

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **November 9, 2022**

Transphorm, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of Incorporation)

000-55832
(Commission File Number)

82-1858829
(I.R.S. Employer Identification No.)

75 Castilian Drive
Goleta, CA 93117
(Address of principal executive offices, including zip code)

(805) 456-1300
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	TGAN	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR§230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 2.02 Results of Operations and Financial Condition.

On November 9, 2022, Transphorm, Inc. (the "Company") issued a press release announcing its financial results for its fiscal quarter ended September 30, 2022. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K. The press release also announced that the Company would be hosting a webcast to discuss its financial results for the quarter on November 9, 2022. During the webcast, the Company will discuss the contents of a presentation prepared by the Company, a copy of which is furnished as Exhibit 99.2 to this Current Report on Form 8-K.

The information in this Item 2.02 and in the accompanying Exhibit 99.1 and Exhibit 99.2 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act regardless of any general incorporation language in such filing, unless expressly incorporated by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press release, dated November 9, 2022
99.2	Investor Presentation, dated November 9, 2022
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Transphorm, Inc.

Dated: November 9, 2022

By: /s/ Cameron McAulay
Cameron McAulay
Chief Financial Officer

Transphorm Announces Fiscal 2023 Second Quarter Financial Results and Provides Business Update

*Product Revenue up 38% from Fiscal 2022 Q2
Company to Host Webcast Today at 5:00 p.m. ET*

GOLETA, Calif.— November 9, 2022—Transphorm, Inc. (NASDAQ: TGAN)—a pioneer in and global supplier of high-reliability, high-performance gallium nitride (GaN) power conversion products, announced today financial results for its 2023 fiscal second quarter ended September 30, 2022.

Fiscal 2023 Second Quarter and Recent Highlights

(All comparisons are to the second quarter of fiscal 2022, unless otherwise noted.)

- Revenue of \$3.7 million, compared to revenue of \$11.3 million in the prior year, which included one-time licensing revenue of \$8.0 million. Excluding the one-time licensing revenue, revenue was up 11% on a year-over-year basis.
- Product revenue was up 38% compared to the same period in fiscal 2022.
- Improved supply from Japan Epi reactors and completed acquisition of additional MOCVD reactors.
- Increased shipments on previously announced Fortune 100 laptop adapter win, a top 3 world-wide laptop manufacturer, and secured new Fortune 100 laptop adapter design-win.
- Strengthened senior operations, sales and marketing teams with the addition of seasoned industry leaders.
- Secured ARPA-E program to innovate on Transphorm's unique bi-directional GaN technology that replaces 2-4 silicon devices with a single FQS GaN in applications like microinverters and motor drives.
- Secured approval for Shenzhen, China WFOE (Wholly Foreign Owned Enterprise) to enhance local customer support, sales, field applications and marketing.
- Expanded package offerings by adding Industry Standard PQFN products, which enable pin-to-pin with multiple sources. This complements Transphorm's existing High Performance PQFN products, both validated to deliver superior results versus competing GaN.

Transphorm President, COO, and co-founder, Primit Parikh, commented, "We continue to maintain our leadership position in high power GaN which comprised over 65% of our fiscal Q2 revenue, while winning marquee new designs in fast chargers and adapters, enabled by superior and easy to interface SuperGaN® FETs. We are also executing on our stated plan of increasing capacity, with notable improvements from our Japan Epi reactors, giving us confidence we can better address demand."

Mr. Parikh added, "We exceeded our fiscal Q2 revenue target and remain well-positioned to resume revenue growth, despite persistent macroeconomic headwinds. We continue to aggressively pursue new customer wins and are fulfilling our existing backlog, while managing both internal and external supply chain constraints. With our wide range of product offerings and notably high power GaN, we continue to be well-positioned for growth across multiple market segments – including consumer, data centers, blockchain, and industrial. We also continue to pursue near-term opportunities in two-wheel and three-wheel EVs and longer-term opportunities in the automotive EV market."

"This quarter saw solid execution and lower operational burn despite reduced revenue. The Company remains well-positioned with a solid balance sheet to continue to invest in staffing and capital equipment to realize its short and long-term objectives", stated Cameron McAulay, Chief Financial Officer.

Fiscal 2023 Second Quarter Financial Results

Revenue for the second quarter of fiscal 2023 was \$3.7 million, compared to \$11.3 million for the second quarter of fiscal 2022. Excluding \$8.0 million of one-time licensing revenue in the second quarter of fiscal 2022, revenue for the second quarter of fiscal 2023 was up \$0.4 million, or 11%, year-over-year. Product revenue reflected yet another strong quarter from ramping shipments of GaN products for a broad range of power conversion applications, with a 38% increase from the second quarter of fiscal 2022.

Operating expenses on a GAAP basis were \$5.9 million in the second quarter of fiscal 2023, compared to \$6.1 million in the prior quarter and \$5.1 million in the second quarter of fiscal 2022. Second quarter of fiscal 2023 operating expenses consisted of R&D expenses of \$1.8 million and SG&A expenses of \$4.1 million. On a non-GAAP basis, operating expenses in the second quarter of fiscal 2023 were \$5.1 million, compared with non-GAAP operating expenses of \$5.4 million in the prior quarter and \$4.5 million in the second quarter of fiscal 2022.

GAAP net profit (loss) for the second quarter of fiscal 2023 was (\$6.0) million, or (\$0.10) per share, compared to GAAP net loss of (\$5.4) million, or (\$0.10) per share, in the prior quarter, and a GAAP net profit of \$6.0 million, or \$0.15 per share, in the second quarter of fiscal 2022. On a non-GAAP basis, net loss for the second quarter of fiscal 2023 was (\$5.1) million, or (\$0.09) per share, compared to non-GAAP net loss of (\$4.5) million, or (\$0.08) per share, in the prior quarter, and a non-GAAP net profit of \$3.6 million, or \$0.09 per share, in the second quarter of fiscal 2022.

Cash, cash equivalents and restricted cash as of September 30, 2022 were \$34.0 million.

Webcast

Transphorm will host a webcast today at 5:00 p.m. Eastern Time (2:00 p.m. Pacific Time) to review the Company's 2023 fiscal second quarter results and provide a business update. The webcast can be accessed at: <https://register.vevent.com/register/B1ceb00209be5d4b33816829e56fb60ed8>.

Upon registration, telephone participants will receive a confirmation email detailing how to join the audio version of the webcast, including the dial-in number and a unique registrant ID. The live webcast will be available via Transphorm's Investor Relations website at <https://www.transphormusa.com/en/investors/>.

About Transphorm

Transphorm, Inc., a global leader in the GaN revolution, designs and manufactures high performance and high reliability GaN semiconductors for high voltage power conversion applications. Having one of the largest Power GaN IP portfolios of more than 1,000 owned or licensed patents, Transphorm produces the industry's first JEDEC and AEC-Q101 qualified high voltage GaN semiconductor devices. The Company's vertically integrated device business model allows for innovation at every development stage: design, fabrication, device, and application support. Transphorm's innovations are moving power electronics beyond the limitations of silicon to achieve over 99% efficiency, 40% more power density and 20% lower system cost. Transphorm is headquartered in Goleta, California and has manufacturing operations in Goleta and Aizu, Japan. For more information, please visit www.transphormusa.com. Follow us on Twitter @transphormusa and WeChat @ Transphorm GaN.

Non-GAAP Financial Measures

This press release includes and makes reference to certain non-GAAP financial measures. The presentation of this financial information is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with GAAP.

Transphorm believes that the presentation of non-GAAP financial measures provides important supplemental information to management and investors regarding financial and business trends relating to the Company's financial condition and results of operations. Transphorm believes that these non-GAAP financial measures provide additional insight into Transphorm's ongoing performance and core operational activities and has chosen to provide these measures for more consistent and meaningful

comparison between periods. These measures should only be used to evaluate Transphorm's results of operations in conjunction with the corresponding GAAP measures. The non-GAAP results exclude the effect of stock-based compensation, depreciation, amortization, change in fair value of promissory note and other income in joint venture.

A reconciliation between GAAP and non-GAAP financial results is provided in the financial statements portion of this press release.

Forward-Looking Statements

This press release contains forward-looking statements (including within the meaning of Section 21E of the United States Securities Exchange Act of 1934, as amended, and Section 27A of the United States Securities Act of 1933, as amended) concerning the Company's ability to manage supply chain constraints, expand its manufacturing capacity and meet demand, industry acceptance of GaN technology, and the Company's pipeline and future anticipated growth. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "plan," "believe," "intend," "look forward," and other similar expressions among others. Statements that are not historical facts are forward-looking statements. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Actual results could differ materially from those contained in any forward-looking statement as a result of various factors, including, without limitation: risks related to Transphorm's operations, such as additional financing requirements and access to capital; competition; the ability of Transphorm to protect its intellectual property rights; and other risks set forth in the Company's filings with the Securities and Exchange Commission. Except as required by applicable law, the Company undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise.

Investor Contacts:

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Company Contact:

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Chief Financial Officer
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cmcaulay@transphormusa.com

Transphorm, Inc.
Condensed Consolidated Balance Sheets
(in thousands)

	September 30, 2022 (unaudited)	March 31, 2022 (audited)
Assets		
Current assets:		
Cash and cash equivalents	\$ 33,496	\$ 33,435
Restricted cash	500	500
Accounts receivable	1,617	2,558
Inventory	8,966	6,330
Prepaid expenses and other current assets	2,068	1,971
Total current assets	46,647	44,794
Property and equipment, net	5,328	1,649
Operating lease right-of-use assets	3,312	—
Goodwill	996	1,180
Intangible assets, net	469	617
Investment in joint venture	414	143
Other assets	784	263
Total assets	\$ 57,950	\$ 48,646
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued expenses	\$ 4,492	\$ 3,588
Deferred revenue	263	346
Accrued interest	184	180
Accrued payroll and benefits	1,331	1,171
Operating lease liabilities	532	—
Revolving credit facility	12,000	—
Total current liabilities	18,802	5,285
Revolving credit facility, net of current portion	—	12,000
Operating lease liabilities, net of current portion	2,803	—
Total liabilities	21,605	17,285
Commitments and contingencies		
Stockholders' equity:		
Common stock	6	5
Additional paid-in capital	228,178	211,190
Accumulated deficit	(189,986)	(178,638)
Accumulated other comprehensive loss	(1,853)	(1,196)
Total Stockholders' equity	36,345	31,361
Total liabilities and stockholders' equity	\$ 57,950	\$ 48,646

Transphorm, Inc.
Condensed Consolidated Statements of Operations (unaudited)
(in thousands except share and per share data)

	Three Months Ended			Six Months Ended	
	September 30, 2022	June 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
Revenue, net	\$ 3,670	\$ 5,156	\$ 11,303	\$ 8,826	\$ 14,519
Cost of goods sold	3,232	4,050	2,239	7,282	4,806
Gross profit	438	1,106	9,064	1,544	9,713
Operating expenses:					
Research and development	1,830	1,740	1,591	3,570	3,414
Sales and marketing	1,066	1,083	825	2,149	1,512
General and administrative	3,044	3,317	2,714	6,361	5,457
Total operating expenses	5,940	6,140	5,130	12,080	10,383
(Loss) income from operations	(5,502)	(5,034)	3,934	(10,536)	(670)
Interest expense	184	182	220	366	424
Loss in joint venture	684	582	1,092	1,266	2,582
Changes in fair value of promissory note	—	—	(1,629)	—	(605)
Other income, net	(375)	(445)	(1,729)	(820)	(1,999)
(Loss) income before tax expense	(5,995)	(5,353)	5,980	(11,348)	(1,072)
Tax expense	—	—	—	—	—
Net (loss) income	\$ (5,995)	\$ (5,353)	\$ 5,980	\$ (11,348)	\$ (1,072)
Net loss per share - basic	\$ (0.10)	\$ (0.10)	\$ 0.15	\$ (0.20)	\$ (0.03)
Net loss per share - diluted	\$ (0.10)	\$ (0.10)	\$ 0.14	\$ (0.20)	\$ (0.03)
Weighted average common shares outstanding - basic	56,619,662	54,404,830	41,196,139	55,518,297	40,918,203
Weighted average common shares outstanding - diluted	56,619,662	54,404,830	41,847,103	55,518,297	40,918,203

Transphorm, Inc.
Reconciliation of GAAP and Non-GAAP Financial Information (unaudited)
(in thousands except share and per share data)

	Three Months Ended			Six Months Ended	
	September 30, 2022	June 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
GAAP net (loss) income	\$ (5,995)	\$ (5,353)	\$ 5,980	\$ (11,348)	\$ (1,072)
Adjustments:					
Stock-based compensation	636	582	511	1,218	1,008
Depreciation	165	152	134	317	257
Amortization	74	74	74	148	148
Changes in fair value of promissory note	—	—	(1,629)	—	(605)
Other income	—	—	(1,455)	—	(1,455)
Total adjustments to GAAP net (loss) income	875	808	(2,365)	1,683	(647)
Non-GAAP net (loss) income	\$ (5,120)	\$ (4,545)	\$ 3,615	\$ (9,665)	\$ (1,719)
GAAP net (loss) income per share - basic	\$ (0.10)	\$ (0.10)	\$ 0.15	\$ (0.20)	\$ (0.03)
Adjustment	0.01	0.02	(0.06)	0.03	(0.01)
Non-GAAP net (loss) income per share - basic	\$ (0.09)	\$ (0.08)	\$ 0.09	\$ (0.17)	\$ (0.04)
GAAP net (loss) income per share - diluted	\$ (0.10)	\$ (0.10)	\$ 0.14	\$ (0.20)	\$ (0.03)
Adjustment	0.01	0.02	(0.05)	0.03	(0.01)
Non-GAAP net (loss) income per share - diluted	\$ (0.09)	\$ (0.08)	\$ 0.09	\$ (0.17)	\$ (0.04)

	Three Months Ended			Six Months Ended	
	September 30, 2022	June 30, 2022	September 30, 2021	September 30, 2022	September 30, 2021
GAAP operating expenses	\$ 5,940	\$ 6,140	\$ 5,130	\$ 12,080	\$ 10,383
Adjustments:					
Stock-based compensation	583	543	472	1,126	942
Depreciation	165	152	134	317	257
Amortization	74	74	74	148	148
Total adjustments to GAAP operating expenses	822	769	680	1,591	1,347
Non-GAAP operating expenses	\$ 5,118	\$ 5,371	\$ 4,450	\$ 10,489	\$ 9,036

Transphorm, Inc.
Condensed Consolidated Statements of Cash Flows (unaudited)
(in thousands)

	Six Months Ended September 30,	
	2022	2021
Cash flows from operating activities:		
Net loss	\$ (11,348)	\$ (1,072)
Adjustments to reconcile net loss to net cash used in operating activities:		
Inventory write-off	56	194
Depreciation and amortization	465	405
Amortization of right-of-use assets	286	—
Perpetual licensing revenue from a related party	—	(8,000)
Stock-based compensation	1,219	1,008
Interest cost	4	108
Gain on sale of equipment	(110)	—
Loss in joint venture	1,266	1,127
Changes in fair value of promissory note	—	(605)
Changes in operating assets and liabilities:		
Accounts receivable	941	33
Inventory	(2,692)	(2,745)
Prepaid expenses and other current assets	(97)	124
Other assets	(521)	15
Accounts payable and accrued expenses	904	657
Deferred revenue	(83)	102
Accrued payroll and benefits	160	37
Operating lease liabilities	(263)	—
Net cash used in operating activities	(9,813)	(8,612)
Cash flows from investing activities:		
Purchases of property and equipment	(4,026)	(409)
Proceeds from sale of equipment	110	—
Investment in joint venture	(1,537)	(3,081)
Net cash used in investing activities	(5,453)	(3,490)
Cash flows from financing activities:		
Proceeds from stock option exercise	56	134
Proceeds from issuance of common stock	16,000	5,000
Cost associated with issuance of common stock	(280)	—
Payment for taxes related to net share settlement of restricted stock units	(6)	—
Net cash provided by financing activities	15,770	5,134
Effect of foreign exchange rate changes on cash, cash equivalents and restricted cash	(443)	(44)
Net increase (decrease) in cash, cash equivalents and restricted cash	61	(7,012)
Cash and cash equivalents and restricted cash at beginning of period	33,435	9,500
Cash and cash equivalents at end of period	33,496	1,988
Restricted cash at end of period	500	500
Cash and cash equivalents and restricted cash at end of period	\$ 33,996	\$ 2,488

TGAN

transphorm

Leading the GaN Revolution

Fiscal Q2'23 Investor Update

November 9th, 2022 | NASDAQ: TGAN





Safe Harbor Statement

- This presentation is made solely for informational purposes, and no representation or warranty, express or implied, is made by Transphorm, Inc. ("Transphorm") or any of its representatives as to the information contained in these materials or disclosed during any related presentations or discussions. This presentation is intended solely for the purposes of familiarizing investors with Transphorm. This presentation is not an offer to sell nor does it seek an offer to buy any securities.
- This presentation contains forward-looking statements. All statements other than statements of historical fact contained in this presentation, including statements regarding Transphorm's business strategy, plans and objectives for future operations, expectations regarding its total addressable market, products, and competitive position, are forward-looking statements. The words "may," "will," "estimate," "expect," "plan," "believe," "potential," "predict," "target," "should," "would," "could," "continue," "believe," "project," "intend" or similar terminology are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.
- Transphorm may not actually achieve the plans, intentions, or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. These statements are based upon
- management's current expectations, assumptions and estimates, and are not guarantees of future results or the timing thereof. Actual results may differ materially from those contemplated in these statements due to a variety of risks and uncertainties, including risks and uncertainties related to Transphorm's business and financial performance and cash flows and its ability to reduce operating losses and achieve profitability, attract and retain customers, continue commercial production, continue to access funding sources to finance operations, continue having access to third party manufacturers, develop new products, enhance existing products, compete effectively, manage growth and costs, and execute on its business strategy. The following-looking statements contained in this presentation are also subject to other risks and uncertainties, including those more fully described in our filings with the Securities and Exchange Commission, including our Quarterly Report on Form 10-Q for the quarter ended June 30, 2022.
- The information contained herein is provided only as of the date on which this presentation is made and is subject to change. Transphorm is not under any obligation, except as may be required by law, to update or otherwise revise the information after the date of this presentation. Transphorm has not independently verified the statistical and other industry data generated by independent parties and contained in this presentation and accordingly cannot guarantee their accuracy or completeness.

Key Investment Highlights

GaN Power Semiconductor Pioneer and Leader

Disruptive Technology

GaN Enables Next Generation Power Conversion Solutions – 99% Efficiency¹, 50% More Compact/Lightweight, Lower System Cost

Large Market Opportunity

Transphorm's GaN Solutions will Enable the Future of Electric Vehicles and Fast-charging for 5G – Contributing to GaN TAM growing to \$6B² in 2026

Validation From Blue Chip Partners and Customers

Including KKR, SAS, Nexperia, Yaskawa, Marelli, Microchip, Diodes and the U.S. DoD(Navy), DOE



Ramping Commercially with Strong Manufacturing Base

Technology and Product Development completed, Integrated Manufacturing, \$24.1M FY-22 Revenues, Target >50% LT CAGR

Best-In-Class Differentiated GaN Technology + Industry's Strongest IP Position

IP Portfolio Appraised in Excess of \$200M³
Leader in Quality + Reliability, > 80 Billion Field hours, Silicon-like Reliability⁴
TGAN FET: Higher performance, easy interface, multiple packages

Team Led by World-Renowned GaN Experts

Proven Leadership, 18 PhDs and Over 300 Years of GaN Expertise, Recent expansion with Industry leaders

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¹ Measured TGAN >99% efficient power stages, commercial implementations

² See slide 10 on GaN TAM Analysis

³ 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)

⁴ Based on field performance, low power and high power GaN, FIT (Failure in Time) < 0.2 per Billion hours

One Core Platform, Crossing the Power Spectrum

Targeting \$3B Power Market Opportunity in 2023, Upside from EV Powertrain 2025+

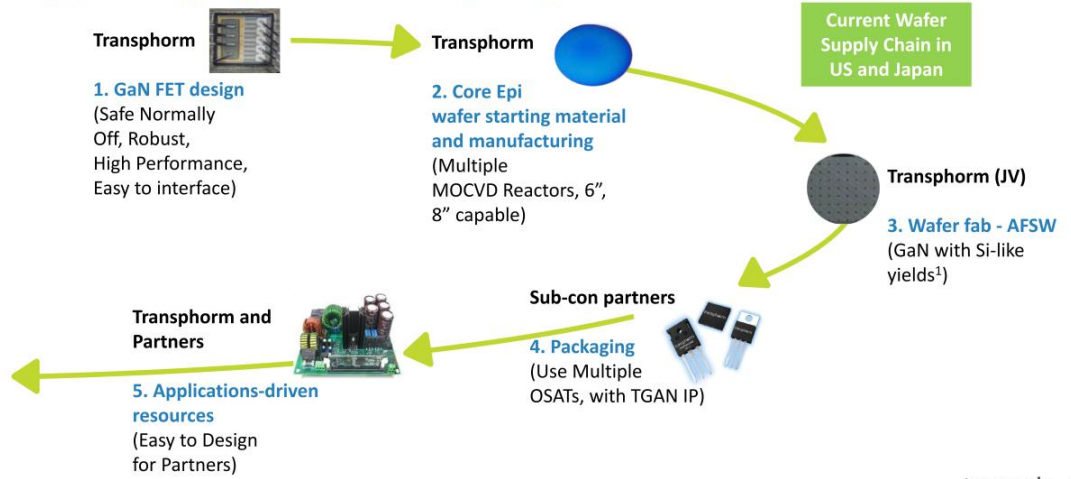


← End Customers in Production with TPH GaN– 45W to 4 kW →

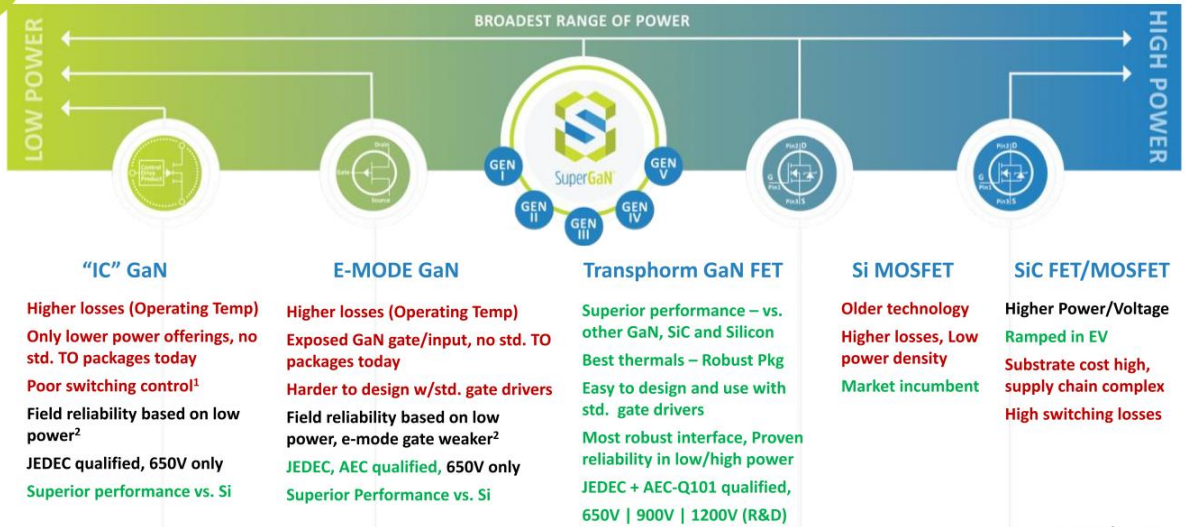
- Fast charging
- Lower thermals/ smaller form factor
- Lower system cost
- Proven ability to double available power in standardized server/5G telecom form factors
- Enable Titanium-class efficiency EU requirement
- Reduces size/weight of systems
- More efficient charging for battery/battery-powered equipment and vehicles
- 2W-3W-4W: Reduces size/weight of on-board chargers, converters and inverters
- Longer distance per charge

TGAN Owns GaN Wafer Production Supply Chain

Asset-Light, Vertically Integrated Manufacturing Driving Innovation



Competitive Landscape –TGAN FET, vs. Other GaN, SiC, Si



¹To provide additional device control, gate driver is sometimes removed making the "iC" a discrete solution
²Impact of OFF-state Gate Bias on Dynamic R_{on} of p-GaN Gate HEMT (33rd ISPSD, 2021). Currently available reliability statements based on lower power consumer applications for which failures are not typically reported.

TGAN FET: Higher Range, Reliability & Performance Spanning Low to High Power

Why Transphorm GaN FETs Win

- **Easy to use and drive (standard Si-like interface)**
 - “e-mode” input interface is weaker – hard to operate in widely used *TO Packages* for higher power
 - **1 GaN FET = 2 e-mode GaN** (mid-higher power)
- **Superior Dynamic performance => Efficiency**
 - Higher performance, from smaller GaN die (vs. e-mode)
 - **30-50% effective on-resistance (loss) benefit at operating Temperatures**
- **Proven reliability & manufacturing for scaled device**
 - **45W – 10 kW capable** single GaN device in production
 - AEC qualified
- **Higher power => higher energy and emissions impact,**
 - Blockchain: 120 TWH, **TGAN's 1% efficiency gain** => 1TWH + > 125 lbs of CO₂ emissions / TGAN Device²

In Production ¹			
Markets	GaN e-mode or “IC”	GaN FET	Power Range TGAN Wins
Adapters	✓	✓	30-250W
Datacenters	✗	✓	800-3200W
Gaming (Desktop)	✗	✓	1600W
Blockchain	✗	✓	1600-3600W
Industrial, Renewable (≥ 500 W)	✗	✓	500-3000W
Aerospace	✗	✓	420-1200W

1. Based on our best knowledge of released products, press release and in volume production with customers' systems
2. Based on existing rectifiers with 92% efficiency | Source: EPA estimated one kWh produces 1.52 pounds of carbon dioxide (excl. line-losses).

Customers Select Transphorm GaN – Adapters & Chargers (70+ design-ins)

30-45W Class

Wall plug – high efficiency, compact (35 W)



Compact 30 W Power Bar



60-70W Class

New Ultra slim, light weight (65 W)



65 W 2C-1A)



New, With Display (67 W)



Compact USB-C (65 W)



Compact Power Bar, 65 W 1A-1C



65 W 2C-1A (Phihong)



90-140W Class

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



Compact 100 W 2C-1A



New 100 W 2A-2C



120 W 2C-2A-Axial



150-250W Class

Notebook – small size, 200 kHz (160 W)



Multi out 150 W (2C-1A)



Ultra compact 240 W




Customers Select Transphorm GaN – High Power (45+ design-ins)


Efficient, Reliable, Highest Performance, East of Drivability and Designability

CORSAIR

 "The Corsair AX1600i is the **best PSU** that money can buy today, period."
tom's HARDWARE
 GaN benefit of low switching loss, 1st gaming psu with GaN in ASUS

Gaming


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

Server/Computing

3 kVA UPS

 >93% efficient
 Smallest (2U->1U) powerful 3kVA UPS – Today, Super Gan® is the Only Technology that Can Enable this Solution"
Energy/Renewable

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


Industrial

"We're expanding the reach of **medical care**, and Transphorm's GaN is helping us do it"

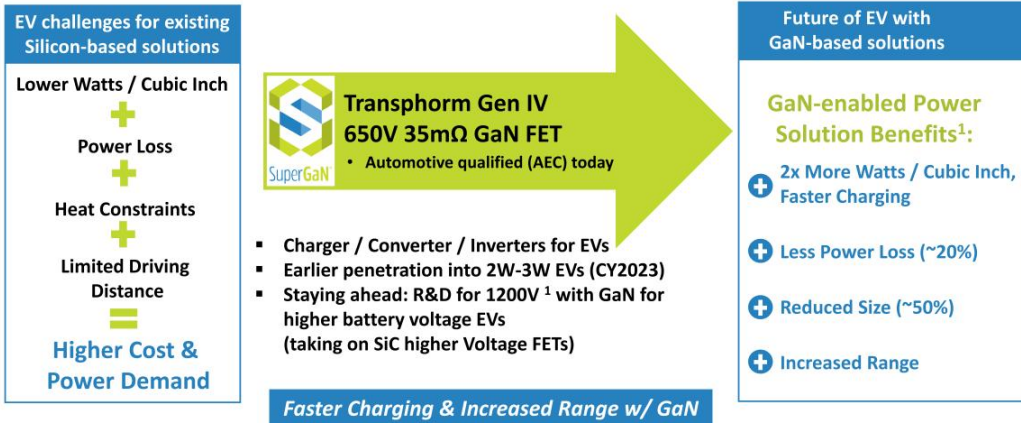
 99% Efficient GaN-Based Medical Applications
Medical

"proved to be better suited for the higher power ranges while offering the higher field reliability compared to alternatives"

3.6 kW
Blockchain

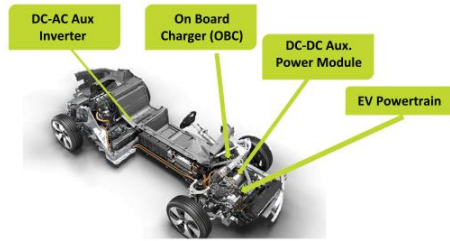
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GaN Enables Future of Next-Gen Electric Vehicles: 2W/3W/4W

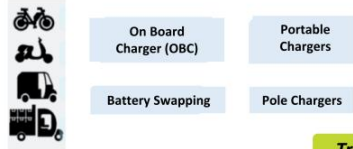


Accelerating Opportunity for GaN Enabled Power in EV

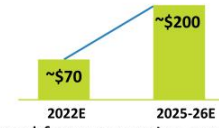
1. GaN Opportunities in EV, 4W



2. GaN Opportunities in EV, 2W, 3W



1. Addressable GaN \$ Content/EV, 4W²



- Well-positioned for automotive opportunity with leading products, strategic partners
- EV Adoption increasing to 32 million (44 million -hyper adoption) vehicles by 2030¹

2. EV 2W, 3W Market

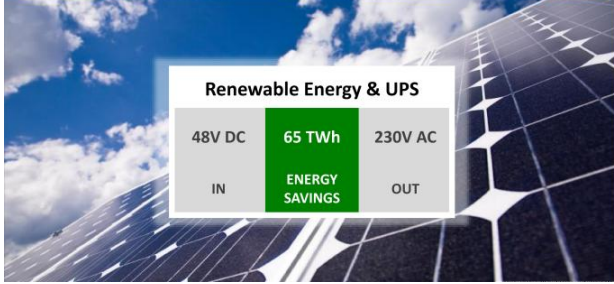
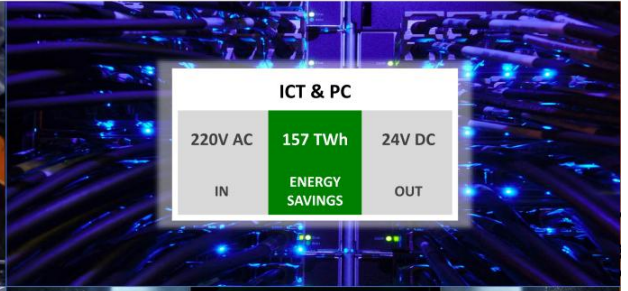
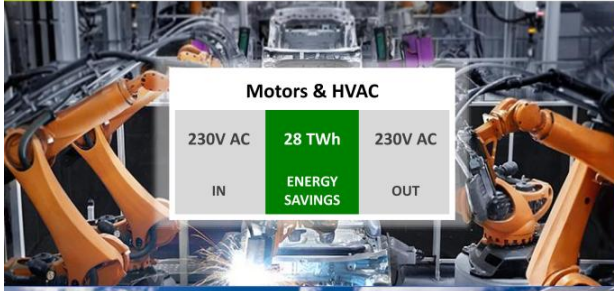
- TGAN FET already proven in battery-swapping
- Potential to address 75 Million 2W/3W WW (Asia dominated)³, \$8-10/vehicle

Transphorm GaN AEC-Q101 (Auto) Qualified NOW

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¹ IHS and Goldman Sachs Global Investment Research
² Transphorm company internal estimates, 2022 includes OBC/DC/DC, 2025 includes inverter (100kw)
³ 30m E-bikes in China, 30m motorcycles in Asian market potential to be EVs (Motorcycledata.com, Statista)

US Energy Savings Over Next Two Decades (2041)



Key Business Focus – Scaling Product Revenue

1) Capacity & Supply Chain, 2) High Power Leadership / Low Power expansion, 3) Superior new Products

Key focus area	Achieved	Comments / Upcoming
1. Revenue/Products	<ul style="list-style-type: none"> ✓ \$3.2M Products (Total \$3.7M) 	<ul style="list-style-type: none"> • Beat recent estimates • Aggressively pursue new demand to counter macro headwinds (several senior Sales/Marketing team added)
2. Adapters/Chargers: Design-ins, Production, Solutions (45W – 250W)	<ul style="list-style-type: none"> ✓ Design-Ins: 70+ (10+ new) ✓ In Production: 25 (3 new) ✓ Solutions/Ref designs: >12 	<ul style="list-style-type: none"> • New design win at Tier 1 Laptop • Continued POs at major Tier 1s won (Laptop, E-retailer), now shipping to a WW Top 3 Laptop manufacturer • Easy to use, no added driver, Small die vs. e-mode
3. High power: Design-Ins, Production, Ref. Designs (300W-4kW)	<ul style="list-style-type: none"> ✓ Design-Ins: 45+ (10+ new) ✓ In Production: 20+ (5 new) ✓ Eval kits/Ref designs: >8 (1-4kW) 	<ul style="list-style-type: none"> • 65% of revenue High Power • Execution on >500K units PO for 3kW+ • Expand, Penetrate new segments, Lead
4. Product SKUs and Qualification	<ul style="list-style-type: none"> ✓ Total: 17 (AEC qualified: 3) ✓ New - sampling Industry pin-pin PQFN packages complementing Performance PQFN Packages 	<ul style="list-style-type: none"> • Broadest offering (650/900V), • Compact surface-mount & thermally robust TOs • Continuing: Gen5 AEC qualification
5. Capacity Proof Points	<ul style="list-style-type: none"> ✓ Improved Japan Epi-wafer capacity ✓ Completed acquisition of multiple new reactors ✓ Packaging capacity in place (only in industry for PQFN through TO packages) 	<ul style="list-style-type: none"> • Continued emphasis on supply chain management • Epi Reactors – Bring existing capacity online (FY23) and new reactors online (2nd half of CY23) • Wafer Fab – Add capacity (at JV) in CY 2023

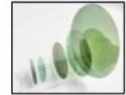
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Key Business Update – Strategic Partnerships

Manufacturing Capacity Increase, Partnerships

- Acquired 2 more reactors (total 4 recently), online in second half CY-2023 (3 locations – CA, JP, TW)
- Global Wafers (Partner) – Execution for expansion in progress.
- AFSW Fab (Transphorm's JV) – Managing with GaNovation (Financial-Strategic partner) and investing for CY-2023 to be ready for increasing demand



Industrial and Automotive

- Yaskawa (Industrial) – Program aligned for cost effective innovative solutions for robotic applications
 - Focus on next funding and development milestones (Dec'22)
- Nexperia (Automotive focus) – Continued epi and fab wafer supply towards long term partnership
- Automotive: Continuing design-ins with EV, for CY 2024-25, On-Board-Charger and dc-dc Converter opportunities, initial look at drive train inverter (for 2026-2027 potential)
- Executing on initiatives in EV 2-Wheeler/3-Wheeler (Asia) for faster EV (CY2023) revenue

Transphorm's OBC
Reference Solution in works



Government Revenue and Epi Business

- Navy and Govt. Programs –Billing \$0.5m in FQ2'23, current program wraps up in FQ3'23, and completed submission for a follow on for next 3 years (if awarded, expect in CY Q1'23. Continue 1200V effort.
- Manufacturing Funding – Continue positioning for CHIPS act funding to expand US Epiwafer manufacturing, submissions expected in CQ1'23



Key Financial Highlights

	Q2 FY23	Q1 FY23	Commentary
Revenue	\$3.7m (>85% Product)	\$5.2m (>85% Product)	<ul style="list-style-type: none"> • Growth resuming in Q3 • Total Revenue increased 11% from Q2'FY22 (excl Licensing) • Product revenue increased 38% from Q2 FY22
Gross Margin	12%	21%	<ul style="list-style-type: none"> • Stable direct margins Q2 vs. Q1 • GM% - indirect costs a greater drag on margins at lower revenue base in Q2, drag will reduce as revenue increases
OPEX (non-GAAP)	\$5.1m	\$5.4m	<ul style="list-style-type: none"> • Reduced G&A costs • Increased Sales/Apps headcount
EPS (non-GAAP)	(\$0.09)	(\$0.08)	<ul style="list-style-type: none"> • Stable EPS Q to Q
Stockholders Equity	\$36m		<ul style="list-style-type: none"> • \$34m cash and cash equivalents • Reduced Operational burn in Q2
Operational Notables			<ul style="list-style-type: none"> • Solid Backlog in place to support growth • Capital expenditure to enable larger capacity



Target Operating Model

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

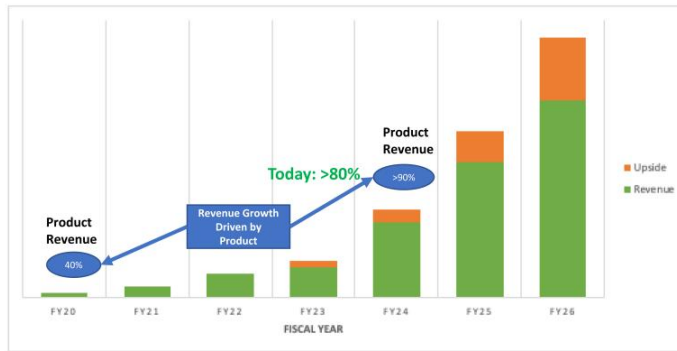
Target Model:

5-year CAGR range: 50%+

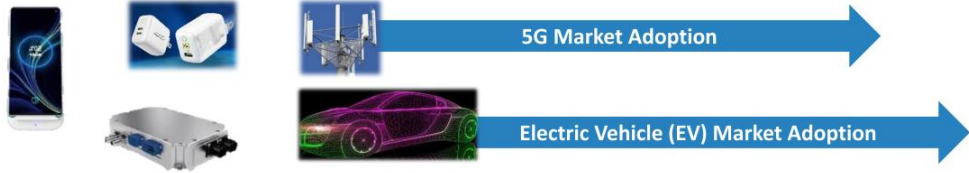
Gross Margin: 40%+

Operating Margin: 20%+

Free Cash Flow: 10%+



Positioned to Grow Across Multiple Segments



Adoption / Growth	Execution and Expansion	Achieve Target Model
CY 2021-2022	CY 2023	CY 2024+
<ul style="list-style-type: none"> • Multiple revenue streams in place • Growing production across multiple segments • Shipped > 1M units in December 2021 • Continued investment in growth across all aspects of the company • Investing in capacity increases 	<ul style="list-style-type: none"> • Broad market inflection point • Ramping revenue across consumer, data centers and blockchain segments • Continue to scale capacity aggressively • Initial wins in EV 2W/3W segments • Continued government contracts 	<ul style="list-style-type: none"> • Continued momentum and broad market expansion • Automotive adoption (EV 4W) • Leader in High Power, EV, Consumer segments • Positive cash flow generation • Execute to target model

Key Investment Highlights

GaN Power Semiconductor Pioneer and Leader

Disruptive Technology

GaN Enables Next Generation Power Conversion Solutions – 99% Efficiency¹, 50% More Compact/Lightweight, Lower System Cost

Large Market Opportunity

Transphorm's GaN Solutions will Enable the Future of Electric Vehicles and Fast-charging for 5G – Contributing to GaN TAM growing to \$6B² in 2026

Validation From Blue Chip Partners and Customers

Including KKR, SAS, Nexperia, Yaskawa, Marelli, Microchip, Diodes and the U.S. DoD(Navy), DOE



Ramping Commercially with Strong Manufacturing Base

Technology and Product Development completed, Integrated Manufacturing, \$24.1M FY-22 Revenues, Target >50% LT CAGR

Best-In-Class Differentiated GaN Technology + Industry's Strongest IP Position

IP Portfolio Appraised in Excess of \$200M³
Leader in Quality + Reliability, > 80 Billion Field hours, Silicon-like Reliability⁴
TGAN FET: Higher performance, easy interface, multiple packages

Team Led by World-Renowned GaN Experts

Proven Leadership, 18 PhDs and Over 300 Years of GaN Expertise, Recent expansion with Industry leaders

TGAN

transphorm

Investor Relations Contact:
David Hanover or Jack Perkins
KCSA Strategic Communications
transphorm@kcsa.com



Income Statement

Exceeded Consensus Revenue target, Reduced OPEX

	Three Months Ended			Six Months Ended	
	9/30/2022	6/30/2022	9/30/2021	9/30/2022	9/30/2021
Revenue, net	\$ 3,670	\$ 5,156	\$ 11,303	\$ 8,826	\$ 14,519
Cost of goods sold	3,232	4,050	2,239	7,282	4,806
Gross profit	438	1,106	9,064	1,544	9,713
	12%	27%	80%	17%	67%
Operating expenses:					
Research and development	1,830	1,740	1,591	3,570	3,414
Sales and marketing	1,066	1,083	825	2,149	1,512
General and administrative	3,044	3,317	2,714	6,361	5,457
Total operating expenses	5,940	6,140	5,130	12,080	10,383
(Loss) income from operations	(5,502)	(5,034)	3,934	(10,536)	(670)
Interest expense	184	182	220	366	424
Loss in joint venture	684	582	1,092	1,266	2,582
Changes in fair value of promissory note	—	—	(1,629)	—	(605)
Other income, net	(375)	(445)	(1,729)	(820)	(1,999)
(Loss) income before tax expense	(5,995)	(5,353)	5,980	(11,348)	(1,072)
Tax expense	—	—	—	—	—
Net (loss) income	\$ (5,995)	\$ (5,353)	\$ 5,980	\$ (11,348)	\$ (1,072)
Net loss per share - basic	\$ (0.10)	\$ (0.10)	\$ 0.15	\$ (0.20)	\$ (0.03)

Subject to completion of review procedures

Revenue of \$3.7m in Q2

- Product revenue \$3.2m
- Government \$0.5m
- Q2'FY22 included \$8m in one-time licensing revenue

Gross Margins

- 12% in Q2 (9% decrease from PQ) due to drag from indirect costs at lower Q2 vs Q1 revenue
- Direct margin of core products stable

Operating Expenses

- Lowered OPEX - primarily G&A down due to Q1 year end procedures

Non-GAAP EPS (\$0.09)

Balance Sheet

Solid Cash Position, Strong Stockholders Equity

	September 30, 2022	June 30, 2022	September 30, 2021
Assets			
Current assets:			
Cash and cash equivalents	\$ 33,496	\$ 42,613	\$ 1,988
Restricted cash	500	500	500
Accounts receivable	1,617	3,203	1,385
Inventory	8,966	6,963	4,774
Prepaid expenses and other current assets	2,068	2,575	1,229
Total current assets	46,647	56,864	16,176
Property and equipment, net	5,328	2,189	1,761
Operating lease right-of-use assets	3,312	3,448	—
Goodwill	996	1,056	1,286
Intangible assets, net	469	543	765
Investment in joint venture	414	339	89
Other assets	784	291	259
Total assets	\$ 57,950	\$ 63,730	\$ 14,336
Liabilities and stockholders' equity (deficit)			
Current liabilities:			
Accounts payable and accrued expenses	\$ 4,492	\$ 4,674	\$ 4,047
Deferred revenue	263	354	607
Accrued interest	184	182	184
Accrued payroll and benefits	1,331	1,120	1,447
Operating lease liabilities	552	521	—
Revolving credit facility	12,000	12,000	—
Promissory note	—	—	15,297
Total current liabilities	18,802	18,851	21,882
Revolving credit facility, net of current portion	—	—	12,000
Operating lease liabilities, net of current portion	2,803	2,941	—
Total liabilities	21,605	21,792	33,882
Total Stockholders' equity (deficit)	36,345	41,938	(19,546)
Total liabilities and stockholders' equity (deficit)	\$ 57,950	\$ 63,730	\$ 14,336

Notables

- Cash and cash equivalents of \$34m
- Fixed assets increased – 2 reactors, other operational tools
- Inventory increased – solid backlog remains in place
- AR lower – strong collections in the period
- ASC 842 adopted in Q1 – asset/liability now on B/Sheet
- Revolving credit facility (\$12m) – due FY24

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Subject to completion of review procedures

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GAAP to NON-GAAP Reconciliation

	Three Months Ended			Six Months Ended	
	9/30/2022	6/30/2022	9/30/2021	9/30/2022	9/30/2021
GAAP net (loss) income	\$ (5,995)	\$ (5,353)	\$ 5,980	\$ (11,348)	\$ (1,072)
Adjustments:					
Stock-based compensation	636	582	511	1,218	1,008
Depreciation	165	152	134	317	257
Amortization	74	74	74	148	148
Changes in fair value of promissory note	—	—	(1,429)	—	(805)
Other income	—	—	(1,455)	—	(1,455)
Total adjustments to GAAP net (loss) income	875	908	(2,265)	1,683	(647)
Non-GAAP net (loss) income	\$ (5,120)	\$ (4,445)	\$ 3,615	\$ (9,665)	\$ (1,719)
GAAP net (loss) income per share - basic	\$ (0.10)	\$ (0.10)	\$ 0.15	\$ (0.20)	\$ (0.03)
Adjustment	0.01	0.02	(0.06)	0.03	(0.01)
Non-GAAP net (loss) income per share - basic	\$ (0.09)	\$ (0.08)	\$ 0.09	\$ (0.17)	\$ (0.04)
GAAP net (loss) income per share - diluted	\$ (0.10)	\$ (0.10)	\$ 0.14	\$ (0.20)	\$ (0.03)
Adjustment	0.01	0.02	(0.05)	0.03	(0.01)
Non-GAAP net (loss) income per share - diluted	\$ (0.09)	\$ (0.08)	\$ 0.09	\$ (0.17)	\$ (0.04)

	Three Months Ended			Six Months Ended	
	9/30/2022	6/30/2022	9/30/2021	9/30/2022	9/30/2021
GAAP operating expenses	\$ 5,940	\$ 6,140	\$ 5,130	\$ 12,080	\$ 10,383
Adjustments:					
Stock-based compensation	583	543	472	1,126	942
Depreciation	165	152	134	317	257
Amortization	74	74	74	148	148
Total adjustments to GAAP operating expenses	822	769	680	1,591	1,347
Non-GAAP operating expenses	\$ 5,118	\$ 5,371	\$ 4,450	\$ 10,489	\$ 9,036

Subject to completion of review procedures

Non-GAAP OPEX lower in the quarter

Government, G&A (legal/audit)

SBC increased in quarter

New options approved in Q2

Depreciation slightly higher

Ongoing CAPEX investment

Fair Value adjustments

Prior converted note with Yaskawa – non-recurring

Glossary of Terms and Abbreviations

AC – alternating current	JEDEC – Joint Electron Device Engineering Council, an independent semiconductor engineering trade organization and standardization body that represents all areas of the electronics industry
AEC-Q101 – Automotive Electronic Council's electronic components stress qualification standard	LIDAR – light detection and ranging, a remote sensing method that uses light in the form of a pulsed laser to measure distance
AFSW – Aizu Fujitsu Semiconductor Wafer Solution Limited, our joint venture wafer fabrication facility located in Aizu Wakamatsu, Japan	Lossy – in the context of switching devices, subject to loss of power due to switching inefficiencies and other factors
BJT – bipolar junction transistor, a semiconductor device	MOCVD – metal organic chemical vapor deposition, a technique for layering GaN layers onto substrates such as a silicon substrate and making the starting GaN semiconductor material (i.e., an epiwafer)
Bus voltage – voltage into, out of or within connections of a power electronic system	Moore's law – the observation that the number of transistors in a dense integrated circuit doubles about every two years
CMOS – complementary MOS (metal oxide semiconductor), widely used semiconductor transistor architecture	MOSFET – metal-oxide-semiconductor field-effect transistor, a type of transistor
D2Pak – a surface mountable version of the TO220 package	Normally Off – default position is off
DC – direct current	Power converters / Inverters – electronic systems used to convert electricity from AC to DC (such as a charger), DC-AC (such as an inverter) or in some cases AC-AC or DC-DC within the systems converting from one voltage level to another
Die/Chip – an individual semiconductor device on the wafer, prior to packaging	PQFN – power quad flat no lead package, a compact surface mountable package used in power semiconductors
EAR – Export Administration Regulation	RF – radio frequency
Epi/Epiwafer/Epimaterials – GaN device layers grown on a substrate, from which active GaN-based devices are subsequently manufactured in a wafer fabrication facility	SCR – silicon controlled rectifier, an early semiconductor switching device
Fab – fabrication, generally referring to a semiconductor wafer fabrication facility	Si – silicon
FET – field effect transistor, a type of switching transistor	SiC – silicon carbide
Figure of Merit - a quantity used to characterize the performance of a device, system or method, relative to its alternatives	TO – transistor outline leaded packages commonly used in power semiconductors (such as TO220, TO247)
FIT – failure in time, referring to the expected number of device failures per billion hours of operation	
GaN – gallium nitride	
HEMT – high electron mobility transistor, a type of switching transistor with superior electronic properties	
IGBT – insulated-gate bipolar transistor, a three-terminal power semiconductor device primarily used as an electronic switch	

