
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): August 11, 2022

PDF SOLUTIONS, INC.
(Exact name of registrant as specified in its charter)

000-31311
(Commission File Number)

Delaware
(State or Other Jurisdiction of Incorporation)

25-1701361
(I.R.S. Employer Identification No.)

2858 De La Cruz Boulevard
Santa Clara, CA 95050
(Address of principal executive offices, with zip code)

(408) 280-7900
(Registrant's telephone number, including area code)

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 Exchange Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.00015 par value	PDFS	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 or Rule 12b-2 of the Securities Exchange Act of 1934.

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.

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Item 2.02. Results of Operations and Financial Condition.

On August 11, 2022, PDF Solutions (the “Company”) issued a press release regarding its financial results and certain other information related to the second quarter ended June 30, 2022. The Company also posted on the Investors section of its website (www.pdf.com) a management report with regard to the second quarter ended June 30, 2022. Copies of the press release and management report are attached to this report as Exhibits 99.1 and 99.2, respectively. Information on the website is not, and will not be deemed, a part of this report or incorporated into any other filings the Company makes with the Securities and Exchange Commission.

The information in this Item 2.02, including Exhibits 99.1 and 99.2, is being furnished and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities under that Section, and shall not be deemed incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated August 11, 2022, regarding financial results and certain other information related to the second quarter ended June 30, 2022.
99.2	Management Report by PDF Solutions, Inc. as of August 11, 2022.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

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.

PDF SOLUTIONS, INC. (Registrant)

By: /s/ Adnan Raza

Adnan Raza

EVP, Finance, and Chief Financial Officer (principal financial and accounting officer)

Dated: August 11, 2022



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News Release

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PDF Solutions® Reports Second Quarter 2022 Results

Business & Other Highlights

- Record total revenues of \$34.7 million, up 26% over last year's comparable quarter
- Analytics revenue of \$31.1 million, up 59% over last year's comparable quarter
- Analytics revenue accounted for 90% of total revenues
- Backlog of \$184.4 million as of June 30, 2022, up 33% compared to backlog as of June 30, 2021
- GAAP Gross Margin of 65% for the second quarter of 2022
- Non-GAAP Gross Margin of 69% for the second quarter of 2022
- Operating activities provided \$3.6 million in cash during the second quarter of 2022
- Completed share repurchase of \$16.7 million during the second quarter of 2022, totaling \$22.5 million of share repurchase for the first half of 2022
- Cash, cash equivalents, and short-term investments of \$117.2 million as of June 30, 2022
- Expect full year 2022 total revenues to grow approximately 25% on a year-over-year basis

Santa Clara, CA, August 11, 2022, – PDF Solutions, Inc. (Nasdaq: PDFS), a leading provider of unified data and cloud analytics for the semiconductor ecosystem, today announced financial results for its second quarter ended June 30, 2022.

Highlights of Second Quarter 2022 Financial Results

Total revenues for the second quarter of 2022 were \$34.7 million, compared to \$33.5 million for the first quarter of 2022 and \$27.4 million for the second quarter of 2021. Analytics revenue for the second quarter of 2022 was \$31.1 million, compared to \$30.4 million for the first quarter of 2022 and \$19.6 million for the second quarter of 2021. Integrated Yield Ramp revenue for the second quarter of 2022 was \$3.6 million, compared to \$3.1 million for the first quarter of 2022 and \$7.8 million for the second quarter of 2021.

GAAP gross margin for the second quarter of 2022 was 65%, compared to 66% for the first quarter of 2022 and 61% for the second quarter of 2021.

Non-GAAP gross margin for the second quarter of 2022 was 69%, compared to 69% for the first quarter of 2022 and 65% for the second quarter of 2021.

On a GAAP basis, net loss for the second quarter of 2022 was \$1.1 million, or (\$0.03) per basic and diluted share, compared to a net loss of \$4.2 million, or (\$0.11) per basic and diluted share, for the first quarter of 2022, and net loss of \$4.5 million, or (\$0.12) per basic and diluted share, for the second quarter of 2021.

PDF Solutions® Reports Second Quarter 2022 Results

Non-GAAP net income for the second quarter of 2022 was \$4.3 million, or \$0.11 per diluted share, compared to a non-GAAP net income of \$3.7 million, or \$0.09 per diluted share, for the first quarter of 2022, and non-GAAP net loss of \$0.3 million, or (\$0.01) per diluted share, for the second quarter of 2021.

Cash, cash equivalents and short-term investments at June 30, 2022, were \$117.2 million, compared to \$140.2 million at December 31, 2021, a decrease of \$23.0 million, primarily due to the \$22.5 million of share repurchases during the first half of 2022. Cash provided by operating activities was \$3.6 million for the second quarter of 2022.

Conference Call

As previously announced, PDF Solutions will discuss these results on a live conference call beginning at 2:00 p.m. Pacific Time / 5:00 p.m. Eastern Time today. The call will be simultaneously webcast on PDF Solutions' website at <http://ir.pdf.com/webcasts>. A replay of the webcast will be available at the same website address beginning approximately two hours after completion of the live call. A copy of this press release, including the disclosure and reconciliation of certain non-GAAP financial measures to the comparable GAAP measures, which non-GAAP measures may be used periodically by PDF Solutions' management when discussing financial results with investors and analysts, will also be available on PDF Solutions' website at <http://www.pdf.com/press-releases> following the date of this release.

Second Quarter 2022 Financial Commentary Available Online

A Management Report reviewing the Company's second quarter 2022 financial results will be furnished to the Securities and Exchange Commission on Form 8-K and published on the Company's website at <http://ir.pdf.com/financial-reports>. Analysts and investors are encouraged to review this commentary prior to participating in the conference call.

Information Regarding Use of Non-GAAP Financial Measures

In addition to providing results that are determined in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP), PDF Solutions also provides certain non-GAAP financial measures. Non-GAAP gross margin excludes stock-based compensation expense and the amortization of acquired technology. Non-GAAP net income (loss) excludes the effects of certain non-recurring items (including expenses related to an arbitration proceeding for a disputed contract with a customer), stock-based compensation expense, amortization of acquired technology and other acquired intangible assets, and their related income tax effects, as applicable, as well as adjustments for the valuation allowance for deferred tax assets. These non-GAAP financial measures are used by management internally to measure the Company's profitability and performance. PDF Solutions' management believes that these non-GAAP measures provide useful supplemental information to investors regarding the Company's ongoing operations in light of the fact that none of these categories of expense has a current effect on the future uses of cash (with the exception of expenses related to an arbitration proceeding for a disputed contract with a customer) nor do they impact the generation of current or future revenues. These non-GAAP results should not be considered an alternative to, or a substitute for, GAAP financial information, and may differ from similarly titled non-GAAP measures used by other companies. In particular, these non-GAAP financial measures are not a substitute for GAAP measures of income or loss as a measure of performance, or to cash flows from operating, investing and financing activities as a measure of liquidity. Since management uses these non-GAAP financial measures internally to measure profitability and performance, PDF Solutions has included these non-GAAP measures to give investors an opportunity to see the Company's financial results as viewed by management. A reconciliation of the comparable GAAP financial measures to the non-GAAP financial measures is provided at the end of the Company's financial statements presented below.

Forward-Looking Statements

The press release and the planned conference call include forward-looking statements regarding the Company's future expected business performance and financial results, including expectations about total revenues for full year 2022, that are subject to future events and circumstances. Actual results could differ materially from those expressed in these forward-looking statements. Risks and uncertainties that could cause results to differ materially include risks associated with: continued adoption of the Company's solutions by new and existing customers; project milestones or delays and performance criteria achieved; cost and schedule of new product development; the impact of inflation; the provision of technology and services prior to the execution of a final contract; the continuing impact of the coronavirus (COVID-19) on the semiconductor industry and on the Company's operations or supply and demand for the Company's products; the time required of the Company's executive management for, and the expenses related to, as well as the success of the Company's strategic growth opportunities and partnerships, including its partnership with Advantest Corporation; our ability to successfully integrate the acquired businesses and technologies; whether we can successfully convert our backlog into revenue; customers' production volumes under contracts that provide Gainshare royalties; and other risks set forth in PDF Solutions' periodic public filings with the Securities and Exchange Commission, including, without limitation, its Annual Reports on Form 10-K, most recently filed for the year ended December 31, 2021, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K and amendments to such reports. The forward-looking statements made in the conference call are made as of the date hereof, and PDF Solutions does not assume any obligation to update such statements nor the reasons why actual results could differ materially from those projected in such statements.

About PDF Solutions

PDF Solutions (NASDAQ: PDFS) provides comprehensive cloud analytics platforms designed to empower engineers and organizations across the semiconductor ecosystem to increase the yield and quality of their products, and enhance operational efficiency for increased profitability. The company's products and services are used by Fortune 500 companies across the semiconductor ecosystem to impact business outcomes and achieve smart manufacturing goals by connecting and controlling equipment, collecting data during manufacturing and test operations, and performing advanced analytics and machine learning to drive profitable, high-volume manufacturing.

Founded in 1991, PDF Solutions is headquartered in Santa Clara, California, with operations across North America, Europe, and Asia. The Company (directly or through one or more subsidiaries) is an active member of SEMI, INEMI, TPCA, IPC, the OPC Foundation, and DMDII. For the latest news and information about PDF Solutions, visit <https://www.pdf.com>.

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PDF SOLUTIONS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(In thousands)

	<u>June 30,</u> <u>2022</u>	<u>December 31,</u> <u>2021</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 81,343	\$ 27,684
Short-term investments	35,907	112,542
Accounts receivable, net	36,117	40,087
Prepaid expenses and other current assets	10,408	8,194
Total current assets	<u>163,775</u>	<u>188,507</u>
Property and equipment, net	38,390	35,295
Operating lease right-of-use assets, net	5,240	5,408
Goodwill	14,123	14,123
Intangible assets, net	19,505	21,239
Deferred tax assets, net	46	75
Other non-current assets	8,088	9,121
Total assets	<u>\$ 249,167</u>	<u>\$ 273,768</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 3,382	\$ 5,554
Accrued compensation and related benefits	10,634	9,495
Accrued and other current liabilities	6,237	3,328
Operating lease liabilities – current portion	1,493	1,758
Deferred revenues – current portion	19,568	23,691
Billings in excess of recognized revenues	480	—
Total current liabilities	<u>41,794</u>	<u>43,826</u>
Long-term income taxes payable	2,475	2,656
Non-current operating lease liabilities	5,275	5,258
Non-current portion of deferred revenues	1,748	2,443
Total liabilities	<u>51,292</u>	<u>54,183</u>
Stockholders' equity:		
Common stock and additional paid-in-capital	434,790	423,075
Treasury stock at cost	(131,365)	(104,705)
Accumulated deficit	(103,018)	(97,721)
Accumulated other comprehensive loss	(2,532)	(1,064)
Total stockholders' equity	<u>197,875</u>	<u>219,585</u>
Total liabilities and stockholders' equity	<u>\$ 249,167</u>	<u>\$ 273,768</u>

PDF SOLUTIONS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

(In thousands, except per share amounts)

	Three months ended			Six months ended	
	June 30, 2022	March 31, 2022	June 30, 2021	June 30, 2022	June 30, 2021
Revenues:					
Analytics	\$ 31,117	\$ 30,426	\$ 19,578	\$ 61,543	\$ 38,971
Integrated yield ramp	3,551	3,072	7,841	6,623	12,648
Total revenues	<u>34,668</u>	<u>33,498</u>	<u>27,419</u>	<u>68,166</u>	<u>51,619</u>
Costs and Expenses:					
Costs of revenues	12,042	11,529	10,785	23,571	21,448
Research and development	13,374	14,089	11,064	27,463	21,905
Selling, general and administrative	9,770	10,839	9,410	20,609	18,874
Amortization of acquired intangible assets	314	314	313	628	627
Interest and other expense (income), net	(991)	(310)	243	(1,301)	(198)
Income (loss) before income taxes	159	(2,963)	(4,396)	(2,804)	(11,037)
Income tax expense	1,306	1,187	88	2,493	1,044
Net loss	<u>\$ (1,147)</u>	<u>\$ (4,150)</u>	<u>\$ (4,484)</u>	<u>\$ (5,297)</u>	<u>\$ (12,081)</u>
Net loss per share, basic and diluted	<u>\$ (0.03)</u>	<u>\$ (0.11)</u>	<u>\$ (0.12)</u>	<u>\$ (0.14)</u>	<u>\$ (0.33)</u>
Weighted average common shares used to calculate net loss per share, basic and diluted	<u>37,028</u>	<u>37,606</u>	<u>37,004</u>	<u>37,316</u>	<u>36,989</u>

PDF SOLUTIONS, INC.

RECONCILIATION OF GAAP GROSS MARGIN TO NON-GAAP GROSS MARGIN (UNAUDITED)

(In thousands)

	Three months ended			Six months ended	
	June 30, 2022	March 31, 2022	June 30, 2021	June 30, 2022	June 30, 2021
GAAP					
Total revenues	\$ 34,668	\$ 33,498	\$ 27,419	\$ 68,166	\$ 51,619
Costs of revenues	12,042	11,529	10,785	23,571	21,448
GAAP gross profit	\$ 22,626	\$ 21,969	\$ 16,634	\$ 44,595	\$ 30,171
GAAP gross margin	65 %	66 %	61 %	65 %	58 %
Non-GAAP					
GAAP gross profit	\$ 22,626	\$ 21,969	\$ 16,634	\$ 44,595	\$ 30,171
Adjustments to reconcile GAAP to non-GAAP gross margin:					
Stock-based compensation expense	655	728	538	1,383	1,190
Amortization of acquired technology	553	553	536	1,106	1,071
Non-GAAP gross profit	\$ 23,834	\$ 23,250	\$ 17,708	\$ 47,084	\$ 32,432
Non-GAAP gross margin	69 %	69 %	65 %	69 %	63 %

PDF SOLUTIONS, INC.

RECONCILIATION OF GAAP NET LOSS TO NON-GAAP NET INCOME (LOSS) (UNAUDITED)

(In thousands, except per share amounts)

	Three months ended			Six months ended	
	June 30, 2022	March 31, 2022	June 30, 2021	June 30, 2022	June 30, 2021
GAAP net loss	\$ (1,147)	\$ (4,150)	\$ (4,484)	\$ (5,297)	\$ (12,081)
Adjustments to reconcile GAAP net loss to non-GAAP net income (loss):					
Stock-based compensation expense	3,872	5,553	2,742	9,425	6,111
Amortization of acquired technology	553	553	536	1,106	1,071
Amortization of other acquired intangible assets	314	314	314	628	628
Expenses of arbitration (1)	36	451	558	487	853
Tax impact of valuation allowance for deferred tax assets (2)	664	937	52	1,601	1,218
Non-GAAP net income (loss)	\$ 4,292	\$ 3,658	\$ (282)	\$ 7,950	\$ (2,200)
GAAP net loss per diluted share	\$ (0.03)	\$ (0.11)	\$ (0.12)	\$ (0.14)	\$ (0.33)
Non-GAAP net income (loss) per diluted share	\$ 0.11	\$ 0.09	\$ (0.01)	\$ 0.21	\$ (0.06)
Shares used in net income (loss) per diluted share calculation	37,615	38,580	37,004	38,096	36,989

(1) Represents expenses related to an arbitration proceeding over a disputed customer contract, which expenses are expected to continue until the arbitration is resolved.

(2) The Company's GAAP tax expense is higher compared to the non-GAAP tax expense, primarily due to the GAAP full U.S. federal and state valuation allowances. For example, on a GAAP basis, the Company does not receive a deferred tax benefit for foreign tax credits or R&D credits after valuation allowance. The Company's non-GAAP tax rate and resulting non-GAAP tax expense is not calculated with a full U.S. federal or state valuation allowance due to the Company's cumulative Non-GAAP income and management's conclusion that it is more likely than not to utilize its net deferred tax assets (DTAs). Each reporting period, management evaluates the need for a valuation allowance and may place a valuation allowance against its U.S. net DTA on a non-GAAP basis if it concludes it is more likely than not that it will not be able to utilize some or all of its US DTAs on a non-GAAP basis.



Q2 2022
Management Report
August 11, 2022

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■ Q2 2022 Non-GAAP Results

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- Reconciliation of GAAP to Non-GAAP Spending by Function

■ Related Information

The following commentary is provided by management and should be referenced in conjunction with PDF Solutions' second quarter of 2022 financial results press release available on its Investor Relations website at <http://www.pdf.com/financial-news>. These remarks represent management's current views of the Company's financial and operational performance and are provided to give investors and analysts further insight into its performance in advance of the earnings call webcast. The Company disclaims any duty to update this information for future events.

PDF Solutions Reports Second Quarter 2022 Results

Q2 2022 Key Metrics

Revenue: \$34.7M

GAAP Gross Margin: 65%

Non-GAAP Gross Margin: 69%

GAAP Diluted EPS: (\$0.03)

Non-GAAP Diluted EPS: \$0.11

Operating Cash Flow: \$3.6M

Cash Used for Capital Expenditures:
\$2.8M

FINANCIAL RESULTS SUMMARY

- Q2 2022 Total revenues of \$34.7M, up 3% over Q1 2022, and up 26% over Q2 2021.
- Q2 2022 Analytics revenue of \$31.1M, up 2% over Q1 2022, and up 59% over Q2 2021.
- Q2 2022 Integrated yield ramp revenue of \$3.6M, up 16% over Q1 2022 and down 55% over Q2 2021.

Key Financial & Operating Metrics – Quarterly

(in thousands, except share data, which is in millions, and percentages)

	Q2'22	Q1'22	Q4'21	Q3'21	Q2'21
Revenues	\$ 34,668	\$ 33,498	\$ 29,886	\$ 29,555	\$ 27,419
GAAP Gross Margin	65%	66%	61%	63%	61%
Non-GAAP Gross Margin	69%	69%	65%	66%	65%
Outstanding Debt	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Operating Cash Flow	\$ 3,624	\$ 2,996	\$ 416	\$ 4,022	\$ 8,130
Cash Used for Capital Expenditures (CAPEX)	\$ 2,822	\$ 1,765	\$ 1,340	\$ 1,592	\$ 535
\$ Shares Repurchased	\$ 16,693	\$ 5,778	\$ 0	\$ 0	\$ 0
Weighted Average Common Shares Outstanding	37.0	37.6	37.3	37.2	37.0
Effective Tax Rate Expense	(821)%	(40)%	(30)%	(27)%	(2)%

Key Financial & Operating Metrics – Year to Date

(in thousands, except share data, which is in millions, and percentages)

	Six Months Ended June 30,		
	2022	2021	2020
Revenues	\$ 68,166	\$ 51,619	\$ 42,567
GAAP Gross Margin	65%	58%	59%
Non-GAAP Gross Margin	69%	63%	64%
Outstanding Debt	\$ 0	\$ 0	\$ 0
Operating Cash Flow	\$ 6,620	(\$ 195)	\$ 10,630
Cash Used for CAPEX	\$ 4,587	\$ 1,121	\$ 3,940
\$ Shares Repurchased	\$ 22,471	\$ 4,523	\$ -
Weighted Average Common Shares Outstanding	37.3	37.0	32.8
Effective Tax Rate Benefit (Expense)	(89)%	(9)%	43%

Revenue by Geographic Area – Quarterly

(Dollars in thousands)

	Q2'22	Q1'22	Q4'21	Q3'21	Q2'21
United States	\$ 17,086	\$ 17,491	\$ 15,739	\$ 13,983	\$ 12,095
% of Total	49%	52%	53%	47%	44%
China	\$ 4,539	\$ 4,120	\$ 4,202	\$ 4,038	\$ 4,289
% of Total	13%	12%	14%	14%	16%
Japan	\$ 2,794	\$ 2,607	\$ 2,554	\$ 2,515	\$ 2,450
% of Total	8%	8%	8%	9%	9%
Rest of the world	\$ 10,249	\$ 9,280	\$ 7,391	\$ 9,019	\$ 8,585
% of Total	30%	28%	25%	30%	31%
Total revenues	\$ 34,668	\$ 33,498	\$ 29,886	\$ 29,555	\$ 27,419

Revenue by Geographic Area – Year to Date

(Dollars in thousands)

	Six Months Ended June 30,		
	2022	2021	2020
United States	\$ 34,577	\$ 20,651	\$ 18,532
% of Total	51%	40%	44%
China	\$ 8,659	\$ 6,028	\$ 3,454
% of Total	13%	12%	8%
Japan	\$ 5,401	\$ 6,028	\$ 2,301
% of Total	8%	12%	5%
Rest of the world	\$ 19,529	\$ 18,912	\$ 18,280
% of Total	28%	36%	43%
Total revenues	\$ 68,166	\$ 51,619	\$ 42,567

GAAP / Non-GAAP Presentation

In addition to providing results that are determined in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP), the Company also provides certain non-GAAP financial measures. Non-GAAP gross margin excludes stock-based compensation expense and the amortization of acquired technology. Non-GAAP net income (loss) excludes the effects of certain non-recurring items (including expenses related to an arbitration proceeding for a disputed customer contract, write-down in value of property and equipment), stock-based compensation expenses, amortization of acquired technology and other acquired intangible assets, and their related income tax effects, as applicable, tax impact of the CARES Act, as well as adjustments for the valuation allowance for deferred tax assets. These non-GAAP financial measures are used by management internally to measure the Company's profitability and performance. PDF Solutions' management believes that these non-GAAP measures provide useful supplemental measures to investors regarding the Company's ongoing operations in light of the fact that none of these categories of expense has a current effect on the future uses of cash (with the exception of expenses related to an arbitration proceeding for a disputed customer contract) nor do they impact the generation of current or future revenues. These non-GAAP results should not be considered an alternative to, or a substitute for, GAAP financial information, and may be different from similarly titled non-GAAP measures used by other companies. In particular, these non-GAAP financial measures are not a substitute for GAAP measures of income or loss as a measure of performance, or to cash flows from operating, investing and financing activities as a measure of liquidity. Management uses these non-GAAP financial measures internally to measure profitability and performance; these non-GAAP measures are presented here to give investors an opportunity to see the Company's financial results as viewed by management. A detailed reconciliation of the adjustments made to comparable GAAP measures is included herein.

Reconciliation of GAAP to Non-GAAP Net Income (Loss)

Quarterly	<i>(in thousands, except for shares and per share amounts)</i>				
	Q2'22	Q1'22	Q4'21	Q3'21	Q2'21
GAAP net loss	(\$ 1,147)	(\$ 4,150)	(\$ 7,000)	(\$ 2,407)	(\$ 4,484)
Adjustments to reconcile GAAP net loss to non-GAAP net income (loss):					
Stock-based compensation expense	3,872	5,553	3,457	3,363	2,742
Amortization of acquired technology	553	553	554	454	536
Amortization of other acquired intangible assets	314	314	313	314	314
Expenses of arbitration (1)	36	451	757	341	558
Write-down in value of property and equipment (2)	—	—	3,183	—	—
Tax impact of valuation allowance for deferred tax assets (3)	664	937	1,539	334	52
Non-GAAP net income (loss)	<u>\$ 4,292</u>	<u>\$ 3,658</u>	<u>\$ 2,803</u>	<u>\$ 2,399</u>	<u>(\$ 282)</u>
GAAP net loss per diluted share	<u>(\$ 0.03)</u>	<u>(\$ 0.11)</u>	<u>(\$ 0.19)</u>	<u>(\$ 0.06)</u>	<u>(\$ 0.12)</u>
Non-GAAP net income (loss) per diluted share	<u>\$ 0.11</u>	<u>\$ 0.09</u>	<u>\$ 0.07</u>	<u>\$ 0.06</u>	<u>(\$ 0.01)</u>
Shares used in net income (loss) per diluted share calculation	<u>37,615</u>	<u>38,580</u>	<u>38,430</u>	<u>37,916</u>	<u>37,004</u>

- (1) Represents expenses related to an arbitration proceeding over a disputed customer contract, which expenses are expected to continue until the arbitration is resolved.
- (2) Pertains to write-down in value of our first-generation of e-beam tools for Design-for-Inspection systems wherein carrying values may not be fully recoverable due to lack of market demand and future needs of our customers for these tools.
- (3) The Company's GAAP tax expense is higher compared to the non-GAAP tax expense, primarily due to the GAAP full U.S. federal and state valuation allowances. For example, on a GAAP basis, the Company does not receive a deferred tax benefit for foreign tax credits or R&D credits after valuation allowance. The Company's non-GAAP tax rate and resulting non-GAAP tax expense is not calculated with a full U.S. federal or state valuation allowance due to the Company's cumulative Non-GAAP income and management's conclusion that it is more likely than not to utilize its net deferred tax assets (DTAs). Each reporting period, management evaluates the need for a valuation allowance and may place a valuation allowance against its U.S. net DTA on a non-GAAP basis if it concludes it is more likely than not that it will not be able to utilize some or all of its US DTAs on a non-GAAP basis.

Reconciliation of GAAP to Non-GAAP Net Income (Loss)

Year to Date

(in thousands, except for shares and per share amounts)

	Six Months Ended June 30,		
	2022	2021	2020
GAAP net loss	(\$ 5,297)	(\$ 12,081)	(\$ 4,180)
Adjustments to reconcile GAAP net loss to non-GAAP net income (loss):			
Stock-based compensation expense	9,425	6,111	6,346
Amortization of acquired technology	1,106	1,071	287
Amortization of other acquired intangible assets	628	628	347
Expenses of arbitration (1)	487	853	464
Write-down in value of property and equipment	—	—	311
Tax impact of reconciling items	—	—	(976)
Tax impact of the CARES Act (2)	—	—	(2,261)
Tax impact of valuation allowance for deferred tax assets (3)	1,601	1,218	—
Non-GAAP net income (loss)	\$ 7,950	(\$ 2,200)	\$ 338
GAAP net loss per diluted share	(\$ 0.14)	(\$ 0.33)	(\$ 0.13)
Non-GAAP net income (loss) per diluted share	\$ 0.21	(\$ 0.06)	\$ 0.01
Shares used in net income (loss) per diluted share calculation	38,096	36,989	33,718

- (1) Represents expenses related to an arbitration proceeding over a disputed customer contract, which expenses are expected to continue until the arbitration is resolved.
- (2) The Company recognized a discrete tax benefit recognized from the carryback of net operating losses (NOLs) under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") enacted in March 2020. Due to the full valuation allowance against U.S. DTA recognized in the fourth quarter of 2020, there is no tax benefit from the released tax attributes. The Company does not have any NOLs on a non-GAAP basis and, therefore, it did not recognize this discrete tax benefit in calculating its non-GAAP tax expense and net income (loss).
- (3) The Company's GAAP tax expense is higher compared to the non-GAAP tax expense, primarily due to the GAAP full U.S. federal and state valuation allowances. For example, on a GAAP basis, the Company does not receive a deferred tax benefit for foreign tax credits or R&D credits after valuation allowance. The Company's non-GAAP tax rate and resulting non-GAAP tax expense is not calculated with a full U.S. federal or state valuation allowance due to the Company's cumulative Non-GAAP income and management's conclusion that it is more likely than not to utilize its net deferred tax assets (DTAs). Each reporting period, management evaluates the need for a valuation allowance and may place a valuation allowance against its U.S. net DTA on a non-GAAP basis if it concludes it is more likely than not that it will not be able to utilize some or all of its US DTAs on a non-GAAP basis.

Reconciliation of GAAP to Non-GAAP Spending by Function

Quarterly

	<i>(in thousands)</i>				
	Q2'22	Q1'22	Q4'21	Q3'21	Q2'21
Cost of Revenue - GAAP	\$ 12,042	\$ 11,529	\$ 11,675	\$ 11,070	\$ 10,785
Adjustments to reconcile GAAP Cost of Revenue to Non-GAAP Cost of Revenue:					
Stock-based compensation expense	(655)	(728)	(703)	(670)	(538)
Amortization of acquired technology	(553)	(553)	(554)	(454)	(536)
Cost of Revenue - Non-GAAP	\$ 10,834	\$ 10,248	\$ 10,418	\$ 9,946	\$ 9,711
Research & Development - GAAP	\$ 13,374	\$ 14,089	\$ 11,218	\$ 10,657	\$ 11,064
Adjustments to reconcile GAAP R&D to Non-GAAP R&D:					
Stock-based compensation expense	(1,810)	(3,168)	(1,502)	(1,299)	(1,126)
Research & Development - Non-GAAP	\$ 11,564	\$ 10,921	\$ 9,716	\$ 9,358	\$ 9,938
Selling, General, & Administrative - GAAP	\$ 9,770	\$ 10,839	\$ 9,167	\$ 9,609	\$ 9,410
Adjustment to reconcile GAAP SG&A to Non-GAAP SG&A:					
Stock-based compensation expense	(\$ 1,407)	(\$ 1,657)	(\$ 1,252)	(\$ 1,394)	(\$ 1,078)
Expenses of arbitration (1)	(\$ 36)	(\$ 451)	(\$ 757)	(\$ 341)	(\$ 558)
Selling, General, & Administrative - Non-GAAP	\$ 8,327	\$ 8,731	\$ 7,158	\$ 7,874	\$ 7,774

(1) Represents expenses related to an arbitration proceeding over a disputed contract with a customer, which expenses are expected to continue until the arbitration is resolved.

Reconciliation of GAAP to Non-GAAP Spending by Function

Year to Date

(in thousands)

	Six Months Ended June 30,		
	2022	2021	2020
Cost of Revenue - GAAP	\$ 23,571	\$ 20,848	\$ 17,433
Adjustments to reconcile GAAP Cost of Revenue to Non-GAAP Cost of Revenue:			
Stock-based compensation expense	(1,383)	(1,190)	(1,792)
Amortization of acquired technology	(1,106)	(1,071)	(287)
Cost of Revenue - Non-GAAP	\$ 21,082	\$ 18,587	\$ 15,354
Research & Development - GAAP	\$ 27,463	\$ 21,905	\$ 16,344
Adjustments to reconcile GAAP R&D to Non-GAAP R&D:			
Stock-based compensation expense	(4,978)	(2,714)	(2,465)
Write-down in value of property and equipment	—	—	(149)
Research & Development - Non-GAAP	\$ 22,485	\$ 19,191	\$ 13,730
Selling, General, & Administrative - GAAP	\$ 20,609	\$ 18,874	\$ 15,632
Adjustment to reconcile GAAP SG&A to Non-GAAP SG&A:			
Stock-based compensation expense	(3,064)	(2,207)	(2,089)
Expenses of arbitration (1)	(487)	(853)	(464)
Write-down in value of property and equipment	—	—	(162)
Selling, General, & Administrative - Non-GAAP	\$ 17,058	\$ 15,814	\$ 12,917

(1) Represents expenses related to an arbitration proceeding over a disputed contract with a customer, which expenses are expected to continue until the arbitration is resolved.