

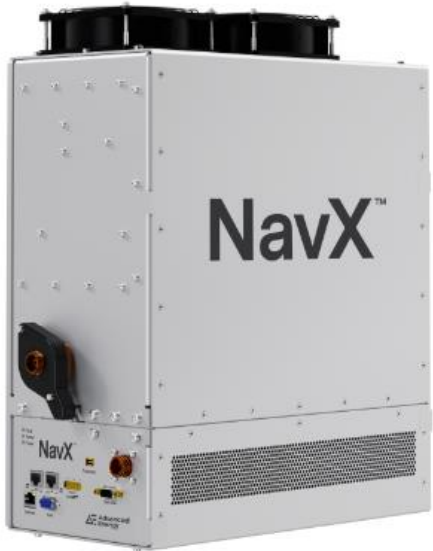
Q2 2024 Earnings Presentation

JULY 30, 2024

SAFE HARBOR

The company's guidance and other statements herein or made on the earnings conference call contain, in addition to historical information, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements in this presentation that are not historical information are forward-looking statements. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties are described in Advanced Energy's Form 10-K, Form 10-Q and other reports and statements filed with the Securities and Exchange Commission (SEC), which can be obtained from the SEC's website at www.sec.gov or from Advanced Energy's Investors page at ir.advancedenergy.com. Forward-looking statements are made and based on information available to Advanced Energy's management team as of July 30, 2024. Aspirational goals and medium-term targets should not be interpreted in any respect as guidance. The company assumes no obligation to update the information in this presentation.

Q2 2024 SUMMARY

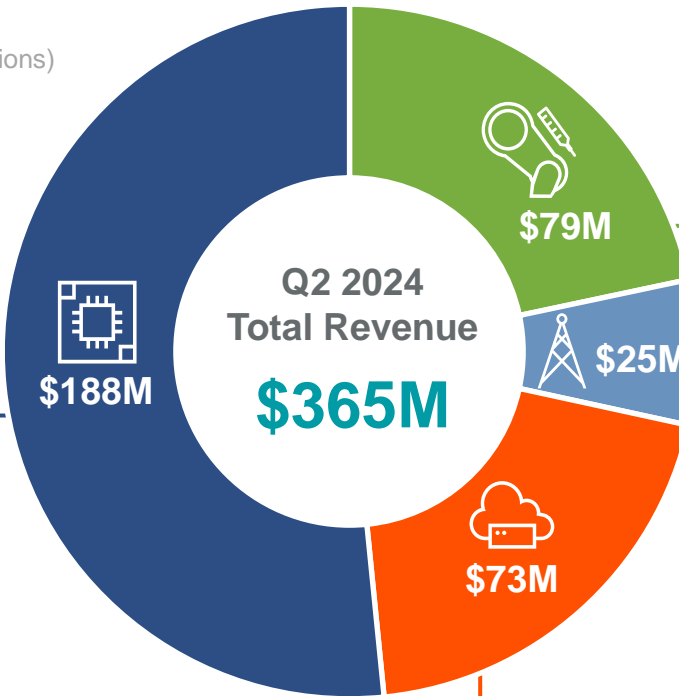


The NavX™ matching network works with the eVerest RF generator to enable unparalleled control of plasma characteristics

- **Q2 2024 revenue and EPS exceeded guidance**
 - Revenue of \$365 million was up 11% Q/Q with sequential revenue growth in three of our four markets
 - Upside driven by AI-related demand in Data Center Computing and accelerated deliveries in Semiconductor
 - Gross margin up quarter over quarter and operating margin improved 270 basis points
- **2024 expected to be in-line with or better than what we communicated last quarter**
 - Expect semiconductor revenue to grow in 2H'24 and 2024 flat to 2023
 - Expect Data Center Computing revenue in Q3 and Q4 to be higher than Q2
 - Industrial and Medical to be limited through Q3 and into Q4 as channel inventories gradually normalize
- **Driving share gains by launching new products and securing design wins**
 - Design activity is extremely robust, and expect production volume beginning to ramp in 2025
 - Working intensively with a wide variety of customers to integrate our products into leading-edge systems
 - Acquired Airity Technology to accelerate innovation across multiple markets
 - Received a top supplier award from one of our largest data center customers
- **Increased confidence to achieve and sustain gross margins of over 40%**
 - Taking advantage of lower factory loading to accelerate manufacturing consolidation
 - Expect to benefit from a richer product mix as new design wins ramp to volume

Q2 2024 REVENUE DETAIL BY MARKET

(\$ in millions)



SEMICONDUCTOR EQUIPMENT

Up 5% Q/Q & 9% Y/Y

- Upside driven by accelerated deliveries on customer requests
- Expediting delivery schedule to meet demand for >200 eVoS™ and eVerest™ to be shipped by the end of 2024
- Launched NavX, our latest RF Match, to pair with eVerest for advanced nodes, and expect to ship 50 NavX by year end
- Semi customers enthusiastic about our new products and development time

INDUSTRIAL & MEDICAL

Down 5% Q/Q & 38% Y/Y

- Customers continued to work through pockets of inventory, but distribution sell-through increased quarter over quarter
- Design wins across a wide range of Industrial applications, including glass coating, test and measurement, and battery production
- In medical, secured design wins at 4 different surgical robot customers
- Positive feedback from major distributors, who are supporting AE's drive to gain share

DATA CENTER COMPUTING

Up 74% Q/Q & 24% Y/Y

- Data Center Computing upside driven mainly by strong AI-related demand in hyperscale and enterprise
- Won a major AI-related design at a hyperscale customer with expected production starting in late 2024
- Telecom & Networking limited by high customer inventory levels and a slow recovery in demand

TELECOM & NETWORKING

Up 10% Q/Q & Down 56% Y/Y

Q2 2024 FINANCIAL HIGHLIGHTS



REVENUE
\$365 million
Up 11% Q/Q



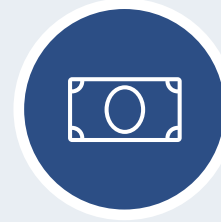
NON-GAAP EPS⁽¹⁾
\$0.85
Up 47% Q/Q



NON-GAAP GROSS MARGIN⁽¹⁾
35.3%
Up 20 bps Q/Q



NON-GAAP OP MARGIN⁽¹⁾
9.3%
Up 270 bps Q/Q



OPERATING CASH FLOW⁽²⁾
\$7 million
Includes annual tax payment



TOTAL CASH⁽³⁾
\$986 million
Net Cash of \$79 million

(1) Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation

(2) Cash flow from operating activities from continuing operations

(3) Net cash = Cash less Current portion of long-term debt and Long-term debt

REVENUE BY MARKET

(\$ in millions)	Q2 2024	Q1 2023	Q2 2023	Q/Q	Y/Y
Semiconductor Equipment	\$188.3	\$179.9	\$173.2	4.7%	8.7%
Industrial & Medical	\$79.1	\$83.4	\$127.6	-5.2%	-38.0%
Data Center Computing	\$73.0	\$41.9	\$59.1	74.1%	23.5%
Telecom & Networking	\$24.6	\$22.3	\$55.7	10.4%	-55.9%
Total Revenue	\$364.9	\$327.5	\$415.5	11.4%	-12.2%

INCOME STATEMENT (GAAP/NON-GAAP)

(\$ in millions, except per share data)	Q2 2024	Q1 2024	Q2 2023	Q/Q	Y/Y
Revenue	\$364.9	\$327.5	\$415.5	11.4%	-12.2%
GAAP gross margin	35.0%	34.5%	35.4%		
GAAP operating expenses	\$114.8	\$112.2	\$117.3	2.3%	-2.1%
GAAP operating margin from continuing ops	3.6%	0.2%	7.2%		
GAAP EPS from continuing ops	\$0.41	\$0.15	\$0.73	173.3%	-43.8%
Non-GAAP ⁽¹⁾ gross margin	35.3%	35.1%	35.6%		
Non-GAAP ⁽¹⁾ operating expenses	\$95.1	\$93.5	\$98.5	1.7%	-3.5%
Non-GAAP ⁽¹⁾ operating margin	9.3%	6.6%	11.9%		
Non-GAAP ⁽¹⁾ EPS	\$0.85	\$0.58	\$1.11	46.6%	-23.4%

BALANCE SHEET & CASH FLOW

- Total Cash declined slightly Q/Q to \$986 million
 - Net cash⁽¹⁾ at \$79 million
- Inventory Turns increased Q/Q from 2.4x to 2.5x
 - Days inventory decreased Q/Q from 153 days to 146 days
- DSO decreased Q/Q from 68 days to 65 days
- DPO increased Q/Q from 58 days to 60 days
- Operating cash flow from continuing operations was \$7.0 million, primarily due to higher inventory and annual tax payments made in the quarter
- CAPEX \$14.8 million

(\$ in millions)	Q2 2024	Q1 2024	Q2 2023
Cash	\$986.1	\$1,017.8	\$455.4
Inventories	\$383.1	\$361.3	\$392.3
Accounts Receivable	\$262.4	\$247.5	\$258.8
Total Assets	\$2,541.9	\$2,524.1	\$1,949.9
Accounts Payable	\$157.5	\$137.9	\$149.3
Total Debt	\$907.3	\$911.5	\$363.5
Total Liabilities	\$1,376.8	\$1,381.2	\$824.6
Shareholders' Equity	\$1,165.1	\$1,142.9	\$1,125.3

Q3 2024 GUIDANCE

(\$ in millions, except per share data)	Guidance
Revenue	\$370 +/- \$20
GAAP EPS from continuing operations	(\$0.10) +/- \$0.25
Non-GAAP ⁽¹⁾ EPS	\$0.90 +/- \$0.25

(1) Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation

QUARTERLY NON-GAAP FINANCIALS⁽¹⁾

Quarterly Trend

(figures in \$ millions, except percentage and EPS)

All figures from Continuing Operations

	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2
Revenue	351.6	361.3	346.1	396.9	397.5	440.9	516.3	490.7	425.0	415.5	410.0	405.3	327.5	364.9
Gross Profit	139.7	137.3	124.9	141.0	145.3	163.8	193.4	179.4	156.5	147.8	148.2	144.5	115.0	128.9
Gross Margin	39.7%	38.0%	36.1%	35.5%	36.6%	37.1%	37.5%	36.6%	36.8%	35.6%	36.1%	35.7%	35.1%	35.3%
Total OPEX	79.5	82.6	83.6	86.1	87.6	94.2	99.8	100.9	99.7	98.5	97.3	94.9	93.5	95.1
OPEX %	22.6%	22.9%	24.2%	21.7%	22.0%	21.4%	19.3%	20.6%	23.5%	23.7%	23.7%	23.4%	28.6%	26.1%
Operating Income	60.2	54.7	41.2	54.8	57.8	69.6	93.6	78.5	56.8	49.3	50.9	49.7	21.5	33.8
Operating Income %	17.1%	15.1%	11.9%	13.8%	14.5%	15.8%	18.1%	16.0%	13.4%	11.9%	12.4%	12.3%	6.6%	9.3%
Depreciation	7.3	7.5	7.9	8.1	8.4	8.5	8.5	8.8	9.5	9.4	9.7	9.7	10.0	10.2
EBITDA⁽²⁾	67.6	62.2	49.1	63.0	66.1	78.1	102.1	87.3	66.3	58.7	60.7	59.4	31.5	44.0
EBITDA %	19.2%	17.2%	14.2%	15.9%	16.6%	17.7%	19.8%	17.8%	15.6%	14.1%	14.8%	14.6%	9.6%	12.1%
Other Income/(Expense)	(2.6)	(1.9)	(1.7)	(2.5)	(2.1)	(2.2)	(1.9)	(1.1)	0.5	0.2	1.3	5.2	5.1	4.3
Income Before Taxes	57.6	52.8	39.6	52.3	55.6	67.4	91.7	77.4	57.3	49.5	52.3	54.8	26.6	38.1
Tax Provision/(Benefit)	7.9	4.7	5.6	0.9	8.9	13.1	12.1	13.2	10.4	7.6	3.8	8.1	4.7	6.1
Tax Rate	13.7%	8.9%	14.0%	1.6%	16.0%	19.4%	13.2%	17.0%	18.1%	15.3%	7.2%	14.8%	17.7%	15.9%
Non-GAAP Net Income	49.7	48.1	34.0	51.5	46.7	54.3	79.6	64.2	47.0	41.9	48.5	46.7	21.9	32.0
Net Income %	14.1%	13.3%	9.8%	13.0%	11.8%	12.3%	15.4%	13.1%	11.1%	10.1%	11.8%	11.5%	6.7%	8.8%
Non-GAAP EPS	1.29	1.25	0.89	1.36	1.24	1.44	2.12	1.70	\$1.24	\$1.11	\$1.28	\$1.24	\$0.58	\$0.85
Average Shares Outstanding	38.6	38.6	38.4	37.9	37.8	37.7	37.6	37.7	37.8	37.8	37.9	37.6	37.7	37.8

NON-GAAP MEASURES

Advanced Energy's non-GAAP measures exclude the impact of non-cash related charges such as stock-based compensation and amortization of intangible assets, as well as discontinued operations, and non-recurring items such as acquisition-related costs and restructuring expenses. The non-GAAP measures included in this presentation are not in accordance with, or an alternative for, similar measures calculated under generally accepted accounting principles and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. We believe that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges, non-economic foreign currency remeasurements, and other cash charges which are not part of our usual operations. We use these non-GAAP measures to assess performance against business objectives, make business decisions, develop budgets, forecast future periods, assess trends, and evaluate financial impacts of various scenarios. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. Additionally, we believe that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. To gain a complete picture of all effects on our financial results from any and all events, management does (and investors should) rely upon the GAAP measures as well, as the items excluded from non-GAAP measures may contribute to not accurately reflecting the underlying performance of the company's continuing operations for the period in which they are incurred. Furthermore, the use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with our results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate our results of operations in conjunction with the corresponding GAAP measures.

NON-GAAP RECONCILIATION

Reconciliation of Non-GAAP measure - operating expenses and operating income, excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2024	2023	2024	2024	2023
Gross profit from continuing operations, as reported	\$ 127,741	\$ 147,080	\$ 112,829	\$ 240,570	\$ 302,191
Adjustments to gross profit:					
Stock-based compensation	1,056	589	829	1,885	972
Facility expansion, relocation costs and other	161	60	1,308	1,469	1,017
Acquisition-related costs	(57)	97	44	(13)	150
Non-GAAP gross profit	128,901	147,826	115,010	243,911	304,330
Non-GAAP gross margin	35.3%	35.6%	35.1%	35.2%	36.2%
Operating expenses from continuing operations, as reported	114,773	117,255	112,152	226,925	232,328
Adjustments:					
Amortization of intangible assets	(6,800)	(7,075)	(6,947)	(13,747)	(14,137)
Stock-based compensation	(10,328)	(7,348)	(10,176)	(20,504)	(13,766)
Acquisition-related costs	(1,934)	(1,165)	(1,266)	(3,200)	(2,043)
Restructuring, asset impairments, and other charges	(625)	(3,154)	(245)	(870)	(4,197)
Non-GAAP operating expenses	95,086	98,513	93,518	188,604	198,185
Non-GAAP operating income	\$ 33,815	\$ 49,313	\$ 21,492	\$ 55,307	\$ 106,145
Non-GAAP operating margin	9.3%	11.9%	6.6%	8.0%	12.6%

Reconciliation of Non-GAAP measure - income excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2024	2023	2023	2024	2023
Income from continuing operations, less non-controlling interest, net of income tax	\$ 15,604	\$ 27,455	\$ 5,787	\$ 21,391	\$ 59,207
Adjustments:					
Amortization of intangible assets	6,800	7,075	6,947	13,747	14,137
Acquisition-related costs	1,877	1,262	1,310	3,187	2,193
Facility expansion, relocation costs, and other	161	60	1,308	1,469	1,017
Restructuring, asset impairments, and other charges	625	3,154	245	870	4,197
Unrealized foreign currency loss (gain)	(1,545)	(2,266)	(1,757)	(3,302)	(1,213)
Tax effect of non-GAAP adjustments, including certain discrete tax benefits	(498)	(1,051)	(622)	(1,120)	(2,172)
Non-GAAP income, net of income tax, excluding stock-based compensation	23,024	35,689	13,218	36,242	77,366
Stock-based compensation, net of tax	8,993	6,191	8,694	17,687	11,495
Non-GAAP income, net of income tax	\$ 32,017	\$ 41,880	\$ 21,912	\$ 53,929	\$ 88,861

Reconciliation of non-GAAP measure - per share earnings excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2024	2023	2024	2024	2023
Diluted earnings per share from continuing operations, as reported	\$ 0.41	\$ 0.73	\$ 0.15	\$ 0.57	\$ 1.57
Add back:					
Per share impact of non-GAAP adjustments, net of tax	0.44	0.38	0.43	0.86	0.78
Non-GAAP earnings per share	\$ 0.85	\$ 1.11	\$ 0.58	\$ 1.43	\$ 2.35

Q3 2024 RECONCILIATION OF GAAP TO NON-GAAP GUIDANCE

(\$ in millions, except per share data)	Low End		Midpoint		High End	
Revenue	\$350		\$370		\$390	
Reconciliation of Non-GAAP EPS						
GAAP EPS	\$	(0.35)	\$	(0.10)	\$	0.15
Stock-based compensation		0.28		0.28		0.28
Amortization of intangible assets		0.19		0.19		0.19
Restructuring and other		0.77		0.77		0.77
Tax effects of excluded items		(0.24)		(0.24)		(0.24)
Non-GAAP⁽¹⁾ EPS	\$	0.65	\$	0.90	\$	1.15