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OTCQX: TGAN

Leading the GaN Revolution

Quarterly Business Update

Aug 16, 2021

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Highest Performance, Highest Reliability GaN

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Leading the GaN Revolution

Disruptive Technology
GaN enables next generation power conversion solutions in rapidly growing, significant markets

Commercially Ramping
Technology and product development completed, set up for 50-80% revenue CAGR

Large Market Opportunity: Electric Vehicle and 5G
Transphorm's GaN Solutions will Enable the Future of Electric Vehicles and fast-charging for 5G

Best-In-Class GaN Technology and Industry's Strongest IP Position
IP portfolio recently appraised in excess of $200M

Validation From Blue Chip Partners and Customers
Including Yaskawa, Marelli, Nexperia, Microchip and the U.S. Department of Defense (Navy)

Publicly Traded GaN Company
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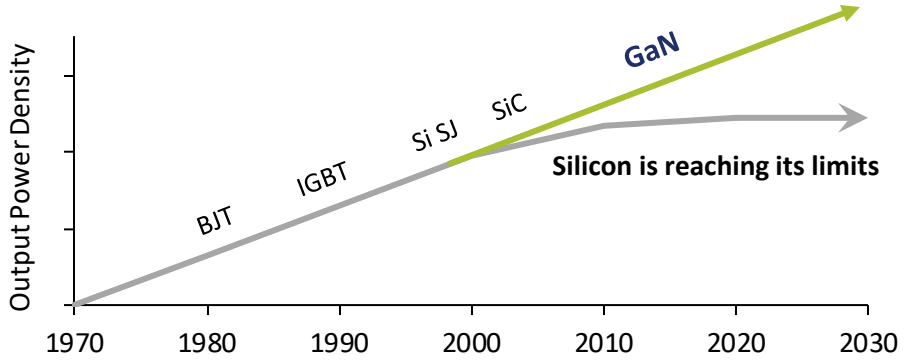
Team Led by World-Renowned GaN Experts
18 PhDs and over 300 Years of GaN Expertise

GaN is the Future of Power Semiconductors

"Moore's Law" for Power Electronics

GaN Provides the Path to Continue to Scale Power Densities



GaN vs. Silicon & Silicon Carbide

Intrinsic Performance Advantages

- GaN offers higher efficiencies with lowest losses in power conversion at any voltage range
- GaN can operate at much higher frequency

Relative Cost Advantages

- GaN on Silicon less expensive than Silicon Carbide
- GaN offers lower system cost than Silicon
- Roadmap for GaN to approach cost parity with Silicon at device-level

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99% Efficiency

40% Higher Power Density

20% Lower System Cost

Smaller, Lighter, and Cooler Power Systems Drives Increased Functional Value

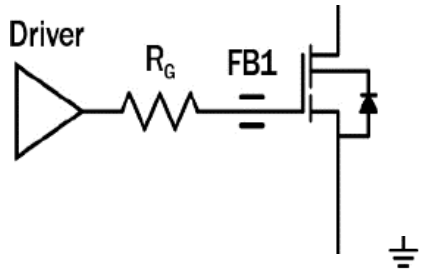
TGAN Normally-Off GaN FET Platform:

From Adapters to Automotive

Packs High Performance With High Reliability

Use with Standard Silicon Gate Driver:

- Internal to any AC/DC analog controller
- Or Discrete gate driver



Simple to Drive TPH GaN FET

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Normally-off GaN FET

LV Silicon FET (low voltage)

HV GaN HEMT (high voltage)

(Gen4 50% FoM improvement over Gen2)

Performance
Best-in-Class Efficiency, Form factor

Robust
Best in class Gate robustness

Quality
JEDEC + AEC-Q101,

Compatibility
with Standard Silicon Driver/ Controllers

Production
High Volume Vertically integrated capability

Delivering High Performance with High Reliability

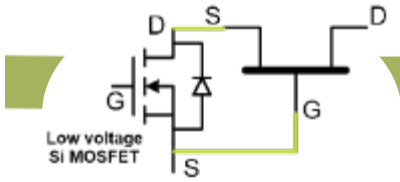
SuperGaN™

Field Reliability Data	
Installed Power	> 350 MW
Device Hours	> 15 billion ($15e^9$)
FIT (failure in time/1B hr)	< 0.4

In-House Capabilities Span Complete Value Chain

End-to-End Process: Complete Manufacturing Control + Leadership in GaN Technology

1. GaN FET design (TPH)- Normally Off, Robust, High Performance



2. Epi technology and manufacturing (TPH)

3. Wafer fab (TPH JV):

Secured future, new partner

4. Packaging - Multiple subcons + 2nd sourcing for high vol. adapter products

5. Applications-driven resources (TPH & Partners) Including multiple leading controller Companies)

6. End market/ application (customers) – From Adapters to Automotive

Targeting $3 Billion Market Opportunity in 2023

Upside to TAM From Electric Vehicle Powertrain Starting in 2025

End Market Applications and GaN Benefits

Near Term

Long Term

Power Adapters | Compute

- Fast Charging
- Lower thermals/improved power density/smaller form factor
- Lower system cost

Data Center | Comm Infrastructure | Crypto-Mining

- Ability to double available power in standardized server and 5G telecom form factors
- Enable Ti-class efficiency EU requirement

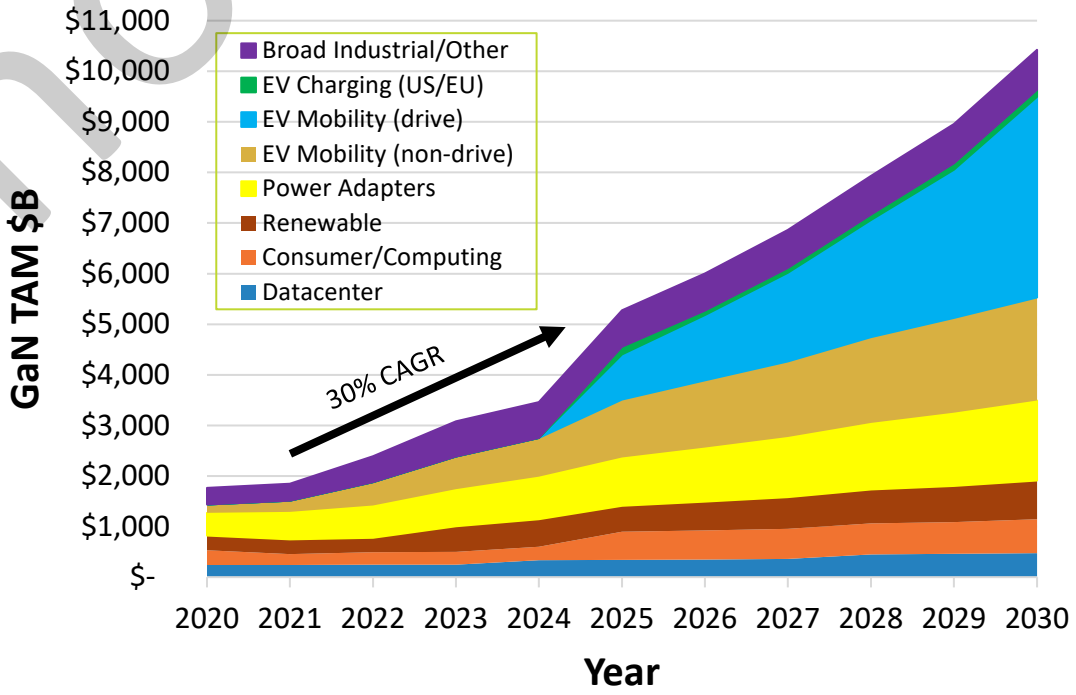
Broad Industrial

- Reduces size/weight of systems
- More efficient charging for battery and/or battery-powered equipment and vehicles

Automotive EV and Charging | EV Powertrain (2025)

- Reduces size/weight of on-board chargers, power converters and power inverters
- Resulting in longer distance per charge

GaN TAM: Total Addressable Market for GaN[(1)]



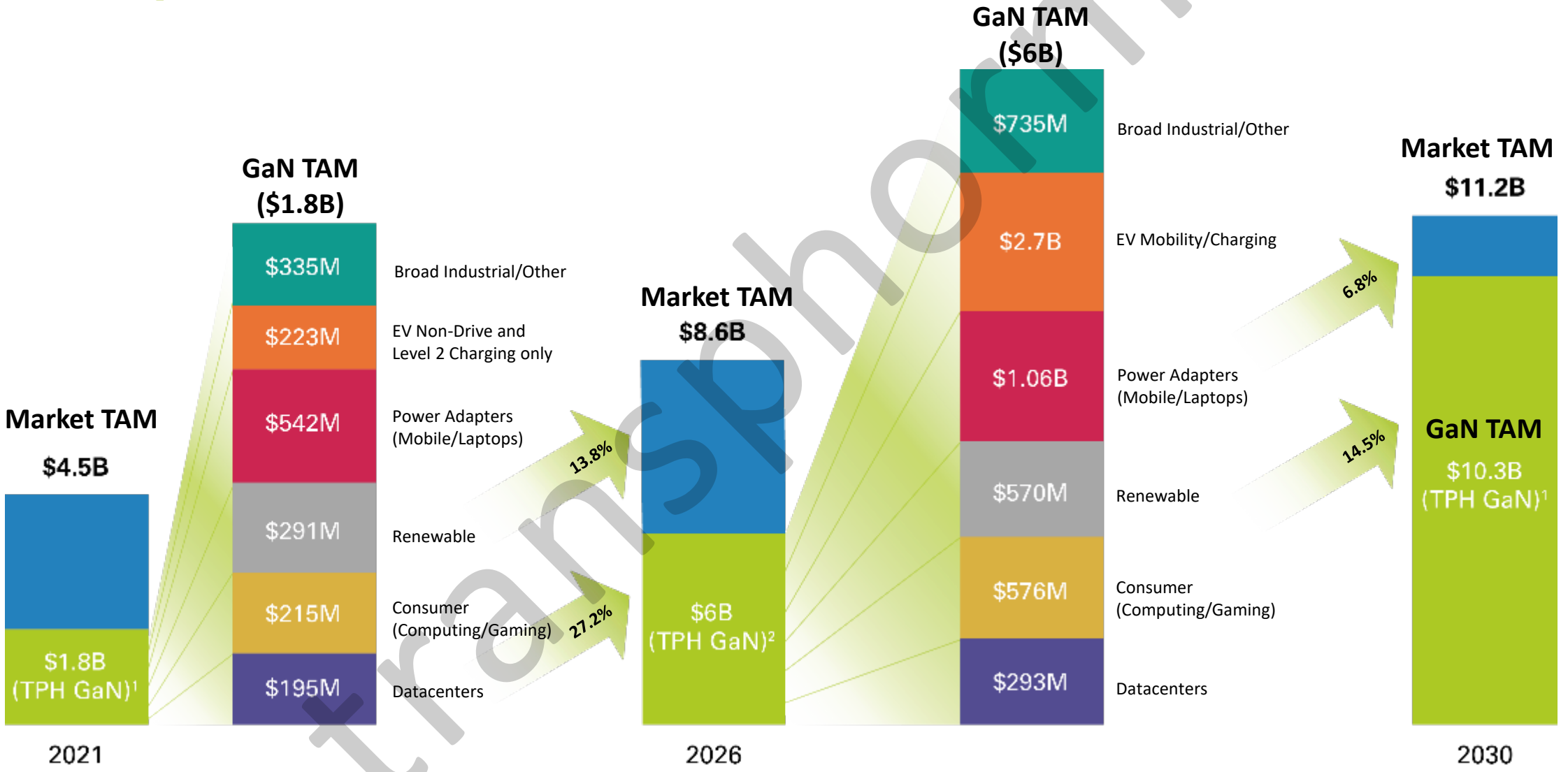
GaN TAM > $3B in 2023, breaks out in 2024-25 based on EV Mobility Opportunities

Notes:

1) Sources: IDC (Data Center / Comm Infrastructure); Counterpoint Research, Mordor Intelligence (Power Adapters / Compute); Yole, IHS (Broad Industrial); Department of Industry, Innovation and Science (2019) (Automotive). TAM values are then calculated based on available technology, competition and value add to market.

Total GaN Opportunity growing to over $6B in 5 years

A Breakdown of the Transphorm GaN TAM (Discrete Power Semiconductor)

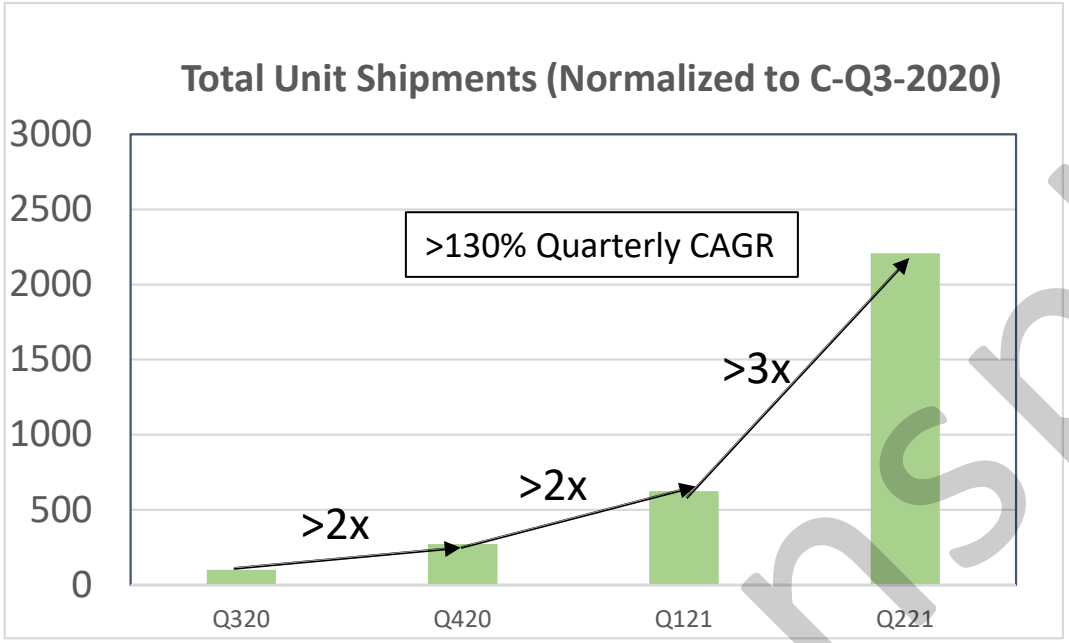


[1] Market access based on current, future device offerings with operations to support shipments. Does not include the adoption of GaN technology nor Transphorm's yearly adoption rate
[2] Shows the breakout; potential GaN market sizes, does not include any adoption rate
[3] Includes modules for EV inverter and EV fast charging starting in 2024 and beyond
[4] See appendix for references

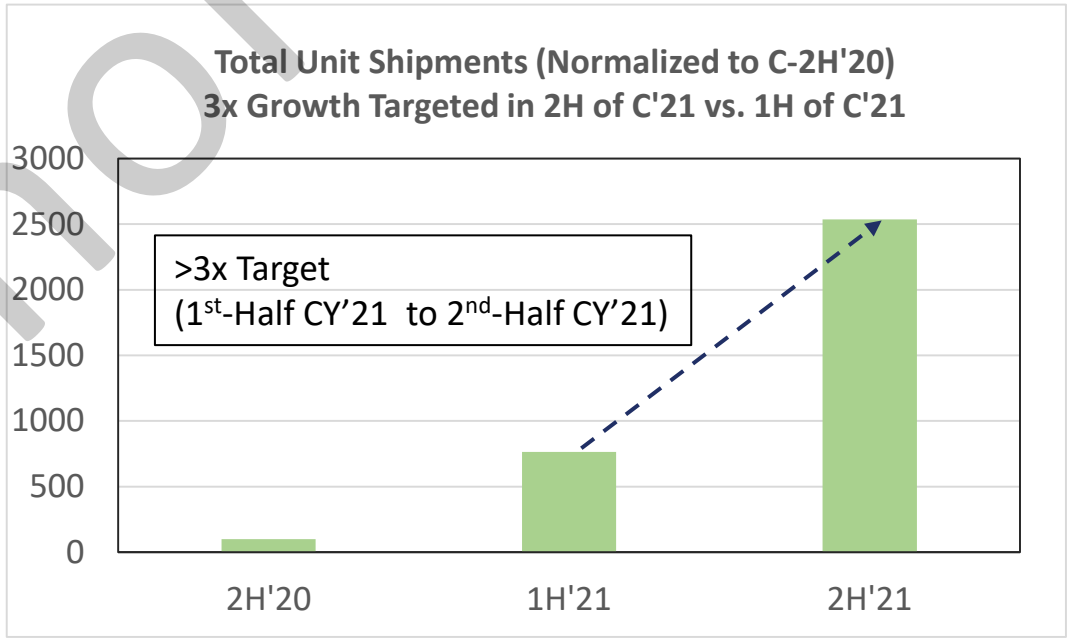
Strong CQ2'21, >3x Qtr-over-Qtr Unit Shipment Increase

Further 3x Unit Shipment Targeted in 2nd-Half of CY2021 vs. 1st-Half

ACHIEVED



TARGETED for 2nd-HALF



(Calendar Periods)

Rapid growth in Adapter/Charger market with proven solutions +

Sustained shipping in higher power gaming/server/crypto-mining segments

Transphorm GaN Technology Offers More to All Customers

Faster, Smaller, more Efficient and Robust Solutions vs. Si and other WBG Tech.

Key Factors (All solutions are normally off)	Transphorm GaN FET	Silicon MOSFET	e-mode GaN
Ease of use (std. drivers, agnostic to controllers)			
Size (form factor)			
Performance (efficiency)			
Speed of operation (frequency)			
Added BoM components (cost)[1]			
Power levels addressed			
Package (SMD/leaded)			
Reliability			

- Transphorm GaN: >30W/ In^3, >94% efficiency, < 95°C temperature demonstrated, best in class[2]
  - *Vs. ~25-30W/ In^3, >95 °C, 93-94, but e-mode can degrade over time[3]*
- *Transphorm GaN: Std. gate drive, off the shelf controller, no complex bias rail or level shift required*
  - *[1]Vs. GaN "IC" – duplication of driver/complex rail bias timing-prone to fails, Vs. GaN e-mode – level shifters*

[1]Based on multiple public and internal reference designs
[2]https://www.transphormusa.com/en/reference-design/tsadp-sil-usbc-65w-rd/
[3]Impact of OFF-state Gate Bias on Dynamic R,on of p-GaN Gate HEMT (33rd ISPSD, 2021)

Increasing Adoption in Adapters and Fast Chargers

Transphorm + Partners Deliver Best-in-Class Reliability and Performance

Multiple Reference Designs, IC Partnerships in Place

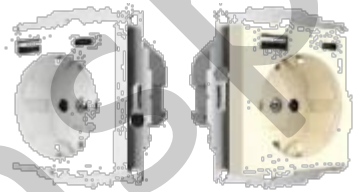
Ultra slim, light weight (65 W)

Compact, high efficiency (68 W)

Quick Charge-5, USB C PD (100 W)

High-efficiency (65 W)

Wall plug – high efficiency, compact (35 W)



Note book – small size, 200 KHz high speed (160 W)

Compact, 65W, Type A

Ultra compact 240W

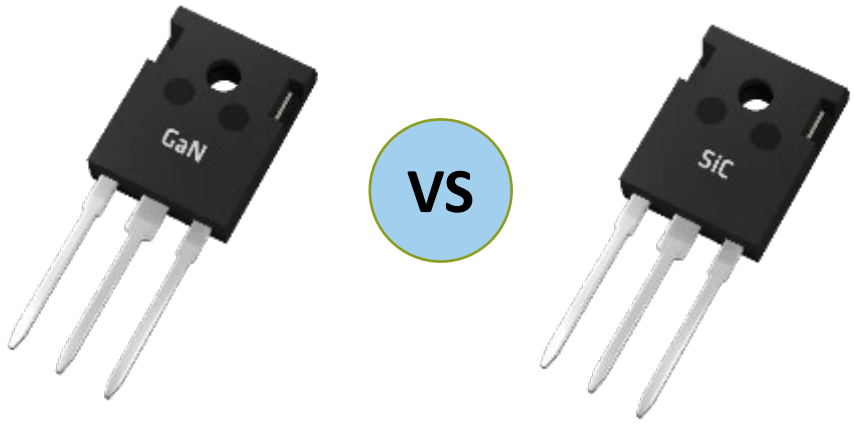
Compact, efficient USB-C (65W)

Quote: "Compared with 175 mΩ *(larger)* GaN of other companies, Transphorm of the United States adopts 300 mΩ *(smaller)* GaN and still achieves high efficiency"

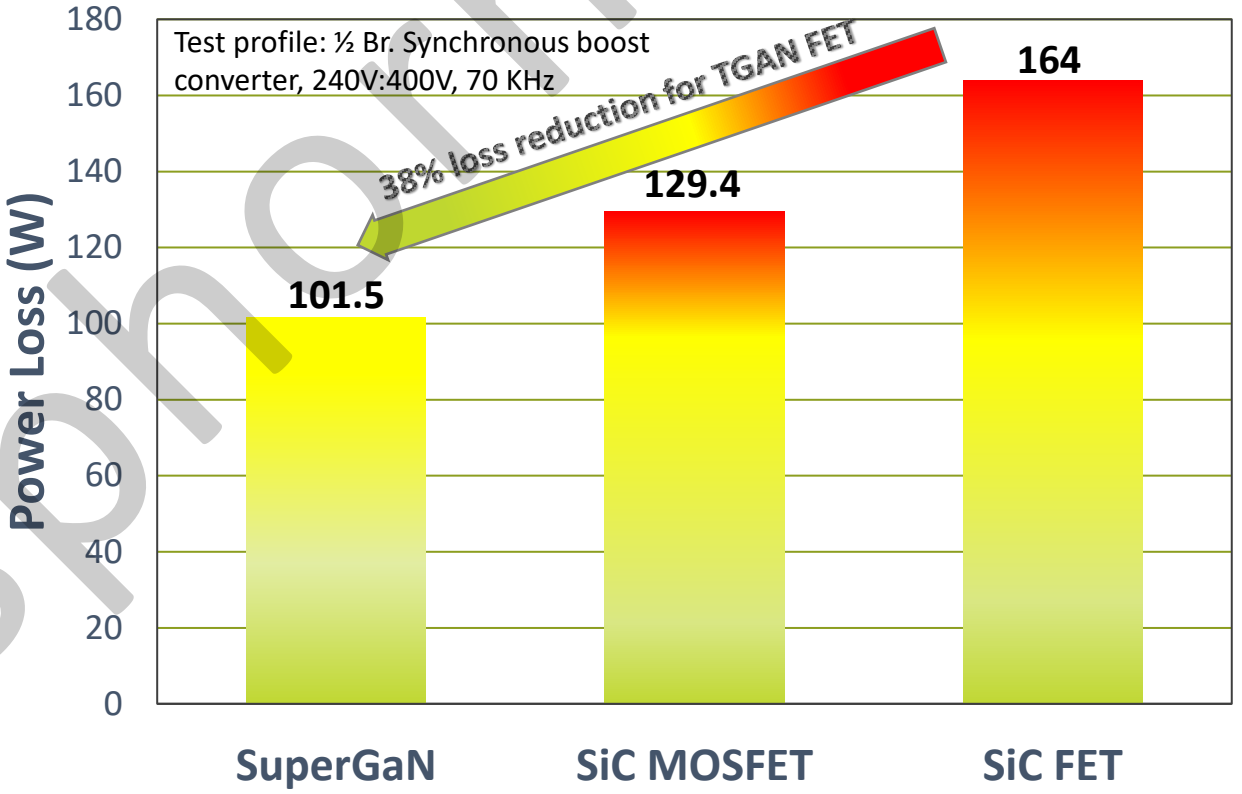
Quote: "Other GaN did not pass thermal for 65W compact design, passed immediately with Transphorm GaN"

Proven Performance for Higher Power

Industry Leading Transphorm GaN: 25-38% Lower Loss vs. SiC FETs



- Lowest $R_{,on}$/Highest current 650V GaN in a Package, in Production
- Delivers max Power 12 kW / 98.5%
- *Other GaN such as e-mode or "IC" GaN cannot be offered in std. TO packages currently due to device weakness*



Device Power loss comparison at 9.2 kW in a standard half-bridge circuit configuration
GaN: Faster Speed / Higher Efficiency / Low loss

Customers Select High Power GaN

Reliable, Highest Performance, Ease of Drivability and Designability

The Corsair AX1600i is the **best PSU** that money can buy today, period."

tom's HARDWARE

"Transphorm's GaN within a totem-pole PFC configuration proved the **most reliable**, highest performing solution possible today,"

bel POWER SOLUTIONS & PROTECTION

"Ease of drivability and designability—does not require custom drivers. Proven reliability — JEDEC and AEC-Q101"

AES

"We initially selected Transphorm's transistors for the reputable reliability and our experience has since exceeded our expectations,"

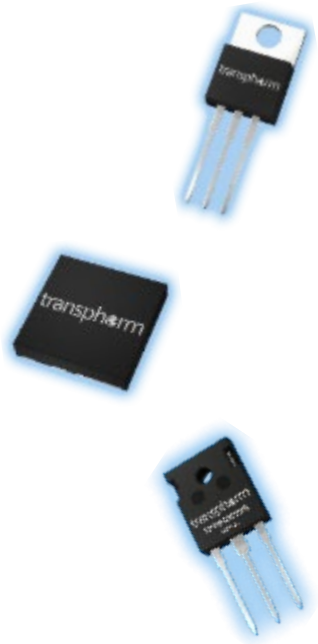
MAROTTA

"Based largely on the power semiconductors' proven quality and reliability as well as the team's reputation for successful collaboration,"

TDK

Industry's Strongest GaN IP Position

1,000+ Worldwide Owned and Licensed Patents Valued in Excess of $200 Million[1]



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332 Patents

- Materials
- Device
- Fabrication
- Circuit
- Applications
- Package

UCSB

28 Patents

FUJITSU

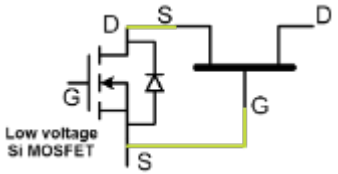
172 Patents

CREE

350+ Patents

FURUKAWA

150 Patents



"**Transphorm** today has the **dream patent portfolio** for all those who want to **benefit** from strategic advantages in **GaN power electronics** market…"[2]

– KnowMade
Patent & Technology Intelligence

Notes:
1) 2021 Analysis done for GaN portfolio using Intracom Group Intellectual Property Solutions' patent valuation models based on 27 independent criteria, value consists of Transphorm's owned or exclusively licensed patents (non-exclusive patents not included)
2) KnowMade Patent and Technology Intelligence report, "Power GaN intellectual property (IP): high-voltage power semiconductor leaders, a core set of strong IP players and numerous newcomers."

AFSW Fab JV Transaction Successfully Completed

New Financial-Strategic Partner in Place, After Long-Planned Fujitsu Exit

AFSW transaction completed on August 1

- Fujitsu Semiconductor (FSL) had announced planned exit since April 2020, Put Option exercise satisfied
  - FSL will work together through transition services
- Transphorm (with AFSW) ran a process to finalize partner (done Dec 2020)
- Completed due diligence with partner and detailed regulatory approval process in Japan from Jan – July 2021

Formed new JV, GaNovation, incorporated in Singapore. GaNovation acquired 100% of AFSW

- Transphorm owns 25% of GaNovation, New partner JCP Capital owns 75%
  - 25% stake in AFSW is a reduction from previous 49% stake for Transphorm, and enables a more efficient P&L
- AFSW Operations and Team substantially similar – with stronger focus on stable foundry business

New partner JCP Capital adds financial strength plus GaN business acceleration

- Brings capital to expand GaN manufacturing at AFSW
- Accelerates growth of GaN business, with impact via portfolio ecosystem, especially Adapters-Fast Chargers
- Independently improve Silicon wafer foundry business of AFSW for overall AFSW benefit

AFSW remains premier GaN power wafer-fab in the world and will be future center of excellence for GaN

Key Business Update – Scaling product revenues

$3.2M Revenue in April-June 2021, Driven by Record Product Sales

Growth in Fast Chargers/Adapters (mobile, notebook) – fueled by superior GaN, solutions

- 30+ adapter/charger design-ins, with ~20 in production – **Growing fast**
  - New MoUs for 1M unit/month ramp target in ~ mid-2022 with 1st 6-figure unit PO in place
  - *Continue growth trajectory in 2nd half of the year*
- Adapter solutions – 2-3 by June – **Done.**
  - New 100W Qualcomm QC-5 compatible, 65W ACF, 65W QRF solutions in place
- > 1 million/month capacity in C4Q '21 – **On track**

Higher Power GaN Products leader – Gaming / Crypto / Server / UPS

- Gen4 (TO247) production ships into high power: 10+ designs in production
  - Doubled higher power TO247 ships again in CQ2'21 vs.CQ1'21. *Continue ramp*
- Record low 15 mohm R,on (highest current) 650V GaN in robust TO247 package
  - *Release in C3Q '21 (Gen 5)* – **Done** (JEDEC/Commercial product).
  - *Next – Secure production wins for Gen 5*

Positioning to target 200% product revenue YoY growth over next 2 years

Key Business Update – New Products and Strategic

New Products/Designs on Target, Strong Execution on Partners/Government

New Products and Reference Designs to Enhance Revenue Ramp

- *2-3 additional Gen 4 products*: **Done**, Released 1.5-3 kW level Gen4 in D2Pak, TO247 packages
  - *Next – 2-3 more releases for 250-500W class, 1.5-3 kW class and 3-4 kW class, multiple packages*
- Adapter reference designs – ***Increased traction*** *– target 6-8 complete designs (45W – 350W) in 2H CY'21*
  - Several top-tier and specialty IC controller partners using Transphorm GaN in their designs
- Automotive – *Continue Gen5 auto-qualification* (highest power discrete GaN), Gen4 sampling **on track**

Execution on Strategic partnerships – Industrial and Automotive

- Yaskawa (Industrial) – Development on track, *Meet milestone, secure $0.75M Funding* – **Done** (*funded in July Quarter*). *Next – CY'21 2H milestones ($0.75M)*
- Nexperia (Automotive focus) – *Extension of long-term cooperation agreements* - **Complete,** *Tech. milestones* – **Achieved,** *$8m revenue recognition on target (July quarter).*
- Marelli (Automotive) – Kicked off **targeted product development** phase

Epi Business and Government Revenue

- 5+ repeat customers - **In place**. *Continue RF Epi sales (unique TPH IP), Target commercial win (end '21)*
- Navy contract revenue *>$3M in CY'21* – **On track**, *Finalizing DARPA program, RF Epi (0.9M base, 0.5M option)*

Transphorm Inc.
Leading the GaN Revolution

Financial Update

August 16th, 2021

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Highest Performance, Highest Reliability GaN

Income Statement

33% Increase in Revenue Qtr/Qtr

	6/30/2021	3/31/2021	6/30/2020	3/31/2020
Revenue, net	**3,216**	**2,425**	**6,329**	**1,100**
Operating expenses:				
Cost of goods sold	2,567	1,788	1,248	1,455
Research and development	1,823	1,780	1,594	1,466
Sales and marketing	687	663	528	518
General and administrative	2,743	2,733	2,058	3,092
Total operating expenses	**7,820**	**6,964**	**5,428**	**6,531**
Loss from operations	(4,604)	(4,539)	901	(5,431)
Other (income)/expense	2,448	2,040	3,171	(1,244)
Loss before tax expense	**(7,052)**	**(6,579)**	**(2,270)**	**(4,187)**
EPS - NON-GAAP	$ (0.13)	$ (0.13)	$ (0.01)	$ (0.19)

General Comments

- R&D spend offset by Governmental activity - absorbing a proportion of costs
- G&A costs include Company leadership, Finance, HR and other support functions
- 3/31/2020 higher due to 1-off incremental APO and related costs
- G&A base costs higher due to increased ongoing compliance, personnel & insurance costs

Revenue 33% increase Qtr/Qtr

- Increased adoption across multiple segments – led by consumer traction
- 6th successive quarter of Production Revenue growth

Cost of Goods sold largely driven by volume

OPEX – flat to prior quarter

- Full quarter of increased support team
- G&A costs pertaining to compliance

Other income/expense

- Increase driven by Fair Value adjustment
- Joint Venture deal completed August 1st

Non-GAAP Earnings per Share

- Consistent with prior quarter

Balance Sheet

Strengthened by $5M Equity Investment in August

	June 30, 2021	March 31, 2021	June 30, 2020
Cash and cash equivalents	2,462	9,500	9,382
Accounts receivable, net, including related parties	2,247	1,618	769
Inventory	2,924	2,223	1,342
Prepaid expenses and other current assets	2,160	953	1,828
Total current assets	**9,793**	**14,294**	**13,321**
Total assets	**14,034**	**18,144**	**17,743**
Accounts payable and accrued expenses	3,744	3,140	1,664
Deferred revenue	1,016	505	193
Development loan	8,000	10,000	10,000
Revolving credit facility, including accrued interest	166	10,150	10,762
Other liabilities	2,921	3,276	2,896
Total current liabilities	**15,847**	**27,071**	**25,515**
Revolving credit facility	12,000		
Promissory note	17,190	16,128	15,580
Total liabilities	**45,037**	**43,199**	**41,095**
Total Stockholders' deficit	**(31,003)**	**(25,055)**	**(23,352)**
Total liabilities, convertible preferred stock and stockholders' deficit	**14,034**	**18,144**	**17,743**

Notables

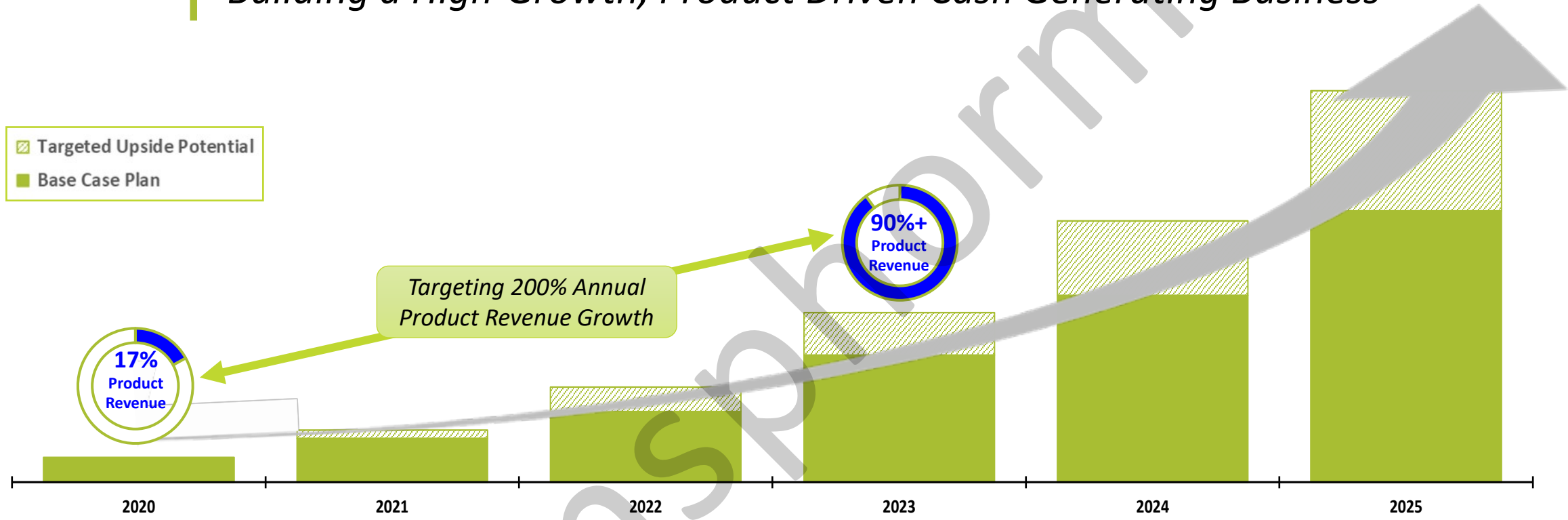
- $4.5M reduction in current assets
- Inventory increasing to support ongoing growth
- Revolving Credit facility extended 24 months

Post 6/30 events

- Completed another milestone on Yaskawa Development loan - $750k funded
- Completed deliverables to forgive Development loan
- Completed $5M equity funding at $5 per share

Long-Term Growth

Building a High-Growth, Product Driven Cash Generating Business



Operating Guidelines

- Rapid top-line growth and GaN adoption across multiple end markets
- OpEx for continued development of best-in-class products and IP portfolio
- CAPEX investment for increased scale

Target Model:

- 5-year CAGR range: **50%+**
- Gross Margin: **40%+**
- Operating Margin: **20%+**
- Free Cash Flow: **10%+**

Key Investment Highlights

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Publicly Traded GaN Company
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Team Led by World-Renowned GaN Experts
18 PhDs and over 300 Years of GaN Expertise


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