REFINITIV

DELTA REPORT

10-Q

PI - IMPINJ INC

10-Q - MARCH 31, 2024 COMPARED TO 10-Q - SEPTEMBER 30, 2023

The following comparison report has been automatically generated

TOTAL DELTAS	2005
CHANGES	135
DELETIONS	729
ADDITIONS	1141

REFINITIV

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, March 31, 2023 2024

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to .

Commission File Number: 001-37824

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

Delaware	**91-2041398**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
400 Fairview Avenue North, Suite 1200, Seattle, Washington	**98109**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (206) 517-5300

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 $0.001 per share	PI	The Nasdaq Global Select Market

Indicate by check mark whether the registrant registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		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. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

As of October 13, 2023 April 12, 2024, 27,055,862 27,712,953 shares of common stock were outstanding.

Table of Contents

IMPINJ, INC.

QUARTERLY REPORT ON FORM 10-Q

Table of Contents

Table of Contents

Risk Factor Summary

Our business is subject to numerous risks and uncertainties, including those highlighted in the section of this report captioned “Risk Factors.” These risks include, but are not limited to, the following:

- we operate in a very competitive market;
- RAIN RFID (“RAIN”) adoption is concentrated in key industries markets and the extent and pace of RAIN market adoptio beyond those industries these markets is uncertain;
- our abilities to deliver platform enterprise solutions at scale are nascent;
- poor product quality could result in significant costs to us and impair our ability to sell our products;
- end users and partners must design our products into their products and business processes;
- an inability or limited ability of end user systems to exploit RAIN information may adversely affect the market for our products;
- alternative technologies may enable products and services that compete with ours;
- we obtain the products we sell through a limited number of third parties with whom we do not have long-term supply contracts;
- shortages of silicon wafers and or components used in our readers and gateways may adversely affect our ability to mee demand for our products and adversely affect our revenue and/or gross margins;
- we rely on a small number of customers for a large share of our revenue;
- our ability to affect or determine end-user demand is limited in part because we sell and fulfill primarily through partners rarely to end users;
- our growth strategy depends in part on the success of strategic relationships with third parties and their continued performance and alignment;

- if we are unable to protect our intellectual property, then our business could be adversely affected;
- we have been and may become in the future be, party to intellectual property disputes which could be time consuming ar costly to prosecute, defend or settle, result in the loss of significant rights, and adversely affect RAIN adoption or adoptic our products or platform;
- we have a history of losses and have only achieved profitability intermittently and we cannot be certain that we will attair sustain profitability in the future;
- we have a history of significant fluctuations in our quarterly and annual operating results;
- our executive officers, directors and principal stockholders, together with their affiliates, beneficially owned approximately 54.6% 51.0% of our outstanding common stock as of September 30, 2023 March 31, 2024, and as a result are able to exercise significant influence over matters subject to stockholder approval; and
- we may not have sufficient cash flow or access to cash necessary to satisfy our obligations under the $287.5 million aggregate principal amount 1.125% convertible senior notes due 2027, or also referred to as the 2021 Notes, and our cu and future indebtedness may restrict our business.

3

Table of Contents

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements (unaudited).

IMPINJ, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except par value, unaudited)

	September 30, 2023	December 31, 2022	March 31, 2024	December 31, 2023
Assets:				
Current assets:				
Cash and cash equivalents	$ 78,100	$ 19,597	$ 166,852	$ 94,793
Short-term investments	35,129	154,148	7,292	18,440
Accounts receivable, net	48,482	49,996	59,384	54,919

Inventory	106,806	46,397	87,757	97,172
Prepaid expenses and other current assets	4,446	5,032	3,120	4,372
Total current assets	272,963	275,170	324,405	269,696
Long-term investments	—	19,200		
Property and equipment, net	44,923	39,027	47,451	44,891
Intangible assets, net	14,727	—	12,207	13,913
Operating lease right-of-use assets	10,326	10,490	9,107	9,735
Other non-current assets	1,613	1,969	1,370	1,478
Goodwill	19,049	3,881	19,343	19,696
Total assets	$ 363,601	$ 349,737	$ 413,883	$ 359,409
Liabilities and stockholders' equity:				
Current liabilities:				
Accounts payable	$ 11,017	$ 25,024	$ 9,416	$ 8,661
Accrued compensation and employee related benefits	7,702	9,048	8,207	8,519
Accrued and other current liabilities	9,306	2,925	11,694	8,614
Current portion of operating lease liabilities	3,308	3,122	3,454	3,373
Current portion of deferred revenue	2,425	2,250	1,672	1,713
Total current liabilities	33,758	42,369	34,443	30,880
Long-term debt	281,449	280,244	282,262	281,855
Operating lease liabilities, net of current portion	10,205	11,066	8,444	9,360
Deferred tax liabilities, net	3,062	118	2,574	2,911
Deferred revenue, net of current portion	327	349	237	272
Total liabilities	328,801	334,146	327,960	325,278
Commitments and contingencies (Note 6)				
Commitments and contingencies (Note 12)				
Stockholders' equity:				

Preferred stock, $0.001 par value — 5,000 shares authorized, no shares issued and outstanding at September 30, 2023 and December 31, 2022	—	—		
Common stock, $0.001 par value — 495,000 shares authorized, 27,020 and 26,098 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively	27	26		
Preferred stock, $0.001 par value — 5,000 shares authorized, no shares issued and outstanding at March 31, 2024 and December 31, 2023			—	—
Common stock, $0.001 par value — 495,000 shares authorized, 27,658 and 27,166 shares issued and outstanding at March 31, 2024 and December 31, 2023, respectively			28	27
Additional paid-in capital	450,746	403,599	482,972	463,900
Accumulated other comprehensive loss	(1,002)	(1,249)		
Accumulated other comprehensive income (loss)			(270)	355
Accumulated deficit	(414,971)	(386,785)	(396,807)	(430,151)
Total stockholders' equity	34,800	15,591	85,923	34,131
Total liabilities and stockholders' equity	$ 363,601	$ 349,737	$ 413,883	$ 359,409

See accompanying notes to condensed consolidated financial statements.

Table of Contents

IMPINJ, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data, unaudited)

	Three Months Ended September 30,	Nine Months Ended September 30,	Three Months Ended March 31,

	2023	2022	2023	2022	2024	2023
Revenue	$ 65,005	$ 68,270	$ 236,888	$ 181,210	$ 76,825	$ 85,897
Cost of revenue	34,237	30,835	118,776	83,494	39,277	42,367
Gross profit	30,768	37,435	118,112	97,716	37,548	43,530
Operating expenses:						
Research and development	21,588	18,766	67,426	55,124	22,519	22,435
Sales and marketing	10,073	9,326	30,678	28,239	10,176	9,973
General and administrative	13,532	11,087	45,098	33,888	13,365	15,564
Amortization of intangibles	1,409	—	3,555	—	1,409	—
Restructuring costs					1,812	—
Total operating expenses	46,602	39,179	146,757	117,251	49,281	47,972
Loss from operations	(15,834)	(1,744)	(28,645)	(19,535)	(11,733)	(4,442)
Other income, net	1,090	774	3,620	1,367	1,292	1,365
Induced conversion expense	—	—	—	(2,232)		
Income from settlement of litigation					45,000	—
Interest expense	(1,213)	(1,205)	(3,633)	(3,716)	(1,216)	(1,209)
Loss before income taxes	(15,957)	(2,175)	(28,658)	(24,116)		
Income (loss) before income taxes					33,343	(4,286)
Income tax benefit (expense)	195	(24)	472	(67)	1	(72)
Net loss	$ (15,762)	$ (2,199)	$ (28,186)	$ (24,183)		
Net income (loss)					$ 33,344	$ (4,358)
Net loss per share — basic and diluted	$ (0.59)	$ (0.09)	$ (1.06)	$ (0.95)		
Weighted-average shares outstanding — basic and diluted	26,920	25,743	26,639	25,384		
Net income (loss) per share — basic					$ 1.22	$ (0.17)
Net income (loss) per share — diluted					$ 1.10	$ (0.17)

Weighted-average shares outstanding — basic	27,357	26,285
Weighted-average shares outstanding — diluted	31,425	26,285

See accompanying notes to condensed consolidated financial statements.

Table of Contents

IMPINJ, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS INCOME (LOSS)

(in thousands, unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	**2022**	**2023**	**2022**
Net loss	$ (15,762)	$ (2,199)	$ (28,186)	$ (24,183)
Other comprehensive gain (loss), net of tax:				
Unrealized gain (loss) on investments	223	(504)	1,060	(1,691)
Foreign currency translation adjustments	(900)	—	(813)	—
Total other comprehensive gain (loss)	(677)	(504)	247	(1,691)
Comprehensive loss	$ (16,439)	$ (2,703)	$ (27,939)	$ (25,874)

	Three Months Ended March 31,	
	2024	**2023**
Net income (loss)	$ 33,344	$ (4,358)
Other comprehensive income (loss), net of tax:		
Unrealized loss on investments	34	644
Foreign currency translation adjustment	(659)	—
Total other comprehensive income (loss)	(625)	644
Comprehensive income (loss)	$ 32,719	$ (3,714)

See accompanying notes to condensed consolidated financial statements.

Table of Contents

IMPINJ, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands, unaudited)

	Nine Months Ended September 30,		Three Months Ended March 31,	
	2023	2022	2024	2023
Operating activities:				
Net loss	$ (28,186)	$ (24,183)		
Net income (loss)			$ 33,344	$ (4,358)
Adjustments to reconcile net loss to net cash provided by operating activities:				
Depreciation and amortization	9,733	4,456	3,909	1,793
Stock-based compensation	35,679	32,230	11,790	10,224
Restructuring equity modification expense			366	—
Accretion of discount or amortization of premium on investments	(1,600)	301	(67)	(766)
Amortization of debt issuance costs	1,206	1,203	407	400
Induced conversion expense related to convertible notes	—	2,232		
Deferred tax expense	(662)	—	(278)	—
Revaluation of acquisition-related contingent consideration liability			907	—
Changes in operating assets and liabilities, net of amounts acquired:				
Accounts receivable	2,683	(5,218)	(4,503)	(10,970)
Inventory	(59,239)	(9,967)	9,400	(39,412)
Prepaid expenses and other assets	1,407	45	1,355	1,389
Accounts payable	(10,054)	1,107	1,878	14,650
Accrued compensation and employee related benefits	(1,904)	1,571	(292)	(2,006)
Accrued and other liabilities	1,677	1,252	2,182	4,472
Operating lease right-of-use assets	1,990	2,490	614	695
Operating lease liabilities	(2,501)	(3,064)	(820)	(891)
Deferred revenue	(1,038)	2,358	(52)	(1,780)
Net cash provided by (used in) operating activities	(50,809)	6,813	60,140	(26,560)

Investing activities:				
Purchases of investments	—	(159,837)		
Proceeds from sales of investments	13,372	—	—	13,372
Proceeds from maturities of investments	127,449	79,508	11,248	34,136
Proceeds from sale of property and equipment	234	—		
Purchases of intangible assets	(250)	—		
Purchases of property and equipment	(15,968)	(5,975)	(6,202)	(7,582)
Business acquisitions, net of cash acquired	(23,357)	—		
Net cash provided by (used in) investing activities	101,480	(86,304)		
Net cash provided by investing activities			5,046	39,926
Financing activities:				
Proceeds from exercise of stock options and employee stock purchase plan	7,890	12,462	6,917	4,520
Payment of 2019 Notes	—	(17,564)		
Net cash provided by (used in) financing activities	7,890	(5,102)		
Net cash provided by financing activities			6,917	4,520
Effect of exchange rate changes on cash and cash equivalents	(58)	—	(44)	—
Net increase (decrease) in cash and cash equivalents	58,503	(84,593)		
Net increase in cash and cash equivalents			72,059	17,886
Cash and cash equivalents				
Beginning of period	19,597	123,903	94,793	19,597
End of period	$ 78,100	$ 39,310	$ 166,852	$ 37,483
Supplemental disclosure of cashflow information:				
Cash paid for interest	1,617	$ 1,803		
Purchases of property and equipment not yet paid	1,539	2,519	299	3,284
Operating lease liabilities arising from obtaining ROU assets	979	—		
Lease liabilities arising from remeasurement of ROU assets	159	—		
26,396 shares of common stock issued for Voyantic Oy acquisition	3,579	—		
Acquisition-related contingent consideration liability	4,602	—	7,087	—

See accompanying notes to condensed consolidated financial statements.

[Table of Contents](#)

IMPINJ, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(in thousands, unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (loss)	Total Stockholders' Equity
	Shares	**Amount**				
Balance at December 31, 2022	26,098	26	403,599	(386,785)	(1,249)	$ 15,591
Issuance of common stock	483	1	4,519	—	—	4,520
Stock-based compensation	—	—	10,224	—	—	10,224
Net loss	—	—	—	(4,358)	—	(4,358)
Other comprehensive loss	—	—	—	—	644	644
Balance at March 31, 2023	26,581	$ 27	$ 418,342	$ (391,143)	$ (605)	$ 26,621
Issuance of common stock	211	—	1,233	—	—	1,233
Stock-based compensation	—	—	13,148	—	—	13,148
Net loss	—	—	—	(8,066)	—	(8,066)
Common stock issued for Voyantic acquisition (Note 4)	27	—	3,579	—	—	3,579
Other comprehensive loss	—	—	—	—	280	280
Balance at June 30, 2023	26,819	$ 27	$ 436,302	$ (399,209)	$ (325)	$ 36,795
Issuance of common stock	201	—	2,137	—	—	2,137
Stock-based compensation	—	—	12,307	—	—	12,307
Net loss	—	—	—	(15,762)	—	(15,762)
Other comprehensive loss	—	—	—	—	(677)	(677)
Balance at September 30, 2023	27,020	$ 27	$ 450,746	$ (414,971)	$ (1,002)	$ 34,800

Common Stock	Additional Paid-in	Accumulated	Accumulated Other Comprehensive	Total Stockholders' Equity

Common Stock	Additional Paid-in	Accumulated	Accumulated Other Comprehensive	Total Stockholders'

	Shares	Amount	Capital	Deficit	Income (loss)	(Deficit)	Shares	Amount	Capital	Deficit	Income (Loss)	Equity (Deficit)
Balance at December 31, 2021	24,737	$ 25	$ 351,422	$ (362,484)	$ (39)	$ (11,076)						
Balance at December 31, 2022							26,098	$ 26	$ 403,599	$ (386,785)	$ (1,249)	$ 15,591
Issuance of common stock	483	—	4,611	—	—	4,611	483	1	4,519	—	—	4,520
Stock-based compensation	—	—	11,314	—	—	11,314	—	—	10,224	—	—	10,224
Net loss	—	—	—	(10,461)	—	(10,461)	—	—	—	(4,358)	—	(4,358)
Other comprehensive loss	—	—	—	—	(677)	(677)	—	—	—	—	644	644
Balance at March 31, 2022	25,220	$ 25	$ 367,347	$ (372,945)	$ (716)	$ (6,289)						
Balance at March 31, 2023							26,581	$ 27	$ 418,342	$ (391,143)	$ (605)	$ 26,621

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balance at December 31, 2023	27,166	$ 27	$ 463,900	$ (430,151)	$ 355	$ 34,131

Issuance of common stock	327	1	1,884	—	—	1,885	494	1	6,916	—	—	6,917
Stock-based compensation	—	—	10,859	—	—	10,859	—	—	11,790	—	—	11,790
Net loss	—	—	—	(11,523)	—	(11,523)						
Restructuring equity modification expense							—	—	366	—	—	366
Net income							—	—	—	33,344	—	33,344
Other comprehensive loss	—	—	—	—	(510)	(510)	—	—	—	—	(625)	(625)
Induced conversion on 2019 Notes	—	—	(5,681)	—	—	(5,681)						
Balance at June 30, 2022	25,547	26	374,409	(384,468)	(1,226)	(11,259)						
Issuance of common stock	329	—	5,966	—	—	5,966						
Stock-based compensation	—	—	10,057	—	—	10,057						
Net loss	—	—	—	(2,199)	—	(2,199)						
Other comprehensive loss	—	—	—	—	(504)	(504)						

Balance at September 30, 2022	25,876	$ 26	$ 390,432	$ (386,667)	$ (1,730)	$ 2,061
Balance at March 31, 2024	27,660	$ 28	$ 482,972	$ (396,807)	$ (270)	$ 85,923

See accompanying notes to condensed consolidated financial statements.

Table of Contents

IMPINJ, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

Note 1. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements include Impinj, Inc. and its wholly owned subsidiaries. We have eliminated intercompany balances and transactions in consolidation. We have prepared these condensed consolidated financial statements in conformity with U.S. generally accepted accounting principles or GAAP, ("GAAP"), and applicable rules and regulations of the Securities and Exchange Commission or SEC, ("SEC"), regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. Accordingly, these interim condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and accompanying notes as of and for the year ended December 31, 2022 December 31, 2023 included in Impinj, Inc.’s Annual Report on Form 10-K, which was filed with the SEC on February 13, 2023 February 12, 2024. We have reclassified certain amounts on our consolidated statement of cash flows in the prior period to conform to current period presentation.

The unaudited condensed consolidated interim financial statements, in the opinion of management, reflect all adjustments, comprising normal recurring adjustments, necessary to state fairly our financial position, results of operations and our cash flows for the periods presented. Interim results are not necessarily indicative of the results for a full year or for any other future period.

Business combinations and intangible assets including goodwill — We account for business combinations using the acquisition method which involves allocating the purchase price paid to assets acquired and liabilities assumed at their acquisition-date fair values. While we use our best estimates and assumptions to accurately estimate the fair value of assets acquired, liabilities assumed and contingent consideration, our estimates are inherently uncertain. On April 3, 2023, we completed the acquisition of Voyantic Oy and applied judgment in estimating the fair value of the intangible assets from the acquisition. These estimates involved using assumptions related to revenue growth rates, discount rates, underlying product or technology life cycles, and expenses necessary to support the acquired technology and estimated sales cycle for customer relationships.

The acquisition-date fair value of total consideration includes cash, shares and contingent consideration. Because we are contractually obligated to pay contingent consideration upon Voyantic achieving certain specified objectives, we record a contingent consideration liability at the acquisition date. We review assumptions related to the fair value of the contingent consideration liability each reporting period and revalue the contingent consideration liability based on the revised assumptions, until the contingency is satisfied. We recognize the change in fair value of the contingent consideration liability in “General and administrative” expense on the consolidated statements of operations for the period in which the fair value changes.

We calculate goodwill as the excess of the acquisition-date fair value of total consideration over the acquisition-date fair value of net assets, including the amount assigned to identifiable intangible assets. We perform an impairment assessment at least once annually, or more frequently if indicators of potential impairment exist, which includes evaluating qualitative and quantitative factors to assess the likelihood of an impairment of a reporting unit’s goodwill.

We amortize identifiable intangible assets with finite lives over their useful lives on a straight-line basis. We expense acquisition-related costs, including advisory, legal, accounting, valuation, and other similar costs, in the periods in which the costs are incurred. We include the results of operations of acquired businesses in the consolidated financial statements from the acquisition date.

Foreign currencies — We translate the assets and liabilities of our non-U.S. dollar functional currency subsidiary into U.S. dollars using exchange rates in effect at the end of each period. Revenue and expenses for this subsidiary are translated using rates that approximate those in effect during the period. We recognize gains and losses from these translations as a component of accumulated other comprehensive income (loss) in stockholders' equity. Our subsidiaries that use the U.S. dollar as their functional currency re-measure monetary assets and liabilities at exchange rates in effect at the end of each period, and non-monetary assets and liabilities at historical rates. We have included the gains or losses from foreign currency remeasurement in earnings.

Use of Estimates

Preparing financial statements in conformity with GAAP requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and related disclosures as of the date of the financial statements, as well as the reported revenue and expenses during the periods presented. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, sales incentives, percentage completion of development contracts, inventory excess and obsolescence, income taxes and fair value of stock awards. To the extent there are material differences between our estimates, judgments, or assumptions and actual results, our financial statements will be affected.

Table of Contents

Recently Adopted Accounting Standards Licensing of Intellectual Property

In October 2021, On March 13, 2024, we and NXP Semiconductors N.V. ("NXP") entered into a Settlement and Patent Cross-License Agreement (the “Settlement Agreement”). Under the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting Settlement Agreement, NXP made a one-time payment of $45 million and agreed to make annual license fee payments on April 1 of each year, starting on April 1, 2024, until the termination of the Settlement Agreement. The annual license fee payment for Contract Assets 2024 is $15 million and Contract Liabilities will increase each subsequent year by a fixed percentage. We allocated the consideration from Contracts the Settlement Agreement to the related components of the agreement. We recorded the $45 million payment in income from settlement of litigation in the condensed consolidated statements of operations upon receipt. We will recognize the license fee, which relates to annual usage of the license from April 1 to March 31 of each applicable year, as revenue in the second quarter of each year for as long as NXP is still using the Indicator Patents as specified in the Settlement Agreement.

We recognize revenue from licensing the right to use functional intellectual property, such as the Settlement Agreement discussed above, at the point in time the control of the license transfers to the customer, which is generally upon delivery, or as usage occurs. See Note 6 Commitments and Contingencies for additional details of the Settlement Agreement with Customers. Under ASU 2021-08, an acquirer must recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606. The guidance is effective for interim and annual periods beginning after December 15, 2022, with early adoption permitted. The impact of adoption of this standard on our consolidated financial statements, including accounting policies and processes, was not material. NXP.

Recently Issued Accounting Standards Not Yet Adopted

Recent accounting pronouncements issued by In November 2023, the FASB (including its Emerging Issues Task Force), the American Institute of Certified Public Accountants, and the SEC did not have, or are not expected released ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which amends reportable segment requirements, primarily through enhanced disclosures about significant segment expenses, including for public entities that have a material single reportable segment. The standard is effective for fiscal years beginning after December 31, 2023 and interim periods within fiscal years beginning after December 31, 2024. We are currently evaluating any impact of this standard on our present or future consolidated financial statement disclosures.

In December 2023, the FASB released ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which amends income tax disclosure requirements to enhance the transparency and decision usefulness for users of the financial statements. The standard is effective for fiscal years beginning after December 31, 2024. We are currently evaluating any impact of this standard on our financial statement disclosures.

[Table of Contents](#)

Note 2. Fair Value Measurements

Accounting standards define fair value as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The standards also establish a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. There are three levels of inputs that may be used to measure fair value:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Assets and liabilities valued based on observable market data for similar instruments, such as quoted prices for similar assets or liabilities.
- Level 3 — Unobservable inputs that are supported by little or no market activity; instruments valued based on the best available data, some of which is internally developed, and considers risk premiums that a market participant would require.

We do not have any financial assets or liabilities in Level 3 as of March 31, 2024 or December 31, 2023, except for the liability for the earnout consideration related to the Voyantic Oy acquisition. We have classified this liability as such because we determined the fair value using significant unobservable inputs.

We applied the following methods and assumptions in estimating our fair value measurements:

Cash Equivalents — Cash equivalents comprise highly liquid investments, including money market funds with original maturities of less than three months at the acquisition date. We record the fair value measurement of these assets based on quoted market prices in active markets.

Investments — Our investments comprise fixed income securities, which include U.S. government agency securities, corporate notes and bonds, commercial paper, treasury bills and asset-backed securities. The fair value measurement of these assets is based on observable market-based inputs or inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Long-term Debt — See Note 7 for the carrying amount and estimated fair value of the Notes.

Contingent Consideration — The contingent consideration liability is related to the acquisition of Voyantic Oy (see Note 4: Goodwill and Intangible Assets), and the related payments are expected to occur in 2024. As of September 30, 2023 March 31, 2024, we could be required to pay up to 10 million euros or $10.9 million contingent upon revenue and gross margin performance over a one-year period from the acquisition date. We recorded the contingent consideration at its fair value using unobservable inputs and used the Monte Carlo simulation option pricing framework, incorporating contractual terms and assumptions regarding financial forecasts, discount rates, and volatility liability of forecasted revenue and gross margins. A decrease in estimated revenues and gross margins or an increase in the discount rate would decrease the fair value of the contingent consideration liability. The estimated revenues and gross margins are not interrelated inputs. The development and determination of the unobservable inputs for Level 3 fair value measurements and fair value calculations is management's responsibility with the assistance of a third-party valuation specialist. As of September 30, 2023, we recorded approximately $4.6 7.1 million is included in "Accrued expenses and other current liabilities" on the condensed consolidated balance sheet.

Table of Contents

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis, by level within the fair value hierarchy, as of the dates presented (in thousands):

	September 30, 2023				December 31, 2022		
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Total
Cash equivalents:							
Money market funds	$ 60,628	$ —	$ —	$ 60,628	$ 14,620	$ —	$ 14,620
Total cash equivalents	60,628	—	—	60,628	14,620	—	14,620
Short-term investments:							
U.S. government agency securities	—	22,707	—	22,707	—	78,621	78,621
Corporate notes and bonds	—	2,500	—	2,500	—	26,953	26,953
Commercial paper	—	—	—	—	—	24,073	24,073
Treasury bill	—		—	—	—	11,359	11,359

Yankee bonds	—	1,920	—	1,920	—	1,939	1,939
Agency bonds	—	5,957	—	5,957	—	2,882	2,882
Asset-backed securities	—	2,045	—	2,045	—	8,321	8,321
Total short-term investments	—	35,129	—	35,129	—	154,148	154,148
Long-term investments:							
U.S. government agency securities	—	—	—	—	—	13,462	13,462
Yankee bonds	—	—	—	—	—	1,869	1,869
Agency bonds	—	—	—	—	—	2,983	2,983
Asset-backed securities	—	—	—	—	—	886	886
Total long-term investments	—	—	—	—	—	19,200	19,200
Total assets at fair value	60,628	35,129	—	95,757	14,620	173,348	187,968
Acquisition-related contingent consideration liability	—	—	4,602	4,602	—	—	—
Total liabilities at fair value	—	—	4,602	4,602	—	—	—

	March 31, 2024				December 31, 2023			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash equivalents:								
Money market funds	$ 132,475	$ —	$ —	$ 132,475	$ 78,661	$ —	$ —	$ 78,661
Total cash equivalents	132,475	—	—	132,475	78,661	—	—	78,661
Short-term investments:								
U.S. government agency securities	—	4,963	—	4,963	—	11,893	—	11,893
Corporate notes and bonds	—	—	—	—	—	—	—	—
Commercial paper	—	—	—	—	—	—	—	—
Treasury bill	—	—	—	—	—	—	—	—
Yankee bonds	—	1,973	—	1,973	—	1,951	—	1,951
Agency bonds	—	—	—	—	—	2,994	—	2,994
Asset-backed securities	—	356	—	356	—	1,602	—	1,602
Total short-term investments	—	7,292	—	7,292	—	18,440	—	18,440
Long-term investments:								
U.S. government agency securities	—	—	—	—	—	—	—	—
Yankee bonds	—	—	—	—	—	—	—	—
Agency bonds	—	—	—	—	—	—	—	—
Asset-backed securities	—	—	—	—	—	—	—	—

Total long-term investments	—	—	—	—	—	—	—	—
Total	$ 132,475	$ 7,292	$ —	$ 139,767	$ 78,661	$ 18,440	$ —	$ 97,101
Acquisition related contingent consideration liability	—	—	7,087	7,087	—	—	6,180	6,180
Total liabilities at fair value	$ —	$ —	$ 7,087	$ 7,087	$ —	$ —	$ 6,180	$ 6,180

A reconciliation 10

Table of Level 3 items Contents

The following table presents additional information about liabilities measured at fair value on a recurring basis is for which the Company utilizes Level 3 inputs to determine fair value as follows of March 31, 2024 (in thousands):

	Three Months Ended September 30, 2023
Contingent consideration liability:	
Balance at beginning of period	$ 4,602
Remeasurement of fair value of contingent consideration liability	—
Balance at end of period	$ 4,602

	Three Months Ended March 31, 2024
Balance as of January 1	$ 6,180
Change in fair value of contingent consideration liability due to remeasurement	907
Balance as of March 31	$ 7,087

We did not have any At the acquisition date, we recorded the contingent consideration related to the Voyantic Oy acquisition at its fair value using unobservable inputs and used the Monte Carlo simulation option pricing framework, incorporating contractual terms and assumptions regarding financial forecasts, discount rates and volatility of forecasted revenue and gross margins. The development and determination of the unobservable inputs for Level 3 assets nor did we measure any liabilities at fair value as measurements and fair value calculations is management's responsibility with the assistance of December 31, 2022. There were no transfers into or out of Level 3 of a third-party valuation specialist. During the quarter ended March 31, 2024, we remeasured the fair value hierarchy as of September 30, 2023 or as the contingent consideration liability based on updated inputs related to actual performance results and recorded an additional expense of December 31, 2022. $907,000 in general and administrative expense on the consolidated statement of operations. As of March 31, 2024 the contingent consideration liability of $7.1 million is included in "Accrued expenses and other current liabilities" on the condensed consolidated balance sheet.

As of December 31, 2023, the contingent consideration liability was $6.2 million.

We expect short-term investments to mature within 1 year of the reporting date. We expect long-term investments to mature between 1 and 2 years from the reporting date. See Note 7 for the carrying amount and estimated fair value of our convertible senior notes due 2027.

Investments

The following tables present the cost or amortized cost, gross unrealized gains, gross unrealized losses and total estimated fair value of our financial assets as of the dates presented (in thousands):

	September 30, 2023				March 31, 2024			
	Cost or Amortized Cost	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Total Estimated Fair Value**	**Cost or Amortized Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Total Estimated Fair Value**
Description:								
Money market funds	$ 60,628	$ —	$ —	$ 60,628	$ 132,475	$ —	$ —	$ 132,475
U.S. government agency securities	22,854	—	(147)	22,707	4,975	—	(12)	4,963
Corporate notes and bonds	2,500	—	—	2,500	—	—	—	—
Yankee bonds	1,935	—	(15)	1,920	1,977	—	(4)	1,973
Commercial paper	—	—	—	-	—	—	—	—
Treasury bill	—	—	—	—	—	—	—	—

Agency bond	5,973	—	(16)	5,957	—	—	—	—
Asset-backed securities	2,056	—	(11)	2,045	356	—	—	356
Total	$ 95,946	$ —	$ (189)	$ 95,757	$ 139,783	$ —	$ (16)	$ 139,767

	December 31, 2022				December 31, 2023			
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Total Estimated Fair Value	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Total Estimated Fair Value
Description:								
Money market funds	$ 14,620	$ —	$ —	$ 14,620	$ 78,661	$ —	$ —	$ 78,661
U.S. government agency securities	93,065	—	(982)	92,083	11,932	—	(39)	11,893
Corporate notes and bonds	27,133	6	(186)	26,953	—	—	—	—
Yankee bonds	3,815	—	(7)	3,808	1,956	—	(5)	1,951
Commercial paper	24,073	—	—	24,073	—	—	—	—
Treasury bill	11,361	2	(4)	11,359	—	—	—	—
Agency bond	5,863	4	(2)	5,865	2,998	—	(4)	2,994
Asset-backed securities	9,287	2	(82)	9,207	1,604	—	(2)	1,602

Total	$ 189,217	$ 14	$ (1,263)	$ 187,968	$ 97,151	$ —	$ (50)	$ 97,101

Table of Contents

Marketable securities in a continuous loss position for less than 12 months had an estimated fair value of $13.3 7.1 million and $125.6 10.2 million and unrealized losses of $100,000 16,000 and $1.2 25,000 million as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, respectively. Marketable securities in a continuous loss position for greater than 12 months had an estimated fair value of $19.3 million and $13.9 million and unrealized losses of $100,000 and $100,000 8.2 million and immaterial unrealized losses as of September 30, 2023 March 31, 2024 and December 31, 2022, respectively. $26,000 in unrealized losses as of December 31, 2023.

Unrealized losses from our fixed-income securities are primarily attributable to changes in interest rates and not to lower credit ratings of the issuers. In determining whether an unrealized loss is other-than-temporary, for the periods presented, we determined we do not have plans to sell the securities nor is it more likely than not that we would be required to sell the securities before their anticipated recovery. We used the specific identification method to determine cost of securities sold.

Table of Contents

Note 3. Inventory

The following table presents the detail of inventories as of the dates presented (in thousands):

	September 30, 2023	December 31, 2022	March 31, 2024	December 31, 2023
Raw materials	$ 14,908	$ 14,678	$ 19,787	$ 21,773
Work-in-process	54,128	14,525	32,311	42,217
Finished goods	37,770	17,194	35,659	33,182
Total inventory	$ 106,806	$ 46,397	$ 87,757	$ 97,172

Note 4. Goodwill and Intangible Assets

On April 3, 2023, we acquired all of the outstanding equity of Voyantic Oy for an aggregate purchase price of $32.7 million. The Our acquisition of Voyantic Oy adds label design, manufacturing and test systems, within testing to our systems product offering, which offerings, to advance the quality, reliability and readability of partner inlays. The consideration comprised (i) $3.6 million in shares of our common stock valued using the market price on the date of the acquisition, (ii) $4.6 million in deferred payments included within accrued and other current liabilities, that is contingent upon revenue and gross margin performance over a one-year period from the acquisition date, and (iii) the remainder in cash paid at closing.

We recorded the assets acquired and liabilities assumed at their estimated fair values as of the acquisition date. We recorded the excess of the purchase price over the assets acquired and liabilities assumed as goodwill. As part of the preliminary purchase price allocation, the The fair value of net assets acquired, goodwill, intangible assets and deferred tax liability were $2.4 million, $15.6 million, $18.4 million and $3.7 million, respectively. The goodwill amount represents synergies expected we expect to be realized realize from this the business combination and assembled workforce. The We allocated the goodwill was allocated to our one reporting unit and reportable segment. The acquired goodwill and intangible assets were not deductible for tax purposes.

The transaction-related costs for the acquisition were $1.7 907,000 million for the three months ended March 31, 2024. These costs are related to the revaluation of the contingent consideration subsequent to the acquisition date and are included in general and administrative expenses in the condensed consolidated statements of operations operations. See Note 2. Fair Value Measures for additional information on the nine months ended September 30, 2023. contingent consideration.

This acquisition did not have a material impact on our reported revenue or net loss amounts for any period presented; therefore, we have not presented historical and pro forma disclosures.

Goodwill represents the excess of the purchase price over the fair value of the net assets acquired in business combinations accounted for under the purchase method of accounting. The following table presents goodwill as of September 30, 2023 March 31, 2024 (in thousands):

	Nine Months Ended September 30, 2023	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023
Balance at beginning of period	$ 3,881	$ 19,696	$ 3,881
Additions from acquisition	$ 15,590		
Foreign currency translation adjustment	(422)	(353)	—
Total	$ 19,049	$ 19,343	$ 3,881

As of September 30, 2023 March 31, 2024, intangible assets comprised of the following (in thousands):

	Estimated Useful Life in Years	Gross Carrying Amount	Accumulated Amortization	Net	Estimated Useful Life in Years	Gross Carrying Amount	Accumulated Amortization	Net

Definite-lived intangible assets:								
Backlog	0.25	741	(741)	—	0.25	$ 755	$ (755)	$ —
Customer Relationships	1	3,546	(1,773)	1,773	1	3,615	(3,615)	—
Developed Technology	7.25	12,491	(861)	11,630	7.25	12,734	(1,757)	10,977
Patent	3	250	(17)	233	3	250	(59)	191
Tradename	8	1,164	(73)	1,091	8	1,187	(148)	1,039
Total definite-lived intangible assets (1)		18,192	(3,465)	14,727		18,541	(6,334)	12,207

(1) Foreign intangible asset carrying amounts are affected by foreign currency translation

(1) Foreign intangible asset carrying amounts are affected by foreign currency translation

(1) Foreign intangible asset carrying amounts are affected by foreign currency translation

We amortize identifiable intangible assets with finite lives over their useful lives on a straight-line basis. The weighted average life of our intangible assets is approximately six years. Amortization of intangible assets was $1.4 million and $3.6 million for the three and nine months ended September 30, 2023, respectively. March 31, 2024. There was no amortization of intangible assets for the three months ended March 31, 2023.

Table of Contents

As of September 30, 2023 March 31, 2024, the estimated intangible asset amortization expense for the next five years and thereafter is as follows:

	Estimated Amortization (in thousands)	Estimated Amortization (in thousands)
Remainder of 2023	$ 1,375	
2024	2,838	1,491
2025	1,952	1,988
2026	1,914	1,950
2027	1,869	1,905
2028		1,905
Thereafter	4,779	2,968
Total	$ 14,727	$ 12,207

Note 5. Stock-Based Awards

Restricted Stock Units

We grant restricted stock units or RSUs, ("RSUs"), with a service condition, and RSUs with market and service conditions or MSUs. Historically we granted RSUs with performance and service conditions, or PSUs, as part of our annual bonus plan to our senior executives and other bonus-eligible employees, however, in fiscal year 2023, our bonus plan is solely cash-based. ("MSUs").

The following table summarizes activity for RSUs PSUs and MSUs for the nine three months ended September 30, 2023 March 31, 2024 (in thousands):

	Number of Underlying Shares			Number of Underlying Shares	
	RSUs	MSUs	PSUs	RSUs	MSUs
Outstanding at December 31, 2022	1,310	110	74		
Outstanding at December 31, 2023				1,078	174
Granted	424	126	—	360	146
Vested	(521)	(58)	(57)	(164)	(98)
Forfeited	(40)	(4)	(17)	(79)	(2)
Outstanding at September 30, 2023	1,173	174	—		
Outstanding at March 31, 2024				1,195	220

Stock-Based Compensation Expense

The following table presents the detail of stock-based compensation expense amounts included in our condensed consolidated statements of operations for the periods presented (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,		Three Months Ended March 31,	
	2023	2022	2023	2022	2024	2023
Cost of revenue	$ 489	$ 509	$ 1,378	$ 1,407	$ 453	$ 417
Research and development expense	5,446	4,368	15,894	13,479	5,262	4,569
Sales and marketing expense	2,652	1,853	7,581	7,247	2,409	2,139
General and administrative expense	3,720	3,327	10,826	10,097	3,666	3,099
Total stock-based compensation expense	$ 12,307	$ 10,057	$ 35,679	$ 32,230	$ 11,790	$ 10,224

Table of Contents

Note 6. Commitments and Contingencies

For information on our commitments and contingencies, see Part II, Item 8 (Financial Statements and Supplementary Data, Note 11. 12 Commitments and Contingencies) of our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023. There have been no material changes to our commitments and contingencies as previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023, except for “Obligations with Third-Parties” and “Litigation” as discussed below.

Obligations with Third Parties

We manufacture products with third-party manufacturers. We are committed to purchase $30.9 17.6 million of inventory as of September 30, 2023 March 31, 2024.

Litigation

From time to time, we are subject to various legal proceedings or claims that arise in the ordinary course of business. We accrue a liability when management believes that it is both probable that we have incurred a liability and we can reasonably estimate the amount of loss. As of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, we did not have accrued contingency liabilities. The following is a description of our significant legal proceedings. Although we believe that resolving these claims, individually or in aggregate, will not have a material adverse impact on our financial statements, these matters are subject to inherent uncertainties.

Patent Infringement Claims and Counterclaims

Impinj Patent Infringement Claims Against NXP in California

On June 6, 2019, From 2019 to 2023, we filed a engaged in active patent infringement lawsuit litigation against NXP USA, Inc., a Delaware corporation and subsidiary of our primary endpoint IC competitor, NXP Semiconductors N.V., or NXP. During this time, we filed three patent infringement lawsuits against subsidiaries of NXP in the U.S. District Court for the Northern District of federal courts in California or the Court. and Texas. Our original complaint complaints alleged that certain NXP endpoint ICs infringe 26infringed a number of our U.S. patents. At the order of the Court, we filed an amended complaint limited to eight of the original 26 patents. We subsequently elected to go forward with asserting infringement of six of those eight patents. We sought, among other things, past damages, including lost profits; no less than a reasonable royalty; enhanced damages for willful infringement; and reasonable attorneys' fees and costs. We also sought an injunction against NXP making, selling, using, offering for sale or importing UCODE 8 and UCODE 9 ICs. NXP responded to our complaint on September 30, 2019 citing numerous defenses including denying infringement and claiming our asserted patents are invalid.

After various pre-trial motions, the Court narrowed the case to two patents—U.S. patent nos. 9,633,302 (the "'302 patent") and 8,115,597 (the "'597 patent"). Before trial, the Court granted summary judgment of infringement on the '302 patent. The Court conducted a trial on those two patents beginning on July 5, 2023, and concluding on July 13, 2023. The issues on the '302 patent were validity, damages and willful infringement. The issues on the '597 patent were infringement, validity, damages and willful infringement.

On July 14, 2023, the jury returned a verdict in our favor finding that: (1) the asserted independent claims of the '302 patent had not been proven invalid, but two of the asserted dependent claims had been proven invalid; (2) NXP's infringement of the asserted claims of the '302 patent was willful; (3) none of the asserted claims of the '597 patent were proven to be invalid; and (4) NXP infringed the asserted claims of the '597 patent. The jury awarded approximately $18.2 million and $18.4 million in damages for infringement of the '302 patent and the '597 patent, respectively. The majority of these damages were for lost profits and are therefore overlapping.

On September 28, 2023, the Court granted NXP's post-trial motion for a new trial on the validity of the '302 patent based on the jury's inconsistent verdicts on the validity of independent and dependent claims for that patent. The Court also ruled that the damages awarded by the jury for both patents should be reduced by certain sales made to a distributor outside the United States. The Court directed the parties to meet and confer on the appropriate reduction of damages, and on October 20, 2023, the parties stipulated that the damages award for the infringement of the '597 patent should be $13.1 million. We recognize contingent gains in our financial statements upon resolution of all contingencies related to the award.

On October 3, 2023, the Court denied our motion for a permanent injunction. Having granted a new trial on the validity of the '302 patent, the denial was based only on the '597 patent. We have appealed the denial of the injunction to the Federal Circuit. We also anticipate moving for the imposition of a royalty given the denial of our injunction request.

NXP Patent Infringement Claims Against Impinj in Washington

On October 4, 2019, NXP USA, Inc. and In response, NXP filed a patent infringement lawsuit suit against us in the U.S. District Court for the District of Delaware. The complaint federal court in Delaware, later transferred to Washington, countersued us in Texas, and filed three lawsuits against our subsidiary in China. NXP's complaints alleged that certain of our products infringe eightendpoint ICs infringed a number of their own U.S. or Chinese patents or U.S. patents owned by that they exclusively licensed from a third-party to assert against us.

Through 2023, we prevailed in these lawsuits. In three U.S. trials held in 2023, juries in California and Texas returned verdicts that NXP or NXP USA, Inc. The plaintiffs sought, among other things, past damages adequate endpoint ICs infringed five of our patents that made it to compensate them for our alleged infringement of each of the patents-in-suit trial, and reasonable attorneys' fees juries in Washington and costs. They also sought an injunction against us. We denied Texas ruled that we are infringing did not infringe any of the three patents NXP accused us in court of infringing. Also in 2023, NXP withdrew all three cases it filed against us in China.

On March 13, 2024, while additional trials were pending in China and Texas, and post-trial motions and appeals were pending in China and the U.S., we and NXP entered into a Settlement and Patent Cross-License Agreement dated March 13, 2024 (the "Settlement Agreement"). Under the agreement we and NXP agreed to terminate and withdraw all pending proceedings and release one another for all patent infringement claims preceding March 31, 2024 and grant to each other non-exclusive, worldwide patent licenses to make, have asserted both that our wafer supplier is licensed under made, import, use, offer for sale, and sell their respective products and services, subject to the terms of the agreement. The Settlement Agreement will remain in force until all the valid claims of a specified set of Impinj patents (the "Indicator Patents") expire in about ten years. Either party can terminate the Settlement Agreement if the other party materially breaches the terms of the Agreement and NXP can terminate the Settlement Agreement if it successfully designs out all valid claims of the Indicator Patents.

Under the Settlement Agreement, NXP paid us a one-time amount of $four 45 million and agreed to make annual license fee payments, if the specified set of them and that all Indicator Patents are still in use, on April 1 of each year, effective April 1, 2024. The annual license fee payment for 2024 is $eight 15 are invalid. On million and will increase each subsequent year by a fixed percentage. We have no obligation to pay NXP under the Settlement Agreement.

We allocated the consideration from the Settlement Agreement to the components of the Settlement Agreement. We recorded the $45 million payment in income from settlement of litigation in the condensed consolidated statements of operations upon receipt. Licensing of our intellectual property is part of our ongoing operations and therefore, we will recognize the license fee, which relates to annual usage of the license from April 1 to March 31 of each applicable year, as revenue in the second quarter of each year for as long as NXP is still using the Indicator Patents.

September 23, 2020, the District of Delaware granted Impinj's motion to transfer the case to the U.S. District Court for the Western District of Washington in Seattle.

On December 11, 2020, we moved to stay the case with respect to six of the eight patents in suit pending final resolution of IPR petitions we filed with the PTAB. On February 12, 2021, the Court granted our motion to stay the case as to these six patents. The PTAB instituted IPRs on two of the six challenged patents but denied them on the other four. The Court subsequently removed the stay on the four against which IPRs were not instituted. The Court ultimately narrowed the case to seven patents.

Following the close of fact discovery, the parties each moved for summary judgment on various issues. The Court ultimately granted summary judgment of noninfringement to us on six of the seven patents, and the final patent went to a jury trial beginning on June 5, 2023. The jury found that we did not infringe the patent and a final judgment was entered in our favor. We moved for attorneys' fees on July 12, 2023 but that motion was denied on August 31, 2023. NXP has appealed the judgment.

Impinj Patent Infringement Claims Against NXP in Texas

On May 25, 2021, we filed a new patent infringement lawsuit against NXP USA in the United States District Court for the Western District of Texas (Waco), asserting that NXP has infringed nine of our patents, including seven that we originally asserted in the Northern California case. We also later added NXP Semiconductor Netherlands B.V. as a defendant.

We are seeking among other things, past damages, including lost profits; no less than a reasonable royalty; enhanced damages for willful infringement; and reasonable attorney's fees and costs. We are also seeking an injunction against NXP making, selling, using, offering for sale or importing its UCODE 7, 8 and 9 endpoint ICs.

On July 26, 2021, NXP filed an answer to our complaint and counterclaimed that we infringe nine patents, one of which NXP owns and eight of which NXP recently licensed from a third party. NXP has denied infringement, asserted our patents are invalid and asserted that some are unenforceable and/or subject to a license under our commitments to license "necessary" patents to certain standards.

A claim construction hearing was held on February 10, 2022 and fact discovery has closed. The Patent Office has instituted reexamination proceedings on five of the nine patents asserted by NXP and has issued a final office action rejecting all asserted claims on three of those patents.

The parties originally selected three patents each for the first trial scheduled to begin on October 30,2023. A Magistrate Judge decided various summary judgment and other pre-trial motions on October 12, 2023. The decisions did not impact the specific patents at issue in the first trial. NXP subsequently dropped one of their patents for the first trial, leaving two NXP patents for the trial.

NXP Patent Infringement Claims Against Impinj in China

On December 7, 2020, Impinj Radio Frequency Technology (Shanghai) Co., Ltd., or Impinj Shanghai, was served with patent infringement lawsuits filed in the Intellectual Property Court in Shanghai, China, or Shanghai Intellectual Property Court, in which NXP B.V. asserted that certain of our products infringe three Chinese patents owned by NXP B.V. These patents corresponded to three of the eight U.S. patents NXP asserted in the U.S. District Court in Washington. The plaintiffs sought, among other things, past damages and reasonable attorneys' fees and costs. They also sought an injunction against us, enjoining continuing acts of infringement of the patents-in-suit. Impinj, Inc. was added to the suit in July 2021. In November 2022, Impinj filed with the Shanghai court motions to dismiss two patent cases on the basis that the patents were licensed to our supplier.

Two NXP patents ruled invalid: Impinj Shanghai filed invalidity requests against all three Chinese patents before the China National Intellectual Property Administration, or CNIPA, on December 22, 2020. CNIPA originally issued decisions upholding the validity of all three Chinese patents in July 2021. However, in October 2021, Impinj Shanghai filed with the Beijing Intellectual Property Court for judicial review of all of CNIPA's validity decisions. The Beijing Intellectual Property Court upheld the validity for one of NXP's Chinese patents in December 2022, but overturned the validity decisions for the other two patents in August 2023. Impinj appealed the Court's validity finding in January 2023, and NXP appealed the invalidity findings in September 2023.

All lawsuits withdrawn by NXP: On September 13, 2023, NXP filed petitions with the Shanghai court to withdraw all the three cases without prejudice. The Shanghai court granted NXP's petitions on September 27, 2023. With the withdrawal of all three lawsuits by NXP, all civil actions initiated by NXP against Impinj in China were concluded.

Table of Contents

Note 7. Long-term debt

Convertible Senior Notes

In November 2021, we issued $287.5 million aggregate principal amount of convertible promissory notes due May 15, 2027 (the "2021 Notes").

The following table presents the outstanding principal amount and carrying value of the 2021 Notes as of the dates indicated (in thousands):

	September 30, 2023			December 31, 2022		
	Principal Amount	Unamortized debt issuance costs	Net Carrying Amount	Principal Amount	Unamortized debt issuance costs	Net Carrying Amount
2021 Notes	$ 287,500	$ (6,051)	$ 281,449	$ 287,500	$ (7,256)	$ 280,244

	March 31, 2024			December 31, 2023		
	Principal Amount	Unamortized debt issuance costs	Net Carrying Amount	Principal Amount	Unamortized debt issuance costs	Net Carrying Amount
2021 Notes	287,500	(5,238)	282,262	287,500	(5,645)	281,855

Further details of the 2021 Notes are as follows:

Issuance	Maturity Date	Interest Rate	First Interest Payment Date	Effective Interest Rate	Semi-Annual Interest Payment Dates	Initial Conversion Rate per $1,000 Principal	Initial Conversion Price	Number of Shares (in millions)
2021 Notes	May 15, 2027	1.125%	May 15, 2022	1.72%	May 15; November 15	9.0061	$ 111.04	2.6

The 2021 Notes are senior unsecured obligations, do not contain any financial covenants and are governed by indentures (the Indentures). The total net proceeds from the 2021 Notes, after deducting initial debt issuance costs, fees and expenses, was $278.4 million. We used approximately $183.6 million of the 2021 Notes net proceeds, excluding accrued interest, to repurchase approximately $76.4 million aggregate principal amount of convertible notes due 2026 (the "2019 Notes" and, together with the 2021 Notes, the "Notes") through individual privately negotiated transactions concurrent with us offering the 2021 Notes. We used approximately $17.6 million, excluding accrued interest, to repurchase the remaining $9.85 9.9 million aggregate principal amount of the 2019 Notes in June 2022. We will use the remainder of the net proceeds from the 2021 Notes for general corporate purposes.

Terms of the 2021 Notes

The holders of the 2021 Notes may convert their respective 2021 Notes at their option at any time prior to the close of business on the business day immediately preceding the respective conversion dates under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ending on March 31, 2022 (and only during such fiscal quarter), if the last reported sale price of our common stock, for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of the 2021 Notes for each trading day was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day;
- prior to the close of business on the second scheduled trading day immediately preceding the redemption date if we call the 2021 Notes for redemption; or
- upon the occurrence of specified corporate events, as described in the indenture.

None of the circumstances described in the above paragraphs were met during the nine three months ended September 30, 2023 March 31, 2024.

Regardless of the foregoing circumstances, holders may convert all or any portion of the 2021 Notes, in increments of $1,000 principal amount, on or after February 15, 2027, until the close of business on the second scheduled trading day immediately preceding the maturity date.

We may redeem all or a portion of the 2021 Notes for cash, at our option, on or after November 20, 2024, if the last reported sale price of our common stock has been at least 130% of the conversion price at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period at a redemption price equal to 100% of the principal amount of the 2021 Notes being redeemed, plus any accrued and unpaid interest to, but excluding, the redemption date.

Holders who convert their 2021 Notes in connection with certain corporate events that constitute a make-whole fundamental change (as defined in the indenture) are, under certain circumstances, entitled to an increase in the conversion rate. Additionally in the event of a corporate event constituting a fundamental change (as defined in the indenture), holders of the 2021 Notes may require us to

Table of Contents

repurchase all or a portion of their 2021 Notes at a repurchase price equal to 100% of the principal amount of the 2021 Notes being repurchased, plus any accrued and unpaid interest to, but excluding, the repurchase date.

Interest expense related to the Notes was as follows (in thousands):

	Three Months Ended September 30, 2023	**Three Months Ended September 30, 2022**

	2021 Notes		2019 Notes		2021 Notes		Total	
Amortization of debt issuance costs	$	404	$	—	$	396	$	396
Cash interest expense		809		—		809		809
Total interest expense	$	1,213	$	—	$	1,205	$	1,205

	Nine Months Ended September 30, 2023		Nine Months Ended September 30, 2022						Three months ended March 31, 2024	Three months ended March 31, 2023
	2021 Notes		2019 Notes		2021 Notes		Total		2021 Notes	2021 Notes
Amortization of debt issuance costs	$	1,206	$	19	$	1,184	$	1,203	407	400
Cash interest expense		2,427		87		2,426		2,513	809	809
Total interest expense	$	3,633	$	106	$	3,610	$	3,716	$ 1,216	$ 1,209

Accrued interest related to the 2021 Notes as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023 was $1.2 million and $404,000 400,000, respectively. We record accrued interest in accrued liabilities in our consolidated balance sheet.

We estimate the fair value of the 2021 Notes to be $251.9 388.4 million and $347.4 314.0 million as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, respectively, which we determined through consideration of quoted market prices. The fair value for the 2021 Notes is classified as Level 2, as defined in Note 2.

Capped Calls

In connection with the issuance of the 2019 Notes, we entered into privately negotiated capped-call transactions with certain financial counterparties. The capped call transactions are generally designed to reduce the potential dilution to our common stock upon any conversion or settlement of the 2019 Notes, or to offset any cash payments we are required to make in excess of the principal amount upon conversion of the 2019 Notes, as the case may be, with the reduction or offset subject to a cap based on the cap price. If, however, the market price per share of our common stock exceeds the cap price of the capped-call transactions, then our stock would experience some dilution and/or the capped call would not fully offset the potential cash payments, in each case, to the extent then-market price per share of our common stock exceeds the cap price. The capped call remains outstanding even though we have repurchased the 2019 Notes. The initial cap price of the capped call transactions is $54.20 per share, subject to certain adjustments under the terms of the capped call transactions. The capped call transactions expire over 40 consecutive scheduled trading days ending on December 11, 2026. The capped call transactions meet the criteria for classification in equity, are not accounted for as derivatives and are not remeasured each reporting period.

Table of Contents

Note 8. Net Loss Earnings (Loss) Per Share

For the periods presented, the following table provides a reconciliation of the numerator and denominator used in computing basic and diluted net loss earnings (loss) per share (in thousands, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Numerator:				
Net loss	$ (15,762)	$ (2,199)	$ (28,186)	$ (24,183)
Denominator:				
Weighted-average shares outstanding — basic and diluted	26,920	25,743	26,639	25,384
Net loss per share — basic and diluted	$ (0.59)	$ (0.09)	$ (1.06)	$ (0.95)

	Three months ended March 31,	
	2024	2023
Numerator:		
Net income (loss)	$ 33,344	$ (4,358)
Interest add back	1,216	—
Net income (loss) attributable to common stockholders	$ 34,560	$ (4,358)
Denominator:		
Weighted average common shares outstanding, basic	27,357	26,285
Dilutive effect of:		
Stock plans	1,479	—
2021 Notes	2,589	—
Weighted average common shares outstanding, diluted	31,425	26,285
Net earnings (loss) per share — basic	$ 1.22	$ (0.17)
Net earnings (loss) per share — diluted	$ 1.10	$ (0.17)

Basic net earnings (loss) per share is calculated using our net income (loss) and our weighted average outstanding common shares.

Diluted net earnings (loss) per share is calculated using our net income (loss) attributable to common stockholders with interest charges applicable to our convertible debt added back under the if converted method and our weighted average outstanding common shares including the dilutive effect of stock awards and employee stock purchase plan shares as determined under the treasury stock method and of our convertible notes using the if converted method. In periods when we recognize a net loss, we exclude the impact of outstanding stock awards and the potential share settlement impact related to our convertible notes from the diluted loss per share calculation as their inclusion would have an antidilutive effect.

The following table presents the outstanding shares of our common stock equivalents excluded from the computation of diluted net loss earnings (loss) per share as of the dates presented because their effect would have been antidilutive (in thousands):

	Three and Nine Months Ended September 30,		Three months ended March 31,	
	2023	2022	2024	2023
Stock options	1,500	1,844	—	1,600
RSUs, MSUs and PSUs	1,347	1,578	878	1,551
Employee stock purchase plan shares	54	30	18	16
2021 Notes	2,589	2,589	—	2,589

Note 9. Segment Information

We have one reportable and operating segment: the development and sale of our RAIN products and services. We identified our operating segment based on how our chief operating decision-maker manages our business, makes operating decisions and evaluates our operating performance. Our chief executive officer acts as the chief operating decision-maker and reviews financial and operational information on an entity-wide basis. Accordingly, we have determined that we have a single reportable and operating segment.

Our chief executive officer reviews information about our revenue categories, endpoint ICs and systems, the latter defined as reader ICs, readers, gateways, test and measurement solutions and software and cloud services. The following table presents our revenue categories for the indicated periods (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,		Three Months Ended March 31,	
	2023	2022	2023	2022	2024	2023
Endpoint ICs	$ 48,592	$ 51,155	$ 180,546	$ 132,804	$ 61,506	$ 67,049
Systems	16,413	17,115	56,342	48,406	15,319	18,848
Total revenue	$ 65,005	$ 68,270	$ 236,888	$ 181,210	$ 76,825	$ 85,897

Table of Contents

Note 10. Deferred Revenue

Deferred revenue, comprising individually immaterial amounts for extended warranty, enhanced product maintenance and advance payments on non-recurring engineering ("NRE") services contracts, represents contracted revenue that has not yet been recognized. We recognized $2.1 709,000 of revenue related to amounts included in deferred revenue as of December 31, 2023 for the three months ended March 31, 2024. We recognized $1.8 million of revenue related to amounts included in deferred revenue as of December 31, 2022 for the nine three months ended September 30, 2023. We recognized $319,000 of revenue related to amounts included in deferred revenue as of December 31, 2021 for the nine months ended September 30, 2022 March 31, 2023.

The following table presents the changes in deferred revenue for the indicated periods (in thousands):

	Nine Months Ended September 30,		Three Months Ended March 31,	
	2023	2022	2024	2023
Balance at beginning of period	$ 2,599	$ 794	$ 1,985	$ 2,599
Opening balance from Voyantic acquisition	1,233	—		
Deferral of revenue	2,477	3,058	633	29
Recognition of deferred revenue	(3,557)	(700)	(709)	(1,809)
Balance at end of period	$ 2,752	$ 3,152	$ 1,909	$ 819

Note 11. Related-Party Transactions

We have been party to a consulting agreement with a limited liability company owned by Cathal Phelan, a member of our board of directors, pursuant to which Mr. Phelan provided advisory and consulting services to us. We recognized and paid $115,000 and $385,000 in consulting fees to the limited liability company owned by Mr. Phelan for the three and nine months ended September 30, 2022, respectively. On January 1, 2023, Mr. Phelan joined our company as Chief Innovation Officer and ceased to provide us with consulting services. Mr. Phelan remains on our board of directors as a non-independent director.

On June 23, 2023, we acquired a patent from a related party in which a member of our board of directors holds an executive leadership position. The patent pertains to our endpoint IC products and the acquisition price was $250,000. The patent is included in the Indicator Patents, expires on July 17, 2026 and does not have renewal rights. This patent is included in our intangible assets on our condensed consolidated balance sheet as of September 30, 2023 March 31, 2024.

20 Note 12. Restructuring

On February 7, 2024, we initiated a strategic restructuring to align financial, business and research and development objectives for long-term growth, including a reduction-in-force affecting approximately 10% of our employees. We incurred restructuring charges of $1.8 million for employee terminations benefits, including equity modification expense for the three months ended March 31, 2024. Accrued restructuring charges are included in accrued and other current liabilities on the condensed consolidated balance sheet.

A summary of accrued restructuring costs as of March 31, 2024 is shown in the table below (in thousands):

	Three months ended March 31, 2024
Restructuring costs	1,812
Non cash payments	(366)

Cash payments		(852)
Accrued restructuring costs as of March 31, 2024	$	594

Table of Contents

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This report contains certain 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 containing words such as "may," "believe," "anticipate," "expect," "intend," "plan," "project," "projections," "business outlook," "estimate," or similar expressions constitute forward-looking statements. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements. They include, but are not limited to, statements about:

- *our market opportunity;*
- *the adoption of RAIN technology and solutions;*
- *our ability to compete effectively against competitors and competing technologies;*
- *our market share and product leadership; and*
- *our business model, strategic plans and product-development plans;*
- *the impact of any future health outbreak or pandemic, including a potential resurgence in Covid-19 cases, including on our business, operations and financial condition as well as on macroeconomic conditions;*
- *our future financial performance, including our average selling prices, ("ASPs"), or ASPs, gross margins and the dependency o future financial performance on macroeconomic conditions;*
- *the performance of third parties on which we rely for product development, manufacturing, assembly and testing; and our relationship with other third parties on which we rely for product distribution, sales, integration and deployment;*
- *our ability to adequately protect our intellectual property;*
- *the regulatory environment for our products and services; and*
- *our leadership in industry and standards-setting bodies.*

Our actual results may differ materially from those contained in or implied by any forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this report, including those factors discussed in Part II, Item 1A (Risk Factors).

Considering the significant uncertainties and risks inherent in these forward-looking statements, you should not regard these statements as a representation or warranty by us or anyone else that we will achieve our objectives and plans in any specified time frame, or at all, or as predictions of future events. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Our Business

Our vision is a boundless Internet of Things, world in which every physical item that businesses enterprises manufacture, transport and sell, and that people own, use and recycle, is wirelessly and ubiquitously connected to a digital counterpart – a digital twin – in the cloud. Our mission And a world in which the ownership, history and linked information for every one of those items is seamlessly available to connect every thing. enterprises and people. We call our expansive vision a Boundless Internet of Things, or IoT. We design and sell a platform that enables that wireless item-to-cloud connectivity and with which we and our partners innovate Internet of Things, or IoT, solutions.

Today, our platform connects tens of billions of everyday physical items. That We have enabled connectivity helps businesses discover, engage for more than 100 billion items to date, delivering item visibility and protect those items from manufacturing through point-of-sale. It improves improving operational efficiencies for retailers, supply chain and logistics, ("or SC&L") &L providers, restaurants and food-service providers, airlines, automobile manufacturers, healthcare companies and many more. We are today focused on extending item connectivity from tens of billions to trillions of items, and delivering item data not just to enterprises but to people, so they too can derive value from their connected items. We believe the Boundless IoT we are driving enabling will, in the not-too-distant future, provide business and give people ubiquitous access to cloud-based digital twins of every item, each storing the item's history and current owner, linked information and helping people explore and learn about the item. We envision broadening our platform's reach from billions of items to trillions, and extending that item connectivity to consumer use and end-of-life recycling, thereby allowing not just businesses, but also people, to derive value from their connected items. We believe that that connectivity will transform the world.

Our platform comprises endpoint ICs, systems We and our partner ecosystem. Our ecosystem build item-visibility solutions using products that we design and either sell or license, including silicon RAIN radios; manufacturing, test, encoding and reading systems, software and cloud services that encapsulate our solutions know-how and intellectual property. We sell two types of silicon integrated circuit, or IC, radios. The first are endpoint ICs are miniature radio integrated circuits, or ICs that store a serialized number – to wirelessly identify an identifier – that wirelessly identifies the item to which the IC is attached. item. Our partners embed an endpoint IC ICs into an item or its packaging. Our systems, which comprise The ICs may also contain a cryptographic key to authenticate the item. The second are reader ICs that our partners use in finished readers gateways, software to wirelessly discover, inventory and cloud services, discover the item, which includes reading the item's identifier. They may then engage the item, for example by reading additional information that may be stored on the endpoint IC. They ICs. Those readers may also protect the an item or the consumer, for example by authenticating the item as genuine or privatizing the item by rendering the endpoint IC unresponsive without the system consumer first providing a password. With the acquisition of Voyantic Oy, our systems also include Our manufacturing, test and measurement encoding systems enable partner products and facilitate enterprise deployments. Our reading

---

Table of Contents

systems comprise high-performance finished readers and gateways for autonomous reading solutions. Our software and cloud services focus on solutions enablement.

Our We sell our products, individually or as a whole platform offering primarily with or through our partner ecosystem. That ecosystem comprises original equipment manufacturers, or OEMs, tag service bureaus, original device manufacturers, or ODMs, systems integrators, or SIs, value-added resellers, or VARs, independent software vendors, or ISVs, and other solution partners. We sell our products, either individually or as a whole platform offering, primarily with or through our partner ecosystem.

Our platform uses a type of radio-frequency identification, or RFID, technology known as RAIN. We spearheaded developing silicon radios follow the RAIN radio industry's air-interface standard lobbied governments to allocate spectrum for their core functionality. We create partner and cofounded the RAIN industry alliance that today has more

Table of Contents

than 150 member companies. We believe RAIN's capabilities – endpoint ICs with serialized item identifiers, battery-free operation, 30-foot range, not line-of-sight readability, up to 1,000 reads per second, essentially unlimited life enterprise preference for our radios and available cryptographic authentication, all at a cost of pennies per item – position RAIN to be the leading item-to-cloud connectivity technology for the IoT. We engineer solutions by adding differentiated features into our products, and supporting or licensing those features across our platform, to deliver solutions capabilities and performance that surpasses mix-and-match solutions built from competitor products. We believe our platform success derives primarily from the visibility we give end users to items they manufacture, transport and sell.

Factors Affecting Our Performance

Inventory Supply

From time Most of our revenue derives from endpoint ICs that our partners embed into or onto enterprise items and is therefore affected by macroeconomic trends. Further, we sell most of our products, both endpoint ICs and systems, through partners and distributors, limiting our visibility to time, enterprise demand. We work closely with those partners and distributors to gain as accurate a view as possible, however, correctly forecasting demand for our products and identifying market shifts in a timely manner remains a challenge. As a result, we sometimes experience inventory overages or shortages, either due to us misestimating customer or end-user demand; insufficient manufacturing capacity or product availability; market fluctuations; competitive product availability; macroeconomic fluctuations; changes in regulations or tariffs; or for a host of other reasons. These inventory dynamics can impact some or all of our products. High inventory levels shortages. Inventory overages can increase expenses, cause expose us to product obsolescence and/or increase increased reserves and negatively affecting affect our business. Low inventory levels Inventory shortages can cause lengthened long lead times, missed opportunities, market-share loss losses and/or damaged customer relationships, also negatively affecting our business. For example, in

In 2021 and 2022, demand for our endpoint ICs increased. Worldwide increased while worldwide wafer demand also increased, dramatically, leading to wafer shortfalls in for many industries, semiconductor companies, including ours. In 2022, us. These wafer shortfalls in our process nodes continued, preventing us from fully capitalizing on our demand in every quarter of 2022. These shortages prevented us from fully meeting customer demand and, in some cases, caused customers to cancel orders, qualify alternative suppliers or purchase from our competitors. In 2023, macroeconomic conditions have led to softness in demand and inventory overages, which we expect will continue until we can further adjust wafer receipts and/or demand increases. overages.

In 2022 Product Adoption and 2023 we saw cost increases for our endpoint IC wafers and for all systems products, which caused us to raise prices and potentially negatively impact our market competitiveness. Increases in cost may decrease sales and cause market-share losses if our partners and end users buy competing products over ours, or choose to not deploy at all, negatively impacting our operating results and prospects. Unit Growth Rates

Investing for Growth

We Enterprises have invested significantly adopted RAIN in and plan to continue investing in, research and development to enhance and extend retail apparel, our platform, including enhancing existing products, introducing new products and advancing the unique capabilities and features our platform enables. Although we sell our products into many end markets, relying significantly on our partner channel, we are today focusing particular attention on retail self-checkout and loss prevention largest market, and SC&L, package tracking.

Most but the rate of adoption and unit growth rates have been uneven and unpredictable. From 2010 to 2023, our investments precede any overall endpoint IC sales benefits from the investments and, volumes increased at a compounded annual growth rate of 26%; however, we have experienced uneven growth rates in some instances, we may never see any benefit if the market is not receptive to our approach, our product development is late or fails, or for other reasons. We sometimes enter into arrangements with end users, suppliers or partners for them to fund part of our investment, but even in those instances the investment results remain uncertain, and in some cases we may be required to refund the investment if the development is unsuccessful or the market opportunity fails to materialize. In some instances, we delay or cancel investments without or until we obtain such funding. The outcome of an investment is almost always uncertain, and if our results do not meet expectations then our operating results, profitability and stock price may be adversely affected.

While our long-term plan to invest for growth remains unchanged, a weaker global economy have introduced new uncertainty to our business. We will continue to monitor the impacts of both on our supply chain, market and opportunities and adjust our investment strategy as appropriate.

Market Adoption

Our financial performance depends on the pace and scope of end-user adoption of our products in multiple industries. Covid-19 had a materially adverse impact on the retail industry, our largest market, initially by shifting consumer shopping away from physical stores, then causing post-Covid supply shortfalls and retailer over-ordering and, in 2023, inventory corrections due to softening macroeconomic conditions. Covid-19 also impacted other RAIN markets. For example, aviation, which had proposed widespread luggage tagging, saw delayed adoption. By contrast, SC&L experienced markedly increased shipment volumes which positively impacted adoption.

Given the uncertainties in our market and product supply, the negative impacts of our insufficient 2022 supply and end user perceptions of the risks associated with insufficient supply, we cannot be certain that RAIN adoption will continue; that we will have appropriate product inventory; that we will not experience future product inventory shortfalls or overages; or that a weaker global economy will not materially impact our business going forward. We also cannot be certain we will be able to maintain or grow our

Table of Contents

market share for any of our products, whether because of insufficient inventory, competitors copying our products, insufficient wafer or other product supply, competition generally or for a host of other reasons, many of which are outside our control. various periods.

Regardless of the uneven pace of retail, SC&L and other industry adoption and growth rates, we believe the underlying, long-term trend is continued RAIN adoption and growth and we intend to continue investing in developing new products. In products and expanding our endpoint IC business, in 2020 we introduced product offerings for the Impinj M700 family, with significant performance advantages over other endpoint ICs on the market. We continue expanding the M700 family, for example with the introduction of our large memory industrial ICs, the M780 and M781, in November 2022 and with the introduction of our cryptographic authentication IC, the M775, along with a cloud-based authentication service, in September 2022. In July 2023 we announced our next-generation endpoint IC, the M800. In our systems business, in 2020 we introduced the Impinj R700 reader and in 2021 our Impinj E-family reader ICs, both of which likewise offer significant performance advantages over other readers and reader ICs on the market and for which we continue expanding the product families. Regardless, market adoption could be impacted by product availability—see the discussion of product availability under “Inventory Supply”.

We sell our products primarily through partners and distributors and therefore have limited visibility to end-user demand. Consequently, we may incorrectly forecast that demand or not identify market shifts in a timely manner, potentially adversely affecting our business. If RAIN market adoption, and adoption of our products specifically, does not meet our expectations, or if we are unable to meet partner or end-user volume or performance expectations, because of supply-chain disruption, macroeconomic conditions or otherwise, then our operating results and growth prospects will be adversely affected. If we reduce prices to win opportunities, then our gross margins may be negatively affected. In contrast, if our endpoint IC, reader IC, reader or gateway sales exceed expectations, then our revenue and profitability may be positively affected.

Timing and Complexity of End User Deployments

From 2010 to 2022, our endpoint IC sales volumes increased at a compounded annual growth rate of 26%. foreseeable future. However, the pace has been uneven and unpredictable. For example, our endpoint IC unit sales volumes increased significantly in 2016, declined in second-half 2017 and in first-half 2018, returned to growth in second-half 2018 and in 2019 (the latter albeit not at the same pace as in 2016), declined again in second- and third-quarter 2020 due to Covid-19, and recovered in fourth-quarter 2020, in 2021 and in 2022. We expect short-term demand to remain unpredictable in scope and timing. Longer term, we believe our endpoint IC opportunity will continue to grow, but we cannot predict whether historical annual growth rates are indicative of the pace of future growth.

Our systems business, at least for our readers and gateways, is impacted by depends significantly on large-scale deployments at discrete end users. The users, and deployment timing of those causes large deployments causes large yearly variability in our systems revenue. For example, we generated 14% of total 2019 revenue from a gateway deployment at a large North American SC&L provider in connection with a project-based gateway deployment. provider. We did not have comparable new project-based revenue in 2020. As another example, Similarly, in second-quarter 2021, we generated 13% of our quarterly revenue from a project-based gateway deployment for RAIN-based self-checkout and loss prevention at a large European-based Europe-based global retailer.

Finally, although we promote our platform as an integrated offering, we sell our products individually, and end users often use only certain of our products. For any given end-user solution, whether an end user chooses to deploy our entire platform We did not have comparable project-based revenue in 2022 or only a portion will also affect our operating results.

Average Selling Price

Our product ASPs fluctuate based on competitive pressures and the discounting we offer to win opportunities, but generally decline over time. Historically, we have been able to compensate these ASP declines by reducing the per-unit cost of most of our products, by reducing supplier costs and implementing manufacturing and quality improvements, as well as by introducing newer and lower-cost products, but the timing of these cost reductions and new-product introductions fluctuates and may not materialize in any given quarter or year. Beginning in second-half 2021, due to wafer and component supply shortfalls at many of our suppliers, we began experiencing increasing, rather than decreasing costs for both endpoint ICs and systems. In 2022 and 2023, we raised prices to offset the impact of those increased costs. Future price increases, if or when they occur, could cause us to pass the higher costs to our customers. If we are unable to successfully increase our prices or if our customers choose competitors’ products due to our higher prices, then our product margins, operating results or both may suffer. In the near term, we expect product margins to be volatile based on product mix and the timing of our price changes. 2023.

Seasonality and Pricing

We typically renegotiate negotiate pricing with most of our endpoint IC OEMs with an effective date of the first quarter of the calendar year, reducing year. In the past, this negotiation typically resulted in reduced revenue and gross margins in the first quarter compared to prior periods. Historically, the impact tends to decline periods, which then normalized in subsequent quarters as we reduce reduced costs and to the extent we can migrate our partners adjusted product mix by migrating those OEMs and end users to newer, lower-cost products, adjust product mix. products.

Endpoint IC volumes also tend to be historically lower in the fourth quarter than in the third quarter. We did not see these historical trends in 2022 and may not see them in 2023.

System sales have historically tended tend to be stronger higher in the fourth quarter of the calendar year, and less strong lower in the first quarter. We quarter, we believe this seasonality is due to the availability of residual funding for capital expenditures prior to the end of many end users' fiscal years. Like for our endpoint ICs, we

We did not see these historical seasonal trends in 2022 2023 and may not see them in 2023.

While, over the long term, we 2024. Whether and when these trends will return is not clear. We do expect these seasonal trends to continue, continued quarter-to-quarter revenue variability from factors including supply uncertainty, deployment timing, competitor products and supply-chain disruptions can all mask seasonality in any given period. These variabilities, as well as other risks and uncertainties, including but not limited due to the impacts changing macroeconomic conditions.

Table of Covid-19, can cause our actual results to differ significantly from our expectations, as described in greater detail in the sections of this report captioned "—Covid-19" and in Part II, Item 1A (Risk Factors). Contents

Results of Operations

The following table presents our results of operations for the periods indicated:

(in thousands, except percentages)	Three Months Ended September 30,			Nine Months Ended September 30,			Three Months Ended March 31,		2024 vs 2023
	2023	2022	Change	2023	2022	Change	2024	2023	Change

Revenue	$ 65,005	$ 68,270	$ (3,265)	$ 236,888	$ 181,210	$ 55,678	$ 76,825	$ 85,897	$ (9,072)
Gross profit	$ 30,768	$ 37,435	$ (6,667)	$ 118,112	$ 97,716	$ 20,396	$ 37,548	$ 43,530	$ (5,982)
Gross margin	*47.3%*	*54.8%*	*(7.5)%*	*49.9%*	*53.9%*	*(4.0)%*	*48.9%*	*50.7%*	*(1.8)%*
Loss from operations	$ (15,834)	$ (1,744)	$ (14,090)	$ (28,645)	$ (19,535)	$ (9,110)	$ (11,733)	$ (4,442)	$ (7,291)

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Revenue and gross profit decreased, due primarily to lower endpoint IC and systems revenue. Gross profit decreased due to the lower revenue and higher which was partially offset by lower cost of revenue. The endpoint IC revenue decrease was driven primarily by lower average ASP due to mix, partially offset by higher concentration of revenue from our 300mm products and lower shipment volumes when compared to the prior year period. The systems revenue decrease was driven primarily by lower shipment volumes revenue from readers, gateways and reader ICs, partially offset partially by increased revenue from test and measurement solutions. Gross margin decreased, due primarily to decreased product margins increased production costs on lower production volumes and higher excess and obsolescence charges. The decreased product margins were driven by both endpoint IC margins due to lower revenue contribution from industrial and specialty endpoint ICs as well as mix within industrial and specialty endpoint ICs, and systems margins due to increased costs. over the prior year period. Loss from operations increased, due primarily to decreased gross profit and increased operating expenses. The operating expense increase was due primarily to higher research and development, general and administrative restructuring costs and amortization of intangibles, as a result both of which we did not have in the acquisition of Voyantic Oy. See Note 4 Goodwill and Intangible Assets for further details regarding the Voyantic Oy acquisition.

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

Revenue and gross profit increased, due primarily to higher endpoint IC and systems revenue. The endpoint IC revenue prior year period. This increase was driven primarily by higher shipment volumes partially offset by lower average ASP due to mix, when compared to the prior year period, while systems increased due to overall higher shipment volumes. Gross margin decreased, due primarily to decreased product margins. The decreased product margins were driven primarily by endpoint IC margins due to lower revenue contribution from industrial and specialty endpoint ICs as well as mix within industrial and specialty endpoint ICs. Loss from operations increased, due primarily to increased operating expenses partially offset by increased gross profit. The operating expense increase was due primarily to higher research and development, a decrease in general and administrative costs and amortization of intangibles as a result of the acquisition of Voyantic Oy. See Note 4 Goodwill and Intangible Assets for further details regarding the Voyantic Oy acquisition. expenses.

Revenue

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Change	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
Endpoint ICs	$ 48,592	$ 51,155	$ (2,563)	$ 180,546	$ 132,804	$ 47,742	$ 61,506	$ 67,049	$ (5,543)
Systems	16,413	17,115	(702)	56,342	48,406	7,936	15,319	18,848	(3,529)
Total revenue	$ 65,005	$ 68,270	$ (3,265)	$ 236,888	$ 181,210	$ 55,678	$ 76,825	$ 85,897	$ (9,072)

We currently derive substantially all our revenue from sales of endpoint ICs, reader ICs, readers, gateways and test and measurement solutions. We sell our endpoint ICs and test and measurement solutions primarily to inlay manufacturers; our reader ICs primarily to OEMs and ODMs through distributors; and our readers and gateways to solutions providers, value-added resellers ("VARs") VARs and system integrators ("SIs"), SIs, also primarily through distributors. We expect endpoint IC sales to represent the majority of our revenue for the foreseeable future.

Table of Contents

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Endpoint IC revenue decreased $2.6 million $5.5 million due primarily to a $11.3 million $3.0 million decrease from average ASP partially offset by and a $8.8M increase $2.5 million decrease from higher lower shipment volumes. The ASP decrease was due primarily to lower higher concentration of revenue contribution from industrial and specialty endpoint ICs as well as mix within industrial and specialty endpoint ICs. our 300mm products.

Systems revenue decreased $700,000, $3.5 million, due primarily to an overall decrease in shipment volumes. Readers, gateways and reader ICs revenue decreased $2.3 million $3.6 million, $1.5 million and $1.8 million $1.9 million, respectively, partially offset by increases of $2.1 million $3.3 million from test and measurement solutions revenue and $1.0 million in gateway revenue.

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

Endpoint IC revenue increased $47.7 million due primarily to a $71.4 million increase from higher shipment volumes partially offset by a $23.6 million decrease from average ASP. The ASP decrease was due primarily to lower revenue contribution from industrial and specialty endpoint ICs as well as mix within industrial and specialty endpoint ICs.

Systems revenue increased $7.9 million due primarily to an overall increase in shipment volumes. Gateway and test and measurement solutions revenue increased $6.9 million and $4.6 million, respectively and non-recurring engineering revenue increased

$900,000. These increases were offset by a decrease of $4.9 million in reader revenue.

Gross Profit and Gross Margin

(in thousands, except percentages)	Three Months Ended September 30,			Nine Months Ended September 30,			Three Months Ended March 31,		2024 vs 2023
	202 3	**202 2**	**Cha nge**	**2023**	**202 2**	**Cha nge**	**2024**	**2023**	**Change**
Cost of revenue	34 ,2 $ 37	30 ,8 $ 35	3, 40 $ 2	11 8,7 $ 76	83 ,4 $ 94	35 ,2 $ 82	$ 39,277	$ 42,367	$ (3,090)
Gross profit	30 ,7 $ 68	37 ,4 $ 35	(6, 66 $ 7)	11 8,1 $ 12	97 ,7 $ 16	20 ,3 $ 96	37,548	43,530	(5,982)
Gross margin	47 .3%	54 .8%	(7. 5)%	49. 9%	53 .9%	(4. 0)%	48.9%	50.7%	(1.8)%

Cost of revenue includes costs associated with manufacturing our endpoint ICs, reader ICs, readers, gateways and test and measurement solutions. solutions, including direct materials and outsourced manufacturing costs as well as associated overhead costs such as logistics, quality control, planning and procurement. Cost of revenue also includes charges for excess and obsolescence and warranty costs. Our gross margin varies from period to period based on the mix of endpoint IC and systems, systems; underlying product margins driven by changes in mix, ASPs or costs, costs; as well as from inventory excess and obsolescence charges.

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Gross profit decreased, due primarily to decreased endpoint IC and systems revenue, and increased partially offset by decreased cost of revenue. Gross margin decreased, due primarily to increased production costs on decreased revenue over the prior year period. These decreases were partially offset by increased direct product margins and to a lesser extent, higher excess and obsolescence charges. The decreased product margins were driven by both endpoint ICs and systems, the latter to a lesser extent. Endpoint IC margins decreased due to product mix with less contribution from industrial and specialty endpoint ICs as well as mix within industrial and specialty endpoint ICs. Systems margins decreased primarily due to increased costs. on systems.

Table of Contents

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

Gross profit increased, due primarily to increased endpoint IC and systems revenue. Gross margin decreased, due primarily to decreased product margins. The decreased product margins were driven primarily by endpoint IC margins due to product mix with a lesser contribution from industrial and specialty endpoint ICs as well as mix within industrial and specialty endpoint ICs.

Operating Expenses

Research and Development

(in thousands)	Three Months Ended September 30,			Nine Months Ended September 30,			Three Months Ended March 31,		2024 vs 2023
	2023	**2022**	**Change**	**2023**	**2022**	**Change**	**2024**	**2023**	**Change**
Research and development	$ 21,588	$ 18,766	$ 2,822	$ 67,426	$ 55,124	$ 12,302	$ 22,519	$ 22,435	$ 84

Research and development expense comprises primarily personnel expenses (salaries, benefits and other employee related costs) and stock-based compensation expense for our product-development personnel; product development costs which include external consulting and service costs, prototype materials and other new-product development costs; and an allocated portion of infrastructure costs which include occupancy, depreciation and software costs. We expect research and development expense to increase in absolute dollars in future periods as we continue to focus on new product development and introductions.

25

[Table of Contents](#)

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Research and development expense increased $2.8 million, due primarily was relatively flat compared to increases the prior year period. Increases of $1.1 million $692,000 in stock-based compensation expense primarily related to increased outstanding equity grants, $700,000 million $638,000 in personnel expenses primarily from higher headcount, and $277,000 in infrastructure costs due to increased depreciation and software costs were offset by a decrease in bonus from reduced bonuses, and $500,000 million in product development costs.

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

Research and development expense increased $12.3 million, due primarily to increases of $5.1 million in personnel expenses from higher headcount and increases in payroll taxes driven by employer taxes on the vesting of restricted stock units. Other major factors included $3.1 million $1.4 million in product development costs $2.4 million in stock-based compensation expense primarily related due to increased outstanding equity grants, and $1.6 million in infrastructure costs. timing.

Sales and Marketing

(in thousands)	Three Months Ended September 30,			Nine Months Ended September 30,			Three Months Ended March 31,		2024 vs 2023
	2023	**2022**	**Change**	**2023**	**2022**	**Change**	**2024**	**2023**	**Change**

Sales and marketing	$ 10,073	$ 9,326	$ 747	$ 30,678	$ 28,239	$ 2,439	$ 10,176	$ 9,973	$ 203

Sales and marketing expense comprises primarily personnel expenses (salaries, incentive sales compensation, or commission, benefits and other employee-related costs) and stock-based compensation expense for our sales and marketing personnel; travel, advertising and promotional expenses; and an allocated portion of infrastructure costs which include occupancy, depreciation and software costs.

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Sales and marketing expense increased $747,000 million, $203,000, due primarily to $799,000 increases of $270,000 in stock-based compensation expense primarily related to increased outstanding equity grants.

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

Sales and marketing expense increased $2.4 million, due primarily to increases of $1.4 million in personnel expenses from an increase in headcount offset by lower commission expense and $478,000 in increased travel expenses.

General and Administrative

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Change	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
General and administrative	$ 13,532	$ 11,087	$ 2,445	$ 45,098	$ 33,888	$ 11,210	$ 13,365	$ 15,564	$ (2,199)

General and administrative expense comprises primarily personnel expenses (salaries, benefits and other employee related costs) and stock-based compensation expense for our executive, finance, human resources and information technology personnel; legal, accounting and other professional service fees; travel and insurance expense; and an allocated portion of infrastructure costs which include occupancy, depreciation and software costs.

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

General and administrative expense increased $2.4 million decreased $2.2 million, due primarily to increases a decrease of $1.6 million $3.1 million in professional services due primarily to increased decreased legal expenses. Other factors included $393,000 expense. This decrease was partially offset by increases of $566,000 in stock-based stock compensation expense due primarily related to increased outstanding equity grants and $350,000 million $243,000 in personnel expenses primarily from higher headcount offset by a decrease in bonus from reduced bonuses.

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

General and administrative expense increased $11.2 million, due primarily to increases of $7.8 million in professional services due primarily to increased legal expenses as well as transaction expenses for the Voyantic Oy acquisition detailed in Note 4 Goodwill and Intangible Assets. Other factors included $2.4 million in personnel expenses from higher headcount and $729,000 in stock-based compensation expense primarily related to increased outstanding equity grants. headcount.

Amortization of Intangibles

(in thousands)	Three Months Ended September 30, 2023	2022	Change	Nine Months Ended September 30, 2023	2022	Change	Three Months Ended March 31, 2024	2023	2024 vs 2023 Change
Amortization of intangibles	$ 1,409	$—	$ 1,409	$ 3,555	$—	$ 3,555	$ 1,409	$ —	$ 1,409

Table of Contents

Three months ended March 31, 2024 compared with three months ended March 31, 2023

The increase in amortization expense relates to the intangibles acquired as part of our April 3, 2023 acquisition of Voyantic Oy, a global provider of RFID test and measurement solutions. See Note 4 Goodwill and Intangible Assets for further details.

Table of Contents

Restructuring Costs

(in thousands)	Three Months Ended March 31, 2024	2023	2024 vs 2023 Change
Restructuring costs	$ 1,812	$ —	$ 1,812

Three months ended March 31, 2024 compared with three months ended March 31, 2023

The increase in restructuring costs relates to the restructuring we initiated on February 7, 2024. See Note 12 Restructuring for further details.

Other Income, net

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Change	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
Other income, net	$ 1,090	$ 774	$ 316	$ 3,620	$ 1,367	$ 2,253	$ 1,292	$ 1,365	$ (73)

Other income, net comprises primarily interest income on our short-term investments.

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Other income, net increased decreased from the prior periods period due to an decreased interest income.

Income From Settlement of Litigation

(in thousands)	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
Income from settlement of litigation	$ 45,000	$ —	$ 45,000

Three months ended March 31, 2024 compared with three months ended March 31, 2023

The increase in interest rates.

Nine months ended September 30, 2023 compared income from settlement of litigation relates to the litigation settlement we reached with nine months ended September 30, 2022

Other income, net increased from the prior periods due to an increase in interest rates.

Induced Conversion Expense

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Change
Induced conversion expense	$ —	$ —	$ —	$ —	$ 2,232	$ (2,232)

In June 2022, we repurchased the remaining $9.85 million principal amount of the 2019 Notes ("2019 NXP on March 13, 2024. See Note Repurchase"). We accounted 6 Commitments and Contingencies for the 2019 Note Repurchase transaction as an induced conversion in accordance with Accounting Standards Codification 470-20, Debt with Conversion and Other Options (ASC 470-20). As a result of the induced conversion, we recorded $2.2 million in induced conversion expense which is included in the Consolidated Statements of Operations for the nine months ended September 30, 2022. The induced conversion expense represents the fair value of the consideration issued upon conversion in excess of the fair value of the securities issuable under the original terms of the 2019 Notes. further details.

Interest Expense

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Change	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
Interest expense	$ 1,213	$ 1,205	$ 8	$ 3,633	$ 3,716	$ (83)	$ 1,216	$ 1,209	$ 7

Interest expense comprises primarily cash interest and amortization of debt issuance costs on our debt.

Three months ended September 30, 2023 March 31, 2024 compared with three months ended September 30, 2022 March 31, 2023

Interest expense was comparable for the periods.

Nine months ended September 30, 2023 compared with nine months ended September 30, 2022

Interest expense was comparable for the periods..

Income Tax Expense

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Change	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
Income tax benefit (expense)	$ 195	$ (24)	$ 219	$ 472	$ (67)	$ 539			
Income tax expense (benefit)							$ (1)	$ 72	$ (73)

We are subject to federal and state income taxes in the United States and foreign jurisdictions. Income tax benefits for the three and nine months ended September 30, 2023 are expense decreased $73,000 due to our estimated effective tax rate which incorporated the acquisition of Voyantic Oy. See Note 4 Goodwill and Intangible Assets for further details regarding the Voyantic Oy acquisition.

Table of Contents

Non-GAAP Financial Measures

Our key non-GAAP performance measures include adjusted EBITDA and non-GAAP net income (loss), as defined below. We use adjusted EBITDA and non-GAAP net income (loss) as key measures to understand and evaluate our core operating performance and trends, to prepare and approve our annual budget and to develop short- and long-term operating plans. We believe these measures provide useful information for period-to-period comparisons of our business to allow investors and others to understand and evaluate our operating results in the same manner as our management and board of directors. Our presentation of these non-GAAP financial measures is not meant to be considered in isolation or as a substitute for our financial results prepared in accordance with GAAP, and our non-GAAP measures may be different from similarly termed non-GAAP measures used by other companies.

Table of Contents

Adjusted EBITDA

We define adjusted EBITDA as net income (loss) determined in accordance with GAAP, excluding, if applicable for the periods presented, the effects of stock-based compensation; depreciation; depreciation and amortization; restructuring costs; settlement income and related costs; induced conversion expense; other income, net; interest expense; loss on debt extinguishment; income tax benefit (expense); acquisition transaction related expense and related purchase accounting adjustments. adjustments; and income tax benefit (expense). During the first quarter of 2023, year ended December 31, 2023, we revised our definition of adjusted EBITDA to exclude acquisition transaction related expenses, and related purchase accounting adjustments and amortization of intangibles in connection with our Voyantic Oy acquisition. During the three months ended March 31, 2024, we further revised our definition of adjusted EBITDA to exclude settlement income. We have excluded these costs and expenses items because we do not believe they reflect our core operations and us excluding them enables more consistent evaluation of our operating performance. The revision to our definition of adjusted EBITDA did not impact adjusted EBITDA for any previously reported periods because there was no impact of a similar nature in such prior periods affecting comparability.

The following table presents a reconciliation of net loss to adjusted EBITDA:

	Three Months Ended September 30,			Nine Months Ended September 30,			Three Months Ended March 31,		2024 vs 2023
(in thousands)	2023	2022	Change	2023	2022	Change	2024	2023	Change
Net loss	$ (15,762)	$ (2,199)	$ (13,563)	$ (28,186)	$ (24,183)	$ (4,003)			
Net income (loss)							$ 33,344	$ (4,358)	$ 37,702
Adjustments:									
Other income, net	(1,090)	(774)	(316)	(3,620)	(1,367)	(2,253)	(1,292)	(1,365)	73

Interest expense	1,213	1,205	8	3,633	3,716	(83)	1,216	1,209	7
Income tax expense (benefit)	(195)	24	(219)	(472)	67	(539)	(1)	72	(73)
Depreciation and amortization	3,668	1,483	2,185	9,734	4,456	5,278	3,909	1,793	2,116
Stock-based compensation	12,307	10,057	2,250	35,679	32,230	3,449	11,790	10,224	1,566
Purchase accounting adjustments	112	—	112	388	—	388			
Induced conversion expense	—	—	-	—	2,232	(2,232)			
Acquisition transaction expense	4	—	4	1,676	—	1,676			
Restructuring costs							1,812	—	1,812
Acquisition related expense							907	1,042	(135)
Income on settlement of litigation							(45,000)	—	(45,000)
Adjusted EBITDA	$ 257	$ 9,796	$ (9,539)	$ 18,832	$ 17,151	$ 1,681	$ 6,685	$ 8,617	$ (1,932)

Non-GAAP Net Income (Loss)

We define non-GAAP net income (loss) as net income (loss), adjusted for, excluding, if applicable for the periods presented, the effects of stock-based compensation; depreciation; depreciation and amortization; restructuring costs; settlement income and related costs; induced conversion expense; amortization of debt discount acquisition related to the equity component of our convertible notes; prepayment penalty on debt extinguishment; acquisition transaction expense; expense and related purchase accounting adjustments; and the corresponding income tax impacts of adjustments to net income (loss).

During the first quarter of 2023, year ended December 31, 2023, we revised our definition of non-GAAP net income (loss) to adjust for acquisition transaction related expenses, and related purchase accounting adjustments and amortization of intangibles in connection with our Voyantic Oy acquisition. Excluding acquisition transaction expenses and related purchase accounting adjustments During the three months ended March 31, 2024, we further revised our definition of non-GAAP net income to exclude settlement income. The revisions to our definition of non-GAAP net income did not impact the non-GAAP net income (loss) for any previously reported for periods preceding the revision. because there was no impact of a similar nature in such prior periods affecting comparability.

During Additionally, during the second quarter of 2023, year ended December 31, 2023, we further revised our definition of non-GAAP net income (loss) to adjust for income tax effects of adjustments to net income (loss), calculated at the statutory rate for current and historical periods. We have revised the prior period amounts to conform to our current period presentation.

28

Table of Contents

The following table presents a reconciliation of net loss to non-GAAP net income (loss):

(in thousands)	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Three Months Ended September 30, Change	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	Nine Months Ended September 30, Change	Three Months Ended March 31, 2024	Three Months Ended March 31, 2023	2024 vs 2023 Change
Net loss	$ (15,762)	$ (2,199)	$ (13,563)	$ (28,186)	$ (24,183)	$ (4,003)			
Net income (loss)							$ 33,344	$ (4,358)	$ 37,702
Adjustments:									
Depreciation and amortization	3,668	1,483	2,185	9,734	4,456	5,278	3,909	1,793	2,116
Stock-based compensation	12,307	10,057	2,250	35,679	32,230	3,449	11,790	10,224	1,566
Purchase accounting adjustments	112	—	112	388	—	388			

Induced conversion expense	—	—	-	—	2,232	(2,232)			
Acquisition transaction expense	4	—	4	1,676	—	1,676			
Restructuring costs							1,812	—	1,812
Acquisition related expense							907	1,042	(135)
Income on settlement of litigation							(45,000)	—	—
Income tax effects of adjustments (1)	(207)	(878)	671	(1,990)	(1,385)	(605)	(591)	(818)	227
Non-GAAP net income	$ 122	$ 8,463	$ (8,341)	$ 17,301	$ 13,350	$ 3,951	$ 6,171	$ 7,883	$ 43,288

(1) The tax effects of the adjustments are calculated using the statutory rate, taking into consideration the nature of the item and relevant taxing jurisdiction.

(1) The tax effects of the adjustments are calculated using the statutory rate, taking into consideration the nature of the item and relevant taxing jurisdiction.

(1) The tax effects of the adjustments are calculated using the statutory rate, taking into consideration the nature of the item and relevant taxing jurisdiction.

Table of Contents

Liquidity and Capital Resources

As of September 30, 2023 March 31, 2024, we had cash, cash equivalents and short-term investments of $113.2 million $174.1 million, comprising cash deposits held at major financial institutions and short-term investments in a variety of securities, including U.S. government securities, treasury bills, corporate notes and bonds, commercial paper, asset-backed securities and money market funds. As of September 30, 2023 March 31, 2024, we had working capital of $239.2 million $290.0 million.

Historically, we have funded our operations primarily through cash generated from operations and by issuing equity securities, convertible-debt offerings and/or borrowing under our prior senior credit facility. In 2023, our principal uses of cash were funding operations to capture increases in our market opportunity inventory balance, our acquisition of Voyantic Oy and capital expenditures.

We believe, based on our current operating plan, that our existing cash, cash equivalents and short-term investments will be sufficient to meet our anticipated cash needs for at least the next 12 months. Over the longer term, we plan to continue investing to enhance and extend our platform. If our available funds are insufficient to fund our future activities or execute our strategy, then we may raise additional capital through equity, equity-linked or debt financing, to the extent such funding sources are available. Alternatively, we may need to reduce expenses to manage liquidity; however, any such reductions could adversely impact our business and competitive position.

Sources of Funds

From time to time, we may explore additional financing sources and ways to reduce our cost of capital, including equity, equity-linked and debt financing. In addition, in connection with any future acquisitions, we may pursue additional financing which may be debt, equity or equity-linked financing or a combination thereof. We can provide no assurance that any additional financing will be available to us on acceptable terms.

2021 Notes

In November 2021, we issued convertible notes due 2027 in an aggregate principal amount of $287.5 million which we refer to as the 2021 Notes. The 2021 Notes are our senior unsecured obligation, bearing interest at a fixed rate of 1.125% per year, payable semi-annually in arrears on May 15 and November 15 of each year, beginning on May 15, 2022. The 2021 Notes are convertible into cash, shares of our common stock or a combination thereof, at our election, and will mature on May 15, 2027 unless earlier repurchased, redeemed or converted in accordance with the indenture terms.

The net proceeds from the 2021 Notes were approximately $278.4 million after initial debt issuance costs, fees and expenses. We used approximately $183.6 million of the net proceeds to repurchase approximately $76.4 million aggregate principal amount of convertible notes due 2026, or the 2019 Notes through individual privately negotiated transactions concurrent with the 2021 Notes offering. We used $17.6 million to repurchase the remaining $9.85 million aggregate principal of the 2019 Notes through individual privately negotiated transactions in June 2022. We will use the rest of the net proceeds for general corporate purposes.

For further information on the terms of this debt, please refer to Note 7 to our condensed consolidated financial statements included elsewhere in this report.

Table of Contents

Cash Flows

The following table shows a summary of our cash flows for the periods indicated:

	Nine Months Ended September 30,	Three Months Ended March 31,

(in thousands)		2023		2022		2024		2023
Net cash provided by (used in) operating activities	$	(50,809)	$	6,813	$	60,140	$	(26,560)
Net cash provided by (used in) investing activities		101,480		(86,304)				
Net cash provided by (used in) financing activities		7,890		(5,102)				
Net cash provided by investing activities						5,046		39,926
Net cash provided by financing activities						6,917		4,520

Operating Cash Flows

For the nine three months ended September 30, 2023, we used $50.8 million of net cash from operating activities. This net cash usage was due primarily to $67.0 million in working capital due primarily to higher inventory and lower accounts payable and $16.2 million of net loss adjusted for non-cash items.

For the nine months ended September 30, 2022 March 31, 2024, we generated $6.8 million $60.1 million of net cash from operating activities. These net cash proceeds were driven due primarily by $16.2 million to $50.4 million of net loss income adjusted for non-cash items and $9.4 million $9.8 million in working-capital, working capital due primarily from increased cash usage for inventory purchases and change in accounts receivable. to lower inventory.

Investing Cash Flows

For the nine three months ended September 30, 2023 March 31, 2024, we generated $101.5 million $5.0 million of net cash from investing activities. These net cash proceeds were due primarily to investment maturities of $127.5 million and investment sales of $13.4 million $11.2 million, partially offset by cash paid for the Voyantic Oy acquisition of $23.4 million and net property and equipment purchases of $16.0 million $6.2 million.

For the nine months ended September 30, 2022, we used $86.3 million 26

Table of net cash from investing activities. This net cash usage was driven primarily by investment and property and equipment purchases of $159.8 million and $6.0 million, respectively, partially offset by investment maturities of $79.5 million. Contents

Financing Cash Flows

For the nine three months ended September 30, 2023 March 31, 2024, we generated $7.9 million $6.9 million of net cash from financing activities. These net cash proceeds were due primarily to $7.9 million from stock-option exercises and our employee stock purchase plan.

For the nine months ended September 30, 2022, we used $5.1 million of net cash from financing activities. This net cash usage was driven primarily by $12.5 million from stock-option exercises and our employee stock purchase plan. This amount was offset by $17.6 million for the cash repurchase of the remaining $9.85 million principal amount of the 2019 Notes.

Cash Requirements and Contractual Obligations

Our primary cash requirements are for operating expenses and capital expenditures. Our operating expenses have generally increased as we invest in sales and marketing and in developing products and technologies that we believe have the potential to drive long-term business growth.

Convertible Notes – As of September 30, 2023 March 31, 2024 the principal balance outstanding on the 2021 Notes is $287.5 million. Refer to Note 7 of our Notes to Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q for maturity date, stated interest rate and additional information on our 2021 Notes.

Operating Lease Obligations – Our lease portfolio comprises primarily operating leases for our office space. For additional information regarding our operating leases, see Note 10 11 of our Notes to Consolidated Financial Statements of our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023.

Purchase Commitments – Purchase commitments as of September 30, 2023 March 31, 2024 total $41.7 million $17.6 million and consist primarily of non-cancelable commitments to purchase $30.9 million of inventory.

Off-Balance-Sheet Arrangements

Since inception, we have not had any relationships with unconsolidated entities, such as entities often referred to as structured finance or special-purpose entities, or financial partnerships that would have been established for the purpose of facilitating off-balance-sheet arrangements or for another contractually narrow or limited purpose.

Table of Contents

Critical Accounting Policies and Significant Estimates

We have prepared our condensed consolidated financial statements in accordance with GAAP. Our preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates and assumptions. For information on our critical accounting policies and estimates, see Part II, Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations) of our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risks in the ordinary course of our business. Some of these risks are related to fluctuations in interest rates.

Interest Rate Risk

Under our current investment policy, we invest our excess cash in money market funds, U.S. government securities, corporate bonds and notes and commercial paper. Our current investment policy seeks first to preserve principal, second to provide liquidity for our operating and capital needs and third to maximize yield without putting our principal at risk. We do not enter into investments for trading or speculative purposes.

We had cash, cash equivalents and short-term investments of $113.2 million $174.1 million as of September 30, 2023 March 31, 2024. Our investments are exposed to market risk due to fluctuations in prevailing interest rates, which may reduce the yield on our investments or their fair value. Because most of our investment portfolio is short-term in nature, we do not believe an immediate 10% increase in interest rates would have a material effect on the fair market value of our portfolio, and therefore we do not expect our results of operations or cash flows to be materially affected by a sudden change in market interest rates.

Our convertible notes have fixed interest rates, thus a hypothetical 100 basis point increase in interest rates would not impact interest expense.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. To date, we have been able to substantially offset higher product costs by increasing our product selling prices. If our product costs became subject to significant future inflationary pressures, then we may not be able to fully offset these higher costs through price increases. Our inability or failure to do so could adversely affect our business, financial condition and results of operations.

Foreign Currency Exchange Risk

We are subject to risks associated with transactions that are denominated in currencies other than our functional currency and the effects of translating amounts denominated in a foreign currency to the U.S. dollar as a normal part of our reporting process. The functional currency of the majority of our foreign subsidiaries is the U.S. dollar. Accordingly, gains and losses resulting from remeasuring transactions denominated in currencies other than U.S. dollars are included in other income, net on the consolidated statements of operations. One of our European subsidiaries utilize Euro as their functional currency, which results in a translation adjustment that is included as a component of accumulated other comprehensive income. For any of the periods presented, we did not have material impact from exposure to foreign currency fluctuation. As we grow operations, our exposure to foreign currency risk will likely become more significant.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, including our chief executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2023 March 31, 2024. Disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Based on the evaluation of our disclosure controls and procedures, our chief executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at a reasonable assurance level as of September 30, 2023 March 31, 2024.

Changes in Internal Control over Financial Reporting

There were no changes that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the three months ended September 30, 2023 March 31, 2024.

Limitations on Controls

Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving the desired control objectives. Our management recognizes that any control system, no matter how well designed and operated, is based upon certain judgments and assumptions and cannot provide absolute assurance that its objectives will be met. Similarly, an evaluation of controls cannot provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

Table of Contents

PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

In the normal course of business, we may be named as a party to various legal claims, actions and complaints. We cannot predict whether any resulting liability will have a material adverse effect on our financial position, results of operations, cash flows, market position or stock price.

Patent Litigation

On June 6, 2019, Between 2019 and 2023, we filed a were engaged in multiple patent infringement lawsuit against a competitor, lawsuits with subsidiaries of NXP USA Inc., and on October 4, 2019, NXP USA, Inc. and its parent NXP Semiconductors N.V., filed a patent infringement lawsuit against us. Both or NXP, our primary endpoint IC competitor. On March 13, 2024, we and NXP subsequently filed additional lawsuits against each other. While two of these lawsuits have gone to trial entered into a Settlement and verdicts have been rendered, Patent Cross-License Agreement dated March 13, 2024, or the ultimate outcome of our patent dispute with NXP remains uncertain, Settlement Agreement which resolved all outstanding litigation and we may file additional lawsuits against NXP

USA, Inc. and/or its parent or they may file additional lawsuits against proceedings between us. For further information on these lawsuits, please refer to Note 6 of our condensed consolidated financial statements included elsewhere in this report.

Item 1A. Risk Factors.

You should carefully consider the following risk factors, in addition to the other information contained in this report, including the section of this report captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes. If any of the events described in the following risk factors and the risks described elsewhere in this report occur, then our business, operating results and financial condition could be materially impacted. This report also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements due to factors that are described below and elsewhere in this report.

Risks Relating to Our Platform, Products and Technologies

We operate in a very competitive market.

Our principal current primary competitors are:

- in endpoint ICs, Endpoint ICs: NXP, EM Microelectronic, Kiloway, Quanray, Shanghai Fudan Microelectronics Group, Alit and Alien.
- Reader ICs: Phychips Inc, Shanghai Fudan Microelectronics Group and Alien; MagicRF.
- in reader ICs, ST, Phychips, Iotelligent Readers and MagicRF; and gateways: Zebra.
- in readers Test and gateways, Zebra. measurement systems: CISC.

These competitors include companies that have much greater financial, operating, research and development, marketing and other resources than us. To gain market share, they could discount their products and accept lower margins, or they could maintain margins by achieving cost savings through better, more efficient designs or production methods. They could devote more resources than we can to product development, promotion, sale and support. They could also bundle other technologies, including those we do not have in our product portfolio, with their RAIN products.

Our partners, including our OEMs, ODMs, distributors, SIs, VARs and solution partners, may choose to compete with us rather than purchase our products, which would not only reduce our customer base but also increase competition in the market. Companies in adjacent markets or newly formed companies may decide to enter our market, particularly as RAIN adoption grows. Further, the Chinese government has made development of the Chinese semiconductor industry a priority, potentially increasing competition for us globally while possibly restricting our ability to participate in the Chinese market.

RAIN adoption is concentrated in key industries markets and the extent and pace of RAIN market adoption beyond those industries markets is uncertain.

Our financial performance depends on the pace of end-user RAIN adoption in key industries markets, such as retail apparel, our largest market, retail general merchandise and SC&L. Although RAIN has been adopted to some degree by end users in those industries, markets, those end users as well as the industries markets themselves are subject to business cycles and macroeconomic trends. Continued RAIN adoption by those end users and in those industries markets may be at risk if and when downcycles occur. negative business or economic conditions arise.

Outside those key industries, the The RAIN market opportunity is still developing. RAIN adoption, as well as adoption of our platform and products, depend depends on many factors, including the extent to which end users understand and embrace the benefits that RAIN offers; whether the benefits of RAIN adoption outweigh the cost and time to replace or modify end users' existing systems and processes; and whether RAIN products and applications meet end users' current or anticipated needs.

Table of Contents

We have, at times, anticipated and forecasted a pace of end-user adoption that exceeded the actual pace. pace of adoption. We expect continued difficulty forecasting the pace of adoption. As a result, we may be unable to accurately forecast our future operating results including revenue, gross margins, cash flows and profitability, any or all of which could negatively impact our financial performance.

We are expected to must regularly introduce new products and product enhancements on a regular basis. to compete effectively.

We introduce new products and services to advance our business, satisfy increasingly demanding end-user requirements and grow RAIN market adoption. We commit significant resources developing and introducing these new products and services. We also commit significant resources improving the performance and reliability of, and reducing the costs of, our existing products and services.

Whether our new products and services will succeed is uncertain. Our success in developing the technologies, processes or capabilities necessary or desired for new or enhanced products and services, or licensing or otherwise acquiring them from third parties, and our ability to introduce new products and services before our competition, depends on many factors, including:

- our ability to identify new product capabilities or services that end users will be widely adopted; adopt;
- our timely and efficient completion of the design process;
- our timely and efficient implementation of manufacturing, assembly and testing procedures;
- our attainment of appropriate product or service performance levels and product certification; certifications;
- partnering successfully with others to deliver complementary products or services;
- the quality, reliability and selling price of our product or service; and
- the effectiveness of our marketing, sales and service.

When we introduce new products, our success in ramping adoption depends, in part, on us making those products easy to deploy by for our partners and their end users. users to deploy and use. For example, for our new M700-family M800-family endpoint ICs, and E-family reader ICs, we continue are currently significantly supporting our inlay partners to produce high-performing, high-quality products. inlays. Until our partners are able to deploy our products widely, adoption and our operating results could suffer.

Our abilities to deliver platform enterprise solutions at scale are nascent.

We believe we are still at a very early stage in our ability to deliver enterprise solutions. We are developing solutions for retail self-checkout and loss prevention and SC&L package routing that have been, or that we expect to be, deployed by the industry-leading enterprise end users for whom we are developing the solutions. users. However, to fully capitalize on our platform's potential, we must make our current offerings repeatable across multiple enterprises as well as deliver additional solutions to enterprise needs. We must also develop relationships with top-tier solution partners to gain access to and address challenging new use cases. If we do not succeed in identifying, developing, selling and deploying enterprise solutions, particularly solutions that rely on autonomous reading, with top-tier partners and across a range of industries markets and customers, end users, then our business prospects will suffer.

Delivering solutions that address enterprise needs solutions requires a network of partner products and services that complement our own product offerings and that together address complex the enterprise needs. Convincing enterprises to engage us to solve their business problems – including evaluation, design, deployment, operations and partner services, including leveraging as well as integrating RAIN data into the enterprise's information systems, requires tight coordination among our and our partners' sales, marketing, operations and engineering teams. We, or our partners, may be unable to successfully acquire customers for our enterprise solutions, or successfully address our market opportunity. Although we today have partners who can successfully introduce our platform, or aspects of it, to their customers, their knowledge of our platform and RAIN in general is still nascent. If we do not build our network of solutions, and partners to deliver those solutions, and broaden our efforts to deliver solutions that leverage our platform in large, complex enterprise opportunities, then our business prospects will suffer.

We rely on endpoint IC sales to generate most of our revenue.

We derive, and expect to continue to derive, most of our product revenue from our endpoint ICs. If demand declines, or if we are unable to procure enough wafers to meet the demand we have, or if we are unable to raise prices to offset cost increases, then our business and operating results will suffer. In addition, the continued adoption of, and demand for, our existing endpoint ICs, as well as for our new endpoint ICs, derives in part from our ability to continually innovate and to demonstrate us demonstrating the benefits of using our endpoint ICs with our reader ICs, readers and gateways. systems. If we fail to establish the those benefits of using our endpoint ICs with our platform, then we may be unsuccessful in countering competitive pressures to lower prices for our endpoint ICs IC price pressures and our business and operating results could be adversely affected.

The average selling prices of our products could fluctuate substantially.

Table of Contents

The ASPs average selling price, or ASP, of our products has historically decreased with time or to meet end-user demands, to encourage adoption, to address macroeconomic conditions or to respond to market pressure competitive pressure. As demand for older products declines, or as competition from our competition. However, that trend is not constant and we have competitors with lower product costs or lower profitability expectations increases, or during times of oversupply, ASPs may decline quickly.

Table of Contents

To compete profitably we must continually improve our technology and processes and reduce unit costs in line with lower selling prices. If we are unable to offset ASP reductions with increased sales volumes or reduced product costs, then our revenue and gross margins will suffer.

Though less common, we have also increased prices from time to time. Although we expect further price decreases in the long term, time, especially during times of increasing wafer costs. For example, we raised prices in 2021, 2022 and 2022 2023 to accommodate higher product costs. We may be required to raise prices again if macroeconomic conditions, including inflation, create upward pressure on our product costs. If we are unable to offset ASP reductions with increased sales volumes or reduced product costs, or if we are unable to successfully increase ASPs to offset cost increases, then our revenue and gross margins will suffer.

When demand for older products declines, or during times of increased market inventory, ASPs may decline quickly. To sell our products profitably we must continually improve our technology and processes and reduce costs in line with the lower selling prices. If we and our product suppliers and manufacturers cannot create and implement processes or improve efficiencies sufficient to maintain our margins, then we may be unable to sell our products profitably.

Pricing commitments and other restrictive provisions in our customer agreements could adversely affect our operating results.

In the ordinary course of our business, we enter into agreements containing pricing terms that could, in some instances, adversely affect our operating results and gross margins. For example, some contracts specify future IC, reader or gateway pricing or contain most-favored-customer pricing for certain products. Other agreements contain exclusivity terms that prevent us from pursuing certain business with other customers during the exclusivity period. Reducing prices or offering favorable terms to one customer could adversely affect our ability to negotiate favorable terms with other customers.

Changes in our product mix could adversely affect our overall gross margin.

We generate most Endpoint IC sales, which constitute and likely will continue to constitute the majority of our product revenue, from endpoint IC sales which have, for the most part, lower gross margins than our systems product sales. Our overall product gross margins are affected by product mix, which can fluctuate based on demand and supply, competitive pressures and end-user needs and demand. A shift in sales mix away from our higher margin products to lower margin products, either within our endpoint IC product portfolio or from our systems business to our endpoint ICs, could negatively affect our gross margins.

Poor product quality could result in significant costs to us and impair our ability to sell our products.

Our products must meet increasingly demanding specifications for quality, reliability and performance. Our products are both highly technical and deployed in large, complex systems in which errors, defects or incompatibilities can be problematic for our partners and end users.

If we are unable to identify or correct errors, defects, incompatibilities or other problems in our products, we could experience:

- loss of customer orders or customers;
- lost or delayed market acceptance (either of our products and solutions or RAIN generally);
- lost or delayed sales;
- loss of market share;
- damage to our brand and reputation;
- impaired ability to attract new customers;
- diversion of development resources;
- increased service and warranty costs;
- replacement costs;
- legal actions by our partners or end users; and
- increased insurance costs.

Moreover, if we encounter product quality issues, then we may be required to incur significant time and costs to diagnose, test and fix the issues, and issues. There can be no assurance that such remediation efforts would be successful. Even if successful, these efforts could further constrain our ability to supply our partners and end users with new products until we have resolved the issues.

End users and partners must design our products into their products and business processes.

Persuading end users or partners to design our products into their business processes or products requires educating them about RAIN's and our products' value. They may use other technologies or products and may not feel the need be receptive to learn about how introducing RAIN or our products can improve into

Table of Contents

their business processes or products. Even when convinced, they often undertake long pilot programs or qualification processes and qualifications prior to placing orders. These pilot programs or qualification processes and qualifications can be time consuming and expensive, and there is no assurance they will result in an order for our products. If we fail to develop new products that adequately or

Table of Contents

competitively address end users' or our partners' needs, then we may not receive product orders, which could adversely affect our business, prospects and operating results.

Our visibility into the length of the sales and deployment cycles for our products is limited.

We have limited visibility into end user sales and deployment cycles, and these cycles are often longer than we anticipate. Many factors contribute to our limited visibility, including the time our partners and end users spend evaluating our products, the time educating them on RAIN's benefits and the time integrating our products with end users' systems. The length and uncertain timing of the sales and deployment cycles can lead to delayed product orders. In anticipation of those orders, we may incur substantial costs before the sales cycle is complete and before we receive any customer orders or payments, if we receive them at all.

An inability or limited ability of end user systems to exploit RAIN information may adversely affect the market for our products.

A successful end-user deployment requires not only tags and readers or gateways, but RAIN integration with information systems and applications that create business value from the RAIN data. Unless third parties continue developing and advancing business analytics tools, and end users enhance their information systems to use these tools, RAIN deployments could stall. Our efforts to foster third-party development and deployment of these tools could fail. In addition, our guidance to business-analytics providers for integrating our products with their tools could prove ineffective.

Solution providers and SIs are essential to the RAIN market. They provide deployment know-how to enable end users to successfully deploy RAIN solutions. Integrating our products with end-user information systems could prove more difficult or time consuming than we or they anticipate, which could delay deployments.

Alternative technologies may enable products and services that compete with ours.

Technology developments may affect our business negatively. Breakthroughs in legacy RFID technologies or markets, including those using low frequency or high frequency RFID technology, or in other radio technologies, could adversely affect RAIN market growth and demand for our products. Likewise, new technologies may enable lower-cost ICs than our products. If we are unable to innovate using new or enhanced technologies or are slow to react to changes in existing technologies or in the market, or if we have difficulty competing with advances in new or legacy technologies, then our development of new or enhanced products could be impacted and result in product obsolescence, decreased revenue and reduced market share.

Significant changes in RAIN standards bodies, standards or qualification processes could impede our ability to sell our products and services.

We participate have historically taken a leadership position in developing RAIN industry standards, including with GS1 and ISO, and have designed our products to comply with those standards, and we have historically taken a leadership position in standards development. In the future, we standards. We could lose that leadership position, position; our influence in standards development could diminish, diminish; or we could choose not to participate in certain standards activities.

New or changed industry standards could affect us negatively. If industry standards diverge from our or the RAIN market's needs, then our products may fail to keep pace with the market or cause end users to delay their deployments. Moreover, the adoption or expected adoption of new or changed standards could slow sales of our existing products before we can introduce new products that meet the new or changed standards. New standards or changes to existing standards could also limit our ability to implement new features in our products. The lost opportunities as well as time and expense to develop new products or change our existing products to comply with new or changed standards could be substantial, and we may not ultimately succeed in developing products that comply with the new or changed standards.

Certain organizations develop requirements for RAIN tags and test tags against those requirements. As one For example, the ARC Program at Auburn University develops tag performance and quality requirements for end users that engage them. Some participants in the RAIN market are ARC sponsors, but we are not among them. Some other organizations perform this function as well. ARC or a similar organization could develop specifications that some or all of our endpoint ICs fail to meet. meet or could delay approval of tags incorporating our endpoint ICs, which could negatively impact market acceptance of our products.

Changes in government spectrum regulations or in their enforcement could adversely affect our ability to sell our products.

Government radio regulations require that our readers and gateways be certified for spectral compliance where they are sold or operated. Our readers and gateways are collectively certified for use in more than 40 countries worldwide, including the United States, Canada, Mexico, China, Japan, South Korea and every country in the EU.

If one of spectrum regulations change, or if our reader or gateway products is are found to be noncompliant despite being certified, we could be required to modify field-deployed readers or gateways and could spend significant resources and miss sales opportunities in the process.

Government regulations may change, possibly without notice, requiring us need to redesign our products, to conform with the new regulations or constraining our ability to incorporate new features into our products. Such changes could cause us to incur potentially resulting in significant costs, including costs associated with obsolete inventory. Regulatory changes may also cause us to forego opportunities, to improve adversely affecting our products, potentially delaying our time-to-market. business.

Table of Contents

Sales of some of our products could cannibalize revenue from other products.

Some of our partners develop products using some of our products that compete with other of our products. For example, some of our OEM partners use our reader ICs to build and sell readers and gateways that compete with our readers and gateways. Similarly, some of our partners use our readers to build and sell gateways that compete with our gateways. If we fail to manage such conflicts successfully, then our business and operating results could be negatively affected.

Our licensing program is nascent.

While we believe we have valuable RAIN intellectual property and aspire to monetize that intellectual property by licensing it to third parties, including third parties who compete with us to some extent, our experience in doing so is nascent, and our ability to grow licensing revenue remains subject to numerous risks and uncertainties. To materially grow our licensing program and revenues, we will need to maintain and grow our intellectual property portfolio and continue to research and develop RAIN innovations that will generate and maintain demand for licenses to our technology and features. We will also need to develop and maintain an ability to monitor intellectual property use by others and possibly seek enforcement action against those who attempt to improperly use our intellectual property. These enforcement actions could require significant investments in management time and attention, and cash as we incur legal and other expenses. They could also compete with our objectives in other areas of our business such as wanting to maintain close, strategic relationships with important partners or end users of our products. These are just some of the risks and uncertainties we face with respect to our nascent licensing program.

We currently derive a substantial share of our licensing revenues from NXP, our primary endpoint IC competitor, based on our Settlement Agreement with them. For more information regarding the terms of our Settlement Agreement with NXP, please refer to Note 6 of our condensed consolidated financial statements included elsewhere in this report. If NXP were to breach its license payment obligations, or if NXP were to design out our intellectual property and exercise its right to terminate our license before the end of the 10-year term of the agreement, our licensing revenues would decline, and our overall results of operations and cash flows would suffer.

Risks Relating to Our Personnel and Business Operations

We obtain the products we sell through a limited number of third parties with whom we do not have long-term supply contracts.

Our ability to secure cost-effective, quality products in a timely manner could be adversely affected by many factors, including:

- Third-party manufacturing capacity may not be available when we need it, particularly from our foundry partners from wh we procure silicon wafers.
- Efforts to diversify our supplier base may be unsuccessful or may not result in us obtaining the anticipated benefits of su diversification.
- Some products have long lead times, and we place orders for them many months before our anticipated delivery dates t

our customers. If we inaccurately forecast customer demand, then we may be unable to meet our customers' delivery requirements or we may accumulate excess inventory, increasing our costs.

- Supply disruptions may affect our ability to meet partner or end user end-user demand, whether in a cost-effective mann at all, potentially causing those partners or end users to cancel orders, qualify alternative suppliers or purchase from our competitors. Supply disruptions can also distort demand, making it even harder to meet true demand with finished produ

If our suppliers fail to manufacture our products at reasonable prices or with satisfactory quality levels, then our ability to bring those products to market and our reputation could both suffer. If supplier capacity diminishes, whether from equipment failures, closures, bankruptcy, capacity allocation, in response to Covid-19, public health events (such as Covid-19), catastrophic loss of facilities or otherwise, then we could have difficulty fulfilling orders, our revenue could decline and our growth prospects could be impaired. Transitioning our product manufacturing to new providers would take many months and, in the case of ICs, could take years. Any transition would require a requalification by our customers or end users, which could also adversely affect our ability to sell our products as well as our operating results.

Shortages of silicon wafers and or components used in our readers and gateways may adversely affect our ability to meet demand for our products and adversely affect our revenue and/or gross margins.

The We expect wafer capacity in the semiconductor industry has experienced many periods of capacity shortfall and experienced another fairly recently due nodes we use to increased post-Covid demand. In particular, in both 2021 and 2022 we experienced be tight wafer availability, and our foundry partner raised prices. Although wafer availability has improved in 2023, supply/demand imbalances could still occur, constraining wafer availability. for the foreseeable future. We procure wafers on a purchase-order basis, from so our foundry partners; consequently, wafer supply is not contractually guaranteed, and there can be no assurance that we will may not receive adequate wafer supply from our foundry partners if and when wafer shortages occur.

Table of Contents

Wafer shortfalls limit sales and may cause market-share losses if we are unable to supply enough products or our customers purchase competing products or, alternatively, losses. They may also artificially increase bookings as customers over-order our products, followed by and then cause sales declines in future periods as they those customers consume their accumulated inventory. Additionally, if our suppliers charge us more but we are unable to raise our prices to cover our those higher costs, our gross margins and other financial results could suffer.

To guard against wafer shortages, we may invest in inventory to support anticipated business growth, like we did with endpoint IC inventory in 2017, 2020 and 2020. However, maintaining late 2022/early 2023.

To convert the wafers we receive from our foundry partner into saleable ICs, we perform additional steps including testing, thinning, bumping and dicing. If our third-party suppliers are unable to efficiently perform these steps, or if we experience any capacity constraints with respect to these steps, then we may be unable to satisfy demand for our products, adversely affecting our financial results.

We may be unable to accurately anticipate the scope or nature of business demand, which could cause excess or obsolescent inventory. We maintain inventory to meet customer demand, but high inventory levels can increase expenses or increase reserves and exposes expose us to a higher risk of product obsolescence as when we introduce new products and technologies, all of which could negatively affect our business. We may not be able to adequately anticipate the scope or nature of business growth, which could potentially result excess or obsolescent inventory. For example, in 2022 we saw greater had strong demand for our 300mm M700 wafers, ICs, but due to inventory and limited 300mm wafer supply, limitations, we were required to transition transitioned some potential customers back to our prior-generation 200mm Monza R6 product family, despite M700 being our primary market demand. family. If we are unable to sell the inventory we purchased, or if we must sell such inventory it at lower process—whether as a result of excess, obsolescence, or other factors— prices, then our business will be negatively impacted.

Table of Contents

To convert the wafers we receive from our foundry partner into saleable products, we and several third parties perform additional procedures, such as testing, thinning, dicing and bumping the ICs. If we or our partners are unable to efficiently perform these post-processing procedures, or if we experience any capacity constraints with respect to these post-processing procedures, then we may be unable to keep up with demand for our products and our financial results will suffer.

We have also experienced shortages and price increases for components we use in our readers and gateways, as well as in packaging and test capacity for our reader ICs, and we may continue to experience such shortages and price increases in the future. Any such shortages or price increases will negatively impact our product availability and costs. If we are unable to procure sufficient components costs and to increase our prices to cover our increased costs, then our financial results will suffer.

We bear inventory risks due to our reliance on partners to sell and distribute our products.

We typically order products from our suppliers based on partner forecasts before we receive purchase orders. However, many of our partners have difficulty accurately forecasting their demand and the timing of that demand. They also sometimes cancel orders or reschedule product shipments, in some cases with little or no advance notice to us. We also sometimes receive soft commitments for large orders which do not materialize. In addition, when we introduce new products, we may initially carry higher inventory or have slower inventory turns depending on market acceptance. We have additional uncertainty arising from competition and from unanticipated external events, such as macroeconomic trends or events and changes in regulatory standards, all of which can adversely affect demand and consequently our inventory levels, sales and operating results.

Acquisitions could result in operating difficulties, dilution and other harmful consequences.

We regularly evaluate potential strategic transactions, and we may pursue one or more transactions them if complementary to our business. For example, in April 2023 we completed our acquisition of Voyantic Oy, a global provider of RFID (primarily RAIN and NFC) inlay and label design, manufacturing and test systems. Strategic transactions could be material to our financial condition and operating results. We have limited experience executing acquisitions. Integrating an acquired company, business or technology may create unforeseen operating difficulties and expenditures. Acquisition-related risks include:

- difficulties integrating acquired products or lines of business into our strategy and product plans;
- customers switching from us to new suppliers because of the acquisition;
- inability to retain employees from the business we acquire;
- challenges associated with integrating employees from the acquired company into our organization;
- difficulties integrating accounting, management information, human resource, legal and other administrative systems to permit effective management of the business we acquire;
- potential requirements for remediating controls, procedures and policies appropriate for a public company in the acquired busi that, prior to the acquisition, lacked these controls, procedures and policies;

- potential liability for past or present environmental, hazardous substance or contamination concerns associated with the acqui business or its predecessors;
- possible write-offs or impairment charges resulting from the acquisition; and
- unanticipated or unknown liabilities relating to the acquired business.

Table of Contents

Foreign acquisitions involve additional risks beyond those above, including related to integrating operations across different cultures and languages, currency risks and the economic, political and regulatory risks associated with other countries. Also, the anticipated benefit of any acquisition, domestic or foreign, may not materialize. Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, debt incurrence, contingent liabilities or amortization expenses or goodwill write-offs, any of which could harm our financial condition. Future acquisitions may require us to obtain additional equity or debt financing, which may not be available on favorable terms or at all.

Covid-19 has adversely affected our business, and the magnitude and duration of continued Covid-19 effects on our business are uncertain.

Since 2020, Covid-19 has created significant worldwide economic volatility, uncertainty and disruption, and, while improving, those effects may persist or return. The Covid-19 risks we continue to monitor include:

- uncertain product demand globally;
- product availability delays and shortages;

Table of Contents

- challenges in effectively managing our inventory due to uncertain supply or demand;
- partner-requested preordering or rescheduling as a result of supply concerns, possibly distorting channel inventory, either positively or negatively;
- increased operating and product costs;
- delays in research and development efforts, which, in turn, could delay new product introductions or product enhancements; and
- maintaining employee engagement and productivity in a remote or hybrid work environment.

The extent to which Covid-19 will continue impacting market demand and our future results is still unclear, and risks associated with Covid-19 remain.

Changes in global trade policies could have a material adverse effect on us.

Changes in U.S. and foreign laws and policies governing foreign trade, manufacturing, development and investment in the jurisdictions where we currently develop and sell products, and any negative consequences resulting from such changes, could materially affect our business.

The U.S. government has imposed significant tariffs on a variety of items imported from other countries, particularly China. China responded by imposing significant tariffs on a variety of items imported from the United States. These tariffs could materially and adversely affect our ability to compete internationally. Although the United States and China signed a preliminary trade agreement in early 2020, the tariffs remain in place as negotiations between the countries continue. The future of these tariffs, as well as the possibility for new tariffs, remains uncertain. Changes in U.S. and Chinese industrial policy also contribute to uncertainty regarding the global trade environment.

Other causes of uncertainty include the effects of sanctions and other actions taken against Russia because after Russia invaded Ukraine. While we do not today have business with Russian partners or end users, the effect of these sanctions on global trade and macroeconomic conditions generally—such as increases in the cost of increasing energy costs and inflation—could nevertheless negatively affect our business.

We are subject to risks inherent in operating abroad and may not be able to successfully maintain or expand our international operations.

In 2022, 2023, we derived 83% 72% of our total revenue from sales outside the United States. We anticipate growing our business, in part, by growing our international operations, which presents a variety of risks, including:

- changes, some unexpected or unanticipated, in regulatory requirements, taxes, trade laws, tariffs, export quotas, custom duties or other trade restrictions;
- lack of established, clear or fairly implemented standards or regulations with which our products must comply;
- greater difficulty in enforcing contracts, judgments and arbitration awards in international courts, and in collecting accour receivable as well as longer payment and collection periods;
- limited or unfavorable intellectual property protection;
- misappropriation of our intellectual property;
- inflation and fluctuations in foreign currency exchange rates and interest rates;
- restrictions, or changes thereof, on foreign trade or investment, including currency-exchange controls, including as a res of sanctions against Russia as a result of Russia invading Ukraine; Russia;
- changes in a country's or region's political, regulatory, legal or economic conditions, including, for example, global and regional economic disruptions caused by any future public health outbreaks or pandemics, including a resurgence in Co 19 cases; of Covid-19;
- political, social and economic instability abroad; wars and other armed conflicts; conflicts, such as those in Ukraine and t Gaza Strip; geopolitical tensions, such as those between the United States, China and Taiwan; and terrorist attacks and security concerns in general, including Russia invading Ukraine, China threatening Taiwan and the conflict in the Gaza Strip; general;
- differing regulations with regard to maintaining operations, products and public information;
- inequities or difficulties obtaining or maintaining export and import licenses;
- differing labor regulations, including where labor laws may be more advantageous to employees than in the United State

Table of Contents

- restrictions on earnings repatriation;
- corrupt or unethical practices in foreign jurisdictions that may subject us to exposure under applicable anti-corruption anc anti-bribery laws such as the U.S. Foreign Corrupt Practices Act of 1977, as amended, or FCPA, and the United Kingdor

Bribery Act of 2010, or U.K. Bribery Act; and

Table of Contents

- regulations, and changes thereof, relating to data privacy, cybersecurity and the unauthorized use of, or access to, commercial and personal information, particularly in Europe.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

We must export and import our products in compliance with U.S. export controls, including the Commerce Department's Export Administration Regulations and economic and trade sanctions established by the Treasury Department's Office of Foreign Assets Controls, as well as similar controls established in the countries in which we do business. For example, the U.S. Commerce Department recently issued strengthened rules regarding semiconductor- and supercomputer-related products and restrictions against sending certain chips and chip-related technology and software to China without an export license. The modifications included an expansion of the products and destinations that require licensing. In addition, after Russia invaded Ukraine, the United States and other countries imposed continue to expand the economic sanctions and export control restrictions imposed against Russia and Belarus as well as against and certain Russian nationals and entities. entities after Russia invaded Ukraine. We must undertake additional diligence efforts to comply with these rules, which may be time-consuming and result in delayed or lost opportunities. We may not always be successful in obtaining necessary export or import licenses, and our failure to obtain required export or import approval for our products or limitations on our ability to export or sell our products may harm our domestic and international sales and negatively affect our revenue.

Tariffs could also have a material impact on our product costs and decrease our ability to sell our products to existing or potential customers as well as harm our ability to compete internationally. For more information, see "Changes “Changes in global trade policies could have a material adverse effect on us." ” Any changes in our product or in export or import regulations or legislation; shift shifts or change changes in enforcement; or change changes in the countries, persons or technologies targeted by these regulations could delay us introducing new products in international markets, decrease use of our products by, or decrease our ability to export or sell our products to, existing or potential customers with international operations, adversely affecting our business and results of operations.

Instability or deterioration in the political, social, business or economic conditions in key jurisdictions could harm our supply or deployment development of products.

Deterioration in the political, social, business or economic conditions in any jurisdictions in which we have significant suppliers, distributors or end users—including as a result of natural disasters, labor strikes, public health crises, geopolitical events or other developments—could slow or halt product shipments or disrupt our ability to manufacture, test or post-process our products, products., as well as our ability to effectively and timely execute on end user deployments. We outsource our manufacturing and production to suppliers in a small number of Asian jurisdictions including Thailand, Malaysia, Taiwan and China. Some of these jurisdictions have experienced and may yet experience, significant restrictions related to Covid-19. during the Covid-19 pandemic. These jurisdictions have also experienced significant changes in political, social, business or economic conditions in the past and may experience them in the future.

We could be forced to transfer our manufacturing, testing and post-processing activities to more stable, and potentially more costly, regions or find alternative suppliers.

We source a significant portion of our wafers from suppliers in Taiwan, and our supply of wafers and other critical components may be materially and adversely affected by diplomatic, geopolitical and other developments between China and Taiwan. Notably, China has refused to renounce the use of military force against Taiwan, and there can be no assurance that relations between China and Taiwan will not deteriorate further, particularly in light of ongoing tensions between the United States and China. Any such developments could materially and adversely affect our business, financial condition and results of operations.

Our business operations could be disrupted adversely affected by public health outbreaks and pandemics, or by natural disasters.

In addition to the pandemic risk discussed earlier under "— Starting in 2020, Covid-19 has adversely affected created significant worldwide economic volatility, uncertainty and disruption, and presented our business with several risks and challenges. Although the Covid-19 global health emergency officially ended in 2023, experts caution that Covid-19 remains a public health risk, and the magnitude extent to which any public health outbreak or pandemic could impact future market demand and duration of continued Covid-19 effects on our business are uncertain," results is uncertain.

In addition, other disasters, whether natural or manmade, could decrease demand for our products, disable our facilities, disrupt operations or cause catastrophic losses. We have facilities in areas with known seismic activity, such as our headquarters in Seattle, Washington. We have facilities in areas with known flooding, such as our office in Shanghai, China. We have a wafer testing and dicing post-processing subcontractor in Thailand, a region with a known, and recent, history of flooding. A loss at any of these or other of our or our suppliers' facilities could disrupt operations, delay production and shipments, reduce revenue and engender potentially large expenses to repair or replace the facility. expenses. We do not carry insurance covering potential losses caused by pandemics, earthquakes, floods or other disasters.

Risks Relating to Our Relationships with Partners and End Users

---

Table of Contents

We rely on a small number of customers for a large share of our revenue.

We sell our endpoint ICs directly to inlay and tag OEMs and ODMs. We sell our reader ICs to OEMs and ODMs and our readers and gateways to solution providers, VARs and SIs, all primarily through distribution. If we fail to retain our endpoint IC, reader IC, reader or gateway partners or distributors or fail to establish relationships with new partners, then our business, financial condition or operating results could be harmed.

In 2022, 2023, sales to tag OEMs Avery Dennison and Arizon accounted for 28% 33% and 10% 11% of our total revenue, respectively. Sales concentration to a small number of OEMs decreases our bargaining power and increases the risk that our pricing or sales could decline based on actions taken by our competitors or our own failure to compete effectively.

Our competitors' relationships with, or acquisitions of, these partners or distributors could interfere with our relationships with them. Any such interference could impair or delay our product sales or increase our cost of sales.

We engage directly some with end users to adopt our products in large projects. These users. Their projects, often involving large purchases of our readers and gateways, are often discrete deployments that can result in significant sales for periods of time. They also increase the volatility of our revenue and operating results. If we are unable to replace project-based revenue with new revenue streams, or if end users with large projects change or delay them those projects without giving us with adequate notice, then our sales could decline from period to period and harm our stock price.

Our ability to affect or determine end-user demand is limited in part because we sell and fulfill primarily through partners and rarely directly to end users.

End users drive demand for our products but because we sell our products primarily through partners, we are one step removed from those end users and often unable to directly assess and affect their demand. Our partners may choose to prioritize selling our competitors' products over ours, or they may offer products that compete with our products or limit sales of our products. If our partners do not sell enough of our products or if they choose to decrease their inventories of our products, then our sales to those partners and our revenue will decline.

Our partners may not properly forecast end users' demand for our products.

Our partners may purchase more of our products than they need to satisfy end-user demand, increasing their inventory and reducing our future sales to them. Distributors may, subject to time and quality limitations, return products in exchange for other products. Our reserves estimates for products stocked by our distributors are based primarily on reports provided to us by those distributors, typically monthly. If the inventory and resale information our partners and distributors provide is inaccurate, or if we do not receive it in a timely manner, then we may not have a reliable view of products being sold to end users which could negatively impact our operating results.

Our growth strategy depends in part on the success of strategic relationships with third parties and their continued performance and alignment.

We invest in relationships with solution providers, SIs, VARs and software providers whose product and/or solution offerings complement ours and through which we often fulfill our product sales. Our business will be harmed if we fail to develop and grow these partner relationships. For example, our operating results may suffer if our efforts developing partner relationships increase our costs but do not increase revenue. Partner relationships may also include exclusivity provisions, multiple levels of distribution, discounted pricing or investments in other companies. The cost of developing and maintaining these partner relationships may go unrecovered and our efforts may not generate a corresponding revenue increase.

Occasionally we also engage directly with end-users, often at their request, to help them develop solutions for challenging use cases. Such direct engagements could cause, or could be perceived to cause, conflicts with partners that could harm our partner relationships and our business, results of operations or financial condition.

If we fail to maintain or enhance our brand recognition or reputation on which our business depends, then our business could be harmed.

We believe that building our brand and reputation is key to our relationships with partners and end users and our ability to attract new partners and end users. We also believe that our brand and reputation will be increasingly important as market competition increases. Our success depends on a range of factors, including:

- continuing to deliver high-quality, innovative and defect-free products;
- maintaining high partner and end user end-user satisfaction;

- successfully differentiating our products from those of our competitors; and
- appropriately managing both positive and negative publicity.

Table of Contents

Product supply shortages have challenged our ability to meet market needs and we have increased prices in response to our suppliers increasing their prices to us. Our inability to supply partners and end users with products they need, and/or our need to

Table of Contents

increase our prices could result in long-lasting, negative consequences to our relationships with those partners and end users, to RAIN adoption and to our business overall.

Increasing attention to environmental, social and governance matters may cause us to incur additional costs or expose us to additional risks.

Investors, governmental and nongovernmental organizations, partners and end users are increasingly focusing on environmental, social and governance, or ESG, practices. Our ESG practices may not meet their standards, and they as well as advocacy groups may campaign for us to change our business or practices to address their ESG-related concerns. Our failure, or perceived failure, to respond to any such campaigns could harm our business and reputation and negatively impact the market price of our securities. Moreover, with the continued evolution of ESG practices and reporting and disclosure requirements, our costs related to those ESG practices and reporting and disclosure requirements could increase, which could negatively affect our operating results. For example, the SEC has adopted final rules regarding climate-related disclosures in public companies' periodic reporting, and compliance with these rules—including the implementation of necessary internal controls and reporting procedures—may lead to increased expenses and additional demands on our management and board of directors.

Risks Relating to Our Intellectual Property

If we are unable to protect our intellectual property, then our business could be adversely affected.

Our success depends in part upon our ability to obtain, maintain and enforce our patents, copyrights, trade secrets, trademarks and other intellectual property rights and prevent third parties from infringing, misappropriating or circumventing those rights. We have historically focused on filing U.S. patent applications, for many reasons, including the fact that most a significant portion of RAIN products are used in or imported into the United States. We have only a small number of foreign patent applications or foreign patents. patents and applications. We also only have registered trademarks and domain names in select countries where we believe filing for such protection is appropriate. By focusing our intellectual property protection on the United States and a small number of foreign countries, we have a limited ability to assert that intellectual property outside the United States, including in some significant foreign markets such as China. Moreover, the global manufacturing and distribution systems for tags or labels incorporating our endpoint IC products could complicate our efforts to enforce our U.S. patents.

As we increasingly work with third parties, possibly including parties that compete with us to an extent, to advance our technical innovations and features, we cannot guarantee that our efforts to protect our intellectual property will be completely effective.

We cannot guarantee that:

- any of the patents, trademarks, copyrights, trade secrets or other intellectual property rights we presently employ in our business will not lapse or be invalidated, circumvented, challenged or abandoned;
- our intellectual property rights will provide competitive advantages to us;
- our ability to assert our intellectual property rights against potential competitors or to settle current or future disputes will be limited by our agreements with third parties;
- any of our pending or future patent applications will be issued issue or have the coverage we originally sought;
- our intellectual property rights can or will be enforced, particularly in jurisdictions where competition may be intense or w legal protections may be weak;
- we will not lose the ability to assert our intellectual property rights against, or to license our technology to, others and col royalties or other payments; or
- we will retain the right to ask for a royalty-bearing license to an industry standard if we fail to file an intellectual property declaration pursuant to the standards process.

Monitoring and addressing unauthorized use of our intellectual property is difficult and costly, and litigation to enforce our intellectual property rights is time consuming, distracting, expensive and uncertain. Our failure to identify unauthorized use of, or otherwise adequately protect our intellectual property could adversely affect our business.

We have been and may become in the future be party to intellectual property disputes which could be time consuming and costly to prosecute, defend or settle, result in the loss of significant rights, and adversely affect RAIN adoption or adoption of our products or platform.

We are engaged in several patent infringement lawsuits against NXP USA, Inc., a Delaware corporation, and certain of its affiliates. For further information regarding this litigation, please refer to Note 6 of our consolidated financial statements included elsewhere in this report. Our litigation with NXP, including any appeals, has contributed, and may continue to contribute, to increased legal expenses and demands on our management team's time, and could negatively impact our relationships with partners or end users. While we have obtained favorable jury verdicts in prosecuting our patent infringement claim against NXP in California and in defending against NXP's patent infringement claim against us in Washington, post-trial rulings have limited some of these favorable verdicts and and all such verdicts remain subject to appeal. Moreover, these jury verdicts can provide no assurance regarding the results of our other ongoing litigation involving NXP. If we are unsuccessful in prosecuting our patent-infringement claims against NXP or in defending ourselves against NXP's counterclaims, or to the extent we cannot maintain the validity and enforceability of our patents, then we could see a material adverse effect on our business, results of operations or financial condition.

Table of Contents

Patent litigation is inherently complex and uncertain. We may or may not prevail in patent-related proceedings and such proceedings may result in increased legal expenses, additional demands on our intellectual property could be weakened. management's time and attention, and negative effects on our

Table of Contents

relationships with partners or end users. If any pending or future proceedings result in an adverse outcome, then our intellectual property could be weakened and we could be required to:

- cease manufacturing, using or selling the infringing products, processes or technology;
- pay substantial damages for infringement;
- expend significant resources to develop non-infringing noninfringing products, processes or technology;
- license technology from the party claiming infringement, which license may not be available on commercially reasonable terms at all;
- cross-license our technology to a competitor to resolve an infringement claim, which could weaken our ability to compete with t competitor; or
- pay substantial damages to our partners or end users for them to discontinue using, or replace, infringing products with non-infringing products.

Even if we do prevail in patent-related proceedings, verdicts and judgments can be modified or even reversed by trial or appellate courts. License agreements entered in settlement of patent litigation, particularly any entered into with our competition, may not be as effective over the long term in providing us with all the benefits we bargained for when we entered into them.

Many companies in our industry, as well as nonpracticing entities, hold patents and other intellectual property rights and may pursue, protect and enforce those intellectual property rights. We receive invitations to license patent and other intellectual property rights to technologies that could be important to our business. We also receive assertions against us, our partners and end users claiming we or they infringe patent or other intellectual property rights. If we decline to accept an invitation to license or to refute an asserted claim, then the offering or claiming party may pursue litigation against us.

Intellectual property disputes have adversely affected RAIN adoption in the past. As one example, past and could disrupt growth prospects in the future. In 2011, Round Rock Research filed lawsuits against 11 end users, including Walmart and Macy's, for RAIN-related patent infringement. Despite the subsequent availability of an industry-wide license, we believe those lawsuits adversely affected demand for our products from 2011 to 2019. The licensed Subsequent litigation, including our patent litigation against NXP between 2019 and early 2024, may not have had as pronounced effects on demand as the Round Rock patents expired litigation, but could have dampened RAIN growth particularly in 2019. However, we, categories beyond those where RAIN is already established such as retail apparel. We, our partners, suppliers or end users could continue to be involved in similar intellectual property disputes in the future which could adversely affect our operating results and growth prospects.

Many of our agreements require us to indemnify and defend partners and end users from third-party infringement claims and pay damages in the case of adverse rulings. These damages could be sizable and disproportionate to the business we derive from those partners or end users. Moreover, we may not know whether we are infringing a third party's rights due to the large number of RAIN-related patents or to other systemic factors. For example, patent applications in the United States are maintained in confidence for up to 18 months after filing or, in some instances, for the entire time prior to patent issuance. Consequently, we may not be able to account for such rights until after a patent issues.

Intellectual property policies of industry standards organizations in whose working groups we participate could require us to provide royalty-free licenses of some of our intellectual property.

When participating in GS1, ISO, RAIN and other industry-standards organizations, it is a general policy that those who participate in developing a protocol or standard must license, either royalty-free or under reasonable and nondiscriminatory, or RAND, terms, intellectual property that is necessary to implement all or part of the protocol or standard. The standards body may require that the license be granted to members, as in the case of GS1, or to all parties, as in the case of ISO, that implement the protocol or standard.

As a participant in developing GS1 EPCglobal UHF Gen2, UHF Gen2 V2, UHF Gen2 V3, tag data standards, low-level reader protocol and other GS1 EPCglobal protocols, we agreed to license to other GS1 EPCglobal members, on a royalty-free basis, those of our patents necessary to practice those protocols, subject to us receiving reciprocal royalty-free rights from the other GS1 EPCglobal member practicing the protocol. As a participant in developing ISO standards, we agreed to license on a RAND basis those of our patents necessary to practice those standards, subject to us receiving a reciprocal RAND license from the other entity practicing the standard.

Although the policies themselves seek to advance protocol or standards development, disputes can arise because it may not be clear whether certain intellectual property is necessary to practice a protocol or standard. Such uncertainty could complicate us asserting our not-necessary patents against others, or to use those patents in our own defense, thereby devaluing our intellectual property. Further, some GS1 EPCglobal members declined to license their intellectual property on royalty-free terms, instead retaining

Table of Contents

the right to license their technology on RAND terms. These members may choose to assert their intellectual property, in which case we will need to defend ourselves within the confines of the GS1 and ISO intellectual property policies.

Table of Contents

We rely on third-party license agreements which, if impaired or terminated, could cause production or shipment delays that could harm our business.

We have license agreements with third parties for patents, software and technology we use in our operations and in our products. For example, we license tools from design-automation software vendors to design our silicon ICs. Third-party licenses for patents, software and other technology important to our business may not continue to be available on commercially reasonable terms or may not be available at all. Loss of any such licenses could cause manufacturing interruptions or delays or reductions in product shipments until we can develop, license, integrate and deploy alternative technologies, if even possible, which could harm our business and operating results.

Our use of open-source software may expose us to additional risks and weaken our intellectual property rights.

Our products, processes and technology sometimes use or incorporate software that is subject to an open-source license. Certain open-source licenses require a user who intends to distribute the open-source software as a component of the user's software to disclose publicly part or all of the user's source code. In addition, certain open-source software licenses require the user of such software to make derivative works of the open-source software available to others at low or no cost. Open-source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of their code, opening us to business risks that could materially harm our operating results.

We cannot guarantee that we have incorporated open-source software in a manner that is consistent with our policies and procedures relative to such open-source software, or in a manner that will not subject us to liability.

Risks Relating to Privacy and Cybersecurity

Privacy and security concerns relating to RAIN could damage our reputation and deter current or potential customers from using our products.

Privacy advocates and others have raised and may continue raising concerns about RAIN compromising consumer privacy or facilitating theft. These concerns include unauthorized parties potentially collecting personal information or personal data, tracking consumers, stealing identities or causing other issues relating to privacy or data protection. Any such incident could cause our or our partners' or end users' operations to be disrupted and subject us or them to regulatory investigations or proceedings and claims, demands or litigation; consequently, we could face potential liability and significant costs and expenses to remediate or otherwise respond to the incident. Any failure or perceived failure to comply with any privacy- or security-related laws, regulations or contractual or other obligations to which we are or may be subject may result in regulatory actions, claims or litigation; legal and other costs; substantial time and resources; and fines, penalties or other liabilities. Any actions or concerns about security and privacy may be expensive to defend, cause us to expend substantial time and resources and damage our reputation and operating results or could negatively impact overall RAIN industry development, even if unfounded.

We cannot be sure that any limitation-of-liability provisions in our customer and user agreements with customers, contracts with third-party vendors and service providers or other contracts are enforceable or adequate or would will protect us from any liabilities or damages against claims relating to a security breach or other privacy- or security-related issue.

Government regulations and guidelines and other standards relating to consumer privacy and cybersecurity may adversely impact adoption of our products, require us to make design changes or constrain our ability to implement new and desired product features, and actual or alleged violations of laws relating to privacy or information cyber security may result in claims, proceedings and liability.

Our partners and end users are subject to laws and regulations related to collecting, storing, transmitting and using personal information and personal data, as well as to additional laws and regulations that address privacy and security cybersecurity related to RFID in general. Because RAIN is a type of RFID, we believe these laws and regulations apply to RAIN.

The European Commission, or the EC, has issued guidance to address privacy concerns about RFID. In May 2009, the EC issued a recommendation that retailers in the EU inform their customers when RFID tags are either on or embedded within products. In April 2011 the EC signed a voluntary agreement with private and public entities to develop privacy guidelines for companies using RFID in the EU. Whereas compliance is voluntary, our partners and end users that do business in the EU prefer products that comply with the guidelines. If our products do not comply or enable compliance with the guidelines, then our business may suffer.

More generally, the data security and privacy legislative and regulatory landscape in the United States, EU and other jurisdictions continues evolving. Aspects of key privacy laws and regulations—including the California Consumer Privacy Act of 2018, the California Privacy Rights Act, other similar state privacy laws enacted in numerous other states and the EU General Data Protection Regulation—remain unclear as of the date of this report and continue evolving, potentially with far-reaching implications. Laws and regulations relating to privacy, data protection and security; related industry standards and guidelines; and continued evolution of these laws, regulations, standards, guidelines and other actual and asserted obligations, as well as their interpretation and enforcement, may require us to modify our products, practices and policies, which we may not be able to do on commercially reasonable terms or at

all, and otherwise could cause us to incur substantial costs and expenses. Any failure or perceived failure by us or any third parties with which we do business to comply with these laws and regulations or other actual or asserted obligations may result in claims or litigation; actions against us by governmental entities; legal and other costs; substantial time and resources and fines, penalties or other liabilities. Any such actions may be expensive to defend, may incur substantial legal and other costs and substantial time and resources and likely would damage our reputation and adversely affect our business, financial condition and results of operations.

Additionally, if we fail to develop products that meet end-user privacy requirements, then end users may choose not to use our products.

Although the Gen2 V2 V3 protocol includes features for addressing consumer privacy and authenticating a tag, and although we have incorporated custom features in our products to further protect consumer privacy, a third party may still breach these features, including as implemented in our products, in which case our reputation could be damaged and our business and prospects could suffer.

A breach of security or other security incident impacting our systems or others used in our business could have an adverse effect on our business.

We face risks of security breaches and incidents from a variety of sources including viruses, ransomware, hacking, malicious code, supply-chain attacks as well as social engineering or other employee or contractor negligence, malfeasance or unintentional acts. Accidental or willful security breaches or incidents, or unauthorized access to our facilities or information systems, or to others used in our business, could compromise the security of those facilities or information systems and the confidentiality, integrity and availability of confidential, personal or proprietary information. These risks may be heightened in connection with Russia's invasion of Ukraine. geopolitical tensions and events.

The consequences of loss, unavailability, misuse, corruption or other unauthorized processing of confidential, personal or proprietary information could include, among other things, unfavorable publicity, reputational damage, difficulty marketing or selling our products, customer allegations of breach of contract, loss or theft of intellectual property, claims and litigation, governmental and regulatory investigations and other proceedings and fines, penalties and other damages and liabilities. Any of these consequences could have a material adverse effect on our business, financial condition, reputation and business relationships.

We rely on third-party services to store and process data on our behalf, and on third-party security systems in a variety of applications. Our platform operates in conjunction with, and depends on, third-party products, services and components for security. The cybersecurity threat environment continues to evolve considering the increase in remote work and evolving, especially with heightened activity by state-sponsored actors. If we, our platform, or any of the third parties on which we rely suffers or is believed to have suffered a security breach or incident, vulnerability, error, ransomware or malicious event, then we could face increased costs, claims, liability, reduced revenue and harm to our reputation.

We incur significant costs devote resources to detect and prevent security breaches and other security-related incidents. In the event of an actual or perceived security breach or incident we may need to expend significant resources to mitigate, notify third parties of, and otherwise address the breach or incident, its root cause and take steps to prevent further breaches or incidents. Our insurance may not adequately cover claims relating to an actual or perceived security breach or incident and any breach or incident may increase our insurance costs as well as reduce or eliminate the future availability of such insurance, harming our business and reputation.

Risks Relating to Our Financial Position and Capital Needs

We have a history of losses and have only achieved profitability intermittently. We cannot be certain that we will attain or sustain profitability in the future.

We have incurred losses since our inception in 2000. Whereas we were profitable between 2013 and 2015, we had a net loss of $24.3 million $43.4 million for the year ended December 31, 2022 December 31, 2023, and an accumulated deficit of $386.8 million $430.2 million as of December 31, 2022 December 31, 2023. Our ability to attain or sustain profitability depends on numerous factors, many of which are out of our control, including continued RAIN industry adoption and us maintaining or growing our market share. Our costs to support operations, product development and business and personnel expansion in sales, engineering and marketing are significant and are likely to increase as we invest to grow the market and our share of it, reduce our costs and improve our operations. If we fail to increase our revenue or manage our expenses, or if our investments in growing the market or our share of it fail, then we may not attain or sustain profitability.

We have a history of significant fluctuations in our quarterly and annual operating results.

Our history shows significant sales volatility and a limited ability to forecast sales. We anticipate that, for the foreseeable future, our visibility to future sales, including volumes and prices, will continue to be limited. That limited visibility may cause fluctuations in our operating results and differences between actual and expected quarterly or annual operating results.

Many factors, some outside our control, may cause or contribute to fluctuations in our quarterly and annual operating results. These fluctuations make financial planning and forecasting difficult. These fluctuations may also cause unanticipated decreases in our available cash, which could negatively affect our business and prospects. Material factors that contribute to fluctuations in our operating results include:

- macroeconomic conditions, including inflation, recession or economic slowdown, and their impact on our business and tl of our suppliers, partners and end users;
- fluctuations or delays in RAIN adoption and deployment by end users;
- changes in the pace or direction of major deployments, whether due to macroeconomic conditions or enterprise-specific events or circumstances; circumstances, and our, or our partners', ability to win business from these deployments;

- fluctuations in demand for our products or platform, including by tag OEMs and other significant partners and end users whom we rely for a substantial portion of our revenue;
- fluctuations in the pricing and availability or supply of our products or key elements or components of those products, especially semiconductor wafers;
- degradations in product quality, whether due to us or our suppliers, including quality claims or product returns;
- delays in new-product introductions and in the maturity of our new-product technologies;
- decreases in selling prices for our products;
- delays in our product-shipment timing, customer or end-user sales or deployment cycles, or work performed under development contracts;
- intellectual property disputes involving us, our partners, end users or other participants in our industry;
- adverse outcomes of litigation or governmental proceedings;
- timing variability in product introductions, enhancements, services and technologies by us and our competitors as well as market acceptance of new or enhanced products, services and technologies;
- unanticipated excess or obsolete inventory as a result of significant demand fluctuations, supply-chain mismanagement, new-product introduction, quality issues or otherwise;
- changes in the amount and timing of our operating costs, including those related to expanding our business, operations infrastructure;
- changes in business cycles or seasonal fluctuations that affect the markets in which we sell;
- changes in industry standards or specifications, or changes in government regulations, relating to our products or our platform;
- late, delayed or cancelled payments from our partners or end users; and
- unanticipated impairment of long-lived assets and goodwill.

A substantial portion of our operating expenses are fixed in the short term, and as a result, fluctuations in revenue or unanticipated expenses can have a material and immediate impact on our profitability and negatively affect our operating results, which could cause the price of our common stock to decline.

We may need to raise additional capital, which may not be available on favorable terms or at all.

In the future, we may need to raise additional capital, including pursuant to shelf registration statements we may file from time to time with the SEC, potentially diluting our stockholders, restricting our operations or otherwise adversely affecting our business.

Debt financing, if available, may include covenants limiting or restricting our ability to take specific actions such as incurring additional debt, expending capital or declaring dividends, or may impose financial covenants that limit our ability to achieve our business objectives.

Our management has broad discretion in how to invest and spend our cash and cash equivalents and the proceeds from financings, including on capital expenditures, product development, working capital and other general corporate purposes. We may spend our cash and cash equivalents in ways that our stockholders may not agree with or that do not yield favorable returns.

Table of Contents

If we need additional capital but cannot raise it on acceptable terms, if at all, then we may not be able to meet our business objectives, financial obligations or both. If we raise additional capital but do not deploy it effectively then our business, financial condition, results of operations and prospects could be harmed and the market price of our common stock could suffer.

Table of Contents

Risks Relating to U.S. Federal Income Tax

Our ability to use net operating losses and research and development credits to offset future taxable income and income taxes may be limited.

As of December 31, 2022 December 31, 2023, we had federal U.S. net operating loss carryforwards, or NOLs, of $249.3 million $230.5 million and U.S. federal research and development credit carryforwards of $22.3 million $30.5 million, which we may use to reduce future taxable income or offset income taxes. We have established a valuation allowance against the carrying value of these deferred tax assets. The NOL U.S. federal NOLs and U.S. federal research and development credit carryforwards began expiring in 2020.

Under Sections 382 and 383 of the U.S. Internal Revenue Code, or the Code, a corporation that experiences a more-than 50% ownership change by one or more stockholders or groups of stockholders who own at least 5% of a company's stock over a three-year testing period is limited in its ability to use its pre-change NOLs and other tax assets to offset future taxable income or income taxes. If we undergo a future ownership change then our ability to use our NOLs and credit carryforwards could be limited by Sections 382 and 383 of the Code. Our NOLs may also be limited under state law. As a result of these limitations, we may not be able to utilize a material portion of, or possibly any of, the our NOLs and and/or credit carryforwards to offset reduce future taxable income or income taxes.

We could be subject to additional income tax liabilities.

We are subject to income taxes in the United States and certain foreign jurisdictions. During the ordinary course of business, we use significant judgment in evaluating our worldwide income-tax obligations and we conduct many transactions for which the ultimate tax determination is uncertain. Although we believe our tax determinations are proper, the final determination of any tax audits and any possible litigation could be materially different from our historical income-tax provisions and accruals. The results of an audit or litigation could have a material effect on our operating results or cash flows in the period or periods for which that determination is made.

Changes in tax laws could have a material adverse effect on our business, cash flow, results of operations or financial conditions.

We are subject to tax laws, regulations and policies of several taxing jurisdictions. Changes in tax laws, as well as other factors, could cause us to experience fluctuations in our tax obligations and effective tax rates and otherwise adversely affect our tax positions and/or and results of our tax liabilities. operations. For example, in August 2022, as part of the Inflation Reduction Act of 2022, the United States enacted a 1% excise tax on stock buybacks and a 15% alternative minimum tax on adjusted financial statement income as part income. Additionally, beginning in 2022, the Code eliminated the right to deduct research and development expenditures and instead requires taxpayers to capitalize and amortize U.S. and foreign research and development expenditures over five and 15 tax years, respectively. We have accounted for these changes in accordance with our understanding of the Inflation Reduction Act guidance available as of 2022. the date of this filing and as described in more detail in our financial statements.

The U.S. CHIPS and Science Act, enacted August 9, 2022, provides tax credits for semiconductor manufacturing activities within the United States, but because we outsource our semiconductor manufacturing we do not expect to be entitled to these tax credits.

Many countries, as well as organizations such as the Organization for Economic Cooperation and Development, have proposed changes to existing tax laws, including a proposed 15% global minimum tax. Any of these developments or changes in U.S. federal, state or international tax laws or tax rulings could adversely affect our effective tax rate and our operating results. There can be no assurance that our effective tax rates, tax payments or tax credits and incentives will not be adversely affected by these or other developments or changes in law.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value-added or similar taxes.

We do not collect sales and use, value-added or similar taxes in all jurisdictions in which we have sales, based on our belief that such taxes are either not applicable or an exemption from such taxes applies. Certain jurisdictions may assert that such taxes are applicable, which could result in tax assessments, penalties and interest, and we may be required to collect such taxes in the future, including as a result of a change in law. Such tax assessments, penalties and interest or future requirements may negatively affect our operating results.

Risks Relating to Our Financial Reporting and Disclosure

Any failure to maintain an effective system of disclosure and internal controls over financial reporting, or our ability to produce timely and accurate financial statements, could adversely affect investor confidence in us.

As a public company, we must maintain effective disclosure controls and procedures and internal control over financial reporting. Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud.

Any failure to implement and maintain effective disclosure controls and procedures and internal control over financial reporting, including identifying material weaknesses, could cause investors to lose confidence in the accuracy and completeness of our financial statements and reports, which could adversely affect the market price of our common stock. We could also be subject to sanctions or investigations by The Nasdaq Stock Market, the SEC and other regulatory authorities.

We have incurred, and in the future will incur, high costs associated with being a public company.

We have incurred significant legal, accounting and other costs associated with public-company reporting requirements. We ceased to be an “emerging growth company” on December 31, 2021, and are no longer eligible for the reduced disclosure requirements and exemptions applicable to “emerging growth companies.” Our loss of this status has required additional management attention and increased our costs, including legal, accounting and investor-relations-related costs. We cannot predict or accurately estimate the additional costs we are likely to incur from being a public company or the timing of these costs.

We have and will continue to incur costs associated with accepted corporate governance requirements, including those of the SEC and The Nasdaq Global Select Market. We expect those governance requirements to lead to ongoing legal and financial costs and make some activities more time consuming and costly. They may also increase the difficulty and expense for us to obtain director and officer liability insurance. Although we monitor developments with respect to those requirements, we cannot predict or accurately estimate the additional costs we are likely to incur or the timing of these costs.

Risks Relating to Owning or Trading Our Securities

The market price of our common stock has been and will likely continue to be volatile, and the value of your investment could decline significantly.

The trading price of our common stock has fluctuated and is likely to continue to fluctuate substantially. The following factors, in addition to general risks and other risks described in this report, may have a material effect on the trading price of our common stock:

- price and volume fluctuations in the overall stock market;
- changes in operating performance, stock market valuations and volatility in the market prices of other technology compa generally, and of those in our industry in particular;
- actual or anticipated quarterly variations in our results of operations or those of our competitors;
- actual or anticipated changes in our growth rate relative to our competitors;
- delays in end-user deployments of RAIN solutions;
- announcements by us or our competitors of acquisitions, new products, significant contracts, commercial relationships o capital commitments;
- supply interruptions, including semiconductor wafer or other product or component shortfalls;
- developments relating to intellectual property rights or in disputes relating to those rights;
- our ability to develop and market new and enhanced products on a timely basis;
- commencement of, or our involvement in, litigation;
- changes in our board of directors or management;
- changes in governmental regulations or in the status of our regulatory approvals;
- unstable political and economic conditions, including instability resulting from wars and other armed conflicts, such as Russia invading those in Ukraine China threatening Taiwan, and the conflict in Gaza Strip, or geopolitical tensions, such a those between the Gaza Strip; U.S., China and Taiwan;
- the trading volume of our stock;
- actual or perceived security breaches or incidents;
- limited public float;
- any future sales of our common stock or other securities;
- financial analysts dropping or reducing their coverage of us; changes in financial estimates by analysts who do cover us; our failure to meet analyst estimates or investor expectations;
- fluctuations in the values of companies that investors perceive to be comparable to us;
- the financial projections we may provide to the public, as well as any changes in those projections or our failure to meet those projections; and

- general economic conditions and slow or negative growth in the markets in which we operate.

Table of Contents

Technology stocks like ours have experienced extreme price and volume fluctuations, often unrelated or disproportionate to the company's underlying operating performance. Stock price volatility can cause stockholders to institute securities class-action litigation or stockholder derivative litigation, as occurred to us between 2018 and 2020. If any of our stockholders were to bring a lawsuit against sue us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management, harm our operating results and negatively impact the trading price of our common stock.

Transactions relating to the 2021 Notes may affect our stock's value.

If the 2021 Notes are converted by holders, then we are entitled to deliver cash, stock or any combination of cash or stock, at our election. If we elect to deliver stock, the ownership interests of our existing stockholders will be diluted, and public market sales of stock issued upon a conversion could decrease our stock price. Anticipated future conversions of the 2021 Notes into stock could also decrease our stock price, as could short selling by holders of the 2021 Notes to hedge their positions.

In December 2019, we issued the 2019 Notes. When we did so we entered into privately negotiated capped-call transactions with financial counterparties to mitigate the dilutive impact on the Company above a given stock price. We left those capped-call transactions intact after we acquired the remainder of the outstanding 2019 Notes in June 2022. From time to time, the financial counterparties to the capped calls may modify their hedge positions by entering into or unwinding various derivative transactions involving our stock or by purchasing or selling our stock or other securities of ours in secondary market transactions prior to the maturity of the capped calls. This activity could cause a decrease in our stock price.

For more information on the 2019 Notes, the 2021 Notes and the capped-call transactions, see Note 7 8 of our consolidated financial statements included elsewhere in this report.

Our principal stockholders and management own a significant percentage of our stock and are able to exercise significant influence over matters subject to stockholder approval.

As of September 30, 2023 March 31, 2024, our executive officers, directors and principal stockholders, together with their respective affiliates, beneficially owned approximately 54.6% 51.0% of our stock. As a result, our executive officers, directors and principal stockholders may be able to significantly influence, in their capacity as stockholders, matters requiring approval by our stockholders, including electing directors and approving mergers, acquisitions or other transactions. They may have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. This ownership concentration could have the effect of delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material adverse effect on our stock price. This ownership concentration could also prevent attempts by our stockholders to replace or remove our board of directors or management.

We may not have sufficient cash flow or access to cash necessary to satisfy our obligations under the 2021 Notes, and our current and future indebtedness may restrict our business.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance any current or future indebtedness, including the 2021 Notes, or to make cash payments in connection with any conversion of the 2021 Notes or upon any fundamental change if holders require us to repurchase their 2021 Notes for cash, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient future cash from operations to service our indebtedness and make necessary capital expenditures. If we are unable to generate sufficient cash flow, then we may be required to pursue other alternatives, such as selling assets, restructuring indebtedness or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance any of our indebtedness, including the 2021 Notes, will depend on the capital markets and our financial condition at that time. We may not be able to pursue these alternatives on favorable terms or at all, which could result in us defaulting on our debt obligations.

Our existing and future indebtedness could have important consequences to our stockholders and significant effects on our business. For example, it could:

- make it more difficult for us to satisfy our debt obligations, including the 2021 Notes;
- increase our vulnerability to general adverse economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the cash available to run our business;
- limit our flexibility in planning for, or reacting to, changes in our business or in our industry;
- restrict us from exploiting business opportunities;
- place us at a competitive disadvantage compared to our competitors that have less indebtedness; and

Table of Contents

- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions, debt service requiremen executing our business strategy or for other purposes.

Anti-takeover provisions in our charter documents and under Delaware or Washington law could prevent, delay or impede an acquisition of us and constrain our stock price.

Provisions of our certificate of incorporation and our bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. These provisions could therefore adversely affect our stock price. Among other things, our certificate of incorporation and bylaws:

- permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileg as they may designate;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by tl affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes, each of which stands for election once every three years (subject to gradual

declassification beginning at the 2021 annual meeting of stockholders, such that our board of directors will be fully declassified beginning at the 2023 annual meeting of stockholders);

- restrict the forum for certain litigation against us to Delaware;
- require that any action taken by our stockholders be effected at a duly called annual or special meeting of stockholders a not by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any uncontested election of directors to elect all of the directors standing for election, if they should so choose); and
- provide that special meetings of our stockholders may be called only by the chair of the board, our chief executive office the board of directors.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder. Likewise, because our principal executive offices are located in Washington, the anti-takeover provisions of the Washington Business Corporation Act may apply to us under certain circumstances now or in the future. These provisions prohibit a "target corporation" from engaging in any of a broad range of business combinations with any stockholder constituting an "acquiring person" for a period of five years following the date on which the stockholder became an "acquiring person."

Our bylaws include provisions that could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our bylaws provide that, unless we otherwise consent in writing, the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The choice of forum provision may limit stockholders' ability to bring a claim in a judicial forum favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds, and Issuer Purchases of Equity Securities. Proceeds.

None.

50 Item 3. Defaults Upon Senior Securities.

None.

Table of Contents

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Securities Trading Plans of Directors and Executive Officers

During our last fiscal quarter, no director or officer, as defined in Rule 16a-1(f), adopted or terminated a “Rule 10b5-1 trading arrangement” or a “non-Rule 10b5-1 trading arrangement,” each as defined in Item 408 of Regulation S-K. S-K, except as follows:

Name and Title	Character of Trading Arrangement (1)	Date Adopted	Date Terminated	Duration (2)	Aggregate Number of Shares of Common Stock to be Purchased or Sold Pursuant to Trading Arrangement
Chris Diorio, Chief Executive Officer and Vice Chair	Rule 10b5-1 Trading Arrangement	February 28, 2024	-	December 2, 2024	Up to 60,000

(1) Except as indicated by footnote, each trading arrangement marked as a “Rule 10b5-1 Trading Arrangement” is intended to satisfy the affirmative defense of Rule 10b5-1(c), as amended (the “Rule”).

(2) Except as indicated by footnote, each trading arrangement permits transactions through and including the earlier of (a) the execution or expiration of all trades specified under the trading arrangement or (b) the date listed in the table. Each trading arrangement marked as a “Rule 10b5-1 Trading Arrangement” only permits transactions upon expiration of the applicable mandatory cooling-off period under the Rule.

Table of Contents

Item 6. Exhibits

		Incorporation by Reference			
Exhibit Number	Exhibit Description	Form	Date	Number	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of Impinj, Inc., as filed with the Secretary of State of the State of Delaware on June 10, 2020	8-K	6/12/2020	3.1	
3.2	Amended and Restated Bylaws of Impinj, Inc. adopted as of February 23, 2023	8-K	2/23/2023	3.1	
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended				X
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended				X
32.1*	Certification of Principal Executive Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350				X
32.2*	Certification of Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350				X
101	Inline XBRL Document Set for the condensed consolidated financial statements and accompanying notes in Part I, Item 1, “Financial Statements” of this Quarterly Report on Form 10-Q.				X
104	Inline XBRL for the cover page of this Quarterly Report on Form 10-Q, included in the Exhibit 101 Inline XBRL Document Set.				X

		Incorporation by Reference			
Exhibit Number	Exhibit Description	Form	Date	Number	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of Impinj, Inc., as filed with the Secretary of State of the State of Delaware on June 10, 2020	8-K	6/12/2020	3.1	

3.2	Amended and Restated Bylaws of Impinj, Inc. adopted as of February 23, 2023	8-K	2/23/2023	3.1		
10.1† ‡	Settlement and Patent Cross-License Agreement, dated as of March 13, 2024, by and among Impinj, Inc., NXP Semiconductors N.V. and NXP USA, Inc					X
10.2	Impinj, Inc. Outside Director Compensation Policy (as amended April 11, 2024 and effective March 31, 2024).					X
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended					X
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended					X
32.1*	Certification of Principal Executive Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350					X
32.2*	Certification of Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350					X
101	Inline XBRL Document Set for the condensed consolidated financial statements and accompanying notes in Part I, Item 1, “Financial Statements” of this Quarterly Report on Form 10-Q.					X
104	Inline XBRL for the cover page of this Quarterly Report on Form 10-Q, included in the Exhibit 101 Inline XBRL Document Set.					X

* The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Impinj, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-Q, irrespective of any general incorporation language contained in such filing.

† Schedules and similar attachments to this exhibit have been omitted pursuant to Item 601(a)(5) of Regulation S-K under the Securities Act. Impinj agrees to furnish supplementally a copy of any omitted schedule or exhibit to the Securities and Exchange Commission upon request.

52 ‡ Portions of this exhibit have been redacted pursuant to Item 601(b)(10)(iv) of Regulation S-K under the Securities Act. Impinj agrees to promptly furnish supplementally an unredacted copy of the exhibit to the Securities and Exchange Commission upon request.

Table of Contents

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, thereunto duly authorized.

Impinj, Inc.

Date: October 25, 2023 April 24, 2024

By: */s/ Cary Baker*

Cary Baker

Chief Financial Officer (principal financial officer and duly authorized signatory)

CERTAIN INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. OMISSIONS ARE DESIGNATED AS [***].

CONFIDENTIAL SETTLEMENT AND CROSS-LICENSE AGREEMENT

THIS CONFIDENTIAL SETTLEMENT AND CROSS-LICENSE AGREEMENT (hereinafter referred to as the "**Agreement**") is entered into as of the date of the last signature set forth on the signature page below (the "**Effective Date**") by and between **Impinj, Inc.**, a Delaware corporation having its principal place of business at 400 Fairview Avenue North, Suite 1200, Seattle, Washington 98109 ("**Impinj**"), on the one hand, and **NXP Semiconductors N.V.**, a Dutch company having a principal place of business in Eindhoven, The Netherlands ("**NXP Parent**"), and NXP USA, Inc., a Delaware corporation having its principal place of business at 6501 W. William Cannon Dr., Austin, TX 78735 ("**NXP USA**"), on the other hand. Each of NXP Parent and NXP

USA may be referred to individually as a “**NXP Party**” or collectively as the “**NXP Parties**”. Each of Impinj and the NXP Parties may be referred to individually as a “**Party**” and collectively as the “**Parties**”.

BACKGROUND

WHEREAS, Impinj, and certain NXP Parent’s Subsidiaries (including NXP USA) have been engaged in multiple patent disputes, including patent litigation in Washington, California, Texas and China;

WHEREAS, the Parties have also been engaged in challenging each other’s patents at the United States Patent and Trademark Office (“**PTO**”), before the United States Patent and Trademark Appeals Board (“**PTAB**”) and before the Supreme People’s Court of China; and

WHEREAS, the Parties seek to resolve their disputes and enter into a temporary cross- license, all upon the terms specified herein.

NOW, THEREFORE, in consideration of the terms contained herein and other good and valuable consideration, the Parties agree as follows:

AGREEMENT

1. **DEFINITIONS.**

As used in this Agreement, the following definitions apply:

1.1. "**Confidential Information**” means (a) the terms (but not the existence) of this Agreement or (b) any other information, in any form, medium, or format, that is disclosed by one Party (“**disclosing Party**”) to another Party (“**receiving Party**”) in performance of the Agreement (including pursuant to the activities conducted in accordance with Section 7.2) and that is marked as confidential at the time of disclosure, or if unmarked (e.g., orally or visionally disclosed), is designated as being confidential at the time of disclosure; in each case, except to the extent it (a) is publicly disclosed through no fault of the receiving Party,
(b) was known to the receiving Party prior to the date of disclosure from the disclosing Party from a third party without a duty of confidentiality to the disclosing Party, or (c) is developed or ascertained by the receiving Party independently of any confidential information of the disclosing Party.

1.2. "**Control**" (including, without limitation, with correlating meanings, "**Controls**" or "**Controlled**") means the legal, beneficial or equitable ownership, direct or indirect, of more than fifty percent (50%) of (i) the aggregate of all voting or equity interests in an company or legal entity or (ii) other ownership interest of a company or legal entity representing the right to control the conduct of such company or legal entity.

1.3. "**Impinj Patents**" means all Patents that Impinj or any of its Subsidiaries now or during the Term owns or otherwise has the right to license, including, without limitation, the Impinj Indicator Patents and all Patents that have been asserted by Impinj or any of its Subsidiaries against a NXP Party or any of its Subsidiaries.

1.4. "**Impinj Indicator Patents**" means the [***] United States Patents listed on Exhibit A.

1.5. "**NXP Patents**" means all Patents that a NXP Party or any of its Subsidiaries now or during the Term owns or otherwise has the right to license, including, without limitation all Patents that have been asserted by a NXP Party or any of its Subsidiaries against Impinj or any of its Subsidiaries.

1.6. "**Patent**" means any design patent, utility patent, utility model, inventor's certificate or other exclusive right to an invention, discovery or industrial design that is issued or recognized by a governmental authority anywhere in the world, including all post-issue forms of the foregoing.

1.7. "**Subsidiary**" means, with respect to a Party, any legal entity that is directly or indirectly Controlled by such Party. Such legal entity shall be deemed a Subsidiary hereunder only for so long as such Control exists.

1.8. "**Term**" means the time period starting on the Effective Date and ending on the earlier of:
(1) when no Valid Claim of any of the Impinj Indicator Patents exists and (2) the Agreement being effectively terminated as set forth in Section 7 below.

1.9. "**Valid Claim**" means, with respect to a claim within any of the Impinj Indicator Patents, so long as such claim has issued and has not (a) expired, (b) been permanently abandoned (expressly or by non-payment of applicable fees), or (c) been adjudicated by a governmental authority of competent jurisdiction to be invalid or unenforceable and with respect to which (i) no further appeal can be taken or (ii) the time for appeal, if available, has passed without such appeal being initiated.

2. **IMPINJ LICENSE TO NXP PARTIES.**

2.1. License. Effective April 1, 2024 and for the remainder of the Term, Impinj hereby grants to each of the NXP Parties a non-exclusive, non-transferrable (subject to Sections 9.2 and 9.3), irrevocable, fully paid-up, worldwide license, including the limited right to sublicense pursuant to Section 2.2, under the Impinj Patents to make, have made, import, use, offer for sale (including offers for sale made by third-party agents of either of the NXP Parties or any of their Subsidiaries) and sell (including sales made by third-party agents of either of the NXP Parties or any of their Subsidiaries) any and all products, services and applications sold by a NXP Party or any of its Subsidiaries as its or their products, services or application for any and all purposes and fields of use.

2.2. Sublicense. The license granted under Section 2.1 includes the right of each of the NXP Parties to grant sublicenses to (a) its respective Subsidiaries (but the license lasting only for the time they are Subsidiaries except as allowed under Section 9.3) and (b) direct and indirect suppliers, distributors, resellers and customers to/of a NXP Party or any of its Subsidiaries in connection with such suppliers', distributors', resellers' and customers' manufacture, import, use, offer for sale or sale of any and all products, services and applications sold by a NXP Party or any of its Subsidiaries as its or their products, services or applications, including those that have been accused by Impinj or its Subsidiary of infringement during the litigation between the Parties ongoing as of or before the Effective Date. Except as provided in the preceding sentence, the license granted under Section 2.1 does not include the right to sublicense.

3. **NXP PARTIES LICENSE TO IMPINJ.**

3.1. License. Effective April 1, 2024 and for the remainder of the Term, the NXP Parties hereby grant to Impinj a non-exclusive, non-transferrable (subject to Sections 9.2 and 9.3), irrevocable, fully paid-up, worldwide license, including the limited right to sublicense pursuant to Section 3.2, under the NXP Patents to make, have made, import, use, offer for sale (including offers for sale made by third-party agents of Impinj or any of its Subsidiaries) and sell (including sales made by third-party agents of Impinj or any of its Subsidiaries) any and all products, services and applications that are sold by Impinj or any of its Subsidiaries as its or their products, services or application for any and all purposes and fields of use.

3.2. Sublicense. The license granted under Section 3.1 includes the right of Impinj to grant sublicenses to (a) its Subsidiaries (but the license lasting only for the time they are Subsidiaries except as allowed under Section 9.3) and (b) direct and indirect suppliers, distributors, resellers and customers to/of Impinj or any of its Subsidiaries in connection with such suppliers', distributors', resellers' and customers' manufacture, import, use, offer for sale or sale of any and all products, services and applications sold by Impinj or any of its Subsidiaries as its or their products, services or applications, including those that have been accused by a NXP Party or its Subsidiary of infringement during the litigation between the Parties ongoing as of or before the Effective Date. Except as provided in the preceding sentence, the license granted under Section 3.1 does not include the right to sublicense.

4. **RELEASES.**

4.1. Release by Impinj. Effective upon the later of March 31, 2024 and NXP USA's payment to Impinj of the Release Payment (as defined in Section 5.1), Impinj, on behalf of itself, its Subsidiaries, and its and their respective successors and assigns, hereby irrevocably waives, releases, acquits and forever discharges each of the NXP Parties and its Subsidiaries from any and all actions, causes of action, claims, rights, demands, liabilities, losses, set-offs, damages, awards, judgments, debts, injuries, bonds, expenses (including attorneys' fees), court costs or any other form of claim or compensation of any kind or nature in any jurisdiction, whether existing in law or in equity, known or unknown, disclosed or undisclosed, foreseeable or not foreseeable, or foreseen or not foreseen (all of the foregoing, collectively, "**Liabilities**") resulting from actual or alleged direct or indirect infringement of any Impinj Patents on or before March 31, 2024. This release also extends to each of the direct and indirect suppliers, distributors, resellers and customers

to/of a NXP Party or any of its Subsidiaries in connection with such suppliers', distributors', resellers' and customers' manufacture, import, use, offer for sale or sale of any and all products, services and applications sold by a NXP Party or any of its Subsidiaries before the Effective Date, including those that have been accused by Impinj or any of its Subsidiaries of infringement during the litigation between the Parties ongoing as of or before the Effective Date, and all Liabilities caused by or attributable to any such persons or entities.

4.2. Release by NXP. Effective upon the later of March 31, 2024 and NXP USA's payment to Impinj of the Release Payment (as defined in Section 5.1), each NXP Party, on behalf of itself, its Subsidiaries, and its and their respective successors and assigns, hereby irrevocably waives, releases, acquits and forever discharges Impinj and its Subsidiaries from any and all Liabilities resulting from actual or alleged direct or indirect infringement of any NXP Patents before the Effective Date. This release also extends to each of the direct and indirect suppliers, distributors, resellers and customers to/of Impinj or any of its Subsidiaries in connection with such suppliers', distributors', resellers' and customers' manufacture, import, use, offer for sale or sale of any and all products, services and applications sold by Impinj or any of its Subsidiaries on or before March 31, 2024, including those that have been accused by a NXP Party or any of it Subsidiaries of infringement during the litigation between the Parties ongoing as of or before the Effective Date, and all Liabilities caused by or attributable to any such persons or entities.

4.3. Nature of Releases. Each Party acknowledges and agrees that with regard to the subject matter of the releases in Sections 4.1 and 4.2, each of the Parties expressly waives and relinquishes all rights and benefits afforded by Section 1542 of the California Civil Code, which provides as follows:

> A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN TO HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

5. **PAYMENTS.**

5.1. Release Payment. As consideration for the release and dismissals granted herein, NXP USA, or another NXP Party or Subsidiary if NXP USA is unavailable or unable to pay, shall pay to Impinj the sum of $45,000,000 ("**Release Payment**") within five business days of the Effective Date or within five business days of receipt by NXP USA from Impinj of a correctly completed Form W-9, whichever is later.

5.2. Annual License Payment. As consideration for the license granted herein, on April 1, 2024, NXP USA, or another NXP Party or Subsidiary if NXP USA is unavailable or unable to pay, shall pay Impinj the amount of $15,000,000, and thereafter must pay to Impinj an annual license fee once per year on April 1 that occurs during the Term in an amount equal to $X, wherein "**X**" is equal to [***]

times the amount that was due under this Section 5.2 on April 1 of the immediately preceding year. For example, if this Agreement is not terminated before April 1, 2025, then the amount $15,000,000 * [***]

4

= $[***] is due on April 1, 2025, and if this Agreement is not terminated before April 1, 2026, then the amount of $[***] * [***] = $[***] is due on April 1, 2026.

5.3. **Invoices; Payment.** If requested by NXP USA, Impinj promptly will provide an invoice to NXP USA for any of the amounts properly due under this Agreement. The date of such invoice shall not affect the due dates for the payments. All payments to Impinj shall be made to the account below:

Wire Instructions:
Swift Code: [***]
Account Name: Impinj Inc.
Account #: [***]

5.4. **Taxes.** All payments due pursuant to this Agreement are exclusive of any current or future taxes, duties or other governmental or taxing authority charges or levies ("**Taxes**") applicable thereto. The payment specified in Sections 5.1 and 5.2 shall be the amount paid by NXP USA to Impinj, without any reduction for additional amounts subject to withholding or due as a result of any Taxes that may be imposed by any taxing authority other than the U.S. federal government or the State of Washington, U.S.A. Each Party shall be responsible for reporting and paying any income taxes to which it is subject as a result of any payment hereunder.

5.5. **Late Payments.** All payments which are required hereunder and are not made on the dates specified in this Agreement shall bear interest at an annual rate of twelve percent (12%), compounded monthly. If such interest rate exceeds the maximum legal rate permitted by law, then such interest rate shall be reduced to such maximum legal rate permitted by law.

6. **CONFIDENTIALITY.**

6.1. **Obligations**. Subject to Section 6.2, during the Term and continuing thereafter, a receiving Party will (i) maintain in confidence the Confidential Information of the disclosing Party using measures at least as stringent as such receiving Party uses to maintain in confidence its own Confidential Information of like nature, but in no event by using less than a reasonable degree of care under the circumstances; (ii) not disclose such Confidential Information to any third party

(iii) not use such Confidential Information for any purpose except those permitted by this Agreement.

6.2. Permitted Disclosures. Each receiving Party may disclose Confidential Information of the disclosing Party:

6.2.1. with the prior written consent of the disclosing Party; or

6.2.2. subject to Section 6.3.3, as required by discovery requests or a court or other legally binding order or subpoena in pending litigation, to any court, governmental body, governmental agency or arbitral body compelling such disclosure (including to enforce rights under this Agreement against another Party for breach or alleged breach hereof, to defend against allegations of

breach of this Agreement by another Party, or to resolve any dispute under Section 7.2) or as may otherwise be required by law, order, rule or regulation, or in connection with an investigation by a governmental agency; in each case, *provided that* the receiving Party seeking to make such disclosure promptly provides notice to the disclosing Party of the need for such disclosure and takes all reasonable steps to minimize such disclosure by, for example, obtaining a protective order and/or appropriate confidentiality provisions requiring that such information to be disclosed be used only for the purpose for which such discovery request, subpoena, law, order, rule, regulation or legally binding requirement was issued and only under the highest available level of protection reasonably available (e.g., Attorneys Eyes Only).

6.3. Terms of this Agreement. Each Party may disclose the terms of this Agreement:

6.3.1. to its Subsidiaries and its and their respective employees, directors, lawyers, accountants, auditors, bankers, lenders and financial advisors who have a reasonable need to receive such information and only to the extent of that need, subject to non-disclosure requirements that are at least as restrictive as the terms and conditions set forth herein and restrictions that prohibit use other than strictly for the limited purpose needed;

6.3.2. to any bona fide potential or actual acquiror of such Party in a Change of Control (as defined in Section 9.3) of such Party subject to non-disclosure requirements that are at least as restrictive as the terms and conditions set forth herein;

6.3.3. to the extent a Party or its Subsidiary believes it is necessary to disclose based on advice of counsel to comply with any laws or regulations of the Securities Exchange Commission or other governmental authority having jurisdiction of the trading of the stock of a Party or its Subsidiary or by the securities exchange(s) on which the stock of any Party or any of its Subsidiaries is publicly traded, *provided that* at least the values in Sections 5.1 and 5.2 are redacted when filed to the extent permitted by any such laws or regulations (and again, a Party or its Subsidiary may rely on advice of counsel);

6.3.4. that relate to the scope of the release or covenant not to sue or license granted to such Party under Section 4 and either Section 2 or 3 of this Agreement, respectively, to its respective suppliers, distributors, resellers and customers that are the subject of such release or license, subject to non- disclosure requirements that are at least as restrictive as the terms and conditions set forth herein; or

6.3.5. to the extent the terms have become publicly known without a breach of this Section 6.

6

---

7. TERM AND TERMINATION.

7.1. Termination—Material Breach.

7.1.1. By Impinj. In the event of a material breach of this Agreement by a NXP Party or an action by one of their Subsidiaries that creates a material breach by a NXP Party, Impinj may, in addition to any other remedies that it may have, at any time, notify the NXP Parties of the material breach. If within fourteen (14) days after such notice, the material breach has not been remedied, then Impinj may terminate this Agreement by notice to the NXP Parties with immediate effect.

7.1.2. By a NXP Party. In the event of a material breach of this Agreement by Impinj or an action by one of its Subsidiaries that creates a material breach by Impinj, either NXP Party may, in addition to any other remedies that it may have, at any time, notify Impinj of the material breach. If within fourteen (14) days after such notice, the material breach has not been remedied, then the NXP Party may terminate this Agreement by notice to Impinj with immediate effect.

7.2. Termination by a NXP Party Based on Cessation of Infringement. Either NXP Party may terminate this Agreement at any time after the first payment is made under Section 5.2, if (1) the NXP Party believes that none of the NXP Parties or any of their Subsidiaries in the three months preceding the date of the notice have infringed any of the then- remaining Valid Claims of the Impinj Indicator Patents (in each case, in the absence of the license granted under Section 2) in connection with the manufacture or sale of UHF RFID endpoint ICs (the "**Non-infringement Termination Condition**") and (2) the Non- infringement Termination Condition is deemed confirmed by the process described below.

7.2.1. Notice of Termination. To initiate the termination process based on this Section 7.2, either NXP Party may give notice of termination to Impinj stating therein such NXP Party's desire to terminate based on its belief that the Non-infringement Termination Condition is satisfied (such notice, "**Non-infringement Termination Notice**"). Unless and until such time as this Agreement is determined not to be terminated pursuant to the process of this Section, the NXP Parties shall not have to make any further payment under Section 5.2 that becomes due after the Non-infringement Termination Notice.

7.2.2. Response to Notice. In response to the Non-infringement Termination Notice, Impinj shall have sixty (60) days to determine whether it disputes the NXP Party's belief that the Non-infringement Termination Condition is satisfied. During this time, Impinj may request specific information from the NXP Parties or their Subsidiaries, which information might include schematics, Verilog code, process descriptions or the equivalent, necessary to confirm the Non-infringement Termination Condition was satisfied. If the NXP Parties or their Subsidiaries do not comply with all reasonable requests for such information, then the NXP Parties will be deemed to have withdrawn any notice of termination at the end of such 60- day period, this Agreement will not be terminated, and the NXP Parties

7

---

or their

8

Subsidiaries shall pay within thirty (30) days after such 60-day period, any payment under Section 5.2 that became due after the Non-infringement Termination Notice together with interest calculated pursuant to Section 5.5 from the original due date for the payment under Section 5.2 through the date of such payment. Without limiting the obligations of Impinj under Section 6, to the extent the NXP Party wants to avoid disclosure of any of such information that is Confidential Information to Impinj personnel, any such disclosure will be limited to outside attorneys and/or independent experts who have a strict obligation of confidentiality directly with the NXP Party.

7.2.3. [***] **Analysis.** If Impinj does not agree that the Non-infringement Termination Condition was satisfied, the Parties shall, within fourteen (14) days after the end of such 60-day period, [***] to conduct an infringement analysis on all the Impinj Patents for which there is a dispute as to infringement. The [***] shall be advised of the disputes and, to the extent necessary, be given prompt access by the relevant NXP Party or its Subsidiary to any information reasonably necessary to decide the issue, subject to strict confidentiality obligations directly with the NXP Party. In connection with the analysis, the [***] shall assume that any integrated circuit sold by either of the NXP Parties or their respective Subsidiaries anywhere in the world was sold in the United States. The [***]shall have sixty (60) days after receipt of the reasonably necessary information to reach a conclusion.

7.2.4. Ramifications of [***] **Decision**. If [***] the NXP Parties have shown the Non-infringement Termination Condition was satisfied, then this Agreement shall be considered terminated as of the date of the Non-infringement Termination Notice. If (i) [***] the NXP Parties did not satisfy the Non-infringement Termination Condition or (ii) the NXP Party withdraws its termination notice, then this Agreement will not be terminated, and an NXP Party or its Subsidiary shall pay within thirty (30) days any payment under Section 5.2 that became due after the Non-infringement Termination Notice together with interest calculated pursuant to Section 5.5 from the original due date for the payment under Section 5.2 through the date of such payment. If [***], then the dispute shall be resolved by arbitration as described below.

7.2.5. Arbitration Process. Unless otherwise agreed upon, the Parties will resolve any disputes regarding the termination of this License Agreement continuing after the result of Section 7.2.4 through arbitration under the Commercial Arbitration Rules of the American Arbitration Association ("**AAA**"). The arbitrator(s) shall have at least ten (10) years of experience in patent litigation, and preferably background or expertise in electrical engineering or semiconductor technology. To the extent Impinj cannot agree with the NXP Parties on an arbitrator, they shall each select a qualified independent arbitrator from the AAA panel of arbitrators, and those two arbitrators shall select a third as provided by AAA rules to the extent they exist. The arbitration shall proceed in San Francisco, California unless the Parties

agree otherwise. The arbitrator(s) shall be asked to determine the same issue as identified above—whether the Non-infringement Termination Condition was satisfied [***]. The validity of any of then- remaining Valid Claims within the Impinj Indicator Patents shall not be an issue or considered. The arbitration shall be conducted in a manner that, to the extent practicable, minimizes costs, but Impinj shall be allowed discovery, including document discovery and depositions, to the extent reasonably necessary to resolve the dispute under the same conditions as specified in Section 7.2.3. The arbitrator(s) shall also have discretion to allow the Parties to designate one or more experts in connection with the arbitration to the extent they deem it helpful in resolving the dispute subject to strict obligations of confidentiality directly with the relevant NXP Party. The arbitrator(s) may also choose, in addition to or in lieu of the Parties having experts, to select its/their own independent technical expert subject to strict obligations of confidentiality directly with the relevant NXP Party. The Parties and the arbitrator(s)/panel shall conduct the arbitration in an efficient manner and shall work in good faith to conclude the arbitration within [***]. The arbitrator(s) shall explain the basis for its/their decision in writing, and the decision of the arbitrator or a majority of the panel, as applicable, shall be final, binding, non-appealable and enforceable in any court having jurisdiction. The Parties shall share the cost of the arbitration equally and shall be responsible for their own attorneys' fees and costs, unless the arbitrator(s) determines that one of the Parties took an unreasonable position. Under those circumstances, which shall be explained in writing, the arbitrator(s) may award fees and costs to the prevailing Party.

7.2.6. Ramification of Arbitration Decision. If the NXP Party prevails in any such arbitration (i.e., the arbitrator(s) determines that the Non-infringement Termination Condition was satisfied), the Agreement shall be considered terminated as of the date of the Non-infringement Termination Notice. If Impinj prevails (i.e., the arbitrator(s) determines that the Non-infringement Termination Condition was not satisfied), the Agreement shall not be terminated, and NXP USA or another NXP Party or a Subsidiary shall pay within thirty (30) days after such decision, any payment under Section 5.2 that became due after the Non- infringement Termination Notice together with interest calculated pursuant to Section 5.5 from the original due date for the payment under Section 5.2 through the date of such payment.

7.3. Effects of Termination.

7.3.1. Accrued Rights and Obligations. Upon termination of this Agreement for any reason, any right or obligation of a Party remains due or owing after termination in accordance with its terms. Without limiting the foregoing, if this Agreement terminates (a) after a payment under Section 5.2 has become due but not yet been paid, then such payment remains due and payable in accordance with its terms and (b) before any one or more of the payment under Section 5.2 is due, then no such payment(s) is/are due.

7.3.2. Survival. Upon termination of this Agreement for any reason, the Parties respective rights and obligation under the following provisions survive termination and remain in effect if and as applicable: Sections 1, 4, 5.3 - 5.5, 6,

10

7.3, 8, and 9.

8. TERMINATION OF PENDING PROCEEDINGS.

As soon as practicable, but no more than ten (10) days of the Effective Date, each Party shall (or shall cause its applicable Subsidiary to) take reasonable steps to terminate by dismissal all pending litigation worldwide, including appeals, and to the extent permitted by applicable rules, withdrawal of any pending patent challenges, such as reexaminations, post-grant review or *inter partes* reviews before the PTO and PTAB challenging the validity of the Patents of the other Party or any of its Subsidiaries. All dismissals shall be with prejudice, with each Party bearing its own fees and costs. The Parties shall not pursue or engage in any such proceeding challenging the validity of the other Party’s patents unless required to do so and, in that circumstance, only to the extent so required.

9. MISCELLANEOUS.

9.1. Relationship of the Parties. Except as between the NXP Parties, nothing in this Agreement will be construed to constitute the Parties as partners or joint venturers or constitute any Party as agent of the other, nor will any similar relationship be deemed to exist between them. No Party shall hold itself out contrary to the terms of this Section and no Party shall become liable by reason of any representation, act or omission of the other contrary to the provisions of this Section.

9.2. Assignment and Transfers. This Agreement and the licenses, rights and privileges granted hereunder shall inure to the benefit of the Parties hereto and each Party’s permitted successors and assigns. To the extent a Party assigns any patent licensed under this Agreement, the assignment shall be subject to any licenses in this Agreement. Neither Party may, without the written consent of the other Party, extend, assign or transfer any of the licenses, rights and privileges granted to it hereunder to any third party unless otherwise permitted herein and any such purported extension, transfer or assignment shall be void. Notwithstanding the foregoing, a Party may assign or otherwise transfer its rights under this Agreement without the other Party's prior written consent pursuant to a transaction effected solely for the purposes of changing the form or jurisdiction of organization of a Party.

9.3. Change of Control. Each Party ("**Acquired Party**") shall, upon written notice to the other Parties, have the right to assign this Agreement to a third party acquiror ("**Acquiror**") in a [***] ("**Change of Control**"), *provided that*, upon and after the closing of the Change of Control:

9.3.1. [***]

9.3.2. [***]

9.3.3. [***]; and

9.3.4. [***]

9.4. No Challenges to Validity. Subject to the activities ongoing as of the Effective Date and

11

that are the subject of Section 8, while this Agreement is in force and effect, each Party agrees not to, and will cause its Subsidiaries not to, directly or indirectly, challenge or assist (including without limitation providing prior art, except as may be required under applicable law) or cause any third party to challenge, the validity or enforceability of any of the other Party's or its Subsidiary's Patents in any judicial or administrative proceeding, including any proceedings relating to the enforcement of this Agreement. This provision does not prohibit a Party or its Subsidiaries from responding to subpoenas or discovery requests, or the equivalent, or raising a defense, including invalidity, in a judicial proceeding in response to a claim of infringement filed against them by another Party. This provision also does not preclude a Party or its Subsidiaries from belonging to standard setting organizations that might take actions inconsistent with this paragraph, so long as that Party does not financially contribute to, encourage, induce, direct, control or otherwise participate in such actions.

9.5. Attorneys' Fees. Each Party is solely responsible for its respective cost and expenses incurred in connection with the negotiation, execution and delivery of this Agreement and the transactions contemplated hereby, including any and all actions taken pursuant to Section 8. In any litigation involving this Agreement (independent of the arbitration provision above), the prevailing Party shall be entitled to the recovery of its reasonable attorneys' fees and costs.

9.6. Nature of Rights. To the extent applicable, this Agreement and all other rights, licenses, releases and privileges granted to either Party pursuant to this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the Bankruptcy Code, 11

U.S.C. Section 101 et seq., licenses of rights to "intellectual property" as defined under Section l0l(35a) of the U.S. Bankruptcy Code.

9.7. Severability. If any provision of this Agreement is determined to be invalid, illegal or unenforceable, the Parties shall negotiate in good faith so as to replace each invalid, illegal or unenforceable provision with a valid, legal and enforceable provision which will, in effect most nearly and fairly approach the effect of the invalid, illegal or unenforceable provision and the intent of the Parties in entering into this Agreement, with the remainder of this Agreement continuing in full force and effect.

9.8. Waiver and Modification. No modification of any of the terms of this Agreement will be valid unless in writing and signed by the Parties. No waiver by any Party of a breach of this Agreement will be deemed a waiver by such Party of any subsequent breach. All waivers must be in writing and signed by an authorized representative of the Party against which such waiver is being asserted.

9.9. Representations and Warranties of the NXP Parties. Each of the NXP Parties represents and warrants to Impinj that as of the Effective Date such NXP Party has the corporate power and authority to execute, deliver and bind itself to the terms of this Agreement. Further, NXP Parent specifically represents and warrants to Impinj that as of the Effective Date NXP Parent has the corporate power and authority to bind its Subsidiaries, including NXP USA, NXP B.V. and NXP Semiconductor Netherlands, B.V., to the terms of this Agreement applicable to Subsidiaries. Each of the NXP Parties further represents and warrants to Impinj that:

9.9.1 this Agreement constitutes, and after the Effective Date will continue to constitute, a legal, valid and binding obligation of each NXP Party, enforceable against each NXP Party in accordance with its terms, except as enforceability may be limited by applicable equitable principles or bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally;

9.9.2 no provision of this Agreement conflicts with any other agreement binding upon any of the NXP Parties, and after the Effective Date no provision of this Agreement will conflict with any other agreement binding upon any of the NXP Parties;

9.9.3 no notice to or consent, approval, authorization, order, filing, registration or qualification of or with any court, governmental authority or any other person(s) or entity(ies) not a Party to this Agreement (other than the courts in the matters that are the subject of Section 8) is required to be made or obtained by any NXP Party in connection with the execution and delivery of this Agreement or the transactions contemplated hereby; and

9.9.4 neither of the NXP Parties nor any of their Subsidiaries has assigned or otherwise transferred any portion of the matters that are the subject of Section 8 or the Liabilities that are the subject of the release in Section 4.2 to any other person or entity, and after the Effective Date none of the NXP Parties or their Subsidiaries will assign or otherwise transfer any portion of the matters that are the subject of Section 8 or the Liabilities that are the subject of the release in Section 4.2 to any person or entity.

9.10. Representations and Warranties of Impinj. Impinj represents and warrants to each of the NXP Parties that as of the Effective Date Impinj has the corporate power and authority to execute, deliver and bind itself to the terms of this Agreement. Further, Impinj specifically represents and warrants to the NXP Parties that as of the Effective Date Impinj has the corporate power and authority to bind its Subsidiaries to the terms of this Agreement applicable to Subsidiaries and owns the Impinj Indicator Patents and has the right to grant the rights in Section 2 and Section 4 thereunder upon the terms contemplated thereby. Impinj further represents and warrants to the NXP Parties that:

9.10.1. this Agreement constitutes, and after the Effective Date will continue to constitute, a legal, valid and binding obligation of Impinj, enforceable against Impinj in accordance with its terms, except as enforceability may be limited by applicable equitable principles or bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally;

9.10.2. no provision of this Agreement conflicts with any other agreement binding upon Impinj, and after the Effective Date no provision of this Agreement will conflict with any other agreement binding upon Impinj;

9.10.3. no notice to or consent, approval, authorization, order, filing, registration or qualification of or with any court, governmental authority or any other person(s) or entity(ies) not a Party to this Agreement (other than the courts in the matters that are the subject of Section 8) is required to be made or obtained by Impinj in connection with the execution and delivery of this Agreement or the transactions contemplated hereby; and

9.10.4. neither Impinj nor any of its Subsidiaries has assigned or otherwise transferred any portion of the matters that are the subject of Section 8 or the Liabilities that are the subject of the release in Section 4.24.1 to any other person or entity, and after the Effective Date none of Impinj or any of its Subsidiaries will assign or otherwise transfer any portion of the matters that are the subject of Section 8 or the Liabilities that are the subject of the release in Section 4.1 to any person or entity.

9.11. **Construction and Interpretation.** This Agreement has been jointly negotiated and drafted by the Parties through their respective counsel and no provision shall be construed or interpreted for or against any of the Parties on the basis that such provision, or any other provision, or the Agreement as a whole, was purportedly drafted by a particular Party. Unless specified otherwise, all references to periods of days for taking certain actions in this Agreement shall be construed to refer to calendar days. The words "hereof," "herein," "hereto" and "hereunder" and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and not to any particular provision of this Agreement. Headings of paragraphs or sections of this Agreement are for reference only and shall not be deemed to be a part of this Agreement. The word "including" shall be exemplar and inclusive but not limiting and always deemed to be followed by the words ", without limitation" if not so stated. The word "or" means in the inclusive as in "and/or". The word "shall" is to be construed as having the same meaning as the word "will" and *vice versa*.

9.12. Governing Law; Venue. This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of the State of Delaware, excluding any choice of law provisions thereof. Any claim for breach of this Agreement brought by Impinj shall be

brought in a court in the State of Texas having jurisdiction, and any claim for breach of this Agreement by a NXP Party shall be brought in a court in the State of Washington having jurisdiction. Solely for purposes of resolving any disputes under this Agreement, NXP Parent agrees to submit to personal jurisdiction and venue in Texas .

9.13. Entire Agreement. This Agreement constitutes the complete and exclusive statement of the terms and conditions between the Parties and supersedes, replaces and merges all prior proposals, understandings and all other agreements, oral and written, between the Parties relating to the subject of this Agreement.

9.14. Third Party Beneficiaries. Except as stated in Sections 4, 9.2 and 9.3, the provisions here are not intended for the benefit of any third party, but solely for the Parties to this Agreement.

9.15. Notices. All notices under this Agreement shall be in writing and transmitted by email to the email address indicated below with a confirmation copy by personal delivery to such Party at the address given below, or such other address as provided by a Party by written notice in accordance with this Section which, to be effective, must be given at least ten days in advance of notice:

For Impinj: Impinj, Inc.
Attn: [***]
400 Fairview Ave. S., Suite
1200
Seattle, WA 98109
[***]

16

To either NXP Party:

NXP USA, Inc.
Attn: [***]
6501 William Cannon Drive West
Austin, TX 78735
[***]

17

9.16. Counterparts. This Agreement may be executed in one or more counterparts, which taken together shall constitute one document. This Agreement may also be executed and delivered via facsimile or email.

18

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives.

For and on behalf of: **Impinj, Inc.** /s/ Chris Diorio	Date: March 12, 2024

By: Chris Diorio Title: CEO	
For and on behalf of: **NXP SEMICONDUCTORS N.V.** /s/ Jennifer B. Waumett By: Jennifer B. Waumett Title: EVP, General Counsel	Date: March 13, 2024
For and on behalf of: **NXP USA, Inc.** /s/ Katherine Haight By: Katherine Haight Title: VP, Commercial Legal Support /s/ Jennifer B. Waumett By: Jennifer B. Waumett Title: EVP, General Counsel	Date: March 13, 2024 Date: March 13, 2024

EXHIBIT A

Impinj Indicator Patents

[***]

20

IMPINJ, INC.

OUTSIDE DIRECTOR COMPENSATION POLICY

(as amended April [12], 2024 and effective March 31, 2024 (the “**Effective Date**”))

Impinj, Inc. (the “**Company**”) believes that the granting of cash compensation and equity to members of its Board of Directors (the “**Board**,” and members of the Board, the “**Directors**”) represents an effective tool to attract, retain, and reward Directors who are not employees of the Company (the “**Outside Directors**”). This Outside Director Compensation Policy (the “**Policy**”) is intended to formalize the Company’s policy regarding grants of cash compensation and equity to its Outside Directors. Unless defined in this Policy, capitalized terms are defined in the Company’s 2016 Equity Incentive Plan, as may be amended from time to time (the “**Plan**”). Each Outside Director is solely responsible for any tax obligations he or she incurs from the receipt of any compensation under this Policy.

1. CASH RETAINERS

Annual Cash Retainer

Each Outside Director will be paid an annual cash retainer of $50,000. There are no per-meeting attendance fees for attending Board meetings. This cash compensation will be paid quarterly in arrears on a prorated basis.

Chair Annual Cash Retainer

Effective as of the Effective Date, each Outside Director who serves as chair of the Board or chair of a committee of the Board will be eligible to earn additional annual fees as follows:

Chair of the Board: $25,000

Chair of Audit and Risk Committee: $25,000

Chair of Nominating and Corporate Governance Committee: $15,000

Chair of Compensation Committee $17,500

This additional cash compensation will be paid quarterly in arrears on a prorated basis.

Committee Member Annual Cash Retainer

Effective as of the Effective Date, each Outside Director who serves as a member of a committee of the Board (other than the chair of such committee) will be eligible to earn additional annual fees as follows:

Member of Audit and Risk Committee: $12,500

Member of Nominating and Corporate Governance Committee: $10,000

Member of Compensation Committee $10,000

This additional cash compensation will be paid quarterly in arrears on a prorated basis.

2. EQUITY COMPENSATION

Outside Directors may be granted all types of equity awards (except incentive stock options) under the Plan or any other Company equity plan in place at the time of grant, including discretionary Awards not covered under this Policy. All grants of Awards to Outside Directors under this Policy will be made in accordance with this Section 2 and no Awards may be made if they would exceed any limitations under the Plan.

(a) Automatic Outside Director Awards.

(i) No Discretion. All grants of Initial Awards (defined below), Annual Awards (defined below) and Board Chair Awards (defined below and, together with Initial Awards and Annual Awards, "**Automatic Outside Director Awards**") to Outside Directors pursuant to this Section 2(a) will be automatic and nondiscretionary. No person will have any discretion to select which Outside Directors will be granted any Automatic Outside Director Awards under this Section 2(a) or to determine the number of Shares to be covered by such Automatic Outside Director Awards.

(ii) Initial Award. Upon the date of an Outside Director's initial appointment to the Board (such date, the "**Start Date**") (other than by appointment on the date of each annual meeting of the Company's stockholders (the "**Annual Meeting**") following the Effective Date), such Outside Director shall automatically be granted an Award of Restricted Stock Units as set forth in this Section 2(a)(ii) (the "**Initial Award**"). The number of Restricted Stock Units subject to the Initial Award shall equal the quotient of (A) $250,000 *multiplied by* a fraction (1) the numerator of which is (x) 12 *minus* (y) the number of months between the date of the last Annual Meeting and the Start Date and (2) the denominator of which is 12; divided by (B) the Per Share Value. Subject to the terms of the Plan and this Policy, each Initial Award will fully vest upon the first anniversary of the grant date, subject to the Outside Director continuing to be a Service Provider through the vesting date. For the avoidance of doubt, if a member of the Board is an Employee (an "**Inside Director**") and becomes an Outside Director by reason of no longer continuing as an Employee, such a transition from an Inside Director to an Outside Director will not result in a grant under this Section 2(a)(ii).

(iii) Annual Award. On the date of each Annual Meeting following the Effective Date, each Outside Director automatically will be granted an Award of Restricted Stock Units (an "**Annual Award**"). The number of Restricted Stock Units subject to the Annual Award shall equal (A) $250,000 divided by (B) the Per Share Value. Subject to the terms of the Plan and this Policy, each Annual Award will fully vest upon the earlier of (i) the first anniversary of the grant date and (ii) the date of the next Annual Meeting following the grant date, in each case subject to the Outside Director continuing to be a Service Provider through the vesting date.

(iv) Board Chair Award. On the date of each Annual Meeting following the Effective Date, each Outside Director who is serving as Chair of the Board and is eligible for an Annual Award automatically will be granted an additional Award of Restricted Stock Units (a "**Board Chair Annual Award**"). The number of Restricted Stock Units subject to the Board Chair Annual Award shall equal (A) $25,000 divided by (B) the Per Share Value. Subject to the terms of the Plan and this Policy, each Annual Award will fully vest upon the earlier of (i) the first anniversary of the grant date and (ii) the date of the next Annual Meeting following the grant date, in each case subject to the Outside Director continuing to be a Service Provider through the vesting date. The vesting schedule described in the preceding sentence shall also apply to any Board Chair Annual Award issued and outstanding as of the Effective Date. In the event that an Outside Director who is serving or is appointed as Chair of the Board is eligible for an Initial Award, such Outside Director will also be eligible to receive a Board Chair Annual Award, pro-rated in the same manner as the Initial Award in Section 2(a)(ii) (a "**Board Chair Initial Award**" and, together with board Chair Annual Awards, "**Board Chair Awards**").

(v) Deferred Payment Alternative. Notwithstanding the provisions set forth herein, Outside Directors may be permitted, in the sole discretion of the Administrator, to defer the delivery of the Shares subject to the Automatic Outside Director Award upon vesting in accordance with the terms and conditions of a deferral program approved by the Administrator. Any such deferral election shall be subject to such rules, conditions and procedures as shall be determined by the Administrator, in its sole discretion, which rules, conditions and procedures shall at all times comply with the requirements of Section 409A of the Code, unless otherwise specifically determined by Administrator. If an Outside Director elects to defer the settlement of any vested Automatic Outside Director Award in accordance with this Section, payment of the deferred vested Automatic Outside Director Award shall be made in accordance with the terms of the deferral election.

(vi) Per Share Value. "**Per Share Value**" means the average trading price for a share of the Company's Common Stock over the period (i) beginning on the date that is 10 trading days prior to the announcement of its quarterly earnings for the fiscal quarter immediately prior to the grant date of such Award (an

“**Earnings Announcement**”) and (ii) ending on the date that is nine trading days after such Earnings Announcement.

(vii) Change in Control. In the event of a Change in Control, each Outside Director will fully vest in his or her Automatic Outside Director Awards granted under this Policy.

(b) Share Holding Requirements. An Outside Director shall not sell, pledge, assign, hypothecate, transfer, or dispose of in any manner other than by will or by the laws of descent or distribution Shares issued pursuant to an Automatic Outside Director Award while the Outside Director continues to serve as a Director. Notwithstanding the foregoing, an Outside Director may sell Shares issued pursuant to an Automatic Outside Director Award in order to pay for any tax obligations he or she incurs from the vesting and/or settlement of such Award.

3. TRAVEL EXPENSES

Each Outside Director’s reasonable, customary and documented travel expenses to Board and Board committee meetings will be reimbursed by the Company.

---

4. ADDITIONAL PROVISIONS

All provisions of the Plan not inconsistent with this Policy will apply to Automatic Outside Director Awards granted to Outside Directors.

5. REVISIONS

The Board, in its discretion, may at any time change and otherwise revise the terms of the cash compensation granted under this Policy, including, without limitation, the amount or timing of payment of any future grants of cash compensation. The Board, in its discretion, may at any time change and otherwise revise the terms of Automatic Outside Director Awards to be granted under this Policy, including, without limitation, the number of Shares subject thereto. The Board, in its discretion, may at any time suspend or terminate the Policy.

Exhibit 31.1

CERTIFICATIONS

I, Chris Diorio, Ph.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Impinj, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessar make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this repo

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Ru 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equival functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 25,2023 April 24, 2024

/s/ Chris Diorio

Chris Diorio, Ph.D.

Chief Executive Officer

(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Cary Baker, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Impinj, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessar make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this repo

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Ru 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equival functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 25,2023 April 24, 2024

/s/ Cary Baker

Cary Baker

Chief Financial Officer

(Principal Financial Officer)

Exhibit 32.1

IMPINJ, INC.

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Impinj, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2023 March 31, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Chris Diorio, Ph.D., Chief Executive Officer *(Principal Executive Officer)* of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Chris Diorio

Chris Diorio, Ph.D.

Chief Executive Officer

(Principal Executive Officer)

Date: October 25,2023 April 24, 2024

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Impinj, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

IMPINJ, INC.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Impinj, Inc. (the “Company”) on Form 10-Q for the quarter ended September 30, 2023 March 31, 2024, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Cary Baker, Chief Financial Officer *(Principal Financial Officer)* of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Cary Baker

Cary Baker
Chief Financial Officer
(Principal Financial Officer)

Date: October 25,2023 April 24, 2024

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Impinj, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.

DISCLAIMER

THE INFORMATION CONTAINED IN THE REFINITIV CORPORATE DISCLOSURES DELTA REPORT™ IS A COMPARISON OF TWO FINANCIALS PERIODIC REPORTS. THERE MAY BE MATERIAL ERRORS, OMISSIONS, OR INACCURACIES IN THE REPORT INCLUDING THE TEXT AND THE COMPARISON DATA AND TABLES. IN NO WAY DOES REFINITIV OR THE APPLICABLE COMPANY ASSUME ANY RESPONSIBILITY FOR ANY INVESTMENT OR OTHER DECISIONS MADE BASED UPON THE INFORMATION PROVIDED IN THIS REPORT. USERS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S ACTUAL SEC FILINGS BEFORE MAKING ANY INVESTMENT OR OTHER DECISIONS.