

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2024

OR

☐ 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: 001-36083

Applied Optoelectronics, Inc.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of incorporation or organization)

76-0533927  
(I.R.S. Employer Identification No.)

13139 Jess Pirtle Blvd.  
Sugar Land, TX 77478  
(Address of principal executive offices)

(281) 295-1800  
(Registrant's telephone number)

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

Title of each class	Trading Symbol(s)	Trading Name of each exchange on which registered
Common Stock, Par value \$0.001	AAOI	NASDAQ Global Market

Indicate by check mark whether the 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	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 November 4, 2024, there were 45,078,203 shares of the registrant's Common Stock outstanding.

**Applied Optoelectronics, Inc.**  
**Table of Contents**

	<u>Page</u>
<b><u>Part I. Financial Information</u></b>	
Item 1.	<a href="#"><u>Condensed Consolidated Financial Statements (Unaudited)</u></a>
	<a href="#"><u>3</u></a>
	<a href="#"><u>Condensed Consolidated Balance Sheets as of September 30, 2024 (Unaudited) and December 31, 2023</u></a>
	<a href="#"><u>3</u></a>
	<a href="#"><u>Condensed Consolidated Statements of Operations for the Three and Nine Months ended September 30, 2024 and 2023 (Unaudited)</u></a>
	<a href="#"><u>4</u></a>
	<a href="#"><u>Condensed Consolidated Statements of Comprehensive Income (Loss) for the Three and Nine Months ended September 30, 2024 and 2023 (Unaudited)</u></a>
	<a href="#"><u>5</u></a>
	<a href="#"><u>Condensed Consolidated Statements of Stockholders' Equity for the Three and Nine Months ended September 30, 2024 and 2023 (Unaudited)</u></a>
	<a href="#"><u>6</u></a>
	<a href="#"><u>Condensed Consolidated Statements of Cash Flows for the Nine Months ended September 30, 2024 and 2023 (Unaudited)</u></a>
	<a href="#"><u>8</u></a>
	<a href="#"><u>Notes To Condensed Consolidated Financial Statements (Unaudited)</u></a>
	<a href="#"><u>9</u></a>
Item 2.	<a href="#"><u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u></a>
	<a href="#"><u>20</u></a>
Item 3.	<a href="#"><u>Quantitative and Qualitative Disclosures About Market Risk</u></a>
	<a href="#"><u>28</u></a>
Item 4.	<a href="#"><u>Controls and Procedures</u></a>
	<a href="#"><u>28</u></a>
<b><u>Part II. Other Information</u></b>	
Item 1.	<a href="#"><u>Legal Proceedings</u></a>
	<a href="#"><u>28</u></a>
Item 1A.	<a href="#"><u>Risk Factors</u></a>
	<a href="#"><u>28</u></a>
Item 5.	<a href="#"><u>Other Information</u></a>
	<a href="#"><u>29</u></a>
Item 6.	<a href="#"><u>Exhibits</u></a>
	<a href="#"><u>29</u></a>
	<a href="#"><u>Signatures</u></a>
	<a href="#"><u>30</u></a>

# Part I. Financial Information

## Item 1. Condensed Consolidated Financial Statements

### Applied Optoelectronics, Inc. and Subsidiaries CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited, in thousands)

	September 30, 2024	December 31, 2023
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents	\$ 34,124	\$ 45,366
Restricted cash	7,243	9,731
Accounts receivable - trade, net of allowance of \$ 1,805 and \$3, respectively	75,154	48,071
Notes receivable	47	219
Inventories	64,382	63,866
Prepaid income tax	4	3
Prepaid expenses and other current assets	7,409	5,349
Total current assets	188,363	172,605
Property, plant and equipment, net	205,303	200,317
Land use rights, net	4,993	5,030
Operating right of use asset	4,102	5,026
Intangible assets, net	3,663	3,628
Other assets, net	3,548	2,580
TOTAL ASSETS	\$ 409,972	\$ 389,186
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities		
Accounts payable	\$ 55,991	\$ 32,892
Bank acceptance payable	9,934	15,482
Accrued liabilities	19,140	18,549
Unearned revenue	1,439	1,803
Current lease liability - operating	1,115	1,149
Current portion of notes payable and long-term debt	29,483	23,197
Current portion of convertible senior notes	—	286
Total current liabilities	117,102	93,358
Non-current lease liability - operating	3,731	4,726
Convertible senior notes	77,053	76,233
TOTAL LIABILITIES	197,886	174,317
<b>Stockholders' equity:</b>		
Preferred Stock; 5,000 shares authorized at \$0.001 par value; no shares issued and outstanding at September 30, 2024 and December 31, 2023, respectively	—	—
Common Stock; 80,000 shares authorized at \$0.001 par value; 44,852 and 38,148 shares issued and outstanding at September 30, 2024 and December 31, 2023, respectively	45	38
Additional paid-in capital	543,492	478,972
Accumulated other comprehensive income	709	975
Accumulated deficit	(332,160)	(265,116)
TOTAL STOCKHOLDERS' EQUITY	212,086	214,869
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 409,972	\$ 389,186

The accompanying notes are an integral part of these condensed consolidated financial statements.

**Applied Optoelectronics, Inc. and Subsidiaries**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
(Unaudited, in thousands, except share and per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Revenue, net	\$ 65,151	\$ 62,547	\$ 149,094	\$ 157,193
Cost of goods sold	49,234	42,373	116,023	119,876
Gross profit	15,917	20,174	33,071	37,317
Operating expenses				
Research and development	13,428	9,457	38,218	26,633
Sales and marketing	4,796	3,035	14,503	7,631
General and administrative	14,240	14,368	44,786	39,870
Total operating expenses	32,464	26,860	97,507	74,134
Loss from operations	(16,547)	(6,686)	(64,436)	(36,817)
Other income (expense)				
Interest income	156	65	509	133
Interest expense	(1,702)	(1,989)	(5,072)	(6,301)
Other expense, net	336	(343)	1,957	803
Total other income (expense), net	(1,210)	(2,267)	(2,606)	(5,365)
Loss before income taxes	(17,757)	(8,953)	(67,042)	(42,182)
Income tax expense	—	—	—	(8)
Net loss	\$ (17,757)	\$ (8,953)	\$ (67,042)	\$ (42,190)
Net loss per share				
Basic	\$ (0.42)	\$ (0.27)	\$ (1.68)	\$ (1.39)
Diluted	\$ (0.42)	\$ (0.27)	\$ (1.68)	\$ (1.39)
Weighted average shares used to compute net loss per share:				
Basic	42,311,811	32,774,148	40,021,297	30,392,483
Diluted	42,311,811	32,774,148	40,021,297	30,392,483

*The accompanying notes are an integral part of these condensed consolidated financial statements.*

**Applied Optoelectronics, Inc. and Subsidiaries**  
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
(Unaudited, in thousands)

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Net loss	\$ (17,757)	\$ (8,953)	\$ (67,042)	\$ (42,190)
Gain (Loss) on foreign currency translation adjustment	2,240	(718)	(268)	(4,371)
Comprehensive loss	<u>\$ (15,517)</u>	<u>\$ (9,671)</u>	<u>\$ (67,310)</u>	<u>\$ (46,561)</u>

*The accompanying notes are an integral part of these condensed consolidated financial statements.*

**Applied Optoelectronics, Inc. and Subsidiaries**  
**CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**Three and Nine Months ended September 30, 2024 and 2023**  
(Unaudited, in thousands, except for share amount)

	Common Stock			Additional	Accumulated		
	Number	Amount		paid-in	other	Accumulated	Stockholders'
	of shares			capital	comprehensive	deficit	equity
					gain (loss)		
June 30, 2024	40,645	\$ 41	\$	502,387	\$ (1,531)	\$ (314,403)	\$ 186,494
Issuance of restricted stock, net of shares withheld for employee tax	279	—		(383)	—	—	(383)
Share-based compensation	—	—		2,944	—	—	2,944
Public offering of common stock, net	3,928	4		38,544	—	—	38,548
Foreign currency translation adjustment	—	—		—	2,240	—	2,240
Net loss	—	—		—	—	(17,757)	(17,757)
September 30, 2024	44,852	\$ 45	\$	543,492	\$ 709	\$ (332,160)	\$ 212,086

  

	Common Stock			Additional	Accumulated		
	Number	Amount		paid-in	other	Accumulated	Stockholders'
	of shares			capital	comprehensive	deficit	equity
					gain (loss)		
June 30, 2023	31,785	\$ 32	\$	407,003	\$ (1,470)	\$ (242,306)	\$ 163,259
Stock options exercised, net of shares withheld for employee tax	32	—		(13)	—	—	(13)
Issuance of restricted stock, net of shares withheld for employee tax	407	—		(482)	—	—	(482)
Share-based compensation	—	—		3,235	—	—	3,235
Public offering of common stock, net	2,042	2		22,023	—	—	22,025
Foreign currency translation adjustment	—	—		—	(718)	—	(718)
Net loss	—	—		—	—	(8,953)	(8,953)
September 30, 2023	34,266	\$ 34	\$	431,766	\$ (2,188)	\$ (251,259)	\$ 178,353

	Common Stock		Additional paid-in capital	Accumulated other comprehensive gain (loss)	Accumulated deficit	Stockholders' equity
	Number of shares	Amount				
January 1, 2024	38,148	\$ 38	\$ 478,972	\$ 975	\$ (265,116)	\$ 214,869
Stock options exercised	1	—	(2)	—	—	(2)
Issuance of restricted stock, net of shares withheld for employee tax	1,024	1	(3,054)	—	—	(3,053)
Share-based compensation	—	—	9,050	—	—	9,050
Public offering of common stock, net	5,677	6	58,489	—	—	58,495
Shares converted by Notes holders	2	—	37	—	—	37
Foreign currency translation adjustment	—	—	—	(266)	(2)	(268)
Net loss	—	—	—	—	(67,042)	(67,042)
September 30, 2024	44,852	\$ 45	\$ 543,492	\$ 709	\$ (332,160)	\$ 212,086

	Common Stock		Additional paid-in capital	Accumulated other comprehensive gain (loss)	Retained earnings	Stockholders' equity
	Number of shares	Amount				
January 1, 2023	28,623	\$ 29	\$ 391,526	\$ 2,183	\$ (209,068)	\$ 184,670
Stock options exercised, net of shares withheld for employee tax	32	—	(13)	—	—	(13)
Issuance of restricted stock, net of shares withheld for employee tax	914	1	(641)	—	—	(640)
Share-based compensation	—	—	8,587	—	—	8,587
Public offering of common stock, net	4,697	4	32,307	—	—	32,311
Foreign currency translation adjustment	—	—	—	(4,371)	(1)	(4,372)
Net loss	—	—	—	—	(42,190)	(42,190)
September 30, 2023	34,266	\$ 34	\$ 431,766	\$ (2,188)	\$ (251,259)	\$ 178,353

The accompanying notes are an integral part of these condensed consolidated financial statements.

**Applied Optoelectronics, Inc. and Subsidiaries**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Unaudited, in thousands)

	<b>Nine months ended September 30,</b>	
	<b>2024</b>	<b>2023</b>
Operating activities:		
Net loss	\$ (67,042)	\$ (42,190)
Adjustments to reconcile net loss to net cash used in operating activities:		
Allowance of bad debt	1,802	(27)
Inventory reserve adjustment	2,386	7,454
Depreciation and amortization	15,293	15,499
Amortization of debt issuance costs	1,037	928
Gain (loss) on disposal of assets	33	2
Share-based compensation	11,841	8,587
Unrealized foreign exchange (gain)	(25)	(583)
Changes in operating assets and liabilities:		
Accounts receivable, trade	(28,884)	450
Trade Notes receivable	172	301
Prepaid income tax	(2)	(2)
Inventories	(2,760)	2,917
Other current assets	(2,029)	1,384
Operating right of use asset	784	345
Accounts payable	23,099	(12,992)
Accrued liabilities	612	(600)
Accrued Income Tax	-	(1)
Unearned revenue	(364)	9,497
Lease liability	(863)	(448)
Net cash used in operating activities	(44,910)	(9,479)
Investing activities:		
Purchase of property, plant and equipment	(15,027)	(2,915)
Proceeds from disposal of equipment	7	131
Deposits and prepaid for equipment	(6,033)	(1,948)
Purchase of intangible assets	(374)	(426)
Net cash used in investing activities	(21,427)	(5,158)
Financing activities:		
Principal payments of long-term debt and notes payable	(251)	—
Proceeds from line of credit borrowings	35,639	47,047
Repayments of line of credit borrowings	(29,701)	(71,834)
Proceeds from bank acceptance payable	24,831	42,118
Repayments of bank acceptance payable	(30,484)	(39,699)
Proceeds from issuance of convertible senior notes, net of debt issuance costs	(214)	—
Principal payments of financing lease	—	(15)
Exercise of stock options	(2)	(13)
Payments of tax withholding on behalf of employees related to share-based compensation	(3,053)	(640)
Proceeds from common stock offering, net	58,494	32,312
Cash settlement of share-based compensation	(2,791)	—
Net cash provided by financing activities	52,468	9,276
Effect of exchange rate changes on cash	139	1,015
Net decrease in cash, cash equivalents and restricted cash	(13,730)	(4,346)
Cash, cash equivalents and restricted cash at beginning of period	55,097	35,587
Cash, cash equivalents and restricted cash at end of period	\$ 41,367	\$ 31,241
Supplemental disclosure of cash flow information:		
Cash paid for:		
Interest, net of amounts capitalized	\$ 2,635	\$ 6,054
Income taxes	1	10
Non-cash investing and financing activities:		
Net change in accounts payable related to property and equipment additions	(411)	(12)
Net change in deposits and prepaid for equipment related to property and equipment additions	276	(473)

*The accompanying notes are an integral part of these condensed consolidated financial statements.*



**Applied Optoelectronics, Inc. and Subsidiaries**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**(Unaudited)**

**Note 1. Description of Business**

*Business Overview*

Applied Optoelectronics, Inc. ("AOI" or the "Company") is a Delaware corporation. The Company is a leading, vertically integrated provider of fiber-optic networking products, primarily for four networking end-markets: internet data center, cable television ("CATV"), telecommunications ("telecom") and fiber-to-the-home ("FTTH"). The Company designs and manufactures a wide range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment.

The Company has manufacturing and research and development facilities located in the U.S., Taiwan and China. In the U.S., at its corporate headquarters and manufacturing facilities in Sugar Land, Texas, the Company primarily manufactures lasers and laser components and performs research and development activities for laser component and optical module products. In addition, the Company has a research and development facility in Duluth, Georgia. The Company operates in Taipei, Taiwan and Ningbo, China through its wholly-owned subsidiary Prime World International Holdings, Ltd. ("Prime World", incorporated in the British Virgin Islands). Prime World operates a branch in Taipei, Taiwan, which primarily manufactures transceivers and performs research and development activities for the transceiver products. Prime World is the parent of Global Technology, Inc. ("Global", incorporated in the People's Republic of China). Through Global, the Company primarily manufactures certain of its data center transceiver products, including subassemblies, as well as CATV systems and equipment, and performs research and development activities for CATV and certain data center transceiver products.

*Interim Financial Statements*

The accompanying unaudited condensed consolidated financial statements of the Company as of September 30, 2024 and December 31, 2023 and for the three and nine months ended September 30, 2024 and September 30, 2023, have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") for interim information and with the instructions on Form 10-Q and Rule 10-01 of Regulation S-X pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). In accordance with those rules and regulations, the Company has omitted certain information and notes required by GAAP for annual consolidated financial statements. In the opinion of management, the condensed consolidated financial statements contain all adjustments, except as otherwise noted, necessary for the fair presentation of the Company's financial position and results of operations for the periods presented. The year-end condensed balance sheet data was derived from audited financial statements. These condensed consolidated financial statements should be read in conjunction with the Consolidated Financial Statements and Notes thereto included in the Company's Annual Report on Form 10-K ("Annual Report") for the fiscal year ended December 31, 2023. The results of operations for the three and nine months ended September 30, 2024 are not necessarily indicative of the results expected for the entire fiscal year. All significant inter-company accounts and transactions have been eliminated.

*Use of Estimates*

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported. Actual results could differ materially from those estimates in the consolidated financial statements and accompanying notes. Significant estimates and assumptions that impact these financial statements and the accompanying notes relate to, among other things, revenue recognition, allowance for doubtful accounts, inventory reserve, impairment of long-lived assets, service and product warranty costs, share-based compensation expense, estimated useful lives of tangible and intangible assets, and taxes.

## Note 2. Significant Accounting Policies

There have been no changes in the Company's significant accounting policies for the three and nine months ended September 30, 2024, as compared to the significant accounting policies described in its 2023 Annual Report.

### Recent Accounting Pronouncements

There was no accounting pronouncement adopted in the third quarter of 2024.

### Recent Accounting Pronouncements Yet to be Adopted

In December 2023, the Financial Accounting Standard Board ("FASB") issued Accounting Standard Update ("ASU") 2023-09, "*Income Taxes (Topic 740): Improvements to Income Tax Disclosures*", which requires the Company to disclose disaggregated jurisdictional and categorical information for the tax rate reconciliation, income taxes paid and other income tax related amounts. This guidance is effective for annual periods beginning after December 15, 2024, with early adoption permitted. The adoption is expected to enhance the Company's Notes to the Consolidated Financial Statements. The Company is currently evaluating the impact the new standard will have on its financial statements and related disclosures.

In November 2023, the FASB issued ASU 2023-07, "*Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*", which requires the Company to expand the breadth and frequency of segment disclosures to include additional information about significant segment expenses, the chief operating decision maker (CODM) and other items, and also require the annual disclosures on an interim basis. This guidance is effective for annual periods beginning after December 15, 2023, with early adoption permitted. The standard will be effective for the Company beginning with 2024 10-K and interim periods afterwards. The Company has evaluated this new standard and intends to comply with the new disclosure requirements when required.

In October 2023, the FASB issued ASU 2023-06, "*Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative*", which amends U.S. GAAP to include 14 disclosure requirements that are currently required under SEC Regulation S-X or Regulation S-K. Each amendment will be effective on the date on which the SEC removes the related disclosure requirement from SEC Regulation S-X or Regulation S-K. The Company has evaluated the new standard and determined that it will have no material impact on its financial statements or disclosures since the Company is already subject to the relevant SEC disclosure requirements.

## Note 3. Revenue Recognition

### Disaggregation of Revenue

Revenue is classified based on the location where the product is manufactured. For additional information on the disaggregated revenues by geographical region, see Note 17, "Geographic Information."

Revenue is also classified by major product categories and is presented below (in thousands):

	Three months ended September 30,			
	2024	% of Revenue	2023	% of Revenue
Data Center	\$ 40,945	62.8%	\$ 48,807	78.0%
CATV	20,947	32.2%	10,268	16.4%
Telecom	2,798	4.3%	3,074	5.0%
FTTH	—	0.0%	—	0.0%
Other	461	0.7%	398	0.6%
Total Revenue	<u>\$ 65,151</u>	<u>100.0%</u>	<u>\$ 62,547</u>	<u>100.0%</u>

  

	Nine months ended September 30,			
	2024	% of Revenue	2023	% of Revenue
Data Center	\$ 104,283	69.9%	\$ 96,731	61.5%
CATV	35,501	23.8%	47,391	30.1%
Telecom	7,445	5.0%	11,013	7.0%
FTTH	—	0.0%	57	0.1%
Other	1,865	1.3%	2,001	1.3%
Total Revenue	<u>\$ 149,094</u>	<u>100.0%</u>	<u>\$ 157,193</u>	<u>100.0%</u>

### Unearned Revenue

We record unearned revenues when cash payments are received or due in advance of our performance, including amounts which are refundable. Unearned revenues solely relate to statement of work with Microsoft regarding contract prices allocated to the performance obligations that are unsatisfied, or partially unsatisfied, as of the balance sheet dates. Unearned revenue balance as of September 30, 2024 and December 31, 2023 was \$1.4 million and \$1.8 million, respectively. For the three months ended September 30, 2024 and 2023, revenue recognized from the unearned revenue balance was \$0.1 million and \$1.9 million, respectively. For the nine months ended September 30, 2024 and 2023, revenue recognized from the unearned revenue balance was \$0.4 million and \$3.1 million, respectively. The contract with Microsoft does not fall under ASC 842, Lease Accounting.

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Unearned revenue, beginning of period	\$ 1,570	\$ 11,720	\$ 1,803	\$ 3,000
Additional unearned revenue	—	2,724	—	12,608
Revenue recognized	131	1,947	364	3,111
Unearned revenue, end of period	<u>\$ 1,439</u>	<u>\$ 12,497</u>	<u>\$ 1,439</u>	<u>\$ 12,497</u>

#### Note 4. Leases

The Company leases space under non-cancellable operating leases for certain manufacturing facilities, certain research and development offices, and certain storage facilities and apartments. These leases do not contain contingent rent provisions. The Company also leases certain machinery, office equipment and a vehicle under an operating lease. Many of its leases include both lease (e.g. fixed payments including rent, taxes, and insurance costs) and non-lease components (e.g. common-area or other maintenance costs) which are accounted for as a single lease component as the Company has elected the practical expedient to group lease and non-lease components for all leases. Several of the leases include one or more options to renew which have been assessed and either included or excluded from the calculation of the lease liability of the right of use ("ROU") asset based on management's intentions and individual fact patterns. Several warehouses and apartments have non-cancellable lease terms of less than one-year and therefore, the Company has elected the practical expedient to exclude these short-term leases from its ROU asset and lease liabilities.

As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. Based on the applicable lease terms and current economic environment, the Company applies a location approach for determining the incremental borrowing rate.

Lease expense is included under general and administrative expenses and was \$0.4 million, and \$0.3 million for the three months ended September 30, 2024 and 2023, respectively. The lease expense was \$1.1 million and \$0.9 million for the nine months ended September 30, 2024 and 2023, respectively. The components of lease expense were as follows for the periods indicated (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Operating lease expense	\$ 318	\$ 287	\$ 1,028	\$ 849
Financing lease expense	—	8	—	24
Short Term lease expense	41	3	62	9
Total lease expense	<u>\$ 359</u>	<u>\$ 298</u>	<u>\$ 1,090</u>	<u>\$ 882</u>

Maturities of lease liabilities are as follows for the future one-year periods ending September 30, 2024 (in thousands):

	Operating
Fiscal years:	
2024 (remaining 3 months)	\$ 309
2025	1,256
2026	1,069
2027	1,061
2028	1,060
2029 and thereafter	449
Total lease payments	5,204
Less imputed interest	(358)
Present value	<u>\$ 4,846</u>

The weighted average remaining lease term and discount rate for the leases were as follows for the periods indicated:

	Nine months ended September 30,	
	2024	2023
Weighted Average Remaining Lease Term (Years) - operating leases	4.38	5.33
Weighted Average Remaining Lease Term (Years) - financing leases	—	0.08
Weighted Average Discount Rate - operating leases	3.12%	3.28%
Weighted Average Discount Rate - financing leases	—	5.00%

Supplemental cash flow information related to the leases was as follows for the periods indicated (in thousands):

	Nine months ended September 30,	
	2024	2023
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	\$ 964	\$ 934
Operating cash flows from financing lease	—	3
Financing cash flows from financing lease	—	15

## Note 5. Cash, Cash Equivalents and Restricted Cash

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the statement of financial position that sum to the total of the same such amounts in the statement of cash flows (in thousands):

	September 30, 2024	December 31, 2023
Cash and cash equivalents	\$ 34,124	\$ 45,366
Restricted cash	7,243	9,731
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	<u>\$ 41,367</u>	<u>\$ 55,097</u>

Restricted cash includes guarantee deposits for customs duties, China government subsidy fund, and compensating balances associated with certain credit facilities. As of September 30, 2024 and December 31, 2023, there were \$4.0 million and \$6.5 million of restricted cash required for bank acceptance notes issued to vendors, respectively. In addition, there were deposits of \$2.6 million and \$2.5 million in certificates of deposit associated with credit facilities with a bank in China as of September 30, 2024 and December 31, 2023, respectively. There were \$0.7 million guarantee deposits for customs duties as of September 30, 2024 and December 31, 2023.

## Note 6. Loss Per Share

Basic net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share has been computed using the weighted-average number of shares of common stock and dilutive potential common shares from stock options, restricted stock units and senior convertible notes outstanding during the period. In periods with net losses, normally dilutive shares become anti-dilutive. Therefore, basic and diluted loss per share are the same.

The following table sets forth the computation of the basic and diluted net loss per share for the periods indicated (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Numerator:				
Net loss	(17,757)	\$ (8,953)	\$ (67,042)	\$ (42,190)
Denominator:				
Weighted average shares used to compute net loss per share				
Basic	42,312	32,774	40,021	30,392
Diluted	42,312	32,774	40,021	30,392
Net loss per share				
Basic	\$ (0.42)	\$ (0.27)	\$ (1.68)	\$ (1.39)
Diluted	\$ (0.42)	\$ (0.27)	\$ (1.68)	\$ (1.39)

The following potentially dilutive securities were excluded from the diluted net loss per share as their effect would have been antidilutive (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Employee stock options	—	8	—	—
Restricted stock units	2,097	2,650	2,543	973
Shares for convertible senior notes	5,264	4,587	5,264	4,587
Total antidilutive shares	<u>7,361</u>	<u>7,245</u>	<u>7,807</u>	<u>5,560</u>

## Note 7. Inventories

Inventories, net of inventory write-downs, consist of the following for the periods indicated (in thousands):

	September 30, 2024	December 31, 2023
Raw materials	\$ 33,154	\$ 22,128
Work in process and sub-assemblies	30,650	33,792
Finished goods	16,196	22,452
Allowance for inventory	(15,618)	(14,506)
Total inventories	<u>\$ 64,382</u>	<u>\$ 63,866</u>

For the three months ended September 30, 2024 and 2023, the inventory reserve adjustment expensed for inventory was \$0.7 million and \$2.4 million, respectively. For nine months ended September 30, 2024 and 2023, the inventory reserve adjustment expensed for inventory was \$2.4 million and \$7.5 million, respectively.

For the three months ended September 30, 2024 and 2023, the direct inventory write-offs related to scrap, discontinued products and damaged inventories were \$0.7 million and \$1.5 million, respectively. For the nine months ended September 30, 2024 and 2023, the direct inventory write-offs related to scrap, discontinued products and damaged inventories were \$2.4 million and \$8.4 million, respectively.

## Note 8. Property, Plant & Equipment

Property, plant and equipment consisted of the following for the periods indicated (in thousands):

	September 30, 2024	December 31, 2023
Land improvements	\$ 806	\$ 806
Buildings and improvements	120,617	86,534
Machinery and equipment	264,429	257,842
Furniture and fixtures	5,115	5,449
Computer equipment and software	12,955	12,059
Transportation equipment	666	673
	404,588	363,363
Less accumulated depreciation	(204,675)	(194,086)
	199,913	169,277
Construction in progress	4,289	29,939
Land	1,101	1,101
Total property, plant and equipment, net	\$ 205,303	\$ 200,317

For the three months ended September 30, 2024 and 2023, the depreciation expense of property, plant and equipment was \$ 5.1 million and \$4.8 million, respectively. For the nine months ended September 30, 2024 and 2023, the depreciation expenses of property, plant and equipment were \$15.0 million.

As of September 30, 2024, the Company concluded that its continued loss history constitutes a triggering event as described in ASC 360-10-35-21, *Property, Plant, and Equipment*. The Company performed a recoverability test and concluded that future undiscounted cash flows exceed the carrying amount of the Company's long-lived assets and therefore no impairment charge was recorded.

## Note 9. Intangible Assets, net

Intangible assets consisted of the following for the periods indicated (in thousands):

	September 30, 2024		
	Gross Amount	Accumulated amortization	Intangible assets, net
Patents	\$ 9,788	\$ (6,278)	\$ 3,510
Trademarks	202	(49)	153
Total intangible assets	\$ 9,990	\$ (6,327)	\$ 3,663

  

	December 31, 2023		
	Gross Amount	Accumulated amortization	Intangible assets, net
Patents	\$ 9,502	\$ (5,981)	\$ 3,521
Trademarks	138	(31)	107
Total intangible assets	\$ 9,640	\$ (6,012)	\$ 3,628

For the three months ended September 30, 2024 and 2023, amortization expense for intangible assets, included in general and administrative expenses on the statement of operations, was \$0.1 million and \$0.2 million, respectively. For the nine months ended September 30, 2024 and 2023, amortization expense for intangible assets, included in general and administrative expenses on the statement of operations, was \$0.3 million and \$0.5 million, respectively. The remaining weighted average amortization period for intangible assets is approximately 9 years.

On September 30, 2024, future amortization expenses for intangible assets for future periods are estimated to be (in thousands):

2024 (remaining 3 months)	\$ 102
2025	442
2026	442
2027	442
2028	442
2029 and thereafter	1,793
	\$ 3,663

## Note 10. Fair Value of Financial Instruments

The carrying value amounts of cash and cash equivalents, restricted cash, accounts receivable, prepaid expenses, notes receivable and other current assets, accounts payable, accrued expenses, bank acceptance payable and other current liabilities approximate fair value because of the short-term maturity of these instruments. The Company believes that the interest rates in effect at each period end represent the current market rates for similar borrowings.

The fair value of convertible senior notes is measured for disclosure purposes only. The fair value and carrying amount of our convertible senior notes as of September 30, 2024 was \$94.1 million and \$77.1 million, respectively. As of December 31, 2023, the fair value and carrying amount of our convertible senior notes were both \$76.5 million. The fair value is based on observable market prices for this debt, which is traded in less active markets and are therefore classified as a Level 2 fair value measurement.

**Note 11. Notes Payable and Long-Term Debt**

Notes payable and long-term debt consisted of the following for the periods indicated (in thousands):

	September 30, 2024	December 31, 2023
Revolving line of credit with a China bank up to \$ 24.3 million with interest between 4.25% to 4.35%, maturing May 24, 2029	\$ 11,787	\$ 12,608
Credit facility with a China bank up to \$ 28.5 million with interest between 4.00% and 4.35%, maturing June 6, 2027	17,696	10,589
Total	29,483	23,197
Less current portion	(29,483)	(23,197)
Non-current portion	\$ —	\$ —
<b>Bank Acceptance Notes Payable</b>	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Bank acceptance notes issued to vendors with a 0.05% handling fees	\$ 9,934	\$ 15,482

The current portion of long-term debt is the amount payable within one year of the balance sheet date of September 30, 2024.

Maturities of long-term debt are as follows for the future one-year periods ending September 30, 2024 (in thousands):

Within one year	\$ 29,483
Beyond one year	—
Total outstanding	\$ 29,483

On May 24, 2019, the Company's China subsidiary, Global, entered into a five-year revolving credit line agreement, totaling 180,000,000 RMB (the "SPD Credit Line"), or approximately \$25.4 million at that time, and a mortgage security agreement (the "Security Agreement"), with Shanghai Pudong Development Bank Co., Ltd ("SPD"). Borrowing under the SPD Credit Line will be used for general corporate and capital investment purposes, including the issuance of bank acceptance notes to Global's vendors. Global may draw upon the SPD Credit Line on an as-needed basis at any time during the 5-year term; however, draws under the SPD Credit Line may become due and repayable to SPD at SPD's discretion due to changes in Chinese government regulations and/or changes in Global's financial and operational condition. Each draw will bear interest equal to SPD's commercial banking interest rate effective on the day of the applicable draw. Global's obligations under the SPD Credit Line will be secured by real property owned by Global and mortgaged to the Bank under the terms of the Security Agreement.

On May 24, 2024, Global renewed the SPD Credit Line for a five-year revolving credit line, totaling 170,000,000 RMB (the "Renewed SPD Credit Line") or approximately \$23.9 million at that time, and Global also entered into a mortgage contract security agreement, with SPD. Global may draw upon the Credit Line on an as-needed basis between May 24, 2024 and May 24, 2029.

As of September 30, 2024, \$ 11.8 million was outstanding under the Renewed SPD Credit Line and the outstanding balance of bank acceptance notes issued to vendors was \$9.9 million.

On June 7, 2022, the Company's China Subsidiary, Global, entered a security agreement with China Zheshang Bank in Ningbo City, China ("CZB") for a five-year credit line agreement, totaling 200,000,000 RMB (the "¥200M Credit Facility"), or approximately \$ 29.9 million at that time. Global may draw upon the ¥200M Credit Facility between June 7, 2022 and June 6, 2027 (the "¥200M Credit Period"). During the ¥200M Credit Period, Global may request to draw upon the ¥200M Credit Facility on an as-needed basis; however, draws under the ¥200M Credit Facility may become due and repayable to CZB at CZB's discretion due to changes in Chinese government regulations and/or changes in Global's financial and operational condition. Each draw will be facilitated by a separate credit agreement specifying the terms of each draw and will bear interest equal to CZB's commercial banking interest rate effective on the day of the applicable draw. Global's obligations under the ¥200M Credit Facility will be secured by real property owned by Global and mortgaged to CZB under the terms of the Real Estate Security Agreement. On December 21, 2023, Global entered into an asset pool business cooperation agreement ("Asset Pool Agreement") and an asset pool pledge contract (the "Pledge Contract") (referred to collectively as the Pledge Asset Line"), with CZB, which supplements the existing ¥200M Credit Facility. The Pledge Asset Line does not constitute a new credit line or an increase to the existing credit limits. Global may draw upon the Pledge Asset Line between December 21, 2023 and December 21, 2025 (the "Asset Pool Period"). During the Asset Pool Period, Global may request to draw upon the Pledge Asset Line on an as-needed bases; however, amount of available credit under the Pledge Asset Line and approval of each draw may be reduced or declined by CZB due to changes in Chinese government regulations and/or changes in Global's financial and operational condition. Each draw will be facilitated by a separate credit agreement specifying the terms of each draw and will bear interest equal to CZB's commercial banking interest rate effective on the day of the applicable draw. Global's obligations under the Pledge Asset Line will be secured by certain financial assets, including but not limited to, deposit receipts, domestic accounts receivable and electronic commercial paper. As of September 30, 2024, \$17.7 million was outstanding under the ¥200M Credit Facility, and there was no outstanding balance of bank acceptance notes issued to vendors.

As of September 30, 2024 and December 31, 2023, the Company had \$ 23.3 million and \$22.5 million of unused borrowing capacity, respectively.

As of September 30, 2024 and December 31, 2023, there was \$6.5 million and \$9.7 million of restricted cash, investments or security deposits associated with the loan facilities, respectively.



## Note 12. Convertible Senior Notes

On March 5, 2019, the Company issued \$80.5 million of 5% convertible senior notes due 2024 (the "2024 Notes"). On December 5, 2023, the Company issued approximately \$80.2 million aggregate principal amount of 5.250% convertible senior notes due 2026 (the "2026 Notes"), and on the same day consummated various separate, privately negotiated exchange agreements with certain holders of its 2024 Notes to exchange or repurchase approximately \$80.2 million principal amount of the 2024 Notes for aggregate consideration consisting of approximately \$81.1 million in cash, which included accrued interest on the 2024 Notes, and approximately 466,368 shares of the Company's common stock, par value \$ 0.001 per share. The Company paid off the remaining \$0.29 million of the 2024 Notes on March 15, 2024.

The 2026 Notes were issued pursuant to an Indenture, dated as of December 5, 2023, (the "Indenture"), between the Company and Computershare Trust Company, N.A., as trustee. The 2026 Notes bear interest at a rate of 5.250% per year and pay interest semi-annually in arrears on June 15 and December 15 of each year, beginning on June 15, 2024. The 2026 Notes mature on December 15, 2026, unless earlier converted, redeemed or repurchased in accordance with their terms.

The following table presents the carrying value of the 2026 Notes for the periods indicated (in thousands):

	September 30, 2024	December 31, 2023
Principal	\$ 80,214	\$ 80,214
Unamortized debt issuance costs	(3,161)	(3,981)
Net carrying amount	\$ 77,053	\$ 76,233

The conversion rate for the 2026 Notes is 65.6276 shares of the Company's common stock per \$ 1,000 principal amount of the 2026 Notes (which is equivalent to a conversion price of approximately \$15.24 per share of the Company's common stock, representing a premium of approximately 15% over the last reported sale price of the Company's common stock on November 30, 2023 of \$13.25 per share), subject to adjustment. Before September 15, 2026, holders of the 2026 Notes have the right to convert their 2026 Notes only upon the occurrence of certain events. From and after September 15, 2026, holders of the 2026 Notes may convert their 2026 Notes at any time at their election until the close of business on the second scheduled trading day immediately before the maturity date. The Company will settle conversions by paying or delivering, as applicable, cash, shares of its common stock or a combination of cash and shares of its common stock, at the Company's election, based on the applicable conversion rate(s).

Currently there are no guarantors of the 2026 Notes, but the 2026 Notes would be fully and unconditionally guaranteed, on a senior, unsecured basis by certain of the Company's future domestic subsidiaries, should any such subsidiaries be formed. The 2026 Notes are the Company's senior, unsecured obligations and are equal in right of payment with existing and future senior, unsecured indebtedness, senior in right of payment to the Company's existing and future indebtedness that is expressly subordinated to the 2026 Notes and effectively subordinated to the Company's existing and future secured indebtedness, to the extent of the value of the collateral securing that indebtedness. The Note Guarantee (as defined in the Indenture) of each future guarantor, if any, will be such guarantor's senior, unsecured obligations and is equal in right of payment with existing and future senior, unsecured indebtedness, senior in right of payment to such future guarantor's existing and future indebtedness that is expressly subordinated to the 2026 Notes and effectively subordinated to such future guarantor's existing and future secured indebtedness, to the extent of the value of the collateral securing that indebtedness.

The Indenture contains covenants that limit the Company's ability and the ability of our subsidiaries to, among other things: (i) incur or guarantee additional indebtedness or issue disqualified stock; and (ii) create or incur liens.

The 2026 Notes will be redeemable, in whole or in part (subject to certain limitations described in the Indenture), at the Company's option at any time, and from time to time, on or after December 15, 2024 and on or before the 40th scheduled trading day immediately before the maturity date, at a cash redemption price equal to the principal amount of the 2026 Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if the last reported sale price per share of the Company's common stock exceeds 130% of the conversion price on (1) each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the trading day immediately before the date the Company sends the related redemption notice; and (2) the trading day immediately before the date it sends such notice.

In addition, the 2026 Notes will be redeemable, in whole or in part, at the Company's option at any time, and from time to time, on or before the 40th scheduled trading day immediately before the maturity date, at a cash redemption price equal to the principal amount of the 2026 Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date (subject to the right of a holder of 2026 Notes as of the close of business on a record date to receive the related interest payment on the corresponding interest payment date), if the Company completes the "Specified Divestiture" of (x) one or more of its manufacturing facilities located in the People's Republic of China and/or (y) significant assets located in the People's Republic of China which relate to the Company's transceiver business and multi-channel optical sub-assembly products (or any substantially related assets), for aggregate consideration in cash to the Company of not less than the U.S. Dollar equivalent of \$ 150,000,000 (measured at the time of completion).

Calling any Convertible Note for redemption will constitute a "Make-whole fundamental change" (as defined in the Indenture) with respect to that Convertible Note, in which case the conversion rate applicable to the conversion of that Convertible Note will be increased in certain circumstances if it is converted after it is called for redemption.

In addition, if the Specified Divestiture is completed, then each holder of 2026 Notes will have the right to require the Company to repurchase its 2026 Notes for cash on a date of the Company's choosing, which must be a business day that is no more than 35, nor less than 20, business days after we send the related notice of Specified Divestiture. The repurchase price for a note tendered for such repurchase will be equal to the principal amount of the 2026 Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date (subject to the right of a holder of 2026 Notes as of the close of business on a record date to receive the related interest payment on the corresponding interest payment date).

Moreover, if the Company undergoes a fundamental change, as described in the Indenture, holders of the 2026 Notes may require the Company to repurchase for cash all or part of their 2026 Notes at a repurchase price equal to 100% of the principal amount of the 2026 Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the required repurchase date.

Additionally, the 2026 Notes are subject to customary events of default. No sinking fund is provided for the 2026 Notes.

Pursuant to the guidance in ASC 815-40, Contracts in Entity's Own Equity, the Company evaluated whether the conversion feature of the note needed to be bifurcated from the host instrument as a freestanding financial instrument. Under ASC 815-40, to qualify for equity classification (or non-bifurcation, if embedded) the instrument (or embedded feature) must be both (1) indexed to the issuer's own stock and (2) meet the requirements of the equity classification guidance. Based upon the Company's analysis, it was determined the conversion option is indexed to its own stock and also met all the criteria for equity classification contained in ASC 815-40-25-7 and 815-40-25-10. Accordingly, the conversion option is not required to be bifurcated from the host instrument as a freestanding financial instrument. Since the conversion feature meets the equity scope exception from derivative accounting, the Company then evaluated whether the conversion feature needed to be separately accounted for as an equity component under





[Table of Contents](#)

The Company incurred approximately \$4.3 million in transaction costs in connection with the issuance of the 2026 Notes. These costs were recognized as a reduction of the carrying amount of the Notes utilizing the effective interest method and are being amortized over the term of the Notes.

The following table sets forth interest expense information related to the 2024 Notes and 2026 Notes (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Contractual interest expense	\$ 1,053	\$ 1,006	\$ 3,161	\$ 3,019
Amortization of debt issuance costs	363	208	1,072	618
<b>Total interest cost</b>	<b>\$ 1,416</b>	<b>\$ 1,214</b>	<b>\$ 4,233</b>	<b>\$ 3,637</b>
Effective interest rate	5.3%	5.1%	5.3%	5.1%

### Note 13. Accrued Liabilities

Accrued liabilities consisted of the following for the periods indicated (in thousands):

	September 30, 2024	December 31, 2023
Accrued payroll	\$ 10,143	\$ 12,146
Accrued employee benefits	3,674	3,376
Accrued state and local taxes	1,392	745
Accrued interest	1,345	341
Accrued shipping and tariff expenses	291	27
Advanced payments	228	187
Accrued commission expenses	667	649
Accrued professional fees	218	270
Accrued product warranty	246	255
Accrued other	936	553
<b>Total accrued liabilities</b>	<b>\$ 19,140</b>	<b>\$ 18,549</b>

### Note 14. Other Income and Expense

Other income and expense consisted of the following for the periods indicated (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Gain (loss) on disposal of assets	\$ (28)	\$ 5	\$ (33)	\$ (2)
Government subsidy income	43	77	370	910
Foreign Exchange Gain (Loss)	172	(435)	216	(259)
Other non-operating gain	149	10	1,404	154
<b>Total other income (expenses) , net</b>	<b>\$ 336</b>	<b>\$ (343)</b>	<b>\$ 1,957</b>	<b>\$ 803</b>

### Note 15. Share-Based Compensation

#### Equity Plans

The Company's board of directors and stockholders approved the following equity plans:

- the 2013 Equity Incentive Plan ("2013 Plan")
- the 2021 Equity Incentive Plan ("2021 Plan")
- the 2023 Equity Inducement Plan ("Inducement Plan")

The Company has issued stock options, restricted stock awards ("RSAs") and restricted stock units ("RSUs") to employees, consultants and non-employee directors. Stock option awards generally vest over a four-year period and have a maximum term of ten years. Stock options under these plans have been granted with an exercise price equal to the fair market value on the date of the grant. Nonqualified and Incentive Stock Options, RSAs and RSUs may be granted from these plans.

### Stock Options

Options have been granted to the Company's employees under the 2013 Plan and generally become exercisable as to 25% of the shares on the first anniversary date following the date of grant and 12.5% on a semi-annual basis thereafter. All options expire ten years after the date of grant.

The following is a summary of option activity:

	Number of shares	Weighted Average Exercise Price	Weighted Average Share Price on Date of Exercise	Weighted Average Fair Value	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
		(in thousands, except price data and Contractual Life)				
Outstanding at January 1, 2024	1	\$ 13.84	—	\$ 7.12	0.08	\$ 8
Exercised	—	13.84	—	7.12	—	2
Forfeited	(1)	13.84	—	7.12	—	—
Outstanding, September 30, 2024	—	—	—	—	—	—
Exercisable, September 30, 2024	—	—	—	—	—	—
Vested and expected to vest	—	—	—	—	—	—

As of September 30, 2024, there was no unrecognized stock option expense.

### Performance Based Incentive

Starting in 2021, certain senior executives were granted performance stock units ("PSUs") under our 2021 Equity Incentive Plan ("2021 Plan"), which generally vest over a three-year period subject to achievement of certain pre-established performance metrics. The number of shares of common stock that would ultimately be issued to settle PSUs granted ranged from 0% to 200% of the target number of shares granted. We estimate the fair value of the PSUs on the date of grant using a Monte Carlo simulation model, with stock-based compensation expense recognized ratably over the applicable three-year performance period. The Company recognized stock-based compensation expense for the PSUs for the three months ended September 30, 2024 and 2023 of \$3.8 million and \$1.1 million, respectively. The Company recognized stock-based compensation expense for the nine months ended September 30, 2024 and 2023 of \$5.8 million and \$2.0 million, respectively.

On June 12, 2024, the Compensation Committee certified the Company exceeded the maximum performance target level for each of the performance targets set for the PSUs granted in June 2021 (the "2021 PSUs"). Therefore, applicable employees were entitled to payment of the 2021 PSUs at 200% of the target shares granted under the 2021 Plan. On June 6, 2024, at the annual meeting of stockholders, a proposal to increase the number of shares of common stock authorized for issuance under the 2021 Equity Incentive Plan by 2,000,000 shares was not approved, and as a result, the Company did not have enough shares of common stock available for issuance to satisfy the additional shares earned above 100% of target shares of the 2021 PSUs (the "2021 Additional Shares"). In lieu of shares of common stock, the Company settled the 2021 Additional Shares in cash, resulting in an additional \$2.8 million of stock-based compensation expense in the nine months ended September 30, 2024.

The following is a summary of PSU activity for the nine months ended September 30, 2024:

	Number of shares	Weighted Average Share Price on Date of Release	Weighted Average Fair Value	Aggregate Intrinsic Value
		(in thousands, except price data)		
Outstanding at January 1, 2024	1,533	—	\$ 7.82	\$ 29,610
Granted	191	—	16.40	1,958
Released	(277)	10.44	14.27	2,890
Cancelled/Forfeited	—	—	—	—
Outstanding, September 30, 2024	1,447	—	7.72	20,711
Vested and expected to vest	1,447	—	\$ 7.72	20,711

As of September 30, 2024, there was \$6.7 million of unrecognized stock-based compensation expense related to outstanding PSUs, which expense is expected to be recognized over 1.9 years.

### Restricted Stock Units

The following is a summary of RSU activity:

	Number of shares	Weighted Average Share Price on Date of Release	Weighted Average Fair Value	Aggregate Intrinsic Value
		(in thousands, except price data)		
Outstanding at January 1, 2024	2,873	—	\$ 4.89	\$ 55,507
Granted	701	—	10.52	7,375
Released	(1,031)	12.51	6.11	12,895
Cancelled/Forfeited	(27)	—	6.16	394
Outstanding, September 30, 2024	2,516	—	5.95	36,001
Vested and expected to vest	2,516	—	\$ 5.95	\$ 36,001

As of September 30, 2024, there was \$13.3 million of unrecognized compensation expense related to these RSUs. This expense is expected to be recognized over 2.5 years.

### Share-Based Compensation

Employee share-based compensation expenses recognized for the periods indicated (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Share-based compensation - by expense type				
Cost of goods sold	\$ 116	\$ 123	\$ 355	\$ 393
Research and development	356	358	1,114	1,135
Sales and marketing	334	300	1,160	786
General and administrative	2,137	2,454	9,212	6,273
Total share-based compensation expense	<u>\$ 2,943</u>	<u>\$ 3,235</u>	<u>\$ 11,841</u>	<u>\$ 8,587</u>

### Note 16. Income Taxes

For the three months ended September 30, 2024 and 2023, the effective tax rate varied from the federal statutory rate of 21% primarily due to the change of the valuation allowance on federal, state, Taiwan, and China deferred tax assets ("DTA").

The Company continually monitors and performs an assessment of the realizability of its DTAs, including an analysis of factors such as future taxable income, reversal of existing taxable temporary differences, and tax planning strategies. In assessing the need for a valuation allowance, the Company considered both positive and negative evidence related to the likelihood of realization of deferred tax assets using a "more likely than not" standard. In making such assessment, more weight was given to evidence that could be objectively verified, including recent cumulative losses. Based on the Company's review of this evidence, management determined that a full valuation allowance against all of the Company's net deferred tax assets at September 30, 2024 was appropriate.

### Note 17. Geographic Information

The Company operates in one reportable segment. The Company's Chief Executive Officer, who is considered to be the chief operating decision maker, manages the Company's operations as a whole and reviews financial information presented on a consolidated basis, accompanied by information about product revenue, for purposes of evaluating financial performance and allocating resources.

The following tables set forth the Company's revenue and asset information by geographic region. Revenue is classified based on the location of where the product is manufactured. Long-lived assets in the tables below comprise property, plant, equipment, land use rights, right of use assets and intangible assets (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2024	2023	2024	2023
Revenues:				
United States	\$ 1,659	\$ 5,494	\$ 6,336	\$ 14,636
Taiwan	34,663	37,194	88,225	113,851
China	28,829	19,859	54,533	28,706
Total	<u>\$ 65,151</u>	<u>\$ 62,547</u>	<u>\$ 149,094</u>	<u>\$ 157,193</u>

	September 30,		December 31,	
	2024	2023	2024	2023
Long-lived assets:				
United States	\$ 78,415	\$ 75,283		
Taiwan	46,912	47,668		
China	98,453	91,050		
Total	<u>\$ 223,780</u>	<u>\$ 214,001</u>		

## **Note 18. Contingencies**

### ***Litigation***

#### *Overview*

From time to time, the Company may be subject to legal proceedings and litigation arising in the ordinary course of business, including, but not limited to, inquiries, investigations, audits and other regulatory proceedings, such as described below. The Company records a loss provision when it believes it is both probable that a liability has been incurred and the amount can be reasonably estimated.

Unless otherwise disclosed, the Company is unable to estimate the possible loss or range of loss for the legal proceeding described below.

#### **Arbitration filed by Yuhan Optoelectronic Technology (Shanghai) Co., Ltd.**

On September 12, 2023, the Company delivered notice of termination with respect to that certain Agreement for the Sale and Purchase of a New Company to be Established in Hong Kong Special Administrative Region of the People's Republic of China (the "Purchase Agreement"), dated September 15, 2022, with Prime World International Holdings Ltd. (the "Seller") and Yuhan Optoelectronic Technology (Shanghai) Co., Ltd. (the "Purchaser"), pursuant to which the Seller would divest its manufacturing facilities located in the People's Republic of China and certain assets related to its transceiver business and multichannel optical sub-assembly products for the internet data center, FTTH and telecom markets. The termination, in accordance with the terms of the Purchase Agreement, was a result of the Purchaser's failure to satisfy certain of its material obligations under the Purchase Agreement. In terminating the Purchase Agreement, we also asserted the right to recover a break-up fee from the Purchaser. On December 22, 2023, the Purchaser filed for arbitration in Hong Kong with the Hong Kong International Arbitration Centre ("HKIAC") challenging the validity of our termination notice and seeking specific performance with respect to the transactions contemplated in the Purchase Agreement, which in any case if specific performance is granted by HKIAC, the transaction contemplated by the Purchase Agreement would still have to be approved by the Committee on Foreign Investment in the United States prior to its consummation. On January 22, 2024, the Company filed its response, generally denying the Purchaser's allegations and asserting counterclaims for recovery of a break-up fee. The Company intends to vigorously defend this matter. The Company is not able to determine the outcome of this dispute or the likelihood or amount of the Company's loss or recovery, if any, arising from this matter. The HKIAC Tribunal issued a procedural order on April 17, 2024 setting the evidentiary hearing to be held on September 2025.

#### *Other Contingencies*

On August 9, 2021, the Company received a Taxes Notification of Audit Result ("Notice") from the Texas Comptroller's Office (the "Comptroller"), for fiscal years between 2016 and 2019, informing the Company that the Comptroller believes the Company did not qualify for certain sales and use tax exemptions on various Research and Development purchases and accordingly the Company is liable for Sale and Use Tax in the amount of approximately \$1.0 million including interest charges. The Company paid \$ 0.4 million for the tax notice in May 2021, but challenged the remaining tax assessments and vigorously defended its position. The Comptroller's office exhausted its redetermination period and therefore moved AOI's case to the hearing process. No hearing date has yet been scheduled, and as a result the Company is not able to determine the outcome of this sales tax dispute or the likelihood or amount of the Company's loss, if any, arising from this matter.

## **Note 19. Subsequent Events**

On November 5, 2024, the Company provided notice of its termination, effective on November 6, 2024, of the Equity Distribution Agreement dated March 13, 2024 between the Company and Raymond James & Associates in connection with the Company's At-The-Market equity offering program (the "ATM program"). As of the termination date, the ATM program had generated total gross proceeds of \$59.9 million.

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

*You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our consolidated financial statements and the accompanying notes appearing elsewhere in this Quarterly Report on Form 10-Q for the period ended September 30, 2024 and the audited consolidated financial statements and notes thereto and management's discussion and analysis of financial condition and results of operations for the fiscal year ended December 31, 2023 included in our Annual Report. References to "Applied Optoelectronics," "we," "our" and "us" are to Applied Optoelectronics, Inc. and its subsidiaries unless otherwise specified or the context otherwise requires.*

*This Quarterly Report on Form 10-Q contains "forward-looking statements" that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. The statements contained in this Quarterly Report that are not purely historical are 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. Terminology such as "believe," "may," "estimate," "continue," "anticipate," "intend," "should," "could," "would," "target," "seek," "aim," "believe," "predicts," "think," "objectives," "optimistic," "new," "goal," "strategy," "potential," "is likely," "will," "expect," "plan," "project," "permit," or by other similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements.*

*We have based these forward-looking statements largely on our current expectations and projections about future events and industry and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified in "Part II —Item 1A. Risk Factors" provided below, and those discussed in other documents we file with the SEC, including our Report on Form 10-K for the year ended December 31, 2023 and subsequent Quarterly Reports on Form 10-Q. Furthermore, such forward-looking statements speak only as of the date of this Quarterly Report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of this Quarterly Report.*

### Overview

We are a leading, vertically integrated provider of fiber-optic networking products. We target four networking end-markets: internet data centers, cable television, ("CATV"), telecommunications ("telecom"), and fiber-to-the-home ("FTTH"). We design and manufacture a range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment. In designing products for our customers, we typically begin with the fundamental building blocks of lasers and laser components. From these foundational products, we design and manufacture a wide range of products to meet our customers' needs and specifications, and such products differ from each other by their end market, intended use and level of integration. We are primarily focused on the higher-performance segments within the internet data center, CATV, telecom and FTTH markets which increasingly demand faster connectivity and innovation.

The four end markets we target are all driven by significant bandwidth demand fueled by the growth of network-connected devices, video traffic, cloud computing and online social networking. Within the internet data center market, we benefit from the increasing use of higher-capacity optical networking technology as a replacement for older, lower-speed optical interconnects, particularly as speeds reach 800 Gbps and above, as well as the movement to open internet data center architectures and the increasing use of in-house equipment design among leading internet companies. Within the CATV market, we benefit from a number of ongoing trends including the move to higher bandwidth networks among CATV service providers, especially the desire by MSOs to increase the return-path bandwidth available to offer to their customers. In the FTTH market, we benefit from continuing PON deployments and system updates among telecom service providers. In the telecom market, we benefit from deployment of new high-speed fiber-optic networks by telecom network operators, including 5G networks.

Our vertically integrated manufacturing model provides us several advantages, including rapid product development, fast response times to customer requests and greater control over product quality and manufacturing costs. We design, manufacture and integrate our own analog and digital lasers using a proprietary Molecular Beam Epitaxy, or MBE, and Metal Organic Chemical Vapor Deposition (MOCVD) alternative processes for the fabrication of lasers. We believe the use of both processes, and our knowledge of how to combine these processes with others to fabricate lasers is unique in our industry. We manufacture the majority of the laser chips and optical components that are used in our products. The lasers we manufacture are tested extensively to enable reliable operation over time and our devices are often highly tolerant of changes in temperature and humidity, making them well-suited to the CATV, FTTH and 5G telecom markets where networking equipment is often installed outdoors. All of our laser chips are manufactured in our facility in Sugar Land, Texas. We believe that our domestic production capacity for these devices gives us a competitive advantage over many of our competitors, as we believe that many of our customers prefer to source key components from suppliers who have domestic manufacturing capacity.

We have three manufacturing sites: Sugar Land, Texas, Ningbo, China and Taipei, Taiwan. Our research and development functions are generally partnered with our manufacturing locations, and we have an additional research and development facility in Duluth, Georgia. In our Sugar Land facility, we manufacture laser chips (utilizing our MBE and MOCVD processes), subassemblies and components. The subassemblies are used in the manufacture of components by our other manufacturing facilities or sold to third parties as modules. We manufacture our laser chips only within our Sugar Land facility, where our laser design team is located. In our Taiwan location, we manufacture optical components, such as our butterfly lasers, which incorporate laser chips, subassemblies and components manufactured within our Sugar Land facility. Additionally, in our Taiwan location, we manufacture transceivers for the internet data center, telecom, FTTH and other markets. In our China facility, we take advantage of lower labor costs and manufacture certain more labor intensive components and optical equipment systems, such as optical subassemblies and transceivers for the CATV transmitters (at the headend), CATV outdoor equipment (at the node) and internet data center market. Each manufacturing facility conducts testing on the components, modules or subsystems it manufactures and each facility is certified to ISO 9001:2015. Our facilities in Ningbo, China, Taipei, Taiwan, and Sugar Land, Texas are all certified to ISO 14001:2015.

Our business depends on winning competitive bid selection processes to develop components, systems and equipment for use in our customers' products. These selection processes are typically lengthy, and as a result our sales cycles will vary based on the level of customization required, market served, whether the design win is with an existing or new customer and whether our solution being designed in our customers' product is our first generation or subsequent generation product. We do not have any long-term purchase commitments (in excess of one year) with any of our customers, most of whom purchase our products on a purchase order basis. However, once one of our solutions is incorporated into a customer's design, we believe that our solution is likely to continue to be purchased for that design throughout that product's life cycle because of the time and expense associated with redesigning the product or substituting an alternative solution.

Our principal executive offices are located at 13139 Jess Pirtle Blvd., Sugar Land, TX 77478, and our telephone number is (281) 295-1800.

## Termination of the Divestiture Agreement with Yuhan Optoelectronic Technology (Shanghai) Co., Ltd

On September 15, 2022, the Company and Prime World International Holdings Ltd. (the "Seller") entered into the Purchase Agreement with Yuhan Optoelectronic Technology (Shanghai) Co., Ltd. (the "Purchaser") for the sale of the manufacturing facilities in the People's Republic of China and certain assets related to its transceiver business and multi-channel optical sub-assembly products. On September 12, 2023, we delivered a notice of termination to the Purchaser to terminate the Purchase Agreement as a result of the Purchaser's failure to satisfy certain of its material obligations under the Purchase Agreement. In doing so, we also asserted the right to recover a break-up fee from the Purchaser. On December 22, 2023, the Purchaser filed for arbitration in Hong Kong with the Hong Kong International Arbitration Centre disputing the validity of our termination notice and seeking specific performance with respect to the transactions contemplated by the Purchase Agreement, which would in any case remain subject to regulatory approvals. We filed our response on January 22, 2024, generally denying the Purchaser's allegations and asserting certain counterclaims. The HKIAC Tribunal issued a procedural order on April 17, 2024 setting the evidentiary hearing to be held on September 2025. We are not able to determine the outcome of this dispute or the likelihood or amount of our loss or recovery, if any, arising from this matter.

## Results of Operations

The following table set forth our consolidated results of operations for the periods presented and as a percentage of our revenue for those periods (in thousands, except percentages):

	Three months ended September 30,				Nine months ended September 30,			
	2024		2023		2024		2023	
Revenue, net	\$ 65,151	100.0%	\$ 62,547	100.0%	\$ 149,094	100.0%	\$ 157,193	100.0%
Cost of goods sold	49,234	75.6%	42,373	67.7%	116,023	77.8%	119,876	76.3%
Gross profit	15,917	24.4%	20,174	32.3%	33,071	22.2%	37,317	23.7%
Operating expenses								
Research and development	13,428	20.6%	9,457	15.0%	38,218	25.7%	26,633	16.9%
Sales and marketing	4,796	7.4%	3,035	4.9%	14,503	9.7%	7,631	4.9%
General and administrative	14,240	21.8%	14,368	23.0%	44,786	30.0%	39,870	25.4%
Total operating expenses	32,464	49.8%	26,860	42.9%	97,507	65.4%	74,134	47.2%
Loss from operations	(16,547)	(25.4)%	(6,686)	(10.6)%	(64,436)	(43.2)%	(36,817)	(23.5)%
Other income (expense)								
Interest income	156	0.2%	65	0.1%	509	0.4%	133	0.1%
Interest expense	(1,702)	(2.6)%	(1,989)	(3.2)%	(5,072)	(3.4)%	(6,301)	(4.0)%
Other income, net	336	0.5%	(343)	(0.5)%	1,957	1.3%	803	0.5%
Total other income (expense), net	(1,210)	(1.9)%	(2,267)	(3.6)%	(2,606)	(1.7)%	(5,365)	(3.4)%
Loss before income taxes	(17,757)	(27.3)%	(8,953)	(14.2)%	(67,042)	(45.0)%	(42,182)	(26.9)%
Income tax expense	—	—	—	—%	—	—	(8)	(0.0)%
Net loss	\$ (17,757)	(27.3)%	\$ (8,953)	(14.2)%	\$ (67,042)	(45.0)%	\$ (42,190)	(26.9)%

## Comparison of Financial Results

### Revenue

We generate revenue through the sale of our products to equipment providers and network operators for the internet data center, CATV, telecom, FTTH and other markets. We derive a significant portion of our revenue from our top ten customers, and we anticipate that we will continue to do so for the foreseeable future. The following charts provide the revenue contribution from each of the markets we served for the three and nine months ended September 30, 2024 and 2023 (in thousands, except percentages):

	Three months ended September 30,				Change	
	2024		2023			
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
Data Center	\$ 40,945	62.8%	\$ 48,807	78.0%	\$ (7,862)	(16.1)%
CATV	20,947	32.2%	10,268	16.4%	10,679	104.0%
Telecom	2,798	4.3%	3,074	5.0%	(276)	(9.0)%
FTTH	—	—%	—	—%	—	—%
Other	461	0.7%	398	0.6%	63	15.8%
Total Revenue	\$ 65,151	100.0%	\$ 62,547	100.0%	\$ 2,604	4.2%

  

	Nine months ended September 30,				Change	
	2024		2023			
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
(in thousands, except percentages)						
Data Center	\$ 104,283	69.9%	\$ 96,731	61.5%	7,552	7.8%
CATV	35,501	23.8%	47,391	30.1%	(11,890)	(25.1)%
Telecom	7,445	5.0%	11,013	7.0%	(3,568)	(32.4)%
FTTH	—	0.0%	57	0.1%	(57)	(100.0)%
Other	1,865	1.3%	2,001	1.3%	(136)	(6.8)%
Total Revenue	\$ 149,094	100.0%	\$ 157,193	100.0%	\$ (8,099)	(5.2)%

The changes in revenue during the three months ended September 30, 2024 and 2023 were primarily due to increased demand from CATV customers, offset by the lack of non-recurring engineering ("NRE") revenue in the third quarter of 2024 and the effect of pricing reductions offered to certain of our data center customers in 2024, which affected our data center market. The changes in revenue during the nine months ended September 30, 2024 and 2023 were primarily due to increased demand from major data center customers, offset by weak demand from CATV and telecom customers. CATV demand in the nine months ended September 30, 2024 was lower than in the corresponding period in the prior year largely due to a pending technology transition from older-generation products compliant with the Data Over Cable Service Interface Specification ("DOCSIS") version 3.1, to the newer DOCSIS 4.0 standard. Due to the pending transition from the older to newer standard, customers are placing fewer orders for the older products and instead reducing their inventory of such products.

We have begun to see increased orders for our 400G data center products from several large customers. Based on forecasts from our customers, we expect increased demand for these products through the end of 2024. We entered into a supply agreement with Microsoft to design certain data center goods and to build a supply chain to manufacture, assemble, sell and ship the goods to them or an authorized purchasing entity. The initial term of the agreement is five years with automatic renewal unless terminated earlier.

In addition to our existing data center customers, we have also begun to receive orders from a hyperscale data center customer from which we have not received significant orders in several years. While the new customer interaction is not material within the quarter, we believe that both this new customer interaction and much of the growth in our existing data center business is related to efforts by these customers to increase processing capacity within their data centers, largely to accommodate applications enabled by generative artificial intelligence ("AI").

For the three months ended September 30, 2024 and 2023, our top ten customers represented 95.8% and 96.1% of our revenue, respectively. For the nine months ended September 30, 2024 and 2023, our top ten customers represented 93.7% and 93.3% of our revenue, respectively. We believe that diversifying our customer base is critical for our future success, since reliance on a small number of key customers makes our ability to forecast future results dependent upon the accuracy of the forecasts we receive from those key customers. We continue to prioritize new customer acquisition and growth of diverse revenue streams.

### Cost of goods sold and gross margin

	Three months ended September 30,				Change	
	2024		2023			
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
(in thousands, except percentages)						
Cost of goods sold	\$ 49,234	75.6%	\$ 42,373	67.7%	\$ 6,861	16.2%
Gross margin	15,917	24.4%	20,174	32.3%	(4,257)	(21.1)%

  

	Nine months ended September 30,				Change	
	2024		2023			
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
(in thousands, except percentages)						
Cost of goods sold	\$ 116,023	77.8%	\$ 119,876	76.3%	\$ (3,853)	(3.2)%
Gross margin	33,071	22.2%	37,317	23.7%	(4,246)	(11.4)%



[Table of Contents](#)

Cost of goods sold increased by \$6.9 million for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. The increase in cost of goods sold was due to increased revenue and higher cost of certain materials, partially offset by lower inventory reserve in the current period. Cost of goods sold decreased by \$3.9 million for the nine months ended September 30, 2024, compared to the nine months ended September 30, 2023 primarily due to lower sales, lower inventory write-off expenses and lower inventory reserve expenses in 2024.

Gross profit decreased by \$4.3 million for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. The decrease is primarily due to price reductions for certain data center products which took effect earlier in 2024. Gross profit decreased by \$4.3 million for the nine months ended September 30, 2024 compared to the nine months ended September 30, 2023, mainly due to price reductions for certain data center products which took effect earlier in 2024.

#### Operating expenses

	Three months ended September 30,				Change	
	2024		2023			
	Amount	% of revenue	Amount	% of revenue	Amount	%
(in thousands, except percentages)						
Research and development	\$ 13,428	20.6%	\$ 9,457	15.0%	\$ 3,971	42.0%
Sales and marketing	4,796	7.4%	3,035	4.9%	1,761	58.0%
General and administrative	14,240	21.8%	14,368	23.0%	(128)	(0.9)%
Total operating expenses	\$ 32,464	49.8%	\$ 26,860	42.9%	\$ 5,604	20.9%

  

	Nine months ended September 30,				Change	
	2024		2023			
	Amount	% of revenue	Amount	% of revenue	Amount	%
(in thousands, except percentages)						
Research and development	\$ 38,218	25.7%	\$ 26,633	16.9%	\$ 11,585	43.5%
Sales and marketing	14,503	9.7%	7,631	4.9%	6,872	90.1%
General and administrative	44,786	30.0%	39,870	25.4%	4,916	12.3%
Total operating expenses	\$ 97,507	65.4%	\$ 74,134	47.2%	\$ 23,373	31.5%

#### Research and development expense

Research and development expense increased by \$4.0 million, or 42.0% for the three months ended September 30, 2024, compared to the three months ended September 30, 2023. Research and development expense increased by \$11.6 million, or 43.5% for the nine months ended September 30, 2024 compared to the same period ended September 30, 2023. The increases were primarily due to increased personnel-related expense, increased R&D related project costs and increased R&D consulting fees for ongoing R&D projects. The increases in R&D expenses were driven by customer demands for new products as well as acceleration of previously-planned project expenditures which were necessary to accommodate accelerated demand projections for these products from certain customers.

#### Sales and marketing expense

Sales and marketing expense increased by \$1.8 million, or 58.0% for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. Sales and marketing expense increased by \$6.9 million, or 90.1% for the nine months ended September 30, 2024 compared to the same period ended September 30, 2023. The increases were primarily due to the increased business development effort in our CATV and data center businesses, higher shipping costs and increases in trade show expenses.

#### General and administrative expense

General and administrative expense was approximately the same for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. General and administrative expense increased by \$4.9 million, or 12.3% for the nine months ended September 30, 2024 compared to the same period ended September 30, 2023. The increase was primarily due to increased personnel-related expense, including higher share-based compensation expense.

#### Other income (expense), net

	Three months ended September 30,				Change	
	2024		2023			
	Amount	% of revenue	Amount	% of revenue	Amount	%
(in thousands, except percentages)						
Interest income	\$ 156	0.2%	\$ 65	0.1%	\$ 91	140.0%
Interest expense	(1,702)	(2.6)%	(1,989)	(3.2)%	287	(14.4)%
Other income (expense), net	336	0.5%	(343)	(0.5)%	679	(198.0)%
Total other income (expense), net	\$ (1,210)	(1.9)%	\$ (2,267)	(3.6)%	\$ 1,057	(46.6)%

  

	Nine months ended September 30,				Change	
	2024		2023			
	Amount	% of revenue	Amount	% of revenue	Amount	%
(in thousands, except percentages)						
Interest income	\$ 509	0.4%	\$ 133	0.1%	\$ 376	282.7%
Interest expense	(5,072)	(3.4)%	(6,301)	(4.0)%	1,229	(19.5)%
Other income (expense), net	1,957	1.3%	803	0.5%	1,154	143.7%
Total other income (expense), net	\$ (2,606)	(1.7)%	\$ (5,365)	(3.4)%	\$ 2,759	(51.4)%



[Table of Contents](#)

Interest income increased by \$0.09 million, or 140% for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. Interest income increased by \$0.38 million or 282.7% for the nine months ended September 30, 2024 compared to the same period ended September 30, 2023. The increases were due to higher saving balances and higher interest rate on our saving account in the first three quarters of 2024.

Interest expense decreased by \$0.3 million, or 14.4% for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. Interest expense decreased by \$1.2 million, or 19.5% for the nine months ended September 30, 2024 compared to the same period ended September 30, 2023. The decreases were due to the termination of the loan with CIT Northbridge in November 2023.

Other income (expenses) increased by \$0.7 million, or 198% for the three months ended September 30, 2024 compared to the three months ended September 30, 2023. Other income (expenses) increased by \$1.2 million, or 143.7%, for the nine months ended September 30, 2024 compared to the same period ended September 30, 2023. These increases were mainly due to the resolution of legal matters, increased government subsidy income and positive foreign exchange impact.

#### *Benefit (provision) for income taxes*

The Company's effective tax rate for the three months ended September 30, 2024 and 2023 was 0%. The effective tax rate varied from the federal statutory rate of 21% primarily due to the change of the valuation allowance on federal, state, Taiwan, and China deferred tax assets ("DTA").

On August 9, 2022, the Creating Helpful Incentives to Produce Semiconductors Act ("CHIPS Act") was enacted. Among its provisions, the bill provides various federal grants, tax credits, and incentives for investment in the United States. On August 16, 2022, the Inflation Reduction Act ("IRA") was also signed into law. Among other provisions, the IRA imposes a 15% corporate alternative minimum tax ("Corporate AMT") for tax years beginning after December 31, 2022, imposes a 1% excise tax on corporate stock repurchases after December 31, 2022, and provides tax incentives to promote various energy efficient initiatives. To the extent that we make investments in expanding manufacturing in our semiconductor fabrication facility in Texas, we believe that the CHIPS Act would provide a refundable tax credit for certain equipment and facilities upgrades. We made significant such investments in the nine months ended September 30, 2024, but we intend to continue to evaluate future investments for applicability to the tax credit provisions of the CHIPS Act.

#### *Comprehensive Loss*

	Three months ended September 30,				Change	
	2024		2023			
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Net loss	\$ (17,757)	(27.3)%	\$ (8,953)	(14.3)%	\$ (8,804)	98.3%
Loss on foreign currency translation adjustment	2,240	3.4%	(718)	(1.1)%	2,958	(412.0)%
Comprehensive loss	<u>\$ (15,517)</u>	<u>(23.9)%</u>	<u>\$ (9,671)</u>	<u>(15.4)%</u>	<u>\$ (5,846)</u>	<u>60.4%</u>
	Nine months ended September 30,				Change	
	2024		2023			
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Net loss	\$ (67,042)	(45.0)%	\$ (42,190)	(26.8)%	\$ (24,852)	58.9%
Loss on foreign currency translation adjustment	(268)	(0.2)%	(4,371)	(2.8)%	\$ 4,103	(93.9)%
Comprehensive loss	<u>\$ (67,310)</u>	<u>(45.2)%</u>	<u>\$ (46,561)</u>	<u>(29.6)%</u>	<u>\$ (20,749)</u>	<u>44.6%</u>

## [Table of Contents](#)

Comprehensive loss increased by \$5.8 million, or 60.4%, for the three months ended September 30, 2024 as compared to the three months ended September 30, 2023. Comprehensive loss increased by \$20.7 million, or 44.6%, for the nine months ended September 30, 2024 as compared to the same period ended September 30, 2023. The changes were primarily due to increase of net loss of \$8.8 million and \$24.9 million for the three months ended September 30, 2024 and 2023 and the nine months ended September 30, 2024 and 2023, respectively, and offset by foreign currency translation adjustments for non-U.S. dollar functional currency operations of \$3.0 million and \$4.1 million, respectively.

The functional currency for the Company's operations is generally the applicable local currency. Accordingly, the assets and liabilities of companies whose functional currency is other than the U.S. dollar are included in the consolidated financial statements by translating the assets and liabilities into the U.S. dollar at the exchange rates applicable at the end of the reporting period. Translation gains or losses are accumulated in other comprehensive income (loss) in the consolidated statements of shareholders' equity and are also included in comprehensive loss.

### Liquidity and Capital Resources

As of September 30, 2024, we had \$23.3 million of unused borrowing capacity from all of our loan agreements. As of September 30, 2024, our cash, cash equivalents and restricted cash totaled \$41.4 million. Cash and cash equivalents are held for working capital purposes and are invested primarily in money market or time deposit funds. We do not enter into investments for trading or speculative purposes.

### ATM Offerings

On January 5, 2023, the Company filed a Registration Statement on Form S-3 with the Securities and Exchange Commission, which was declared effective on March 21, 2023, providing for the public offer and sale of certain securities of the Company from time to time, at our discretion, up to an aggregate amount of \$185 million.

On March 13, 2024, we entered into an Equity Distribution Agreement (the "Agreement") with Raymond James & Associates (the "Sales Agent") pursuant to which the Company could issue and sell shares of the Company's common stock, par value \$0.001 per share (the "Shares") having an aggregate offering price of up to \$25 million (the "ATM Offering"), from time to time through the Sales Agent. Upon delivery of a placement notice and subject to the terms and conditions of the Agreement, sales of the Shares were made through the Sales Agent in transactions that are deemed to be "at the market" offerings as defined in Rule 415 of the Securities Act of 1933, as amended (the "Securities Act"), including sales made through the facilities of the Nasdaq Global Market, the principal trading market for the Company's common stock, on any other existing trading market for the Company's common stock, to or through a market maker or as otherwise agreed by the Company and the Sales Agent. In the placement notice, the Company would designate the maximum number of Shares to be sold through the Sales Agent, the time period during which sales were requested to be made, the minimum price for the Shares to be sold, and any limitation on the number of Shares that could be sold in any one day. Subject to the terms and conditions of the Agreement, the Sales Agent would use its commercially reasonable efforts to sell Shares on the Company's behalf up to the designated amount specified in the placement notice.

The Agreement provided that the Sales Agent would be entitled to compensation of up to 2% of the gross sales price of the Shares sold through the Sales Agent from time to time. The Company also agreed to reimburse the Sales Agent for certain specified expenses in connection with the registration of Shares under state blue sky laws and any filing with, and clearance of the offering by, the Financial Industry Regulatory Authority Inc., not to exceed \$10,000 in the aggregate, and any associated application fees incurred. The Company agreed to indemnify the Sales Agent against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that the Sales Agent could be required to make because of any of those liabilities.

On August 6, 2024, we entered into Amendment No. 1 to the Agreement with the Sales Agent to increase the aggregate offering price from \$25 million to \$60 million. As of September 30, 2024, we sold approximately 5.7 million shares of the Company's common stock with an aggregate offering price of approximately \$59.9 million under this ATM Offering.

The details of the shares of common stock sold through the ATM Offering are as follows (in thousands, except shares and weighted average per share price):

Distribution Agent	Month	Number of Shares Sold	Weighted Average Per Share Price	Gross Proceeds	Compensation to Distribution Agent	Net Proceeds
Raymond James & Associates, Inc.	March 2024	270,066	\$ 14.7664	\$ 4,000	\$ 80	\$ 3,920
Raymond James & Associates, Inc.	May 2024	718,605	12.0967	8,693	174	8,519
Raymond James & Associates, Inc.	June 2024	760,055	10.2962	7,826	157	7,669
Raymond James & Associates, Inc.	August 2024	2,922,581	9.0695	26,506	530	25,976
Raymond James & Associates, Inc.	September 2024	1,005,726	12.8019	12,875	257	12,618
Total		<u>5,677,033</u>		<u>\$ 59,900</u>	<u>\$ 1,198</u>	<u>\$ 58,702</u>

On November 6, 2024, the Company provided notice of termination, effective on such date, of the Agreement in connection with this ATM Offering. As of the termination date, the ATM Offering had generated total gross proceeds of \$59.9 million.

## Note Offerings

On December 5, 2023, the Company issued \$80.2 million of 5.25% convertible senior notes due 2026 (the "2026 Notes"), bearing interest at a rate of 5.25% per year maturing on December 5, 2026, unless earlier repurchased, redeemed or converted in accordance with their terms. The sale of the 2026 Notes generated net proceeds of \$76.2 million, after expenses. Also, refer to Note 12 "Convertible Senior Notes" to the consolidated financial statements for further discussion of the 2026 Notes.

## Operating activities

The table below sets forth selected cash flow data for the periods presented (in thousands):

	Nine months ended September 30,	
	2024	2023
Net cash provided by (used in) operating activities	\$ (44,910)	\$ (9,479)
Net cash (used in) investing activities	(21,427)	(5,158)
Net cash provided by (used in) financing activities	52,468	9,276
Effect of exchange rates on cash and cash equivalents	139	1,015
Net decrease in cash and cash equivalents	<u>\$ (13,730)</u>	<u>\$ (4,346)</u>

For the nine months ended September 30, 2024, net cash used in operating activities was \$44.9 million. Net cash used in operating activities consisted of our net loss of \$67.0 million after exclusion of non-cash items of \$32.4 million. Cash decreased due to accounts receivable increase of \$30.2 million, other receivables increase of \$2.4 million, inventory increase of \$2.8 million, offset by accounts payable increase of \$23.1 million.

For the nine months ended September 30, 2023, net cash used in operating activities was \$9.5 million. Net cash used in operating activities consisted of our net loss of \$42.2 million after exclusion of non-cash items of \$31.2 million. Cash increased due to an unearned revenue increase of \$9.5 million, together with a decrease in inventory of \$2.9 million, offset with a decrease in accounts payable of \$13 million and accrued liabilities of \$0.6 million, respectively.

## Investing activities

For the nine months ended September 30, 2024, net cash used in investing activities was \$21.4 million, mainly for the purchase of additional plant, machinery and equipment.

For the nine months ended September 30, 2023, net cash used in investing activities was \$5.2 million, mainly for the purchase of additional plant, machinery and equipment.

## Financing activities

For the nine months ended September 30, 2024, net cash provided by financing activities was \$52.5 million. This increase was due to the net proceeds of \$58.7 million from the ATM Offerings, and an increase of \$5.9 million bank loans, offset by the net repayment of bank acceptance of \$5.7 million, cash settlement and other related tax payment of share-based compensation of \$5.8 million.

For the nine months ended September 30, 2023, net cash used in financing activities was \$9.3 million. This increase in cash was due to the net proceeds of \$32.2 million from our ATM Offering and \$2.4 million from bank acceptance payable, offset by the repayment of \$24.8 million to lines of credit.

## Loans and commitments

We have lending arrangements with two financial institutions in China. Currently, in the US, we do not have any lending arrangement. As of September 30, 2024, we were in compliance with the covenants in the lending arrangements. As of September 30, 2024, we had \$23.3 million of unused borrowing capacity.

On December 5, 2023, we issued \$80.2 million of 5.25% convertible senior notes due in 2026. The 2026 Notes mature on December 5, 2026, unless earlier repurchased, redeemed or converted in accordance with their terms. See Note 11 "Notes Payable and Long-term Debt" and Note 12 "Convertible Senior Notes" of our Condensed Consolidated Financial Statements for a description of our notes payable and long-term debt and convertible senior notes.

#### *China factory construction*

On February 8, 2018, we entered into a construction contract with Zhejiang Xinyu Construction Group Co., Ltd. for the construction of a new factory and other facilities at our Ningbo, China location. Construction costs for these facilities under this contract are estimated to total approximately \$27.5 million. As of September 30, 2024, construction of the building shell is complete, and approximately \$27.4 million of this total cost has been paid and the remaining portion will be paid in yearly installments for three years after final inspection. We anticipate additional expenses for building improvements to the factory and we are in the process of evaluating the timing of these expenditures and obtaining bids for any such work. Based on forecasts, we believe the factory will be placed in service in the year 2024 after the construction is completed for the building interior work. Property will be transferred from construction in progress to building and improvement at that time.

#### *Future liquidity needs*

We had cash, cash equivalents and restricted cash of \$41.4 million as of September 30, 2024, a decrease of approximately \$13.7 million compared to December 31, 2023. Our future capital requirements will depend on many factors including our growth rate, the timing and extent of spending to support our research and development efforts, the expansion of our sales and marketing activities, the introduction of new and enhanced products, the building improvement of a new factory and other facilities at our Ningbo, China location, changes in our manufacturing capacity and the continuing market acceptance of our products.

As of September 30, 2024, we had a total loan balance (excluding convertible notes) of \$29.5 million from various lenders in China and had \$23.3 million available borrowing capacity on existing credit lines. Should additional liquidity be needed, our Board may authorize issuance of additional common stock under an at-the-market offering in the future (see the discussion of "Liquidity and Capital Resources" in Item 2).

In the event we need additional liquidity, we will explore additional sources of liquidity. These additional sources of liquidity could include one, or a combination, of the following: (i) issuing equity or debt securities, (ii) incurring indebtedness secured by our assets and (iii) selling product lines, other assets and/or portions of our business. There can be no guarantee that we will be able to raise additional funds on terms acceptable to us, or at all.

#### **Contractual Obligations and Commitments**

Please refer to Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2023 for a complete discussion of its contractual obligations and commitments.

#### **Inflation**

The annual inflation rate in the US reduced to 3.4% in 2023. Even though inflation has slowed from the peak, it remained well above the Federal Reserve's objective of 2%. The annual inflation rate in Taiwan came down to 2.7% in 2023 from 2.95% in 2022. The cost of inflation was reflected in increases in shipping costs, labor rates, and in costs of some raw materials. We believe these decreases are related to the supply chain pressure easing and decreasing commodity prices, however the labor market is still tight, and the wage pressure is still high. We cannot be sure when or if prices will return to pre-pandemic levels. Compared to other major economies in the world, China has a stable level of inflation, which has not had a significant impact on our sales or operating results. We do not believe that inflation had a material impact on our business, financial condition, or results of operations during the three months ended September 30, 2024. However, there is no guarantee that we may increase selling prices or reduce costs to fully mitigate the effect of inflation on our costs, which may adversely impact our sales margins and profitability.

#### **Critical Accounting Policies and Estimates**

In our Annual Report for the year ended December 31, 2023 and in the Notes to the Financial Statements herein, we identify our most critical accounting policies. In preparing the financial statements, we make assumptions, estimates and judgments that affect the amounts reported. We periodically evaluate our estimates and judgments that are most critical in nature which are related to revenue recognition, allowance for credit losses, inventory reserves, impairment of long-lived assets, service and product warranties, share based compensation expense, estimated useful lives of property and equipment, and income taxes. Our estimates are based on historical experience and on our future expectations that we believe are reasonable. The combination of these factors forms the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results are likely to differ from our current estimates and those differences may be material.

### **Item 3. Quantitative and Qualitative Disclosures about Market Risk**

For quantitative and qualitative disclosures about market risk affecting the Company, see Item 7A – Quantitative and Qualitative Disclosures about Market Risk in our Annual Report for the fiscal year ended December 31, 2023. We do not believe the Company's exposure to market risk has changed materially since December 31, 2023.

### **Item 4. Controls and Procedures**

The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that 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 recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures 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 accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their control objectives.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2024. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective.

#### ***Changes in Internal Control over Financial Reporting***

There were no changes in our internal control over financial reporting during the three month period covered by this Quarterly Report on Form 10-Q, which were identified in connection with management's evaluation required by the Rules 13a-15(d) and 15d-15(d) under the Exchange Act that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## **Part II. Other Information**

### **Item 1. Legal Proceedings**

Information with respect to legal proceedings can be found in Note 18 to the Condensed Consolidated Financial Statements contained in Part 1, Item 1 of this report.

### **Item 1A. Risk Factors**

Investing in our common stock involves a high degree of risk. See Part I, Item 1A, Risk Factors, of our Annual Report on Form 10-K for the year ended December 31, 2023 for a detailed discussion of the risk factors affecting our Company. As of September 30, 2024, there have been no material changes to those risk factors.

## Item 5. Other Information

(a)

On November 6, 2024, the Company provided notice of its termination, effective on such date, of the Equity Distribution Agreement dated March 13, 2024 between the Company and Raymond James & Associates in connection with the Company's At-The-Market equity offering program (the "ATM program"). As previously reported, the Company could offer and sell shares of its common stock having an aggregate proceeds of up to \$60 million through Raymond James & Associates as sales agent. As of the termination date, the ATM program had generated total gross proceeds of \$59.9 million.

(b) None

### (c) Rule 10b5-1 Trading Plans

The adoption or termination of contracts, instructions or written plans for the purchase or sale of our securities by our Section 16 officers and directors for the three months ended September 30, 2024, each of which is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act ("Rule 10b5-1 Plan"), were as follows:

Name	Title	Action	Date Adopted	Expiration Date	Aggregate # of Securities to be Purchased/Sold
Richard B. Black(1)	Director	Adopt	8/13/2024	1/31/2025	30,000
Stefan Murry(2)	Chief Financial Officer	Adopt	9/18/2024	8/1/2025	48,000
<p>1. Richard B. Black, our Director, entered into a Rule 10b5-1 Plan on August 13, 2024. Mr. Black's plan provides for the potential sale of up to 30,000 shares of the Company's common stock. The plan expires on January 31, 2025, or upon the earlier completion of all authorized transactions under the plan.</p> <p>2. Stefan Murry, our Chief Financial Officer, entered into a Rule 10b5-1 Plan on September 18, 2024. Dr. Murry's plan provides for the potential sale of up to 48,000 shares of the Company's common stock. The plan expires on August 1, 2025, or upon the earlier completion of all authorized transactions under the plan.</p>					

## Item 6. Exhibits

See Exhibit Index.

### EXHIBIT INDEX

Number	Description
3.1*	<a href="#">Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Registrant's Current Report on Form 10-Q filed with the Securities and Exchange Commission on November 14, 2013).</a>
3.2*	<a href="#">Amended and Restated Certificate of Incorporation, as currently in effect (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 7, 2023).</a>
3.3*	<a href="#">Amended and Restated Bylaws, as currently in effect (filed as Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 14, 2013).</a>
4.1*	<a href="#">Common Stock Specimen (filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 15, 2015).</a>
4.2*	<a href="#">Indenture, dated as of March 5, 2019 between Applied Optoelectronics, Inc. and Wells Fargo Bank, National Association, as trustee, paying agent, and conversion agent (filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 5, 2019).</a>
4.3*	<a href="#">Form of Note representing the Company's 5.00% Convertible Senior Notes due 2024 (included as Exhibit A to the Indenture filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 5, 2019).</a>
4.4*	<a href="#">Indenture, dated as of December 5, 2023 between Applied Optoelectronics, Inc. and Computershare Trust Company, as trustee (filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 5, 2023).</a>
4.5*	<a href="#">Form of Note representing the Company's 5.25% Convertible Senior Notes due 2026 (included as Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 5, 2023).</a>
4.6*	<a href="#">First Supplemental Indenture, dated as of December 5, 2023, between Applied Optoelectronics, Inc. and Computershare Trust Company, N.A., as trustee (included as Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 5, 2023).</a>
31.1**	<a href="#">Certification of Chief Executive Officer pursuant to Exchange Act Rule, 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
31.2**	<a href="#">Certification of Chief Financial Officer pursuant to Exchange Act Rule, 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
32.1**	<a href="#">Certification pursuant to 18 U.S.C. 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Chief Executive Officer and Chief Financial Officer.</a>
101.INS**	Inline XBRL Instance – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH**	Inline XBRL Taxonomy Extension Schema Document.

101.CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104**	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

\* Incorporated herein by reference to the indicated filing.

\*\* Filed herewith.

**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.

**APPLIED OPTOELECTRONICS, INC.**

Date: November 7, 2024

By: /s/ STEFAN J. MURRY

STEFAN J. MURRY

Chief Financial Officer

*(principal financial officer and principal accounting officer)*



## Certification

I, Chih-Hsiang (Thompson) Lin, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Applied Optoelectronics, 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 necessary to 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 report;
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 Rules 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 equivalent 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: November 7, 2024

/s/ CHIH-HSIANG (THOMPSON) LIN  
CHIH-HSIANG (THOMPSON) LIN  
President and Chief Executive Officer

## Certification

I, Stefan J. Murry, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Applied Optoelectronics, 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 necessary to 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 report;
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 Rules 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 equivalent 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: November 7, 2024

/s/ STEFAN J. MURRY  
STEFAN J. MURRY  
Chief Financial Officer

**Certification**

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the U.S. Code (18 U.S.C. § 1350), Chih-Hsiang (Thompson) Lin, President and Chief Executive Officer of Applied Optoelectronics, Inc. (the "Company"), and Stefan J. Murry, Chief Financial Officer and Senior Vice President of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended September 30, 2024, to which this Certification is attached as Exhibit 32.1 (the "Quarterly Report") fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and
2. The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned have set their hands hereto as of the 7<sup>th</sup> day of November, 2024.

/s/ CHIH-HSIANG (THOMPSON) LIN  
CHIH-HSIANG (THOMPSON) LIN  
President and Chief Executive Officer

/s/ STEFAN J. MURRY  
STEFAN J. MURRY  
Chief Financial Officer

This certification accompanies the Quarterly 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 Applied Optoelectronics, 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 Quarterly Report), irrespective of any general incorporation language contained in such filing.