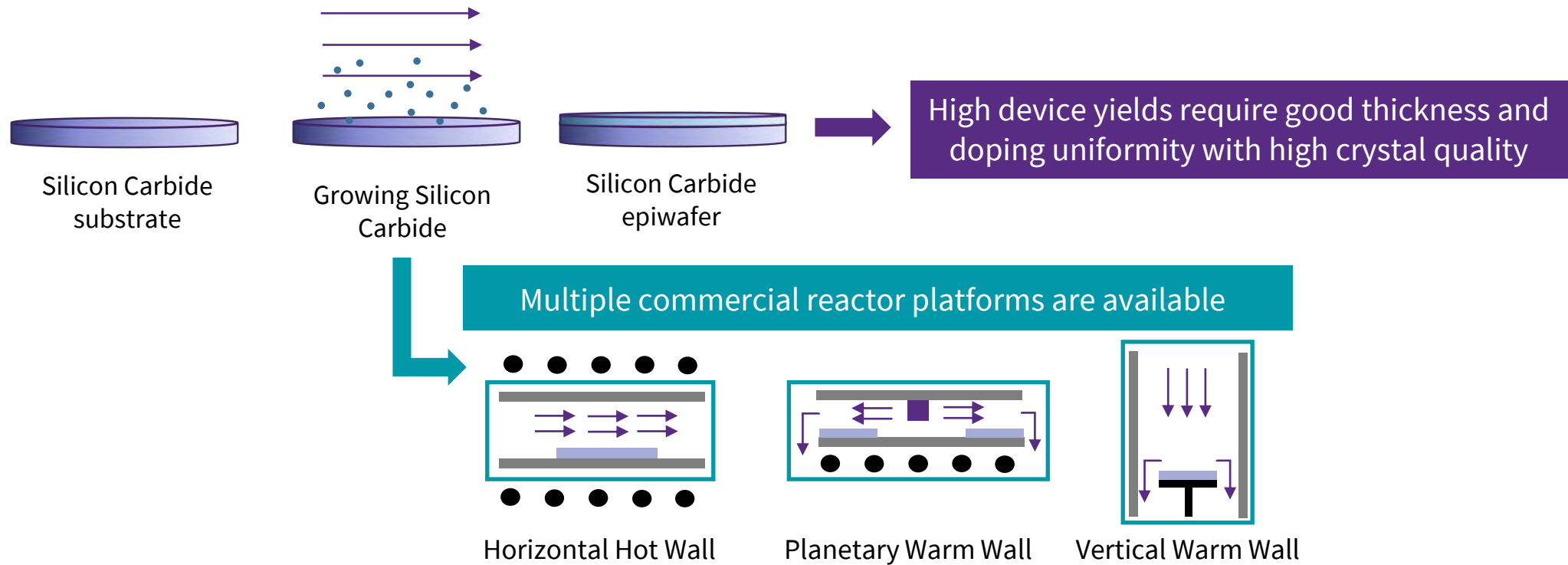


RF Materials

- 150mm HPSI Silicon Carbide wafers
- 150mm GaN-based HEMT epitaxy
- 100mm HPSI Silicon Carbide wafers
- 100mm GaN-based HEMT epitaxy

SILICON CARBIDE EPITAXY

Epitaxy Process – critical for device design, performance, and quality

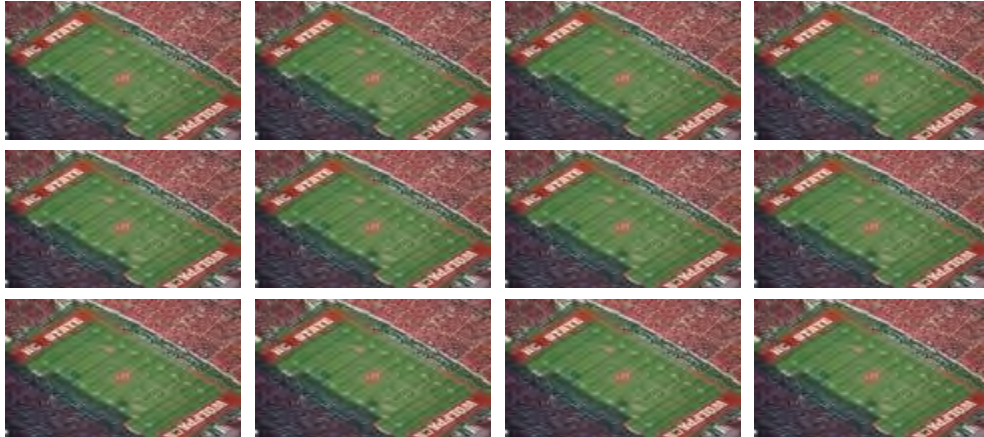


Wolfspeed has expertise in multiple reactor platforms and processes

High volume manufacturing on 150mm

150mm epitaxial wafer volume has increased 7x since 2017

LEADING VOLUME SUPPLIER: BY THE NUMBERS



Over the past 10 years, Wolfspeed has manufactured >615 million cm² of Silicon Carbide wafers

- More than 15 acres
- Nearly 12 football fields
- 1 millionth 150mm power wafer made!



Over the past 5 years, Wolfspeed has shipped >2.5 million μm of Silicon Carbide epitaxy

- 2.5 meters (8.34 ft)
- Depth of an average swimming pool
- 1 epi layer is 1 human hair thick

WHY WE WIN - MATERIALS

World class R&D and operations team **focused solely** on Silicon Carbide and GaN materials

Investing in R&D and scale to drive industry transition at a rapid pace

Absolute commitment to **quality serving demanding applications**

Driving business to **continuously create value** for our customers



**We harness the power of Silicon Carbide
to change the world for the better**



Customer Fireside Chat with ZF

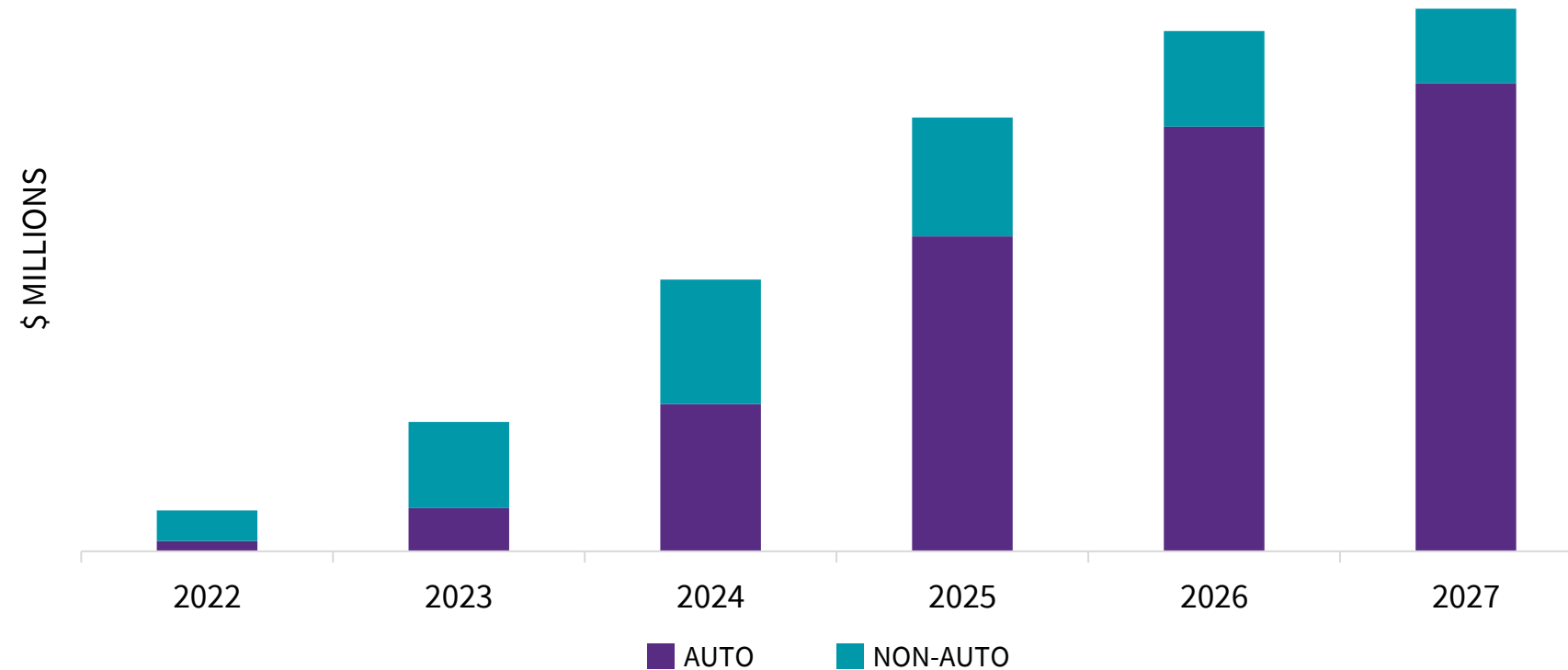


MODERATED BY KENRIC MILLER |
VP, GLOBAL SALES & MARKETING,
AUTOMOTIVE

Pipeline Development - Components

Wolfspeed  THOMAS WESSEL | SVP, GLOBAL SALES
& MARKETING

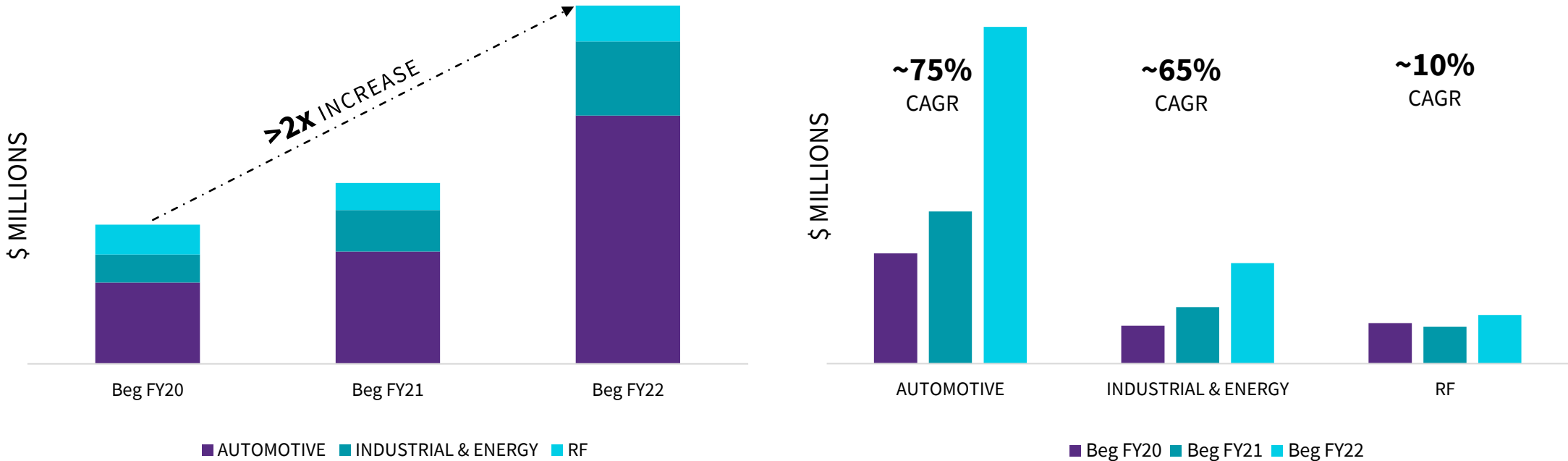
CURRENT PIPELINE > \$18B



Auto represents >70% of the pipeline

Non-Auto represents close to 60% of the pipeline FY22-24

PIPELINE DEVELOPMENT BY SEGMENT

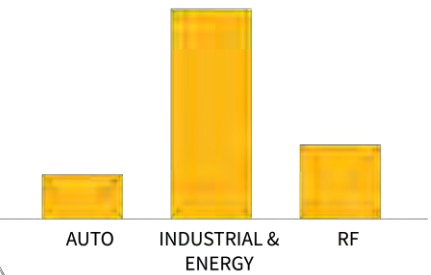
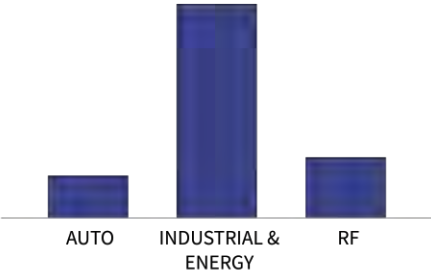
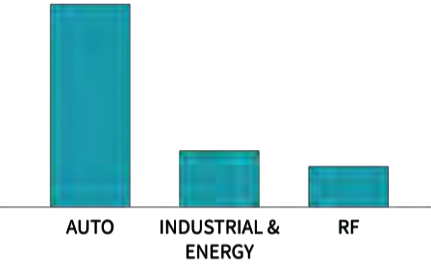
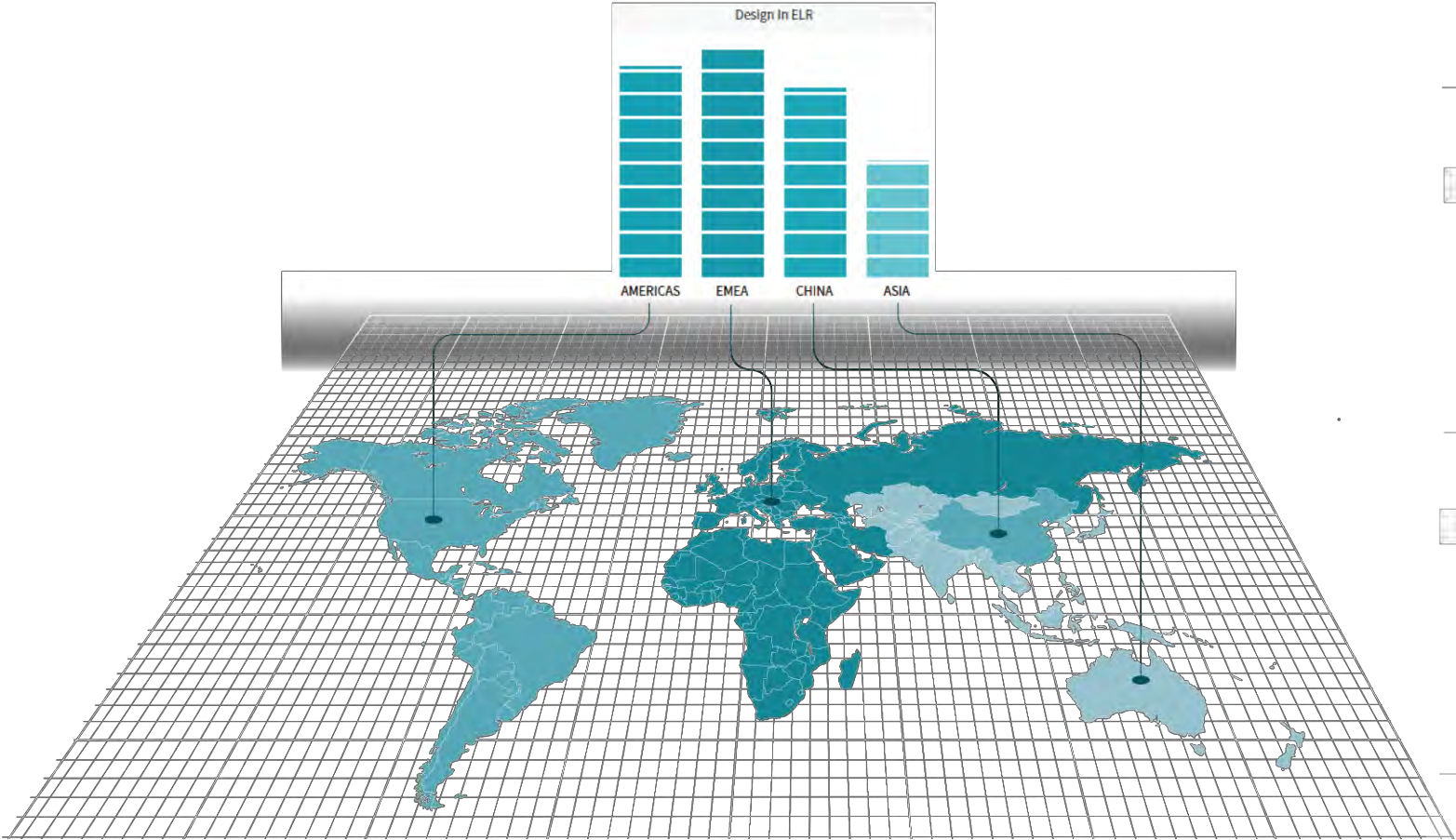
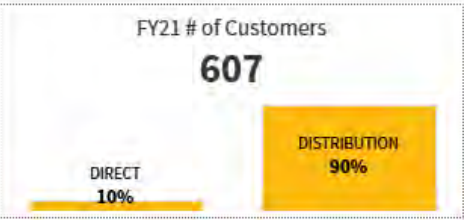


Auto grew 3x in this period with increasing inverter needs of Automotive OEMs

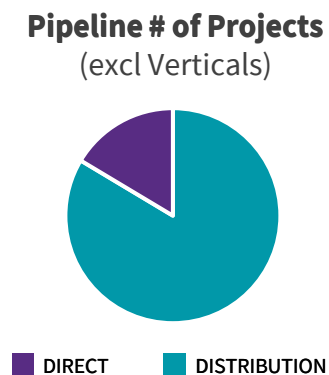
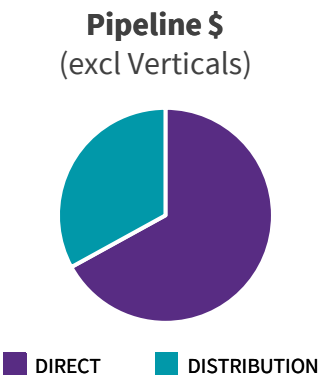
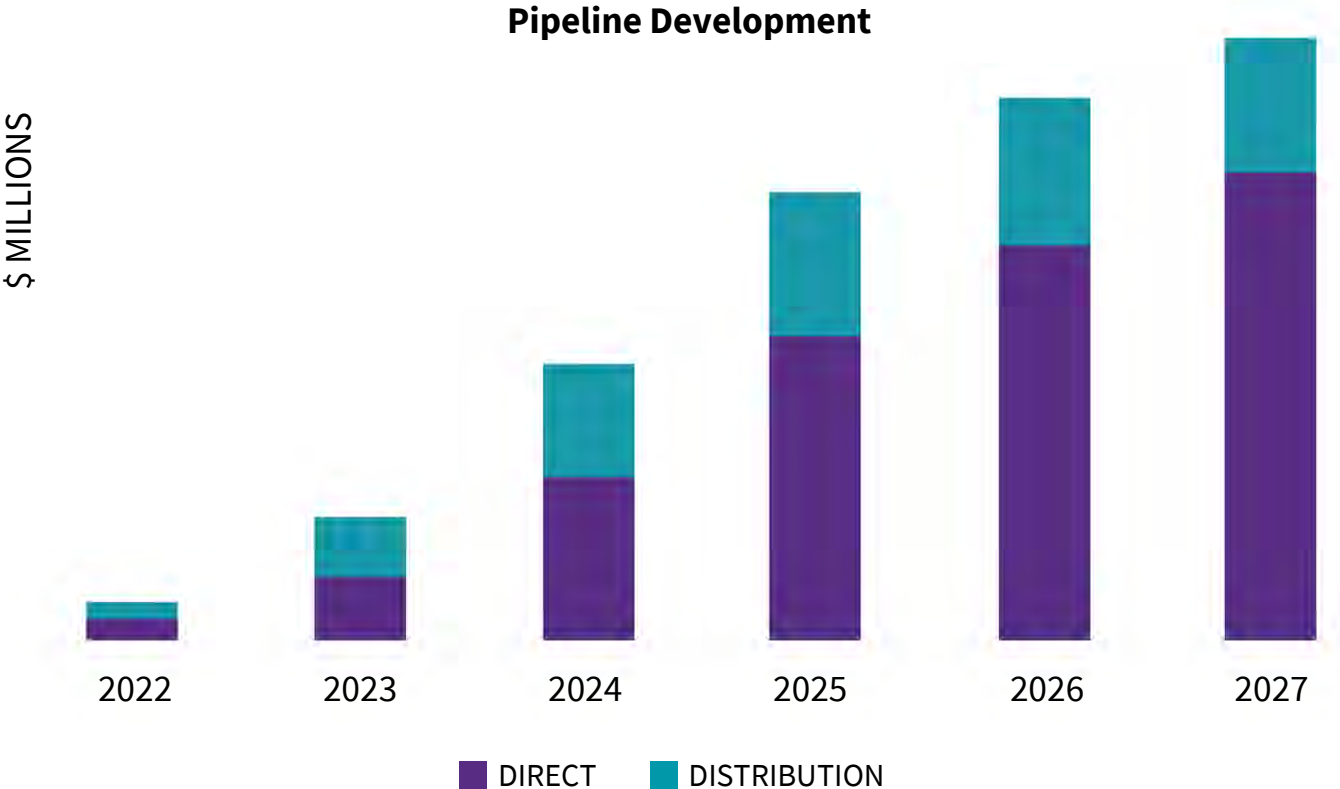
Industrial & Energy > 2.5x driven by Off-Board Charging, Cloud Server Power Supply, HVAC, Motor and Motion Control and Renewable Energy

RF recovering from Geopolitical impact in C1FR, aided by ~30% growth in A&D Radar and Military Comms

FY21 DESIGN IN DETAILS



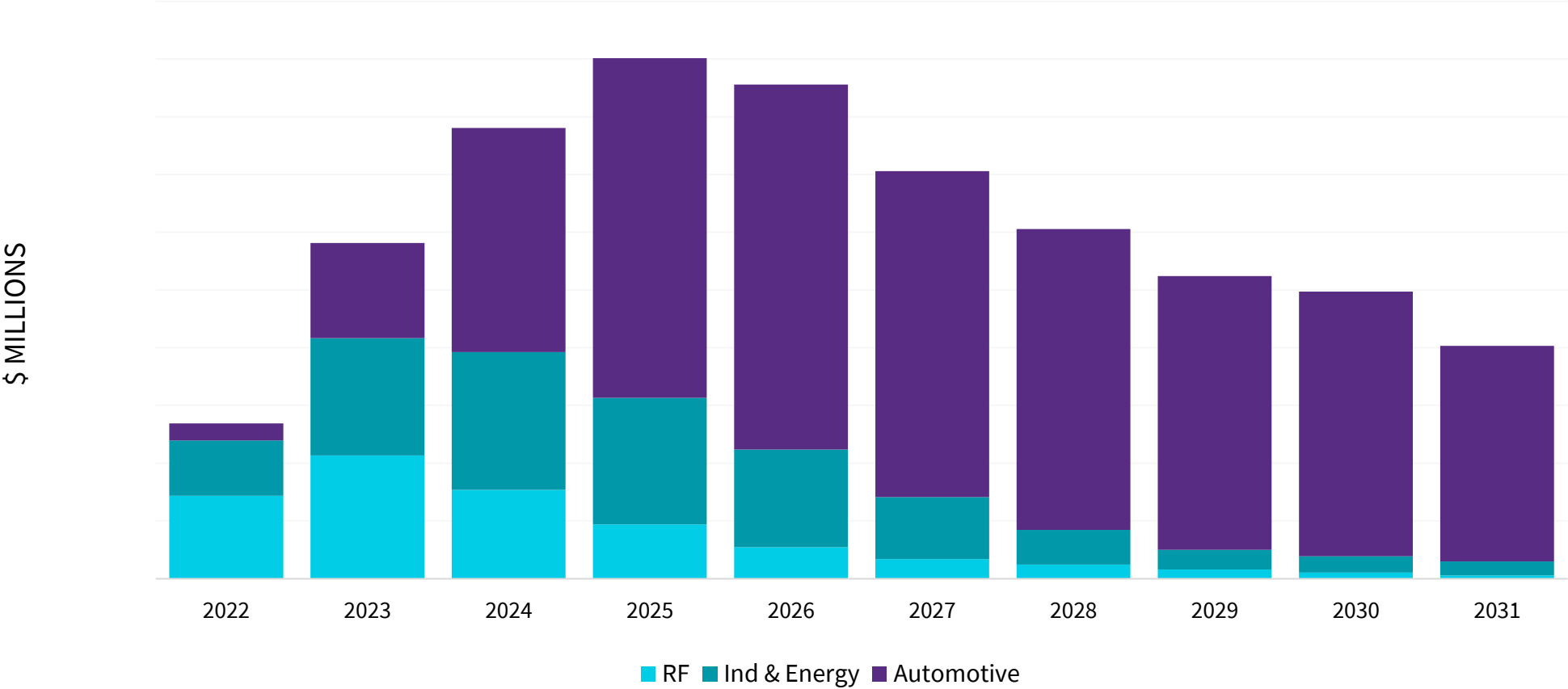
CHANNEL PIPELINE



Excluding our vertical segments (Auto & Communication Infrastructure), the channel accounts for ~70% of our pipeline value and close to 90% of the project count

Close to 1,000 projects identified each quarter

FY21 DESIGN IN - REVENUE PROFILE



Automotive - Time to revenue 2x compared to non-Auto

Why We Win – Pipeline Development, Components

Auto opportunities proliferating across all major OEMs

Strong growth across all major segments

Contribution from all geographies

Global Distribution Partner allows us to cover a diverse customer base globally

High confidence of pipeline to revenue conversion to achieve corporate objectives of

- ~\$1.5B in FY24
- ~\$2.1B in FY26



**We harness the power of Silicon Carbide
to change the world for the better**



Capacity Update

Wolfspeed[®] REX FELTON | SVP, FAB OPERATIONS

VISION AND PASSION TO WIN SUPPORTED BY ONEPACK CULTURE

Global Operations Vision: Cutting Down the Nets in FY24

Safe, Right, Fast Mentality

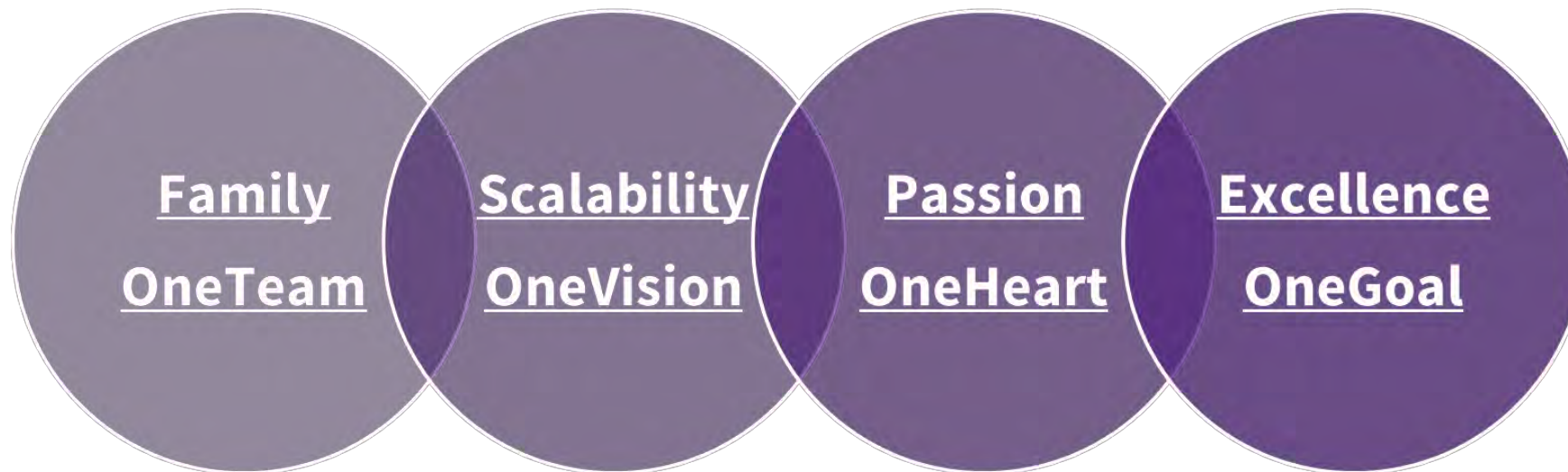
~\$1.5B Revenue, 50%+¹ Gross Margin

Nimble and Agile. Leverage operations performance for fast turn protos

OnePack Culture: Make it Personal and Win

Reaching for Perfection and Catching Excellence

OnePack Culture



¹Excludes ~2% to 3% impact of corporate items

WORLD CLASS OPERATING SYSTEM



Safety First, Quality Mindset, Relentless Execution | 5S Foundation

GLOBAL OPERATIONS - MANUFACTURING HIGH LEVEL STRATEGY

Materials and Epi

Short Term: Expansion of capacity on Durham campus for initial growth of 200mm

2023/2024: Expand Power Materials and Epi growth into non-production Durham spaces

Long Term: Explore next site options to create future growth and risk mitigation strategy in 2+ years

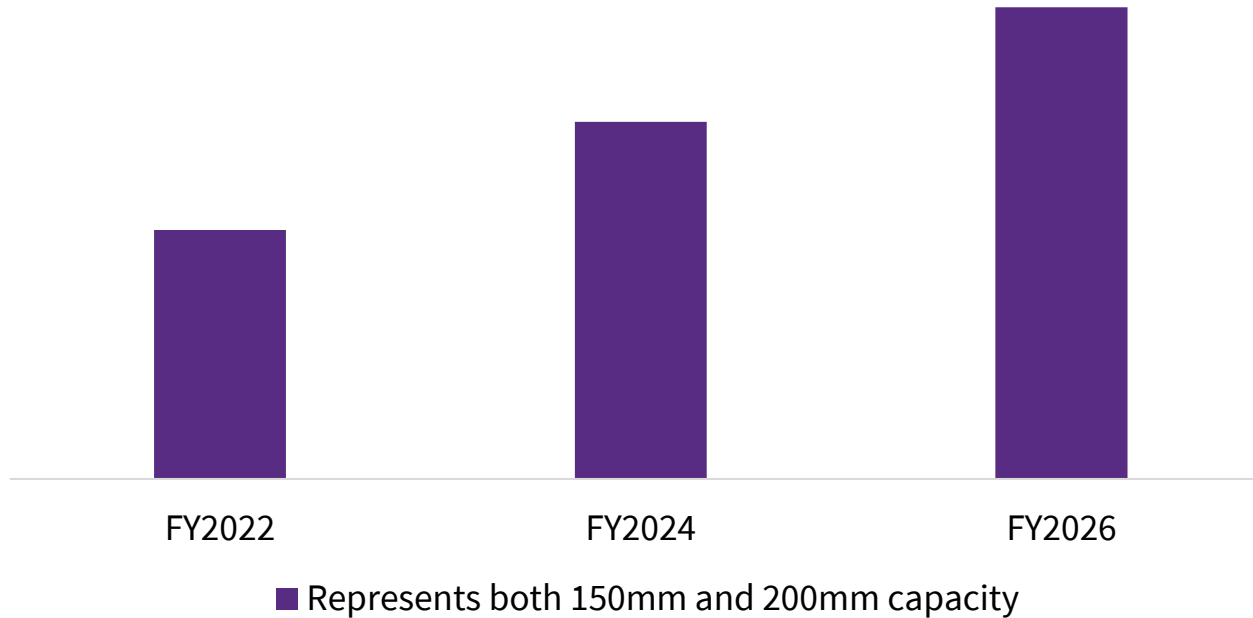
Wafer Fab

Short Term: Expansion of Power capabilities in Durham while transitioning to Mohawk Valley 200mm fab

Long Term: Strong focus on operational improvements to achieve world class manufacturing performance in all wafer fabs

SILICON CARBIDE SUBSTRATE CAPACITY

Silicon Carbide Substrate Capacity (sq. cm.)



200mm established, well positioned to support MVF expansion

Ongoing customer demands for both power and RF substrates are driving 150mm volumes into the future

Materials to grow from 167k sq. ft. to 242k sq. ft. over the next 2 years

MATERIALS EXPANSION



- Existing Footprint
- Future Footprint

WOLFSPEED SIC MOSFET – BARE DIE MANUFACTURING LOCATIONS

NORTH CAROLINA WAFER FABS



RTP Fab: 1,495m²

3028 E Cornwallis Road
Durham, NC

MFT and Schottky, 150mm
RF, 100mm



DUR Fab: 4,950m²

4600 Silicon Drive
Durham, NC

MFT and Schottky, 150mm
RF, 150mm

NEW YORK WAFER FAB

World's First 200mm SiC Fab



MVF fab: 14,100m²

Technology Drive
Marcy, NY

Production qual Q3 FY22

MFT and Schottky, 200mm

NC FAB - NEW LEADERSHIP AND CALL TO ACTION IN FY22

FOCUS ON UTILIZATION OF KEY TOOLS

Established a key tool list

7X24 Focus (all modules / shifts) on performance of identified tools

Prioritize Key Tool Downs over other Equipment Downs

STRATEGIC LINE MANAGEMENT

Established run plans for bottleneck toolsets and inspections

WIP Transfer Improvement
– Transfer app released for Durham <-> RTP

7X24 Focus (all modules / shifts) on moves performance

ENHANCED ENGAGEMENT

Empowered supervisors and leads to make strategic decisions

Stronger interaction between MFG, ENG, and Equipment resources

The reality of “one fab” is taking place

Small Win Acknowledgments

EARLY RETURNS ARE ENCOURAGING

Significantly improved cycle time

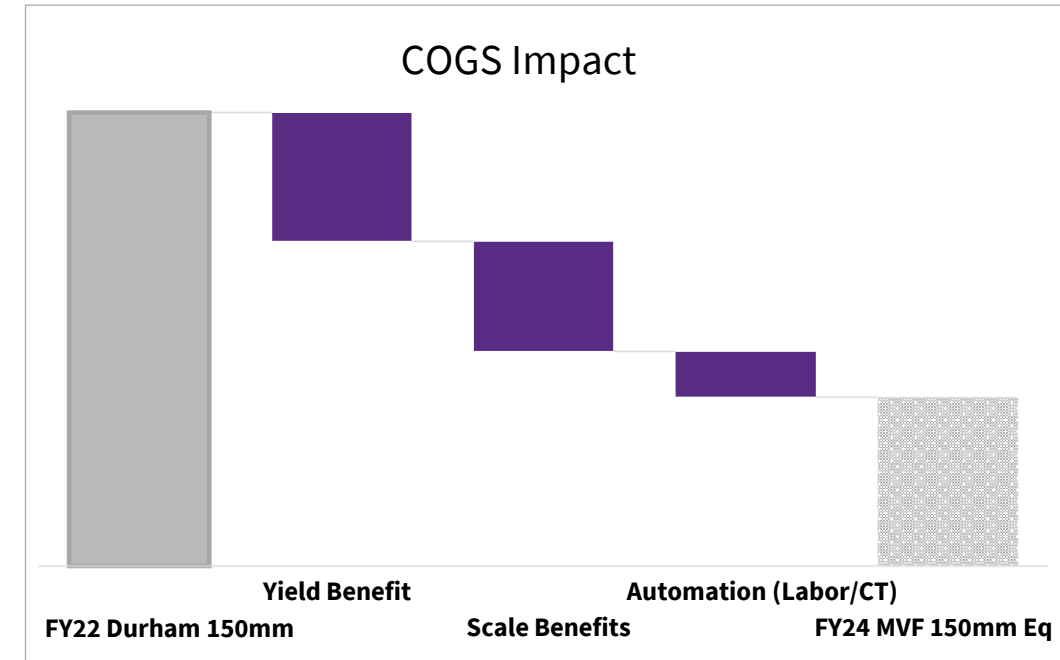
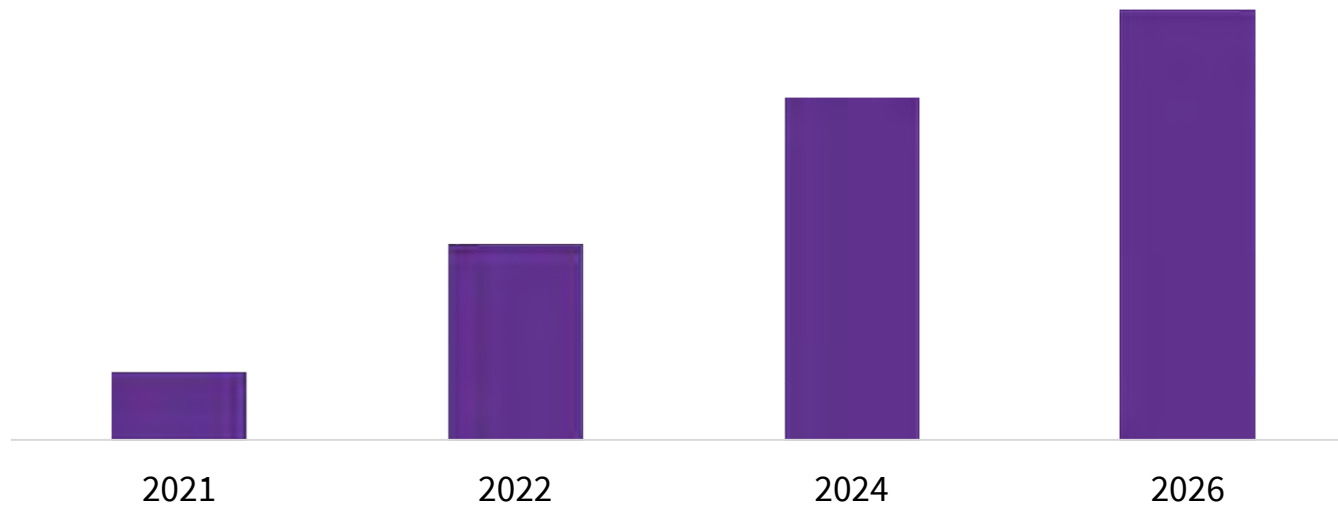
Higher wafer output

Structured problem solving driven yield improvements

Engaged and highly energized team

POWER MOSFET SUPPLY – MVF RAMP

Wolfspeed Power Wafer Capacity



Drivers & Assumptions

- Fab in final stages of facilities fit out with first learning cycles to be started by end of year and production starts by June 2022
- SUNY pilot line pivotal for 200mm yield learning; will enable a fast track to MVF process qualifications and product quals
 - Yields well ahead of similar 150mm products in Durham

MOHAWK VALLEY FAB: CONSTRUCTION UPDATE



Central Utility Building (CUB)

CUB build complete and handed over to Wolfspeed

Mechanical systems providing air, water, and exhaust to fab complete

Bulk gases onsite to support startup activities



Fab

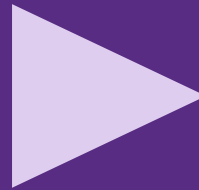
Class 100 cleanroom on Level 3 is complete and meets environmental requirements (temperature, humidity, air exchanges, and particles)

Tool installation for initial ramp phase well underway

Class 10000 cleanroom on Level 2 also complete and initial tool installation has begun (Thinning, Plating, Test)

Automated material handler system installation nearly 90% complete

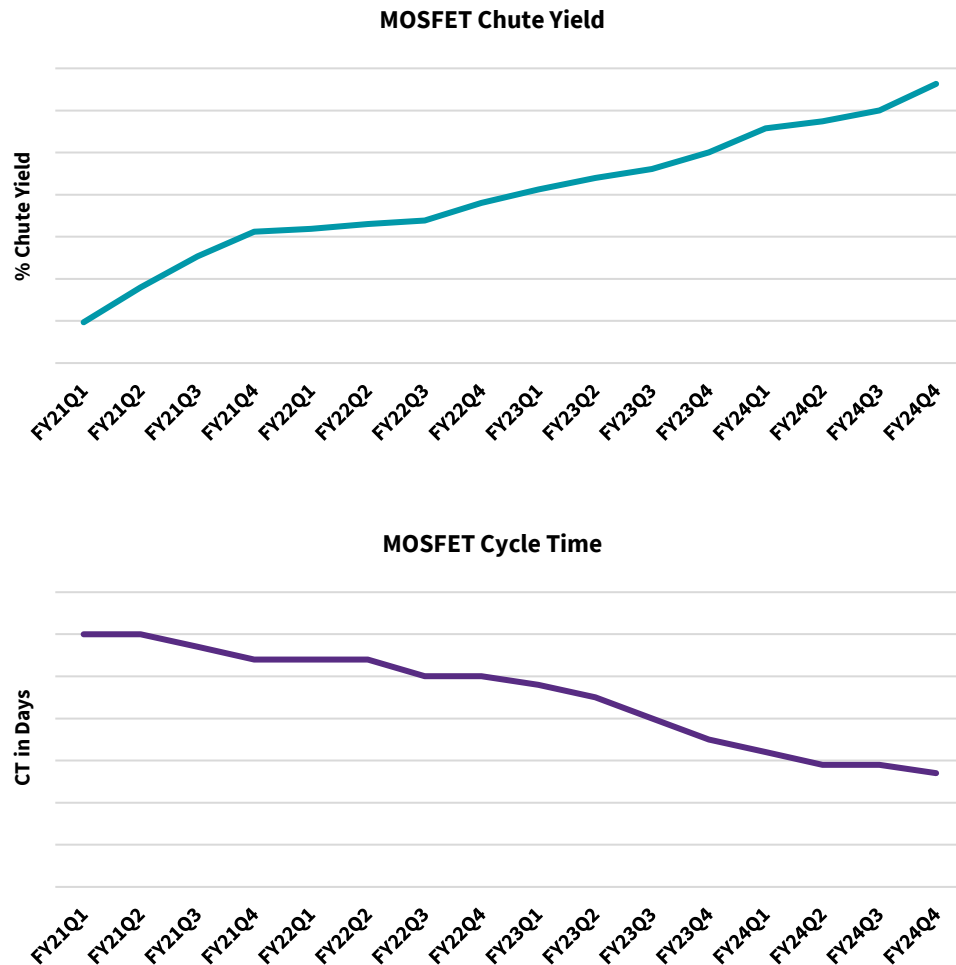
MOHAWK VALLEY FAB: AUTOMATION



https://teams.microsoft.com/_#/files/Systems%20Automation?threadId=19%3Aa279766ed2034d958a86ebd36b6883ee%40thread.sky&ctx=channel&context=MVL%2520AMHS%2520Videos&rootfolder=%252Fsites%252FNFFStartup%252FShared%2520Documents%252FSystems%2520Automation%252FFiles%252Fvideos%252FMVL%2520AMHS%2520Videos

DRIVING SIC MANUFACTURING COST STRUCTURE

Invested in the resources to drive significant yield and cycle-time improvements over the next 3 years



Key Operational Investments

- Hired experienced silicon industry leaders
- Implementing factory automation and yield/big data software
- Purchasing latest tool sets to leverage industry capability and to drive cycle-time excellence
- Investing in:
 - New generation of Automated Inspection Tools
 - In-line tool capabilities such as Fault Detection
- Committing to Advanced SPC Software and disciplines
- Training in latest Automotive standards
- Driving initiatives with Organization-wide Ops Excellence focus

WHY WE WIN – CAPACITY

Operational
footprint
strategy
**maximizes
revenue and
gross margin**

OnePack
culture
supporting
**operations
excellence,
automotive
quality and
productivity**

Game
changing
automation
and scalability
that is
**bending the
cost curve**

Invested to
drive
**significant
yield and
cycle-time
improvements**
over the next 3
years



**We harness the power of Silicon Carbide
to change the world for the better**



Long-Term Outlook

Wolfspeed[®] NEILL REYNOLDS | EVP & CFO

KEY FINANCIAL HIGHLIGHTS & TAKEAWAYS

Three stages to achieve our target model: **Transform, Ramp, Execute**

Business and portfolio is **focused and work continues**

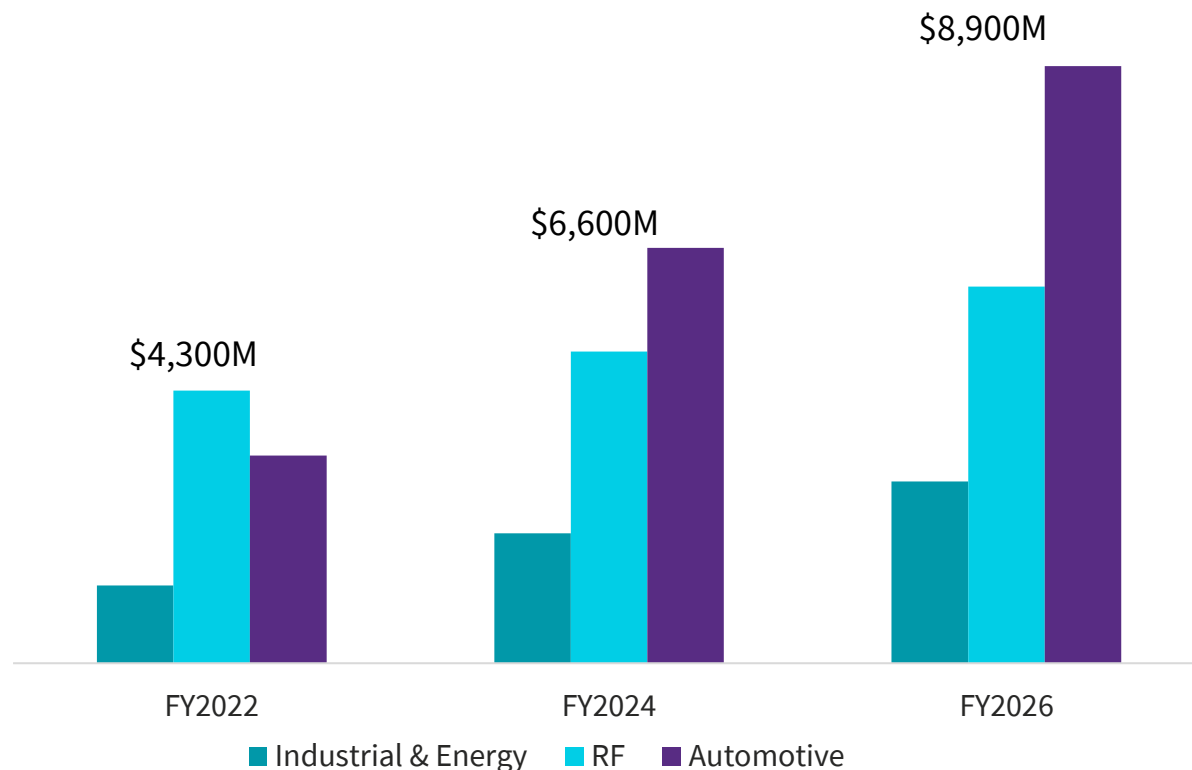
Demand curve steepening; pipeline opportunities expanding; continuing to capture design-ins

Investments **increase scale and expand margins**; strengthening leadership position

FY2026 outlook reflects **high growth, high margin, strong cash flows**

MARKET IS RAPIDLY GROWING - UNIQUELY POSITIONED TO CAPTURE SHARE

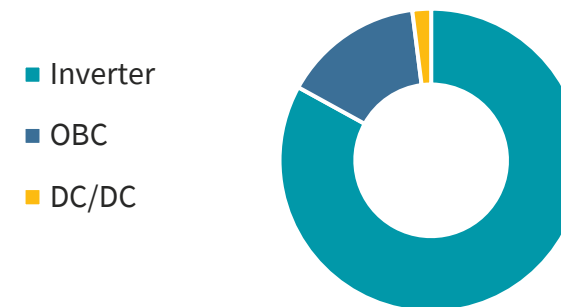
Device Market Outlook (M)



Data based on third-party and Company internal assumptions

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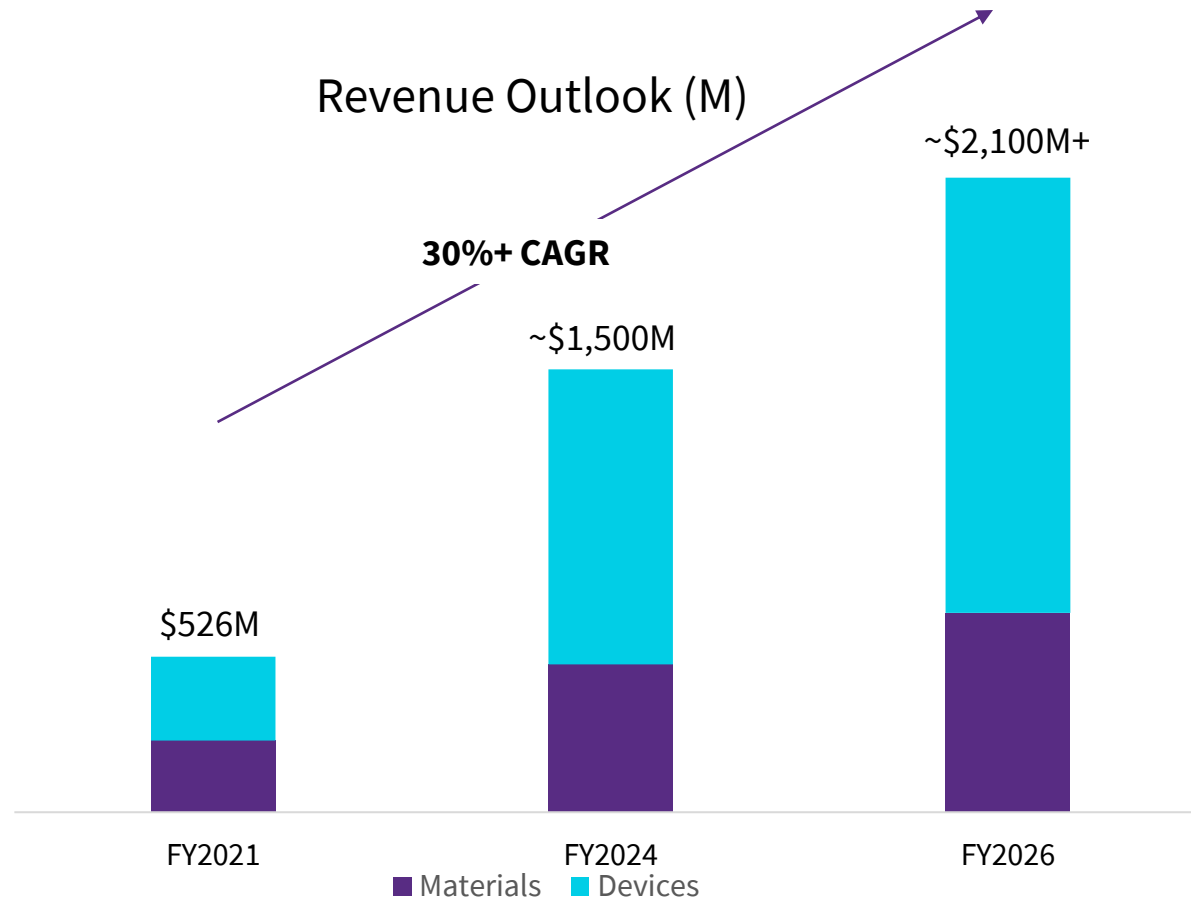
Automotive Device Opportunity in FY2026



Drivers & Assumptions

- Total Device market growing with a 20% CAGR
- Automotive is the fastest growing market with a 30% CAGR between FY22 - FY26, with EV adoption rates reaching 15%
- In FY26, Inverters will continue to be largest portion of Automotive market at >80%
- Industrial & Energy expected to increase with a 24% CAGR between FY22 - FY26
- RF anticipated to increase with an 8% CAGR between FY22 - FY26

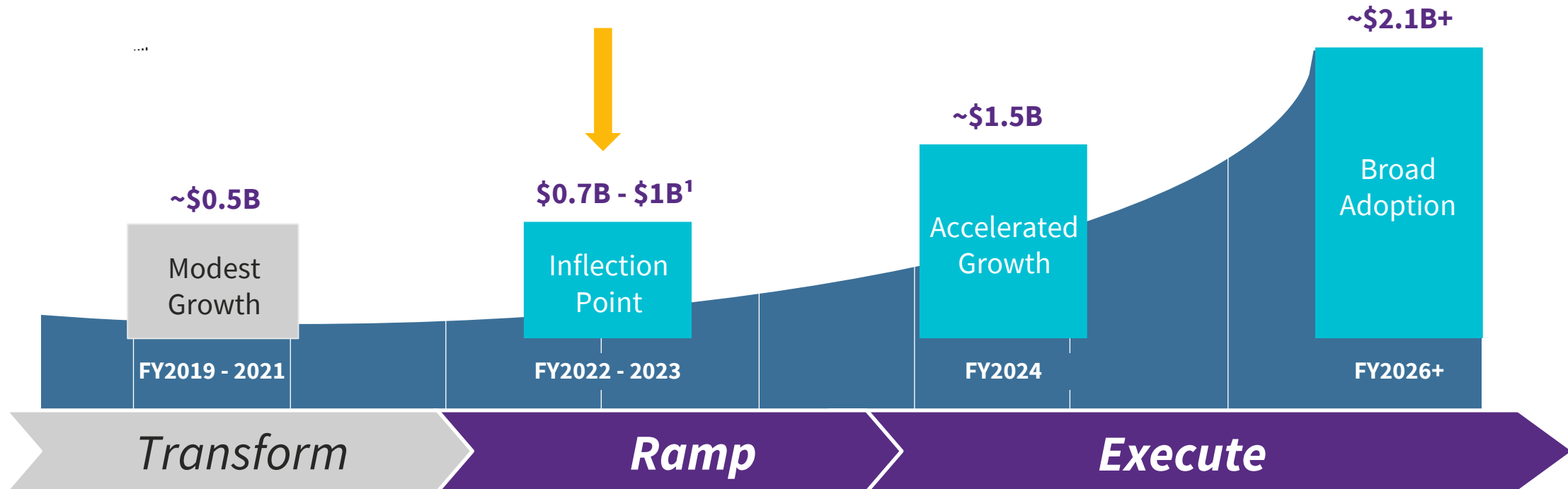
WOLFSPEED REVENUE GROWING FASTER THAN THE MARKET



Drivers & Assumptions

- Revenue driven by strength across all product lines led by devices
- Devices expected to capture increasing share of revenue between FY24 - FY26
- Device revenue driven by strong demand for automotive, as well as growing demand for Industrial & Energy and 5G/A&D

GLOBAL SEMICONDUCTOR POWERHOUSE; WELL-POSITIONED TO CAPITALIZE ON INCREASING DEMAND FOR EVs, INDUSTRIAL AND 5G



- \$4.5B+ design-ins announced through Q1 FY22
- \$1B+ CapEx investment
- Significant capacity expansion
- Investment in R&D and Sales

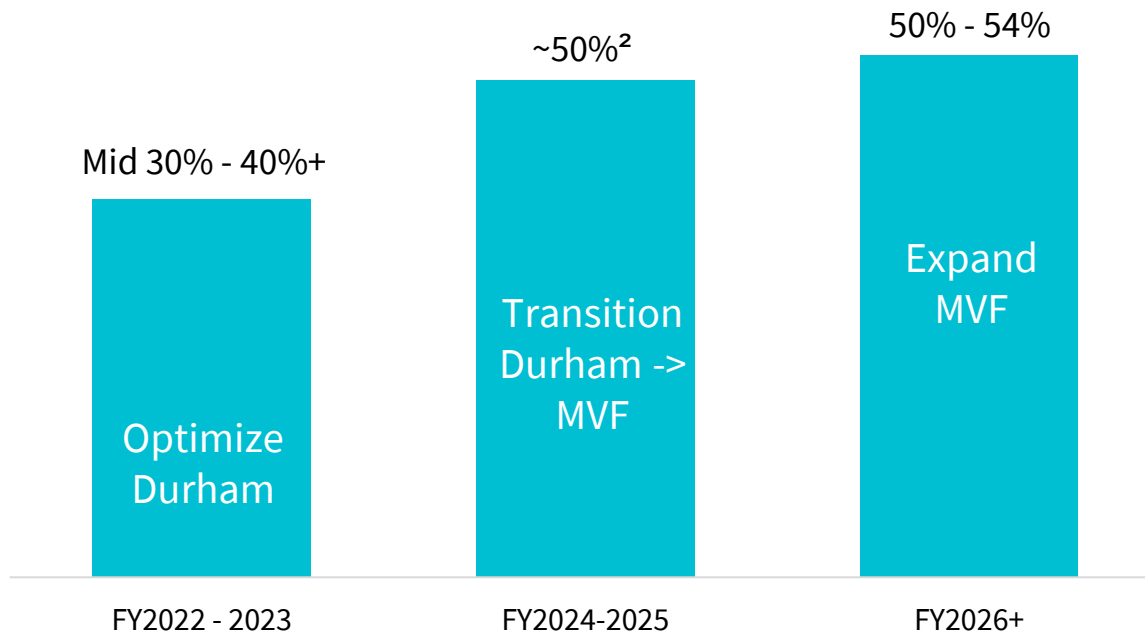
- BEV Inflection point
- Charging Infrastructure buildout
- Continued 5G deployment
- Industrial & Energy SiC adoption

- Accelerated BEV adoption
- Widespread 5G usage
- Further penetration in Industrial & Energy
- Scaled business at target model

¹Reflects the consensus of analyst estimates for these periods

MOHAWK VALLEY SCALE, 200mm DIAMETER CHANGE, AND IMPROVING YIELDS TO DRIVE GROSS MARGIN PERFORMANCE

Gross Margin (Non-GAAP)¹

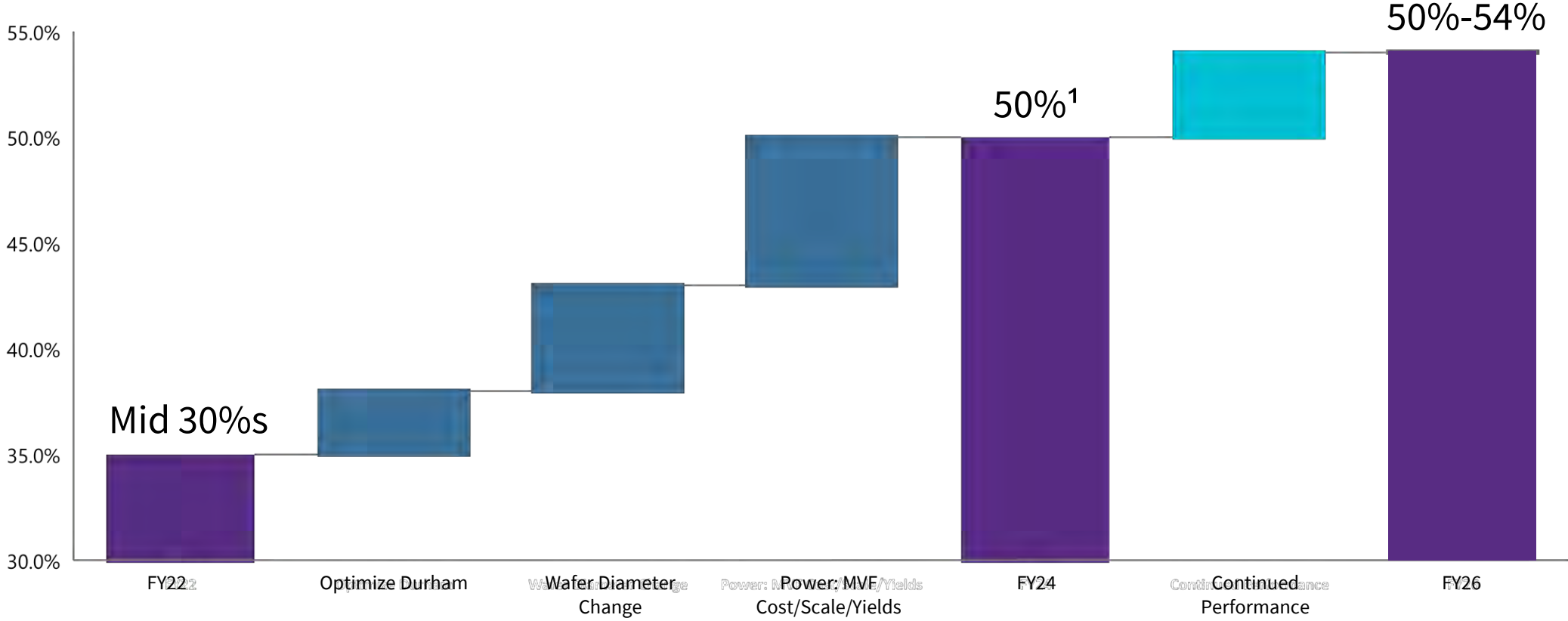


Drivers & Assumptions

- Gross margin transition between FY22 and FY24 supported by 200mm transition from Durham to MVF
- MVF to have 50% lower processing costs; greater than 50% CT improvement; 20 to 30 points improved yields than Durham
- Production at MVF on track to begin in calendar year 2022
- Expect to improve our execution at Durham over the next 4 to 6 quarters
- \$80M³ of start up costs in FY22, winds down in FY23

¹See Appendix for a reconciliation of these non-GAAP measures to the most directly comparable GAAP measure; ²Excludes ~2% to 3% impact of corporate items; ³Excluded from non-GAAP results
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CLEAR PATH TO GROSS MARGIN EXPANSION



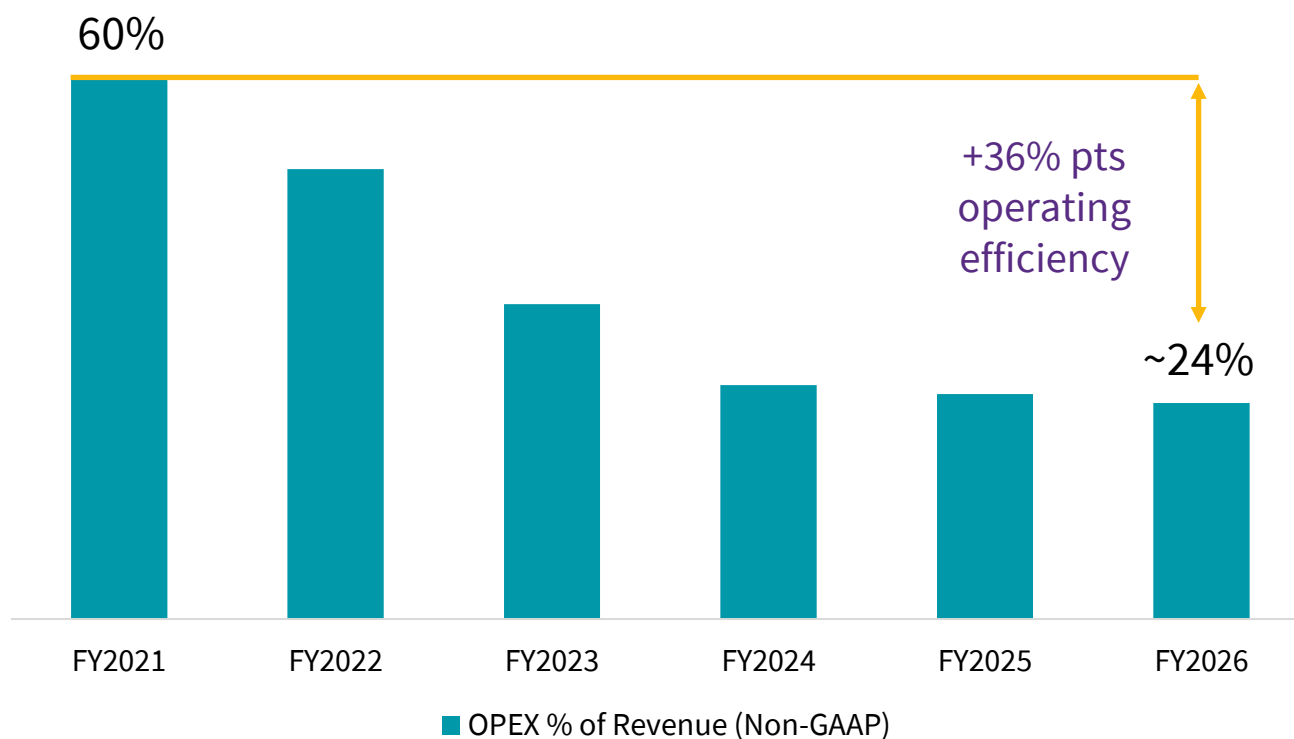
Drivers & Assumptions

New leadership in Durham fab driving operational excellence enabling improved performance	Benefits realized of shift to 200mm for Power and moving RF power from 100mm to 150mm	MVF cost/scale/yield improvements realized – world’s largest 200mm Silicon Carbide fab
---	---	--

¹Excludes ~2% to 3% impact of corporate items. See Appendix for a reconciliation of these non-GAAP measures to the most directly comparable GAAP measure
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REVENUE EXPANSION PROVIDES OPERATING LEVERAGE AS INVESTMENT PAYBACKS REALIZED

OPEX % of Revenue (Non-GAAP)¹

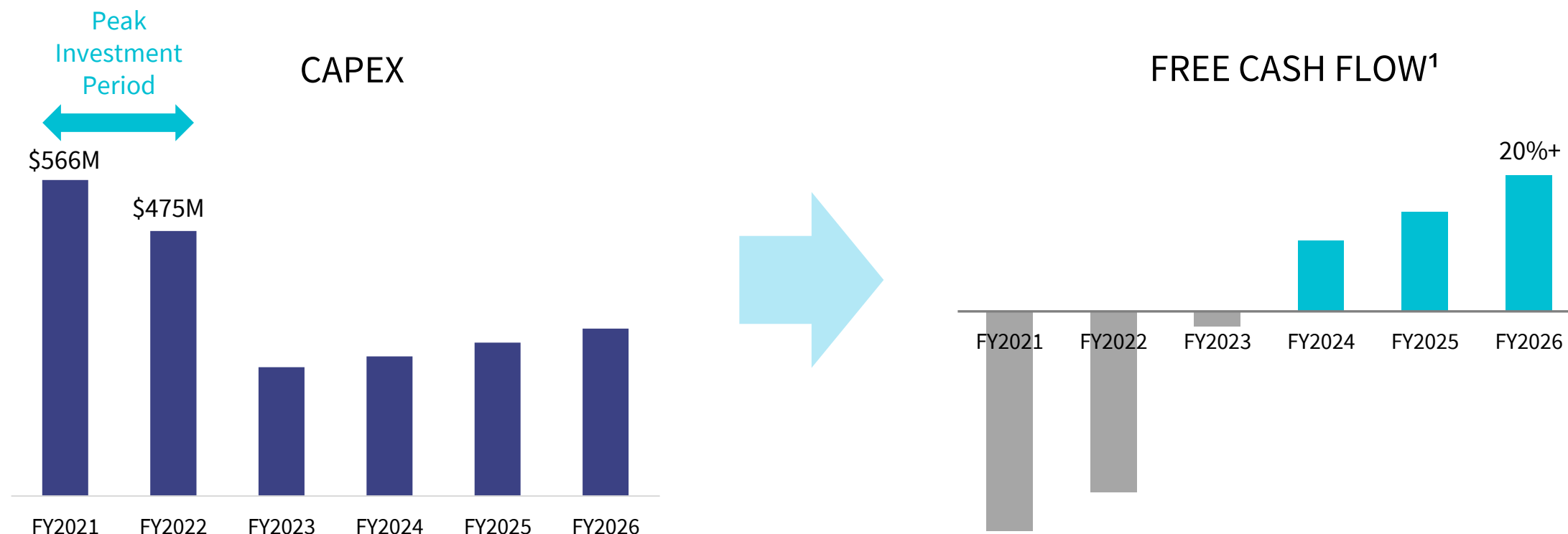


Drivers & Assumptions

- Investments in R&D and S&M continues to increase through FY26
- Increased operational efficiency via digital transformation and optimized SG&A
- Improving operational scale and efficiency result in normalized OpEx investments starting in FY24

¹See Appendix for a reconciliation of these non-GAAP measures to the most directly comparable GAAP measure.

CAPITAL AND CASH FLOW



Drivers & Assumptions

FY21 and FY22 represents peak investment period to support capacity expansion, steps down as NYS reimbursement of \$500M and investments normalize

Investment generates \$1.5B+ in revenue and incremental gross margin; \$1B of convertible debt trading above the conversion premium

Accelerating demand curve resulted in pull forward of future CapEx

- Expanding capacity at Durham
- Decision to open MVF at 200mm

¹See Appendix for a reconciliation of these non-GAAP measures to the most directly comparable GAAP measure.

WOLFSPEED TARGET OPERATING MODEL

	FY2024	FY2026
Revenue	\$1.5B	\$2.1B
CAGR vs 2021	40%+	30%+
GM% (Non-GAAP) ^{1,2}	~50%	50-54%
OPEX% (Non-GAAP) ¹	~25%	23-25%
EBIT % (Non-GAAP) ¹	~25%	25-30%
FCF % (Non-GAAP) ¹	~15%	~20%+

Drivers & Assumptions

- Positioned to capitalize in key growth areas following significant period of investment
- Transition to MVF markedly improves gross margin trajectory
- Powerful secular trends and operating scale driving revenue expansion and entry into new markets for Power and RF
- Deep domain expertise in Silicon Carbide bolsters our leadership position

¹See Appendix for a reconciliation of these non-GAAP measures to the most directly comparable GAAP measure; ²Excludes ~2% to 3% impact of corporate items

WHY WE WIN - SUCCESSFULLY TRANSFORMED INTO A LEADING GLOBAL SEMICONDUCTOR POWERHOUSE

Invested \$1B+
in the last two
years to
cement our
position as a
global leader
in Silicon
Carbide
production

**Multi-decade
growth
opportunity**
within both
devices and
materials

Market leader
in terms of
knowledge
and capacity,
**backed by 30
years of
experience in
the
technology
space**

Outlook
reflects **high
growth, high
margin, and
strong cash
flows**



**We harness the power of Silicon Carbide
to change the world for the better**



The background is a collage of three images: a satellite dish on the left, a coiled cable in the center, and a wind turbine on the right. The entire image has a blue-to-purple gradient overlay.

QUESTION & ANSWER SESSION

CONVERSATION KIOSKS

Our People

1

Margaret Chadwick
Tamara Pearce

Technology Leadership

2

John Palmour
Jay Cameron
Jim Milligan

Automotive Trends

3

Lisa Fritz
Kenric Miller
Ole Gerkenmeyer

Capacity Expansion

4

Rex Felton
Missy Stigall
Michael Daly
John Edmond
Wolfgang Büchele
(CEO Exyte)

Device Pipeline, Industrial & Distribution

5

Thomas Wessel
Steven Fera
Guy Moxey
Rick Madormo
Angelo Cancian

APPENDIX

NON-GAAP RECONCILIATION: GROSS MARGIN %

	<u>FY2022-FY2023</u>	<u>FY2024-FY2025</u>	<u>FY2026+</u>
GAAP Gross Margin%	Low 30s to 40%+	~49%	49%-53%
Adjustments:			
Stock-based compensation	2%	1%	1%
Non-GAAP Gross Margin%	Mid 30s to 40%+	~50%	50%-54%

	<u>FY2022</u>	<u>FY2024</u>	<u>FY2026</u>
GAAP Gross Margin%	Low 30s	49%	49%-53%
Adjustments:			
Stock-based compensation	2%	1%	1%
Non-GAAP Gross Margin%	Mid 30s	50%	50%-54%

NON-GAAP RECONCILIATION: OPERATING EXPENSE % OF REVENUE

(\$M)	<u>FY2021</u>	<u>FY2026</u>
GAAP OPEX %	91%	~28%
Adjustments:		
Stock-based compensation	7%	3%
Amortization or impairment of acquisition-related intangibles	3%	1%
Abandonment of long-lived assets	14%	0%
Factory optimization restructuring and start-up costs	3%	0%
Project, transformation and transaction costs	2%	0%
Severance and other restructuring	1%	0%
Transition service agreement costs	1%	0%
Non-GAAP OPEX%	60%	~24%

(\$M)	<u>FY2024</u>	<u>FY2026</u>
GAAP OPEX %	~31%	~27-29%
Adjustments:		
Stock-based compensation expense	4%	3%
Amortization or impairment of acquisition-related intangibles	1%	1%
Project, transformation and transaction costs	1%	0%
Non-GAAP OPEX%	~25%	~23-25%

NON-GAAP RECONCILIATION: EBIT

	(\$M)	<u>FY2024</u>	<u>FY2026</u>
GAAP Net Income		~\$559	\$297 - \$402
Adjustments:			
Stock-Based Compensation			
COGS		\$15	\$21
OPEX		\$60	\$63
Total Stock-Based Compensation		\$75	\$84
Amortization or impairment of acquisition-related intangibles		\$15	\$21
Accretion on convertible notes, net of capitalized interest		\$29	\$26
Net Interest Expense (Income)		\$3	\$3
Income Tax Expense (Benefit)		(\$306)	\$94
Adjusted EBIT\$		~\$375	\$525 - \$630
Adjusted EBIT%		~25%	25% - 30%
<i>FY2024 Income Tax Benefit driven by a forecasted release of the U.S. valuation allowance</i>			

RECONCILIATION: FREE CASH FLOW

(\$M)	<u>FY2024</u>	<u>FY2026</u>
Cash Provided by Operating Activities	\$475	\$720
Purchases of PP&E and Patents, Net of Reimbursements	(\$250)	(\$300)
Free Cash Flow	~\$225	~\$420
Free Cash Flow% of Revenue	~15%	~20%+

NON-GAAP ADJUSTMENTS

Wolfspeed excludes the following items from one or more of its non-GAAP measures when applicable:

- *Stock-based compensation expense.* This expense consists of expenses for stock options, restricted stock, performance stock awards and employee stock purchases through its Employee Stock Purchase Program. Wolfspeed excludes stock-based compensation expenses from its non-GAAP measures because they are non-cash expenses that Wolfspeed does not believe are reflective of ongoing operating results.
- *Amortization or impairment of acquisition-related intangibles.* Wolfspeed incurs amortization or impairment of acquisition-related intangibles in connection with acquisitions. Wolfspeed excludes these items because they arise from Wolfspeed's prior acquisitions and have no direct correlation to the ongoing operating results of Wolfspeed's business.
- *Abandonment of long-lived assets.* In the fourth quarter of fiscal 2021, Wolfspeed modified its long-range plan regarding a portion of its Durham, North Carolina campus. As a result, Wolfspeed decided it will no longer complete the construction of certain buildings on the Durham campus. The carrying value of the abandoned assets has been reduced to an estimated salvage value. Wolfspeed does not believe this expense is reflective of ongoing operating results.
- *Factory optimization restructuring.* In May 2019, the Company started a significant, multi-year factory optimization plan to be anchored by a state-of-the-art, automated 200mm Silicon Carbide device fabrication facility. In September 2019, the Company announced the intent to build the new fabrication facility in Marcy, New York to complement the factory expansion underway at its U.S. campus headquarters in Durham, North Carolina. As part of the plan, the Company will incur restructuring costs associated with the movement of equipment as well as disposals on certain long-lived assets. Because these charges relate to assets which had been retired prior to the end of their estimated useful lives, Wolfspeed does not believe these costs are reflective of ongoing operating results. Similarly, Wolfspeed does not consider the realized net losses on sale of assets relating to the restructuring to be reflective of ongoing operating results.
- *Factory optimization start-up costs.* As part of the factory optimization plan, the Company has incurred and will incur start-up costs. Wolfspeed does not believe these costs are reflective of ongoing operating results. In fiscal 2022, these costs will include an estimated \$80.0 million of start-up and pre-production related costs associated with the Company ramping production at its new device fabrication facility in Marcy, New York.
- *Severance and other restructuring.* These costs relate to the Company's realignment of certain resources as part of the Company's transition to a more focused semiconductor company. Wolfspeed does not believe these costs are reflective of ongoing operating results.
- *Project, transformation and transaction costs.* The Company has incurred professional services fees and other costs associated with completed and potential acquisitions and divestitures, as well as internal transformation programs focused on optimizing the Company's administrative processes. Wolfspeed excludes these items because Wolfspeed believes they are not reflective of the ongoing operating results of Wolfspeed's business.
- *Transition service agreement costs.* As a result of the sale of the Lighting Products business unit, the Company is providing certain information technology services under a transition services agreement which will not be reimbursed. Wolfspeed excludes the costs of these services because Wolfspeed believes they are not reflective of the ongoing operating results of Wolfspeed's business.
- *Accretion on convertible notes, net of capitalized interest.* The issuance of the Company's convertible senior notes in August 2018 and April 2020 results in interest accretion on the convertible notes' issue costs and discount. Wolfspeed considers these items as either limited in term or having no impact on the Company's cash flows, and therefore has excluded such items to facilitate a review of current operating performance and comparisons to the Company's past operating performance.

The background features several large, overlapping, abstract geometric shapes in various shades of gray, creating a dynamic and modern aesthetic. These shapes resemble stylized arrows or shards pointing in different directions.

THANK YOU