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, 2023

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	**76-0533927**
(State or other jurisdiction of incorporation or organization)	**(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	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

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

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

As of November 6, 2023 there were 35,536,578 shares of the registrant's Common Stock outstanding.

Applied Optoelectronics, Inc.
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Part I. Financial Information

Item 1. Condensed Consolidated Financial Statements

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

	September 30, 2023	December 31, 2022
ASSETS		
Current Assets		
Cash and cash equivalents	$ 21,940	$ 24,685
Restricted cash	9,301	10,902
Accounts receivable - trade, net of allowance of $1 and $28, respectively	60,751	61,175
Notes receivable	—	339
Inventories	67,533	79,679
Prepaid income tax	2	—
Prepaid expenses and other current assets	4,871	6,384
Total current assets	164,398	183,164
Property, plant and equipment, net	193,828	210,184
Land use rights, net	4,992	5,238
Operating right of use asset	4,992	5,566
Financing right of use asset	3	26
Intangible assets, net	3,626	3,699
Other assets, net	1,953	386
TOTAL ASSETS	$ 373,792	$ 408,263
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 34,854	$ 47,845
Bank acceptance payable	14,383	12,337
Accrued liabilities	16,383	17,222
Unearned revenue	10,073	3,000
Current lease liability - operating	1,059	1,041
Current lease liability - financing	49	63
Current portion of notes payable and long-term debt	31,323	57,074
Current portion of Convertible senior notes	80,124	—
Total current liabilities	188,248	138,582
Unearned revenue, Net of Current portion	2,424	—
Non-current lease liability - operating	4,767	5,505
Convertible senior notes	—	79,506
TOTAL LIABILITIES	195,439	223,593
Stockholders' equity:		
Common Stock; 80,000 shares authorized at $0.001 par value; 34,266 and 28,622 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively	34	29
Additional paid-in capital	431,766	391,526
Accumulated other comprehensive income	(2,188)	2,183
Accumulated deficit	(251,259)	(209,068)
TOTAL STOCKHOLDERS' EQUITY	178,353	184,670
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 373,792	$ 408,263

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,	
	2023	2022	2023	2022
Revenue, net	$ 62,547	$ 56,693	$ 157,193	$ 161,233
Cost of goods sold	42,373	46,944	$ 119,876	133,832
Gross profit	20,174	9,749	37,317	27,401
Operating expenses				
Research and development	9,457	9,206	26,633	27,021
Sales and marketing	3,035	2,385	7,631	7,107
General and administrative	14,368	11,654	39,870	33,908
Total operating expenses	26,860	23,245	74,134	68,036
Loss from operations	(6,686)	(13,496)	(36,817)	(40,635)
Other income (expense)				
Interest income	65	31	133	90
Interest expense	(1,989)	(1,621)	(6,301)	(4,431)
Other expense, net	(343)	(541)	803	(1,171)
Total other income (expense), net	(2,267)	(2,131)	(5,365)	(5,512)
Loss before income taxes	(8,953)	(15,627)	(42,182)	(46,147)
Income tax expense	—	—	(8)	—
Net loss	$ (8,953)	$ (15,627)	$ (42,190)	$ (46,147)
Net loss per share				
Basic	$ (0.27)	$ (0.56)	$ (1.39)	$ (1.67)
Diluted	$ (0.27)	$ (0.56)	$ (1.39)	$ (1.67)
Weighted average shares used to compute net loss per share:				
Basic	32,774,148	27,839,245	30,392,483	27,639,671
Diluted	32,774,148	27,839,245	30,392,483	27,639,671

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,	
	2023	**2022**	**2023**	**2022**
Net loss	$ (8,953)	$ (15,627)	$ (42,190)	$ (46,147)
Loss on foreign currency translation adjustment	(718)	(8,214)	(4,371)	(17,059)
Comprehensive loss	$ (9,671)	$ (23,841)	$ (46,561)	$ (63,206)

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, 2023 and 2022
(Unaudited, in thousands)

	Preferred Stock		Common Stock					
	Number of shares	Amount	Number of shares	Amount	Additional paid-in capital	Accumulated other comprehensive gain (loss)	Accumulated deficit	Stockholders' equity
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

	Preferred Stock		Common Stock					
	Number of shares	Amount	Number of shares	Amount	Additional paid-in capital	Accumulated other comprehensive gain (loss)	Accumulated deficit	Stockholders' equity
June 30, 2022	—	$ —	27,658	$ 28	$ 385,531	$ 7,226	$ (173,191)	$ 219,594
Issuance of restricted stock, net of shares withheld for employee tax	—	—	306	—	(111)	—	—	(111)
Share-based compensation	—	—	—	—	2,627	—	—	2,627
Public offering of common stock, net	—	—	94	—	269	—	—	269
Foreign currency translation adjustment	—	—	—	—	—	(8,214)	—	(8,214)
Net loss	—	—	—	—	—	—	(15,627)	(15,627)
September 30, 2022	—	$ —	28,058	$ 28	$ 388,316	$ (988)	$ (188,818)	$ 198,538

	Preferred Stock		Common Stock		Additional	Accumulated other	Accumulated	Stockholders'
	Number of shares	Amount	Number of shares	Amount	paid-in capital	comprehensive gain (loss)	deficit	equity
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

	Preferred Stock		Common Stock		Additional	Accumulated other	Retained	Stockholders'
	Number of shares	Amount	Number of shares	Amount	paid-in capital	comprehensive gain (loss)	earnings	equity
January 1, 2022	—	$ —	27,323	$ 27	$ 381,143	$ 16,071	$ (142,671)	$ 254,570
Issuance of restricted stock, net of shares withheld for employee tax	—	—	641	1	(339)	—	—	(338)
Share-based compensation	—	—	—	—	7,243	—	—	7,243
Public offering of common stock, net	—	—	94	—	269	—	—	269
Foreign currency translation adjustment	—	—	—	—	—	(17,059)	—	(17,059)
Net loss	—	—	—	—	—	—	(46,147)	(46,147)
September 30, 2022	—	$ —	28,058	$ 28	$ 388,316	$ (988)	$ (188,818)	$ 198,538

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)

	Nine months ended September 30, 2023	Nine months ended September 30, 2022
Operating activities:		
Net loss	$ (42,190)	$ (46,147)
Adjustments to reconcile net loss to net cash used in operating activities:		
Allowance of bad debt	(27)	(8)
Inventory reserve adjustment	7,454	3,852
Depreciation and amortization	15,499	17,698
Amortization of debt issuance costs	928	641
Loss (gain) on disposal of assets	2	(34)
Share-based compensation	8,587	7,243
Unrealized foreign exchange (gain) loss	(583)	2,443
Changes in operating assets and liabilities:		
Accounts receivable, trade	450	2,258
Trade Notes receivable	301	8,089
Prepaid income tax	(2)	1
Inventories	2,917	(12,734)
Other current assets	1,384	(2,251)
Operating right of use asset	345	665
Accounts payable	(12,992)	10,781
Accrued liabilities	(600)	(2,312)
Accrued Income Tax	(1)	—
Unearned revenue	9,497	—
Lease liability	(448)	(724)
Net cash used in operating activities	(9,479)	(10,539)
Investing activities:		
Purchase of property, plant and equipment	(2,915)	(2,450)
Proceeds from disposal of equipment	131	118
Deposits and prepaid for equipment	(1,948)	(488)
Purchase of intangible assets	(426)	(390)
Net cash used in investing activities	(5,158)	(3,210)
Financing activities:		
Principal payments of long-term debt and notes payable	—	(7,336)
Proceeds from line of credit borrowings	47,047	103,505
Repayments of line of credit borrowings	(71,834)	(97,298)
Proceeds from bank acceptance payable	42,118	33,891
Repayments of bank acceptance payable	(39,699)	(27,062)
Principal payments of financing lease	(15)	(14)
Exercise of stock options	(13)	—
Payments of tax withholding on behalf of employees related to share-based compensation	(640)	(337)
Proceeds from common stock offering, net	32,312	238
Net cash provided by financing activities	9,276	5,587
Effect of exchange rate changes on cash	1,015	1,601
Net decrease in cash, cash equivalents and restricted cash	(4,346)	(6,561)
Cash, cash equivalents and restricted cash at beginning of period	35,587	41,136
Cash, cash equivalents and restricted cash at end of period	$ 31,241	$ 34,575
Supplemental disclosure of cash flow information:		
Cash paid for:		
Interest, net of amounts capitalized	$ 6,054	$ 4,861
Income taxes	10	—
Non-cash investing and financing activities:		
Net change in accounts payable related to property and equipment additions	(12)	(192)
Net change in deposits and prepaid for equipment related to property and equipment additions	(473)	52

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: cable television ("CATV"), internet data center, 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 also 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 also 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 the CATV products.

Interim Financial Statements

The unaudited condensed consolidated financial statements of the Company as of September 30, 2023 and December 31, 2022 and for the three and nine months ended September 30, 2023 and September 30, 2022, 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, 2022. The results of operations for the three and nine months ended September 30, 2023 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 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, allowance for doubtful accounts, inventory reserve, impairment of long-lived assets, service and product warranty costs, share-based compensation expense, estimated useful lives of property and equipment, and taxes.

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

On September 15, 2022, the Company entered into a definitive purchase agreement (the "Purchase Agreement") with Yuhan Optoelectronic Technology (Shanghai) Co., Ltd (the "Purchaser") to divest the Company's manufacturing facilities located 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, the Company delivered a notice of termination to the Purchaser to terminate the Purchase Agreement as a result of the Purchaser's breach of or omission to observe certain of the Purchaser's obligations under the Purchase Agreement. As a result of the Company's delivery of the termination notice, the Purchase Agreement was terminated.

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, 2023, as compared to the significant accounting policies described in its 2022 Annual Report.

Recent Accounting Pronouncements

Recent Accounting Pronouncements Yet to be Adopted

To date, there have been no recent accounting pronouncement not yet effective that have significance, or potential significance, to our Consolidated Financial Statements.

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 category and is presented below (in thousands):

	Three months ended September 30,			
	2023	% of Revenue	2022	% of Revenue
CATV	$ 10,268	16.4%	$ 31,260	55.2%
Data Center	48,807	78.0%	17,697	31.2%
Telecom	3,074	5.0%	6,821	12.0%
FTTH	—	0.0%	—	0.0%
Other	398	0.6%	915	1.6%
Total Revenue	$ 62,547	100.0%	$ 56,693	100.0%

	Nine months ended September 30,			
	2023	% of Revenue	2022	% of Revenue
CATV	$ 47,391	30.1%	$ 79,953	49.6%
Data Center	96,731	61.5%	60,608	37.5%
Telecom	11,013	7.0%	18,362	11.4%
FTTH	57	0.1%	124	0.1%
Other	2,001	1.3%	2,186	1.4%
Total Revenue	$ 157,193	100.0%	$ 161,233	100.0%

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 date. Unearned revenue balance as of September 30, 2023 and December 31, 2022 was $12.5 million and $3 million, respectively. For the three months ended September 30, 2023 and 2022, revenue recognized from the unearned revenue balance was $1.9 million and $0 million, respectively. For the nine months ended September 30, 2023 and 2022, revenue recognized from the unearned revenue balance was $3.1 million and $0 million, respectively.

Note 4. Leases

The Company leases space under non-cancellable operating leases for manufacturing facilities, 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 $0.3 million for the three months ended September 30, 2023 and 2022, respectively; the lease expense was $0.9 million for the nine months ended September 30, 2023 and was $1 million for the nine months ended September 30, 2022. Th e components of lease expense were as follows for the periods indicated (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Operating lease expense	$ 287	$ 283	$ 849	$ 882
Financing lease expense	8	8	24	24
Short Term lease expense	3	34	9	55
Total lease expense	$ 298	$ 325	$ 882	$ 961

Maturities of lease liabilities are as follows for the future one-year periods ending September 30, 2023 (in thousands):

	Operating	Financing
2024	$ 1,241	$ 49
2025	1,248	—
2026	1,110	—
2027	1,028	—
2028	1,038	—
2029 and thereafter	699	—
Total lease payments	6,364	49
Less imputed interest	(538)	—
Present value	$ 5,826	$ 49

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

	Nine months ended September 30,	
	2023	2022
Weighted Average Remaining Lease Term (Years) - operating leases	5.33	6.41
Weighted Average Remaining Lease Term (Years) - financing leases	0.08	1.08
Weighted Average Discount Rate - operating leases	3.28%	3.22%
Weighted Average Discount Rate - financing leases	5.00%	5.00%

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

	Nine months ended September 30,	
	2023	2022
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	$ 934	$ 903
Operating cash flows from financing lease	3	3
Financing cash flows from financing lease	15	14

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, 2023	December 31, 2022
Cash and cash equivalents	$ 21,940	$ 24,685
Restricted cash	9,301	10,902
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	$ 31,241	$ 35,587

Restricted cash includes guarantee deposits for customs duties, China government subsidy fund, and compensating balances associated with certain credit facilities. As of September 30, 2023 and December 31, 2022, there was $6.2 million and $8.7 million of restricted cash required for bank acceptance notes issued to vendors, respectively. In addition, there was $2.5 million and $1.1 million certificate of deposit associated with credit facilities with a bank in China as of September 30, 2023 and December 31, 2022, respectively. There was $0.7 million and $1.0 million guarantee deposits for customs duties as of September 30, 2023 and December 31, 2022, respectively.

Note 6. Earnings (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,	
	2023	2022	2023	2022
Numerator:				
Net loss	$ (8,953)	$ (15,627)	$ (42,190)	$ (46,147)
Denominator:				
Weighted average shares used to compute net loss per share				
Basic	32,774	27,839	30,392	27,640
Diluted	32,774	27,839	30,392	27,640
Net loss per share				
Basic	$ (0.27)	$ (0.56)	$ (1.39)	$ (1.67)
Diluted	$ (0.27)	$ (0.56)	$ (1.39)	$ (1.67)

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,	
	2023	2022	2023	2022
Employee stock options	8	—	—	—
Restricted stock units	2,650	322	973	—
Shares for convertible senior notes	4,587	4,587	4,587	4,587
Total antidilutive shares	7,245	4,909	5,560	4,587

Note 7. Inventories

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

	September 30, 2023	December 31, 2022
Raw materials	$ 26,566	$ 25,732
Work in process and sub-assemblies	32,838	39,563
Finished goods	8,129	14,384
Total inventories	$ 67,533	$ 79,679

For the three months ended September 30, 2023 and 2022, the inventory reserve adjustment expensed for inventory was $2.4 million, and $1.4 million, respectively. For the nine months ended September 30, 2023 and 2022, the inventory reserve adjustment expensed for inventory was $7.5 million, and $3.9 million, respectively.

For the three months ended September 30, 2023 and 2022, the direct inventory write-offs related to scrap, discontinued products, and damaged inventories were $1.5 million and $1.1 million, respectively. For the nine months ended September 30, 2023 and 2022, the direct inventory write-offs related to scrap, discontinued products, and damaged inventories were $8.4 million and $3.8 million, respectively.

Note 8. Property, Plant & Equipment

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

	September 30, 2023	December 31, 2022
Land improvements	$ 806	$ 806
Buildings and improvements	85,006	86,372
Machinery and equipment	245,802	251,216
Furniture and fixtures	5,309	5,382
Computer equipment and software	11,449	11,713
Transportation equipment	653	679
	349,025	356,168
Less accumulated depreciation and amortization	(185,824)	(177,519)
	163,201	178,649
Construction in progress	29,526	30,434
Land	1,101	1,101
Total property, plant and equipment, net	$ 193,828	$ 210,184

For the three months ended September 30, 2023 and 2022, the depreciation expense of property, plant and equipment was $4.8 million and $5.5 million, respectively. For the nine months ended September 30, 2023 and 2022, the depreciation expense of property, plant and equipment was $15 million and $17.2 million, respectively. For the three months ended September 30, 2023 and 2022, the capitalized interest was $0 million and $0 million, respectively.

As of September 30, 2023, 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, 2023		
	Gross Amount	Accumulated amortization	Intangible assets, net
Patents	$ 9,363	$ (5,805)	$ 3,558
Trademarks	95	(27)	68
Total intangible assets	$ 9,458	$ (5,832)	$ 3,626

	December 31, 2022		
	Gross Amount	Accumulated amortization	Intangible assets, net
Patents	$ 8,994	$ (5,330)	$ 3,664
Trademarks	56	(21)	35
Total intangible assets	$ 9,050	$ (5,351)	$ 3,699

For the three months ended September 30, 2023 and 2022, amortization expense for intangible assets, included in general and administrative expenses on the statement of operations, was each $0.2 million. For the nine months ended September 30, 2023 and 2022, amortization expense for intangible assets, included in general and administrative expenses on the statement of operations, was each $0.5 million. The remaining weighted average amortization period for intangible assets is approximately 5.4 years.

At September 30, 2023, future amortization expense for intangible assets for future one year periods is estimated to be (in thousands):

2024	$ 668
2025	668
2026	668
2027	668
2028	668
2029 and thereafter	286
	$ 3,626

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, 2023 was $85.2 million and $56.5 million, respectively. As of December 31, 2022, the fair value and carrying amount of our convertible senior notes was $58.3 million and $79.5 million, respectively. 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, 2023	December 31, 2022
Revolving line of credit with a U.S. bank up to $27.780 million with interest at 9.190%, maturing the earlier of either 12/14/2023 or 11/16/2025 if the convertible debt remains in effect	—	$ 25,000
Revolving line of credit with a China bank up to $19.04 million with interest from 4.57% to 6.12%, maturing May 24, 2024	13,413	13,102
Credit facility with a China bank up to $26.65 million with interest of 4.45% ~ 6.6%, maturing June 6, 2027	18,802	20,140
Credit facility with a China bank up to $728 with interest of 2.7%, maturing November 23, 2023	—	—
Sub-total	32,215	58,242
Less debt issuance costs, net	(892)	(1,168)
Grand total	31,323	57,074
Less current portion	(31,323)	(57,074)
Non-current portion	$ —	$ —
Bank Acceptance Notes Payable		
Bank acceptance notes issued to vendors with a zero percent interest rate	$ 14,383	$ 12,337

The current portion of long-term debt is the amount payable within one year of the balance sheet date of September 30, 2023.

Maturities of long-term debt are as follows for the future one-year periods ending September 30, 2023 (in thousands):

Within one year	$ 31,323
Beyond one year	—
Total outstanding	$ 31,323

On November 16, 2022, the Company entered into a Loan Security and Guarantee Agreement (the "Credit Facility") with CIT Northbridge Credit, LLC ("CIT"), as agent for secured parties. The Credit Facility provides the Company with a three-year, $27.78 million revolving line of credit. Borrowings under the Credit Facility will be used for working capital needs, capital expenditures, and other corporate purposes. The Company's obligations under the Credit Facility are secured by the Company's inventory, accounts receivable, instruments, equipment, intellectual property, and all business assets with the exception of real estate and all foreign assets. Borrowings will bear interest at a rate equal to the Secured Overnight Financing Rate (SOFR) plus 3.75%, while monthly average usage is less than 50% of the Credit Facility, otherwise SOFR plus 4.75%. The Credit Facility will become due at the earlier date of either November 16, 2025 or 91 days prior to the maturity of the Convertible Notes. As of September 30, 2023, $0 was outstanding under the Credit Facility. On August 16, 2023, the Company delivered a termination notice to CIT to terminate the Credit Facility. As a result of the Company's delivery of such termination notice, the Credit Facility will be terminated effective as of November 17, 2023.

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. As of September 30, 2023, $13.4 million was outstanding under the SPD Credit Line and the outstanding balance of bank acceptance notes issued to vendors was $10.8 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 ("¥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. As of September 30, 2023, $18.8 million was outstanding under the ¥200M Credit Facility and the outstanding balance of bank acceptance notes issued to vendors was $3.6 million.

As of September 30, 2023 and December 31, 2022, the Company had $42.2 million and $13.3 million of unused borrowing capacity, respectively.

As of September 30, 2023 and December 31, 2022, there was $9.3 million and $9.9 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 "Notes"). The Notes were issued pursuant to an indenture, dated as of March 5, 2019 (the "Indenture"), between the Company and Wells Fargo Bank, National Association, as trustee, paying agent, and conversion agent (the "Trustee"). The Notes bear interest at a rate of 5.00% per year, payable in cash semi-annually in arrears on March 15 and September 15 of each year, beginning on September 15, 2019. The Notes will mature on March 15, 2024, unless earlier repurchased, redeemed or converted in accordance with their terms.

The sale of the Notes generated net proceeds of $76.4 million, after deducting the Initial Purchasers’ discounts and offering expenses payable by the Company. The Company used approximately $37.8 million of the net proceeds from the offering to fully repay the CapEx Loan and Term Loan with Truist Bank and the remainder will be used for general corporate purposes.

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

	September 30, 2023	December 31, 2022
Principal	$ 80,500	$ 80,500
Unamortized debt issuance costs	(376)	(994)
Net carrying amount	$ 80,124	$ 79,506

The Notes are convertible at the option of holders of the Notes at any time until the close of business on the scheduled trading day immediately preceding the maturity date. Upon conversion, holders of the Notes will receive shares of the Company’s common stock, together, if applicable, with cash in lieu of any fractional share, at the then-applicable conversion rate. The initial conversion rate is 56.9801 shares of the Company’s common stock per $1,000 principal amount of Notes (representing an initial conversion price of approximately $17.55 per share of common stock, which represents an initial conversion premium of approximately 30% above the closing price of $13.50 per share of the Company’s common stock on February 28, 2019), subject to customary adjustments. If a make-whole fundamental change (as defined in the Indenture) occurs, and in connection with certain other conversions before March 15, 2022, the Company will in certain circumstances increase the conversion rate for a specified period of time.

Initially and as of September 30, 2023, there are no guarantors of the Notes, but the Notes will be fully and unconditionally guaranteed, on a senior, unsecured basis by certain of the Company’s future domestic subsidiaries. The 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 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 are 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 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.

Holders may require the Company to repurchase their Notes upon the occurrence of a fundamental change (as defined in the Indenture) at a cash purchase price equal to the principal amount thereof plus accrued and unpaid interest, if any.

After March 15, 2022, the Company may redeem for cash all or part of the Notes if the last reported sale price per share of the Company’s common stock exceeds 130% of the conversion price on (i) 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 (ii) the trading day immediately before the date the Company sends such redemption notice. The redemption price is equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. In addition, calling any Note for redemption will constitute a "make-whole fundamental change" with respect to that Note, in which case the conversion rate applicable to the conversion of that Note will be increased in certain circumstances if it is converted after it is called for redemption.

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.

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 ASC 470-20, Debt with Conversion and Other Options. The Company determined that notes should be accounted for in their entirety as a liability.

The Company incurred approximately $4.1 million in transaction costs in connection with the issuance of the 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 Notes (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Contractual interest expense	$ 1,006	$ 1,006	$ 3,019	$ 3,019
Amortization of debt issuance costs	208	208	618	618
Total interest cost	$ 1,214	$ 1,214	$ 3,637	$ 3,637
Effective interest rate	5.1%	5.1%	5.1%	5.1%

Note 13. Accrued Liabilities

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

	September 30, 2023	December 31, 2022
Accrued payroll	$ 9,015	$ 9,702
Accrued employee benefits	3,129	3,265
Accrued state and local taxes	1,468	588
Accrued interest	550	1,597
Accrued shipping and tariff expenses	122	—
Advanced payments	160	216
Accrued commission expenses	764	937
Accrued professional fees	240	409
Accrued product warranty	148	140
Accrued capital expenditure	67	—
Accrued other	720	368
Total accrued liabilities	$ 16,383	$ 17,222

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,	
	2023	2022	2023	2022
Foreign exchange transaction loss	$ (435)	$ (598)	$ (259)	$ (1,409)
Government subsidy income	77	49	910	150
Other non-operating gain	10	9	154	54
Gain (loss) on disposal of assets	5	(1)	(2)	34
Total other income (expenses) , net	$ (343)	$ (541)	$ 803	$ (1,171)

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 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. Prior to the Company’s initial public offering in September 2013, the fair market value of the Company’s stock had been historically determined by the board of directors and from time to time with the assistance of third-party valuation specialists.

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)			
Outstanding at January 1, 2023	263	$ 10.41		$ 5.45	0.71	$ -
Exercised	(32)	10.03		5.14	-	152
Forfeited	(180)	9.50		5.03	-	266
Outstanding, September 30, 2023	51	13.84		7.12	0.33	-
Exercisable, September 30, 2023	51	13.84		7.12	0.33	-
Vested and expected to vest	51	13.84		7.12	0.33	-

As of September 30, 2023, there was no unrecognized stock option expense.

Performance Based Incentive

The Company approved to grant restricted performance stock units ("PSUs") to senior executives as a part of our long-term equity compensation program starting from June 2021. The number of shares of common stock that will ultimately be issued to settle PSUs granted ranges from 0% to 200% of the number granted and is determined based on certain performance criteria over a three-year measurement period. The performance criteria for the PSUs are based on a combination of the performance of our stock price and the Total Shareholder Return ("TSR") for the performance period compared with the TSR of certain peer companies or index for the performance period. PSUs granted vest 100% on the third anniversary of their grant, assuming achievement of the applicable performance criteria. We estimated the fair value of the PSUs using a Monte Carlo simulation model on the date of grant. Compensation expense is recognized ratably over the explicit service period. The Company recognized PSU expenses for the three months ended September 30, 2023 and 2022 of $1.1 million and $0.5 million, respectively. The Company recognized PSU expenses for the nine months ended September 30, 2023 and 2022 of $2.0 million and $1.2 million, respectively.

The following is a summary of PSU 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, 2023	766		$ 6.75	$ 1,447
Granted	767		8.89	3,566
Released	—		—	—
Cancelled/Forfeited	—		—	—
Outstanding, September 30, 2023	1,533		7.82	16,813
Vested and expected to vest	1,533		7.82	16,813

As of September 30, 2023, there was $7.6 million of unrecognized compensation expense related to these PSUs. This expense is expected to be recognized over 2.3 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, 2023	2,210		$ 5.76	$ 4,175
Granted	2,174		4.70	10,207
Released	(1,062)		6.22	4,724
Cancelled/Forfeited	(111)		3.98	1214
Outstanding, September 30, 2023	3,211		4.95	35,223
Vested and expected to vest	3,211		4.95	35,223

As of September 30, 2023, there was $14.2 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,	
	2023	2022	2023	2022
Share-based compensation - by expense type				
Cost of goods sold	$ 123	$ 121	$ 393	$ 371
Research and development	358	343	1,135	1,019
Sales and marketing	300	231	786	643
General and administrative	2,454	1,932	6,273	5,210
Total share-based compensation expense	$ 3,235	$ 2,627	$ 8,587	$ 7,243

Note 16. Income Taxes

For the three months ended September 30, 2023 and 2022, 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, 2023 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 only property, plant, equipment and intangible assets (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Revenues:				
United States	$ 19,859	$ 2,027	$ 14,636	$ 5,732
Taiwan	37,194	46,716	113,851	111,700
China	5,494	7,950	28,706	43,801
	$ 62,547	$ 56,693	$ 157,193	$ 161,233

	As of the period ended	
	September 30, 2023	December 31, 2022
Long-lived assets:		
United States	$ 75,108	$ 80,048
Taiwan	44,324	50,777
China	88,009	93,888
	$ 207,441	$ 224,713

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.

The Company believes that there are no claims or actions pending or threatened against it, the ultimate disposition of which would have a material adverse effect on it.

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. In April 2023 the Company received a notice from an attorney representing the Administrative Hearings Section ("AHS") to issue a Position Letter. No updated action was taken in the third quarter.

Note 19. Subsequent Events

None.

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, 2023 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, 2022 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, 2022 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: CATV, internet data centers, telecom and 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 CATV, internet data center, telecom and FTTH markets which increasingly demand faster connectivity and innovation. Our vertically integrated manufacturing model provides us several advantages, including rapid product development, fast response times to customer requests and control over product quality and manufacturing costs.

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 CATV market, we benefit from a number of ongoing trends including the build-out of CATV infrastructure in the US and other countries, the move to higher bandwidth networks among CATV service providers and the outsourcing of system design among CATV networking equipment companies. Within the internet data center market, we benefit from the increasing use of higher-capacity optical networking technology as a replacement for copper cables, particularly as speeds reach 400 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. In the FTTH market, we benefit from continuing PON deployments and system upgrades 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) fabrication process, which we believe 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.

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, we entered into a definitive purchase agreement (the "Purchase Agreement") and announced the planned divestiture to sell the manufacturing facilities in the People's Republic of China and certain assets related to our transceiver business and multi-channel optical sub-assembly products to Yuhan Optoelectronic Technology (Shanghai) Co., Ltd. (the "Purchaser"). The purchase price payable by the Purchaser under the Purchase Agreement was an amount equal to the $150 million USD equivalent of Renminbi, less a holdback amount. 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 breach of or omission to observe certain of the Purchaser's obligations under the Purchase Agreement. As a result of the Company's delivery of the termination notice, the Purchase Agreement was terminated.

As a result of the termination of the Purchase Agreement, we will not realize the expected benefits of the proposed sale, and we have incurred transaction costs, including legal, accounting, financial, advisory and other costs relating to our proposed divestiture.

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, 2023		Three months ended September 30, 2022		Nine months ended September 30, 2023		Nine months ended September 30, 2022	
Revenue, net	$ 62,547	100.0%	$ 56,693	100.0%	$ 157,193	100.0%	$ 161,233	100.0%
Cost of goods sold	42,373	67.7%	46,944	82.8%	119,876	76.3%	133,832	83.0%
Gross profit	20,174	32.3%	9,749	17.2%	37,317	23.7%	27,401	17.0%
Operating expenses								
Research and development	9,457	15.0%	9,206	16.2%	26,633	16.9%	27,021	16.8%
Sales and marketing	3,035	4.9%	2,385	4.2%	7,631	4.9%	7,107	4.4%
General and administrative	14,368	23.0%	11,654	20.6%	39,870	25.4%	33,908	21.0%
Total operating expenses	26,860	42.9%	23,245	41.0%	74,134	47.2%	68,036	42.2%
Loss from operations	(6,686)	(10.6)%	(13,496)	(23.8)%	(36,817)	(23.5)%	(40,635)	(25.2)%
Other income (expense)								
Interest income	65	0.1%	31	0.1%	133	0.1%	90	0.1%
Interest expense	(1,989)	(3.2)%	(1,621)	(2.9)%	(6,301)	(4.0)%	(4,431)	(2.7)%
Other income, net	(343)	(0.5)%	(541)	(1.0)%	803	0.5%	(1,171)	(0.7)%
Total other income (expense), net	(2,267)	(3.6)%	(2,131)	(3.8)%	(5,365)	(3.4)%	(5,512)	(3.4)%
Loss before income taxes	(8,953)	(14.2)%	(15,627)	(27.6)%	(42,182)	(26.9)%	(46,146)	(28.6)%
Income tax expense	—	0.0%	—	0.0%	(8)	(0.0)%	—	0.0%
Net loss	$ (8,953)	(14.2)%	$ (15,627)	(27.6)%	$ (42,190)	(26.9)%	$ (46,146)	(28.6)%

Comparison of Financial Results

Revenue

We generate revenue through the sale of our products to equipment providers and network operators for the CATV, internet data center, telecom and FTTH 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, 2023 and 2022 (in thousands, except percentages):

	Three months ended September 30,				Change	
	2023	% of Revenue	2022	% of Revenue	Amount	%
CATV	$ 10,268	16.4%	$ 31,260	55.1%	$ (20,992)	(67.2)%
Data Center	48,807	78.0%	17,697	31.2%	31,110	175.8%
Telecom	3,074	5.0%	6,821	12.0%	(3,747)	(54.9)%
FTTH	—	0.0%	—	0.0%	—	0.0%
Other	398	0.6%	915	1.6%	(517)	(56.6)%
Total Revenue	$ 62,547	100.0%	$ 56,693	100.0%	$ 5,854	10.3%

	Nine months ended September 30,				Change	
	2023	% of Revenue	2022	% of Revenue	Amount	%
CATV	$ 47,391	30.1%	$ 79,953	49.6%	$ (32,562)	(40.7)%
Data Center	96,731	61.5%	60,608	37.5%	36,123	59.6%
Telecom	11,013	7.0%	18,362	11.4%	(7,349)	(40.0)%
FTTH	57	0.1%	124	0.1%	(67)	(54.2)%
Other	2,001	1.3%	2,186	1.4%	(185)	(8.4)%
Total Revenue	$ 157,193	100.0%	$ 161,233	100.0%	$ (4,040)	(2.5)%

The increase in revenue during the three months ended September 30, 2023 and 2022 was primarily due to more demand from major data center customers, partially offset by less demand from CATV customers. The decrease in revenue during the nine months ended September 30, 2023 and 2022 was primarily due to strong demand from major data center customers, offset by weak demand from CATV customers and telecom customers.

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 2023. We entered into a supply agreement with Microsoft to design certain datacenter 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.

For the three months ended September 30, 2023 and 2022, our top ten customers represented 96.1% and 86.1% of our revenue, respectively. For the nine months ended September 30, 2023 and 2022, our top ten customers represented 93.3% and 86.4% 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,					
	2023		2022		Change	
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
	(in thousands, except percentages)					
Cost of goods sold	$ 42,373	67.7%	$ 46,944	82.8%	$ (4,571)	(9.7)%
Gross margin	20,174	32.3%	9,749	17.2%	10,425	106.9%

	Nine months ended September 30,					
	2023		2022		Change	
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
	(in thousands, except percentages)					
Cost of goods sold	$ 119,876	76.3%	$ 133,832	83.0%	$ (13,957)	(10.4)%
Gross margin	37,317	23.7%	27,401	17.0%	9,916	36.2%

Cost of goods sold decreased by $4.6 million, or 9.7% for the three months ended September 30, 2023 as compared to the three months ended September 30, 2022, primarily due to less material cost. Cost of goods sold decreased by $14.0 million for the nine months ended September 30, 2023 as compared to the nine months ended September 30, 2022, primarily due to less material cost and continuing effort on cost savings.

Gross profit increased by $10.4 million, and gross margin increased by 106.9% for the three months ended September 30, 2023 as compared to the three months ended September 30, 2022, primarily as a result of more sales in our data center business with higher gross margin. Gross profit increased by $9.9 million, and gross margin increased by 36.2% for the nine months ended September 30, 2023 as compared to the nine months ended September 30, 2022, primarily as a result of less material cost and continuing effort on cost savings.

Operating expenses

	Three months ended September 30,					
	2023		2022		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Research and development	$ 9,457	15.1%	$ 9,206	16.2%	$ 251	2.7%
Sales and marketing	3,035	4.9%	2,385	4.2%	650	27.3%
General and administrative	14,368	23.0%	11,654	20.6%	2,714	23.3%
Total operating expenses	$ 26,860	43.0%	$ 23,245	41.0%	$ 3,615	15.5%

	Nine months ended September 30,					
	2023		2022		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Research and development	$ 26,633	16.9%	$ 27,021	16.8%	$ (387)	(1.4)%
Sales and marketing	7,631	4.9%	7,107	4.4%	524	7.4%
General and administrative	39,870	25.4%	33,908	21.0%	5,962	17.6%
Total operating expenses	$ 74,134	47.2%	$ 68,036	42.2%	$ 6,099	0.1%

Research and development expense

Research and development expense increased by $0.3 million, or 2.7% for the three months ended September 30, 2023 as compared to the three months ended September 30, 2022. The increases were primarily due to more personnel-related expense for hiring of engineers. Research and development expense decreased by $0.4 million, or 1.4% for the nine months ended September 30, 2023 as compared to the nine months ended September 30, 2022. The decreases were primarily due to less machine depreciation, less materials and supplies used in R&D activities combined with Asian currency exchange rate effects. Research and development costs consist of R&D work orders, R&D material usage and other project related costs related to 100 Gbps, 200/400 Gbps data center products, DOCSIS 3.1 capable CATV products and other new product development, and depreciation expense resulting from R&D equipment investments.

Sales and marketing expense

Sales and marketing expense increased by $0.7 million, or 27.3% for the three months ended September 30, 2023 as compared to the three months ended September 30, 2022. The increase was primarily due to the business development effort on quantum bandwidth products and higher shipping costs. Sales and marketing expense increased by $0.5 million, or 7.4% for the nine months ended September 30, 2023 as compared to the nine months ended September 30, 2022. The increase was primarily due to the business development effort on quantum bandwidth products.

General and administrative expense

General and administrative expense increased by $2.7 million, or 23.3% for the three months ended September 30, 2023 compared to the three months ended September 30, 2022. This increase was primarily due to an increase in personnel-related costs including share-based compensation expense and professional service fees incurred due to the transaction for China divestiture agreement. General and administrative expense increased by $5.9 million, or 17.6% for the nine months ended September 30, 2023 compared to the nine months ended September 30, 2022. This increase was primarily due to an increase in personnel-related costs including share-based compensation expense and professional service fees incurred due to the transaction for China divestiture agreement.

Other income (expense), net

	Three months ended September 30,					
	2023		2022		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Interest income	$ 65	0.1%	$ 31	0.1%	$ 34	109.8%
Interest expense	(1,989)	(3.2)%	(1,621)	(2.7)%	(368)	22.7%
Other income (expense), net	(343)	(0.5)%	(541)	(0.3)%	199	(36.7)%
Total other income (expense), net	$ (2,267)	(3.6)%	$ (2,131)	(2.9)%	$ (135)	6.3%

	Nine months ended September 30,					
	2023		2022		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%

	(in thousands, except percentages)					
Interest income	$ 133	0.1%	$ 90	0.1%	$ 43	47.6%
Interest expense	(6,301)	(4.0)%	(4,431)	(2.7)%	(1,871)	42.2%
Other income (expense), net	803	0.5%	(1,171)	(0.6)%	1,974	(168.6)%
Total other income (expense), net	$ (5,365)	(3.4)%	$ (5,512)	(3.2)%	$ 147	(2.7)%

Interest income increased 106.6% for the three months ended September 30, 2023 compared to the three months ended September 30, 2022. The increase is due to higher saving rates and balances.

Interest expense increased by $0.4 million, or 22.7% and $1.9 million, or 42.2% each for the three and six months ended September 30, 2023 compared to the three and six months ended September 30, 2022. This increase was due to higher average interest rate during the 2023 period.

Other income increased by $0.2 million, or 36.7%, for the three months ended September 30, 2023 as compared to the three months ended September 30, 2022. This increase was mainly due to less foreign exchange loss in 2023.

Other income increased by $2 million, or 168.6%, for the nine months ended September 30, 2023 as compared to the nine months ended September 30, 2022. This increase was mainly due to the other income received in the first half of 2023 from the China plant for several local government subsidized income in local city development plans and foreign currency gain arising from favorable exchange rate change.

Benefit (provision) for income taxes

	Three months ended September 30,			
	2023	2022	Change	
	(in thousands, except percentages)			
Benefit (provision) for income taxes	—	$ —	—	-

	Nine months ended September 30,			
	2023	2022	Change	
	(in thousands, except percentages)			
Benefit (provision) for income taxes	$ (8)	$ —	$ (8)	-

The Company’s effective tax rate for the three months ended September 30, 2023 and 2022 was 0%. For the six months ended September 30, 2023 and 2022, the Company’s effective tax rate 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. We are evaluating these laws and their potential impact on our current income tax expense and cash taxes. However, we currently do not believe this will have an impact on our taxes for the 2023 tax year.

Comprehensive Loss

	Three months ended September 30,				Change	
	2023		2022			
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Net loss	$ (8,953)	(14.3)%	$ (15,627)	(27.6)%	$ 6,674	(42.7)%
Loss on foreign currency translation adjustment	(718)	(1.1)%	(8,214)	(14.5)%	7,496	(91.3)%
Comprehensive loss	$ (9,671)	(15.4)%	$ (23,841)	(42.1)%	$ 14,170	(59.4)%

	Nine months ended September 30,				Change	
	2023		2022			
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Net loss	$ (42,190)	(26.8)%	$ (46,147)	(28.6)%	$ 3,957	(8.6)%
Loss on foreign currency translation adjustment	(4,371)	(2.8)%	(17,059)	(10.6)%	12,688	(74.4)%
Comprehensive loss	$ (46,561)	(29.6)%	$ (63,206)	(39.2)%	$ 16,645	(26.3)%

Comprehensive loss decreased by $14.2 million, or 59.4%, for the three months ended September 30, 2023 as compared to the three months ended September 30, 2022, primarily due to decrease of net loss of $6.6 million and decrease of $7.5 million in loss on foreign currency translation adjustments for non-U.S. dollar functional currency operations.

Comprehensive loss decreased by $16.6 million, or 26.3%, for the nine months ended September 30, 2023 as compared to the nine months ended September 30, 2022, primarily due to decrease of net loss of $4.0 million and decrease of $12.7 million in loss on foreign currency translation adjustments for non-U.S. dollar functional currency operations.

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, 2023, we had $42.2 million of unused borrowing capacity from all of our loan agreements. As of September 30, 2023, our cash, cash equivalents and restricted cash totaled $31.2 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. Pursuant to Rule 415(a)(6) under the Securities Act, the securities registered pursuant to this registration statement include unsold securities previously registered for sale pursuant to our previously filed Registration Statement on Form S-3, which became effective on January 9, 2020.

On March 24, 2023, we entered into an Equity Distribution Agreement (the "Agreement") with Raymond James & Associates (the "Sales Agent") pursuant to which the Company may 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 $35 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, if any, of the Shares will be 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 will designate the maximum number of Shares to be sold through the Sales Agent, the time period during which sales are requested to be made, the minimum price for the Shares to be sold, and any limitation on the number of Shares that may be sold in any one day. Subject to the terms and conditions of the Agreement, the Sales Agent will use its commercially reasonable efforts to sell Shares on the Company's behalf up to the designated amount specified in the placement notice. The Company has no obligation to sell any Shares under the Agreement and may at any time suspend offers and sales of the Shares under the Agreement.

The Agreement provides that the Sales Agent will 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 has 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. Additionally, if the Agreement is terminated under certain circumstances, and the Company fails to sell a minimum amount of the Shares as set forth in the Agreement, then the Company has agreed to reimburse the Sales Agent for reasonable out-of-pocket expenses, including the reasonable fees and disbursements of counsel incurred by the Sales Agent, up to a maximum of $30,000 in the aggregate. 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 may be required to make because of any of those liabilities.

On September 12, 2023, we entered into Amendment No. 1 to the Agreement with the Sales Agent, to increase the aggregate offering price from $35 million to $70 million. As of September 30, 2023, we have sold approximately 4.5 million shares of the Company's common stock with an aggregate offering price of approximately $32.6 million under the current 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.	June 2023	2,497	$ 4.0364	$ 10,081	$ 202	$ 9,879
Raymond James & Associates, Inc.	August 2023	1,150	11.6451	13,392	268	13,124
Raymond James & Associates, Inc.	September 2023	892	10.1840	9,083	182	8,901
Total		4,539		$ 32,556	$ 652	$ 31,904

Note Offering

On March 5, 2019, the Company issued $80.5 million of 5% convertible senior notes due 2024 (the "Notes"), bearing interest at a rate of 5% per year maturing on March 15, 2024, unless earlier repurchased, redeemed or converted in accordance with their terms. The sale of the Notes generated net proceeds of $76.4 million, after expenses. Also, refer to Note 12 "Convertible Senior Notes" to the consolidated financial statements for further discussion of the Notes.

Operating activities

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

	Nine months ended September 30,	
	2023	2022
Net cash used in operating activities	$ (9,479)	$ (10,539)
Net cash used in investing activities	(5,158)	(3,210)
Net cash provided by financing activities	9,276	5,587
Effect of exchange rates on cash and cash equivalents	1,015	1,601
Net decrease in cash and cash equivalents	$ (4,346)	$ (6,561)

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.

For the nine months ended September 30, 2022, net cash used in operating activities was $10.5 million. Net cash used in operating activities consisted of our net loss of $46.1 million after exclusion of non-cash items of $31.8 million. Cash decreased due to an increase in inventory of $12.7 million, a decrease in accrued liabilities of $2.3 million and an increase of $1.8 million in other receivables, offset with an increase in accounts payable of $11 million and a net decrease in accounts and trade notes receivable from our customers of $10.3 million.

Investing activities

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

For the nine months ended September 30, 2022, net cash used in investing activities was $3.2 million, mainly from the purchase of additional plant, machinery and equipment.

Financing activities

For the nine months ended September 30, 2023, net cash provided by 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.

For the nine months ended September 30, 2022, net cash provided by financing activities was $5.6 million. This increase in cash was due to $6.2 million net proceeds from lines of credit and $6.8 million net proceeds from acceptances, offset by repayment of loan of $7.3 million.

Loans and commitments

We have lending arrangements with several financial institutions. In the US, we have a revolving line of credit with CIT which will terminate on November 17, 2023. The line of credit contains financial covenants that may limit the amount and types of debt that we may incur. As of September 30, 2023, we were in compliance with these covenants.

As of September 30, 2023, we had $42.2 million of unused borrowing capacity.

On March 5, 2019, we issued $80.5 million of 5% convertible senior notes due in 2024. The Notes will mature on March 15, 2024, 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, 2023, 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 $31.2 million as of September 30, 2023, a decrease of approximately $4.4 million compared to December 31, 2022. 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, 2023, we had a total loan balance (excluding convertible notes) of $31.3 million from various lenders in the US and China and had $42.2 million available borrowing capacity on existing credit lines. Should additional liquidity be needed, our Board has authorized issuance of equity totaling up to $70 million under the ATM Offering (see the discussion of "Liquidity and Capital Resources" in Item 2).

On September 15, 2022, the Company entered into a definitive purchase agreement (the "Purchase Agreement") with Yuhan Optoelectronic Technology (Shanghai) Co., Ltd (the "Purchaser") to divest our manufacturing facilities in the People's Republic of China and certain assets related to our transceiver business and multi-channel optical sub-assembly products (collectively, the "Divestiture"). The purchase price to be paid by Purchaser under the Purchase Agreement was an amount equal to the $150 million USD equivalent of Renminbi, less a holdback amount. The Company originally anticipated that a portion of the funds from this transaction would be used to significantly enhance the Company's liquidity. However, the Company terminated the Purchase Agreement on September 12, 2023 as a result of the Purchaser's breach of or omission to observe certain of the Purchaser's obligations under the Purchase Agreement. As a result of the termination of the Purchase Agreement, we will not realize the expected benefits of the proposed sale.

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, 2022 for a complete discussion of its contractual obligations and commitments.

Inflation

The annual inflation rate in 2022 slowed down to 2.95% in Taiwan, which should remain the same in 2023 and was 6.5% in the US. Estimated inflation rate in the US is expected to continue to decline in 2023 based on U.S. Federal monetary policy "tapering" to address inflation.

Cost inflation included increases in shipping costs, labor rates, and costs of some raw materials. We currently believe these increases are related to the COVID-19 pandemic, however we cannot be sure when or if prices will return to pre-pandemic levels.

There is no guarantee that we can 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.

Compared to other major economies in the world, China has a low level of inflation or even in deflation, which has not had a significant impact on our sales or operating results.

Critical Accounting Policies and Estimates

In our Annual Report for the year ended December 31, 2022 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, 2022. We do not believe the Company's exposure to market risk has changed materially since December 31, 2022.

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, 2023. 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, 2022 for a detailed discussion of the risk factors affecting our Company. As of September 30, 2023, there have been no material changes to those risk factors, except as described below.

The termination of our proposed sale of our China manufacturing facilities could materially adversely affect our business, financial condition, and results of operations.

On September 15, 2022, AOI and Prime World International Holdings Ltd. (the "Seller"), which is a company incorporated in the British Virgin Islands and a wholly owned subsidiary of AOI, entered into a definitive agreement (the "Purchase Agreement") with Yuhan Optoelectronic Technology (Shanghai) Co., Ltd. (the "Purchaser") under which AOI 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 purchase price payable by the Purchaser to the Seller under the Purchase Agreement was an amount equal to the $150 million USD equivalent of Renminbi, less a holdback amount. 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 breach of or omission to observe certain of the Purchaser's obligations under the Purchase Agreement. As a result of the termination of the Purchase Agreement, we will not realize the expected benefits of the proposed sale, and we have incurred transaction costs, including legal, accounting, financial, advisory and other costs relating to our proposed divestiture. The termination of our proposed divestiture could disrupt our business and create uncertainty about our future, which could have a material and negative impact on our business, financial condition and results of operations. Since we are unable to successfully complete our proposed divestiture, the price of our securities could be impacted.

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Item 5. Other Information

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, 2023, 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
Shu-Hua (Joshua) Yeh (1)	SVP/Asia General Manager	Adoption	8/16/2023	7/31/2024	42,799
Stefan Murry (2)	CFO	Adoption	9/15/2023	3/31/2024	20,000

(1) Shu-Hua (Joshua) Yeh, our Senior Vice President and Asia General Manager, entered into a Rule 10b5-1 Plan on August 16, 2023. Mr. Yeh's plan provides for the potential sale of up to 42,799 shares of the Company's common stock. The plan expires July 31, 2024, or upon the earlier completion of all authorized transactions under the plan.
(2) Stefan Murry, our Chief Financial Officer, entered into a Rule 10b5-1 Plan on September 15, 2023. Dr. Murry's plan provides for the potential sale of up to 20,000 shares of the Company's common stock. The plan expires on March 31, 2024, or upon the earlier completion of all authorized transactions under the plan.

Item 6. Exhibits

See Exhibit Index.

EXHIBIT INDEX

Number	Description
2.1*	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, dated as of September 15, 2022, by and between Prime World International Holdings Ltd., Applied Optoelectronics, Inc. and Yuhan Optoelectronic Technology (Shanghai) Co., Ltd. (filed as Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 15, 2022).
3.1*	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).
3.2*	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).
4.1*	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).
4.2*	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).
4.3*	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).
10.1**	Applied Optoelectronics, Inc. 2023 Equity Inducement Plan
31.1**	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.
31.2**	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.
32.1**	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.
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 9, 2023

By: /s/ STEFAN J. MURRY
STEFAN J. MURRY
Chief Financial Officer
(principal financial officer and principal accounting officer)

APPLIED OPTOELECTRONICS, INC.
2023 EQUITY INDUCEMENT PLAN

1. **Purpose of the Plan.** The Company has adopted the 2023 Equity Inducement Plan to attract, retain and motivate new employees of the Company and its Related Companies by providing them the opportunity to acquire an equity interest in the Company and align their interests and efforts with the long-term interests of the Company's stockholders. Each Award under this Plan is intended to qualify as an employment inducement award pursuant to Listing Rule 5635(c) of the corporate governance rules of the NASDAQ Stock Market (the "Listing Rule"). The Plan will become effective on the date the Board approves the Plan (the "Effective Date").

2. **Definitions.** Capitalized terms used in the Plan have the meanings set forth in Appendix A.

3. **Administration.**

(a) **Administrator.** The Plan will be administered by the Compensation Committee of the Company, which shall be composed of two or more directors, each of whom is (i) a "non employee director" within the meaning of Rule 16b-3(b)(3) promulgated under the Exchange Act, or any successor definition adopted by the Securities and Exchange Commission, and (ii) an "independent" director within the meaning of any applicable stock exchange listing rules. All references in the Plan to the "Administrator" will be to the Compensation Committee.

(i) **Rule 16b-3**. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, those transactions will be structured to satisfy the requirements for exemption under Rule 16b-3, and thereafter any action related to the Award will be approved by the Administrator to the extent necessary for such exemption to remain available.

(b) **Powers of Administrator.** The Administrator will have full power and exclusive authority, subject to the terms of this Plan, restrictions under Applicable Law, and the delegation of authority from the Board, to:

(i) select which Eligible Persons will be granted Awards;

(ii) determine the type of Awards, number of shares of Common Stock covered by the Award, the Fair Market Value of the shares, and the terms and conditions of that Award (including when the Award may vest, be exercised (including prior to vesting), or settled, whether the Award carries rights to dividends or Dividend Equivalents, and whether the Award is to be settled in cash, shares of Common Stock, or other property) and the form of Award Agreement;

(iii) determine whether, to what extent and under what circumstances Awards may be amended (including to waive restrictions, accelerate vesting or extend exercise periods), tolled, cancelled or terminated;

(iv) interpret and administer the Plan, any Award Agreement and any other agreements or documents related to the administration of Awards;

(v) establish rules, and delegate ministerial duties to the Company's employees consistent with Applicable Law, for the proper administration of the Plan; and

(vi) make any other determination and take any other action that the Administrator deems necessary or desirable for administration of the Plan.

The Administrator's decisions will be final, conclusive and binding on all persons, including the Company, any Participant, any stockholder and any Eligible Person.

4. **Shares Subject to the Plan.**

(a) **Authorized Number of Shares.** Subject to adjustment from time to time as provided in this Plan, 800,000 shares of Common Stock will be available for issuance under the Plan (the "Share Reserve"). Shares issued under the Plan will be drawn from authorized and unissued shares or treasury shares.

(b) **Share Use.**

(i) No fractional shares may be issued under the Plan; however, cash shall be paid in lieu of any fractional Share in settlement of an Award.

(ii) The Administrator may grant Substitute Awards under the Plan. If the Board approves a written agreement between the Company and an Acquired Entity pursuant to which a merger or consolidation is completed and that agreement sets forth the terms and conditions of the substitution of outstanding awards of the Acquired Entity, the grant of those substitute awards will be deemed to be the action of the Administrator without any further action by the Administrator, and the persons holding the newly substituted Awards will be deemed to be Participants.

5. **Eligibility.** The Administrator may grant Awards to any new employee (including any officer) of the Company or a Related Company only as an incentive material to such employee entering into employment with the Company or any Related Company as provided in the Listing Rule; provided, however, that Awards may be granted only to employees who (a) were not previously an employee or director of the Company or any Related Company or (b) previously provided services to the Company or any Related Company as an employee or director, but subsequently have completed a period of bona fide non-employment by the Company or any Related Company sufficient for compliance with the Listing Rule.

6. **Provisions Applicable to All Awards.**

(a) **Grant Date**. Corporate action constituting a grant by the Company of an Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Administrator, regardless of when the instrument, certificate, or letter evidencing the Award is communicated to, received by, or accepted by, the Participant.

(i) **Clerical Errors**. If the Administrator's records (e.g., consents, resolutions or minutes) documenting the corporate action granting the Award contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Award Agreement as a result of a clerical error in the papering of the Award Agreement, the Administrator's records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement.

(ii) **Grants Prior to Start Date**. If the Administrator attempts to grant an Award effective as of a date in the future, and if the Award recipient is not employed by the Company or a Related Company as of that future date (either due to failure to commence employment by that future date or a Termination of Service), then as of that future date, the Award will be deemed null, void and of no force and effect without any further action by the Administrator, and the individual will have no rights, title or interests in or to the Award or the shares of Common Stock underlying the Award.

(b) **Evidence of Awards.** The Administrator will document all Awards by a written instrument (which may include electronic writings such as smart contracts and distributed ledger entries) that contains the material terms of the Award, including but not limited to the consideration to be paid to receive the award (including the Participant's services to the Company or a Related Company), the exercise or purchase price (if any), the vesting schedule (including any performance vesting triggers), and the Company's rights to repurchase or reacquire the shares subject to the Award.

(c) **Other Governing Documents**. The Administrator may require a Participant, as a condition to receiving shares under the Plan, to sign additional documentation as reasonably required by the Administrator for compliance with Applicable Laws and the orderly administration of the Plan.

(d) **Payments for Shares and Taxes.** The Administrator will determine the forms of consideration a Participant may use to pay the exercise or purchase price for shares issued under Awards and any withholding taxes or other amounts due in connection with Awards. A Participant must pay all consideration due in connection with the Award (including withholding taxes) before the Company will issue the shares being acquired. The Administrator may (but is not required to) permit the use of the following forms of consideration:

(i) cash or cash equivalent, including checks, wire transfers, ACH payments, and convertible virtual currencies;

(ii) having the Company withhold shares of Common Stock and any other consideration that would otherwise be issued under an Award that have an aggregate Fair Market Value on that date equal to the consideration owed to the Company, including in connection with a Change of Control (a “Withhold to Cover”);

(iii) tendering (either actually or, if and so long as the Common Stock is registered under Section 12(b) or 12(g) of the Exchange Act, by attestation) shares of Common Stock owned by the Participant free and clear of any liens, claims or other encumbrances that have an aggregate Fair Market Value on that date equal to the consideration owed to the Company, but only if the tender will not result in any adverse accounting consequences to the Company;

(iv) if and so long as the Common Stock is registered under Section 12(b) or 12(g) of the Exchange Act, and to the extent permitted by Applicable Laws, delivery of a properly executed agreement, together with irrevocable instructions to a brokerage firm designated or approved by the Company to deliver promptly to the Company the aggregate amount of proceeds to pay the consideration due to the Company, all in accordance with the regulations of the Federal Reserve Board (a “Public Sell to Cover”); and/or

(v) such other consideration as the Administrator may permit.

A Participant may request or authorize the Administrator to withhold amounts owed under this Plan from cash payments otherwise owed to the Participant by the Company or a Related Company. If a Participant engages in a Withhold to Cover transaction to pay for applicable tax withholdings, the value of the shares so withheld may not exceed the employer’s applicable maximum required tax withholding rate or such other applicable rate as is necessary to avoid adverse treatment for financial accounting purposes, as determined by the Administrator.

(e) **Vesting**. Unless otherwise provided by the Administrator, a Participant will cease vesting in an Award at the time of the Participant’s Termination of Service and the Participant will have no further rights, title or interests in or to the unvested portion of the Award following the Termination of Service.

(f) **Performance-Based Awards**. The Administrator may grant Awards subject to performance-based conditions. The Administrator may choose the performance-based conditions in its sole discretion, which may be determined on a Company-wide, divisional, business unit or individual basis and may include the Performance Metrics. The time period during which the performance-based conditions must be met will be called the “Performance Period.”

(g) **Change in Service; Leaves of Absence**. The Administrator will determine the effect on Awards of a Participant’s leave of absence or change in hours of employment. In general, if, after the Grant Date of any Award to a Participant, the Participant’s regular level of time commitment in the performance of the Participant’s services for the Company and any Related Companies is reduced (for example, and without limitation, if the Participant has a change in status from a full-time employee to a part-time employee, or if the Participant goes on a leave of absence without using paid vacation or sick days), the Administrator has the right in its sole discretion (and without the need to seek or obtain the consent of the affected Participant) to (i) make a corresponding reduction in the number of shares, other property or cash subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award (but only if the modification would not cause the Participant to incur penalties or additional taxation under Section 409A). If an Award is reduced, the Participant will have no right with respect to the portion of the Award that is so reduced.

(h) **Applicability of Award Terms to New Property**. If a Participant receives new or additional shares of Common Stock, other securities, other property, or cash in respect of an Award, those shares, securities, property and cash will be subject to all the same terms of the Plan and the Award Agreement as applied to the underlying shares of Common Stock subject to that Award.

(i) **Dividends and Dividend Equivalents**. The Administrator, in its discretion, may provide in the Award Agreement evidencing any Award that the Participant will be entitled to receive dividends or Dividend Equivalents with respect to the payment of cash dividends on Shares having a record date prior to the date on which the Awards are settled or forfeited. The dividends or Dividend Equivalents, if any, will be credited to an Award in such manner and subject to such terms and conditions as determined by the Administrator in its sole discretion subject to the provisions of the Plan. However, dividends and Dividend Equivalents will be subject to the same vesting provisions as the Awards to which they relate, and while amounts may accrue while the Award or Dividend Equivalent is unvested, the amounts payable with respect to Dividend Equivalents or dividends will not be paid before the Dividend Equivalent or the Award to which it relates vests. If a dividend or distribution is paid in shares of Common Stock or any other adjustment is made on a change in the capital structure of the Company as described in Section 12, appropriate adjustments will be made to the Participant's Award and the associated Dividend Equivalent so that it represents the right to receive on settlement any and all new, substituted or additional securities or other property (other than normal cash dividends) to which the Participant would be entitled by reason of the consideration issuable on settlement of the Award, and all such new, substituted or additional securities or other property will be immediately subject to the same vesting and settlement conditions as are applicable to the Award. Dividend Equivalents will be subject to the same Award Limits applicable to the underlying Award.

(j) **Recoupment**. All Awards are subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Law. The implementation of any clawback policy will not be deemed a triggering event for purposes of any definition of "good reason" for resignation or "constructive termination."

(k) **Investigations**. If a Participant's employment with the Company is suspended pending an investigation of whether the Participant will be terminated for Cause, all the Participant's rights under any Award will likewise be suspended during the period of investigation.

(l) **No Obligation to Notify or Minimize Taxes.** The Company and the Administrator will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising the Participant's rights under an Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award.

7. **Options & SARs.**

(a) **Exercise Price.**

(i) Generally, the Administrator may not grant Options or SARs with an exercise price per share less than 100% of the Fair Market Value of the Common Stock on the Grant Date.

(ii) The Administrator may grant Options or SARs with a price less than 100% of the Fair Market Value in the case of Substitute Awards.

(b) **Term.** The maximum term of an Option or SAR will be 10 years from the Grant Date, subject to earlier termination in accordance with the terms of the Plan and the Award Agreement.

(c) **Conditions to Exercise.**

(i) To exercise an Option or SAR, the Participant must deliver (A) the exercise agreement stating the number of shares being purchased and, if applicable, the account number or digital wallet address into which the shares should be deposited, (B) payment in full of the exercise price and any tax withholding obligations, and (C) any additional documents required by the Company as a condition to exercise. The Company will not initiate the settlement on the exercise of an Option or SAR until the Company has verified that all conditions necessary for the exercise of the Award have been satisfied (including compliance with Applicable Laws), all the foregoing steps have been completed and the Company initiates the issuance of the shares in the Participant's name. The Company will issue exercised shares promptly after the exercise.

(ii) The Administrator may modify the exercise agreement form and the procedure for exercise, from time to time, including after the Grant Date of an Award, without the Participant's consent. The Administrator may restrict exercise to those times when the exercise will not violate Applicable Laws. In addition, the Administrator may prohibit exercise during any "blackout" or "closed" trading windows under the Company's insider trading policies (as amended from time to time).

(iii) The Administrator may require than an Option may be exercised only for whole shares and for not less than a reasonable number of shares at any one time.

(d) **Non-Exempt Employees.** If an Option or SAR is granted to an employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least 6 months following the Grant Date of the Option or SAR (although the Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt employee dies or suffers a disability, (ii) on a Change of Control in which such Option or SAR is not assumed, continued, or substituted, or (iii) on the Participant's retirement (as such term may be defined in the Participant's Award Agreement or in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than 6 months following the Grant Date. The foregoing provision is intended to operate so that any income derived by a non-exempt employee from the exercise or vesting of an Option or SAR will be exempt from the employee's regular rate of pay. If required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee from the exercise, vesting or issuance of any shares under any other Award will be exempt from the employee's regular rate of pay, the provisions of this paragraph will apply to all Awards and are hereby incorporated by reference into such Award Agreements.

(e) **Effect of Termination of Service.** The Administrator will establish and define in the Award Agreement how an Option or SAR will be treated on a Termination of Service.

(f) **Extension Under Limited Circumstances**. The Administrator may provide that:

(i) if the exercise of an Option or SAR following the Termination of Service (other than upon the Participant's death or Disability) would result in liability under Section 16(b) of the Exchange Act, then the Award will terminate on the earlier of (A) the Award Expiration Date, or (B) the tenth (10th) day after the last date on which such exercise would result in liability under Section 16(b) of the Exchange Act; or

(ii) if the exercise of the Award following the Participant's Termination of Service (other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act or the Company's insider trading policy, then the Award will terminate on the earlier of (A) the Award Expiration Date or (B) the expiration of a period of thirty (30) days (or such longer period of time as determined by the Administrator in its sole discretion) after the Termination of Service during which the exercise of the Award would not be in violation of such registration requirements or insider trading policy requirements.

8. **Restricted Stock, Restricted Stock Units and Other Stock Based Awards.**

(a) **Restricted Stock.** The Administrator will specify whether the Award is a Restricted Stock Purchase Award or a Restricted Stock Bonus Award.

(i) **Section 83(b) Election**. The Administrator may require that the Participant deliver a completed copy of the Participant's Section 83(b) election, the taxes due in connection with that election and evidence of timely receipt of the Section 83(b) election by the Internal Revenue Service. If a Participant fails to satisfy these requirements, the Administrator will instruct the Company to withhold/remit (if applicable) taxes on, and report to the applicable taxing authorities, the income recognized on each subsequent vesting date of the Award in accordance with Applicable Law. In the alternative, the Administrator may grant the Award of Restricted Stock subject to a forfeiture condition whereby failure to satisfy these requirements results in the forfeiture of all unvested shares of Common Stock subject to the Award at the Participant's original purchase price (or for no consideration, in the case of a Restricted Stock Bonus Award).

(b) **Restricted Stock Units.**

(i) If the Administrator grants Restricted Stock Units intended to be exempt from Section 409A under Treasury Regulation Section 1.409A-1(b)(4), then (A) the Company will treat each installment of Restricted Stock Units that vests as a separate installment for purposes of Section 409A, and (B) the Company will deliver the vested shares of Common Stock (or other property or cash due on vesting) not later than the last day of the period determined under Treasury Regulation Section 1.409A-1(b)(4), which is incorporated by reference into this Plan.

(ii) If the Administrator grants Restricted Stock Units intended to be compliant deferred compensation under Treasury Regulation Section 1.409A-3, then (A) the Company will treat each installment of Restricted Stock Units that vests as a separate installment for purposes of Section 409A, and (B) if the Award Agreement fails to state at least one permitted distribution event or form of payment, the Award Agreement will be deemed to provide that the earlier to occur of a Change of Control and the date that is the first day of the 6th calendar year after the Grant Date as the permitted distribution dates and a lump sum payment as the form of payment.

(c) **Other Stock Awards**. The Administrator may grant or sell Awards that are valued in whole or in part by reference to, or are otherwise based on the Fair Market Value of, shares of the Company's Common Stock. The Administrator will determine the form of such Award and the terms and conditions to earning the Award in its sole discretion, including the number of shares referenced by the Award, the vesting schedule, whether it will be settled in Common Stock, cash or other property, and when it will be settled.

9. **Tax Matters.**

(a) **Withholding**. The Company will require the Participant to pay to the Company or a Related Company, as applicable, the amount of (i) any taxes that the Company or a Related Company is required by applicable federal, state, local or foreign law to withhold with respect to an Award and (ii) any other amounts due from the Participant to the Company, any Related Company or any governmental authority. The Company will not be required to issue any shares of Common Stock or otherwise settle an Award under the Plan until such tax withholding obligations and other obligations are satisfied. As a result, a Participant may not be able to exercise an Award or have an Award settled, even though the Award is vested, unless and until such obligations are satisfied. As a condition to acceptance of any Award under the Plan, (i) a Participant authorizes withholding by the Company or a Related Company from payroll and any other amounts payable to such Participant, and otherwise agree to make adequate provision for (including), any sums required to satisfy any U.S. federal, state, local and/or foreign tax or social insurance contribution withholding obligations of the Company or a Related Company which arise in connection with the Award and (ii) a Participant agrees to indemnify and hold the Company and the Related Companies harmless from any failure by the Company or a Related Company to withhold the proper amount. The Administrator makes no representations that Awards granted under the Plan will, and makes no undertaking to, minimize the tax impact to the Participant.

(b) **Section 409A**. The Company intends that the Plan and Awards granted under the Plan (unless otherwise expressly provided for in the Award Agreement and Administrator resolutions approving the Award) are exempt from the requirements of Section 409A to the maximum extent possible, whether pursuant to the short-term deferral exception described in Treasury Regulation Section 1.409A-1(b)(4), the exclusion applicable to stock options, stock appreciation rights and certain other equity-based compensation under Treasury Regulation Section 1.409A-1(b)(5) or 1.409A-1(b)(6), or otherwise. The Administrator will use reasonable best efforts to interpret, operate and administer the Plan and any Award granted under the Plan in a manner consistent with this intention. However, the Administrator makes no representations that Awards granted under the Plan will be exempt from or comply with Section 409A and makes no undertaking to preclude Section 409A from applying to Awards granted under the Plan.

(i) If Section 409A is applicable to any Award granted under the Plan (that is, to the extent not so exempt), the Administrator intends that the non-exempt Award will comply with the deferral, payout, plan termination and other limitations and restrictions imposed under Section 409A.

(ii) If necessary for exemption from, or compliance with, Section 409A:

(A) All references in the Plan or any Award granted under the Plan to the termination of the Participant's employment or service are intended to mean the Participant's "separation from service," within the meaning of Section 409A(a)(2)(A)(i).

(B) The Administrator will treat each installment that vests or is delivered under an Award in a series of payments or installments as a separate payment for purposes of Section 409A, unless expressly set forth in the Award Agreement that each installment is not a separate payment.

(C) If the Participant is a "specified employee," within the meaning of Section 409A, then if necessary to avoid subjecting the Participant to the imposition of any additional tax under Section 409A, amounts that would otherwise be payable under the Plan or any Award granted under the Plan during the 6-month period immediately following the Participant's "separation from service" will not be paid to the Participant during such period, but will instead be accumulated and paid to the Participant (or, in the event of the Participant's death, the Participant's estate) in a lump sum on the first business day after the earlier of the date that is 6 months following the Participant's separation from service or the Participant's death, unless the amounts can be paid in another manner that complies with Section 409A.

(D) If, after the Grant Date of an Award, the Administrator determines that an Award is reasonably likely to fail to be either exempt from or compliant with Section 409A, the Administrator reserves the right, but will not be required, to unilaterally (and without the affected Participant's consent) amend or modify the Plan and any Award granted under the Plan so that the Award qualifies for exemption from or complies with Section 409A. Any such amendment or modification made to avoid the imposition of adverse taxation under Section 409A will be deemed not to materially adversely impact the Participant.

(E) The right to any dividends or Dividend Equivalents declared and paid on the number of shares underlying an Option or a Stock Appreciation Right may not be contingent, directly or indirectly, on the exercise of the Option or Stock Appreciation Right and must otherwise comply with or qualify for an exemption under Section 409A. In addition, the right to any dividends or Dividend Equivalents declared and paid on Restricted Stock must comply with or qualify for an exemption under Section 409A.

10. **Restrictions on Transfer of Awards and Common Stock.**

(a) **No Transfer of Awards.** A Participant may not Transfer an Award or interest in an Award other than (i) Transfers on Participant's death by will or by the Applicable Laws of descent and distribution, and (ii) Transfers of vested shares of Common Stock after the period of restrictions have lapsed or been removed and the shares have been issued to the Participant, and subject to compliance with the Company's policies on trading in Company securities and Applicable Laws. In general, during a Participant's lifetime, only the Participant granted the Award may exercise the Award or purchase the shares under the Award. The Administrator may permit the Transfer of an Award or an interest in an Award if that Transfer complies with all Applicable Laws, such as a transfer to a trust if the Participant is considered the sole beneficial owner of the trust (as determined under Applicable Laws) or pursuant to a court-endorsed domestic relations order in a format acceptable to the Administrator.

(b) **Refusal to Transfer.** The Company will not be required (i) to Transfer on its books any shares of Common Stock that have been purportedly Transferred in violation of any of the provisions of this Plan, or (ii) to treat as owner of the shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom the shares have purportedly been so Transferred. In general, any Transfer or purported Transfer of an Award or of shares of Common Stock issued under the Plan in violation of the Plan will be null and void, will have no force or effect.

11. **Changes to Company's Common Stock.**

(a) If the Company undertakes a stock dividend, stock split, spin-off, combination or exchange of shares, recapitalization, merger, consolidation, distribution to stockholders other than a normal cash dividend, or other change in the Company's corporate or capital structure that constitutes an equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto) and that results in (i) the outstanding shares of Common Stock, or any securities exchanged therefor or received in their place, being exchanged for a different number or kind of securities of the Company or any other company or (ii) new, different or additional securities of the Company or any other company being received by the holders of shares of Common Stock, then the Administrator will make proportional adjustments in (A) the maximum number and kind of securities available for issuance under the Plan; (B) the maximum number and kind of securities subject to the Award Limits, and (C) the maximum number and kind of securities that are subject to any outstanding Award and the per share price of such securities, without any change in the aggregate price to be paid under the Award, in each case as necessary to prevent the diminution or enlargement of rights under this Plan. The determination by the Administrator as to the terms of any of the foregoing adjustments will be conclusive and binding. For clarity, the issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, for cash or property, or for labor or services rendered, either on direct sale or on the exercise of rights or warrants to subscribe therefor, or on conversion of shares or obligations of the Company convertible into such shares or other securities, will not affect, and no adjustment by reason thereof will be made with respect to, outstanding Awards.

(b) **Dissolution or Liquidation.** To the extent not previously exercised or settled, and unless otherwise determined by the Administrator in its sole discretion, Awards will terminate immediately prior to the dissolution or liquidation of the Company. If a vesting condition, forfeiture provision or repurchase right applicable to an Award has not been waived by the Administrator, the portion of the Award subject to that condition, provision or right will be forfeited immediately prior to the consummation of the dissolution or liquidation.

(c) **Change of Control.** The following provisions will apply to Awards in the event of a Change of Control unless otherwise provided in the Award Agreement or any other written agreement between the Company or any Related Company and the Participant. In the event of a Change of Control:

(i) All outstanding Awards that are subject to vesting based on continued employment with the Company or a Related Company shall become fully vested and immediately exercisable or payable, and all applicable restrictions or forfeiture provisions shall lapse, immediately prior to the Change of Control and such Awards shall terminate at the effective time of the Change of Control; provided, however, that with respect to a Change of Control that is a Company Transaction in which such Awards could be converted, assumed, substituted for or replaced by the Successor Company, such Awards shall become fully vested and exercisable or payable, all applicable restrictions or forfeiture provisions shall lapse, and such Awards shall terminate at the effective time of the Change of Control, only if and to the extent such Awards are not converted, assumed, substituted for or replaced by the Successor Company. If and to the extent that the Successor Company converts, assumes, substitutes for or replaces an Award, the vesting restrictions and/or forfeiture provisions applicable to such Award shall not be accelerated or lapse, and all such vesting restrictions and/or forfeiture provisions shall continue with respect to any shares of the Successor Company or other consideration that may be received with respect to such Award.

(ii) For the purposes of Section 11(c)(i), an Award shall be considered converted, assumed, substituted for or replaced by the Successor Company if following the Company Transaction the Award confers the right to purchase or receive, for each share of Common Stock subject to the Award immediately prior to the Company Transaction, the consideration (whether stock, cash or other securities or property) received in the Company Transaction by holders of Common Stock for each share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares); provided, however, that if such consideration received in the Company Transaction is not solely common stock of the Successor Company, the Administrator may, with the consent of the Successor Company, provide for the consideration to be received pursuant to the Award, for each share of Common Stock subject thereto, to be solely common stock of the Successor Company substantially equal in fair market value to the per share consideration received by holders of Common Stock in the Company Transaction. The determination of such substantial equality of value of consideration shall be made by the Administrator, and its determination shall be conclusive and binding.

(iii) All outstanding Awards that are subject to vesting based on the achievement of specified performance goals, and that are earned and outstanding as of the date the Change of Control is determined to have occurred, and for which the payout level has been determined, shall be payable in full in accordance with the payout schedule pursuant to the instrument evidencing the Award. Any remaining outstanding Awards that are subject to vesting based on the achievement of specified performance goals (including any applicable performance period) for which the payout level has not been determined shall be prorated based on actual results measured against the performance goals as of the Change of Control and shall be payable in accordance with the payout schedule pursuant to the instrument evidencing the Award. Any existing deferrals or other restrictions not waived by the Administrator in its sole discretion shall remain in effect. With respect to a Change of Control that is a Company Transaction in which such Awards could be converted, assumed, substituted for or replaced by the Successor Company, such Awards shall terminate at the effective time of the Change of Control if and to the extent such Awards are not converted, assumed, substituted for or replaced by the Successor Company.

(iv) Notwithstanding the foregoing, the Administrator, in its sole discretion, may instead provide in the event of a Change of Control that is a Company Transaction that a Participant's outstanding Awards shall terminate upon or immediately prior to such Company Transaction and that such Participant shall receive, in exchange therefor, a cash payment equal to the amount (if any) by which (A) the value of the per share consideration received by holders of Common Stock in the Company Transaction, or, in the event the Company Transaction is a transaction that does not result in direct receipt of consideration by holders of Common Stock, the value of the deemed per share consideration received, in each case as determined by the Administrator in its sole discretion, multiplied by the number of shares of Common Stock subject to such outstanding Awards (to the extent then vested and exercisable or whether or not then vested and exercisable, as determined by the Administrator in its sole discretion) exceeds (B) if applicable, the respective aggregate exercise price or grant price for such Awards.

(v) For the avoidance of doubt, nothing in this Section 11(c) requires all outstanding Awards to be treated similarly.

(d) **Further Adjustment of Awards.** The Administrator will have the discretion to take additional action as it determines to be necessary or advisable with respect to Awards. Such authorized action may include (but will not be limited to) establishing, amending or waiving the type, terms, conditions or duration of, or restrictions on, Awards so as to provide for earlier, later, extended or additional time for exercise, lifting restrictions and other modifications, and the Administrator may take such actions with respect to all Participants, to certain categories of Participants or only to individual Participants. The Administrator may take such action before or after granting Awards to which the action relates and before or after any public announcement with respect to such sale, merger, consolidation, reorganization, liquidation, dissolution or change of control that is the reason for such action.

(e) **No Limitations.** The grant of Awards will in no way affect the Company's right to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or Transfer all or any part of its business or assets.

(f) **Payment Conditions.** By accepting an Award under the Plan, each Participant agrees that if an Award is to be terminated in connection with a Change of Control in exchange for a payment in cash, securities or other property, a condition to receipt of any such payment is that the Participant execute an Award termination agreement providing for, among other things, (i) the Participant's agreement and consent to (A) the amount of such consideration to be paid in respect of the Award and (B) the termination of the Award in exchange for such consideration, (ii) the Participant's agreement to be bound by the indemnification, escrow, earn-out, holdback or similar arrangements contained in the definitive agreements relating to the Change of Control that are applicable to holders of Common Stock generally, (iii) a customary release of any and all claims the Participant may have, whether known, unknown or otherwise, arising from or relating to the Award and ownership of Company securities, including any claims relating to cash, equity or other compensation, (iv) the Participant's agreement to keep all non-public information provided in connection with the Change of Control transaction confidential, and (v) other customary provisions.

(h) **Fractional Shares.** In the event of any adjustment in the number of shares covered by any Award, each such Award will cover only the number of full shares resulting from such adjustment, and any fractional shares resulting from such adjustment will be disregarded.

12. **Term of the Plan.** This Plan will shall have no fixed expiration date. The Administrator may not grant new Awards after the Plan is terminated.

13. **Amendment and Termination.**

(a) **Plan Amendment, Suspension or Termination.** The Administrator may amend, suspend or terminate the Plan or any portion of the Plan at any time and in such respects as it will deem advisable, provided that any such amendment would not require approval of the Company's stockholders pursuant to the Listing Rule.

(b) **Award Amendment**. The Administrator may amend any Award at any time, subject to the restrictions of the Listing Rule. However, the Administrator may not amend an Award in a manner that materially adversely impacts the rights of the Participant holding that Award without the Participant's written consent. A Participant will not be deemed to have been materially adversely impacted if, without the consent of the Participant, the Board amends an Award: (i) to clarify the manner of exemption from, or to bring the Award into compliance with Section 409A, (ii) to correct clerical or typographical errors, or (iii) to comply with other Applicable Laws.

14. **No Individual Rights.**

(a) No individual or Participant will have any claim to be granted any Award under the Plan. The Company has no obligation for uniformity of treatment of Participants under the Plan.

(b) Nothing in the Plan or any Award will be deemed to constitute an employment contract or confer or be deemed to confer on any Participant any right to continue in the employ of, or to continue any other service relationship with, the Company or any Related Company or limit in any way the right of the Company or any Related Company to terminate a Participant's Service relationship at any time, with or without cause.

15. **Conditions on Issuance of Shares.**

(a) The Company will have no obligation to issue or deliver any shares of Common Stock under the Plan or make any other distribution of benefits under the Plan unless, in the opinion of the Company's counsel, such issuance, delivery or distribution would comply with all Applicable Laws.

(b) The Company will be under no obligation to any Participant to register for offering or resale or to qualify for exemption under the Securities Act, or to register or qualify under the laws of any state or foreign jurisdiction, any shares of Common Stock, security or interest in a security paid or issued under, or created by, the Plan, or to continue in effect any such registrations or qualifications if made. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any regulatory commission or agency the authority that legal counsel for the Company deems necessary or advisable for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock under those Awards.

(c) As a condition to the receipt of Common Stock under the Plan, the Administrator may require the Participant to (i) make any representations or warranties required for compliance with Applicable Laws and (ii) undertake additional actions as necessary to comply with Applicable Laws.

(d) The Company may issue shares of Common Stock on a noncertificated basis, including as digital assets located on a distributed ledger or blockchain, to the extent not prohibited by Applicable Law or the applicable rules of any stock exchange. The Company may require that any shares of Common Stock that are unvested or subject to transfer restrictions will be (i) held in book entry form subject to the Company's instructions until such shares become vested or any other restrictions lapse or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Administrator.

16. **No Rights as a Stockholder.** Unless otherwise provided by the Administrator or in the Award Agreement or in a written employment, services or other agreement, no Participant will be deemed to be the holder of, or have any rights of a holder of, the shares of the Common Stock subject to an Award unless and until the date of issuance under the Plan of the shares that are the subject of such Award. No adjustment to an Award will be made for a dividend or other right for which the record date is prior to the date the shares of Common Stock are issued, except as provided in Section 11.

17. **Participants in Other Countries or Jurisdictions.** The Administrator may grant Awards to Eligible Persons who are foreign nationals on such terms and conditions different from those specified in the Plan, as may, in the judgment of the Administrator, be necessary or desirable to foster and promote achievement of the purposes of the Plan. The Administrator has the authority to adopt Plan modifications, administrative procedures, subplans and the like as may be necessary or desirable to comply with provisions of the laws or regulations of other countries or jurisdictions in which the Company or any Related Company may operate or have employees.

18. **No Trust or Fund.** The Plan is intended to constitute an "unfunded" plan. Nothing contained herein will require the Company to segregate any monies or other property, or shares of Common Stock, or to create any trusts, or to make any special deposits for any immediate or deferred amounts payable to any Participant. No Participant will have any rights that are greater than those of a general unsecured creditor of the Company. Proceeds from the sale of shares of Common Stock pursuant to Awards will constitute general funds of the Company.

19. **Successors.** All obligations of the Company under the Plan with respect to Awards will be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all the business and/or assets of the Company. The Plan and conditions of any Award will be binding on the Participant and the Participant's estate, executor, any receiver or trustee in bankruptcy and any representative of Participant's creditors.

20. **Severability.** If any provision of the Plan or any Award is determined to be invalid, illegal or unenforceable in any jurisdiction, or as to any person, or would disqualify the Plan or any Award under any law deemed applicable by the Administrator, such provision will be construed or deemed amended to conform to Applicable Laws. If any such provision cannot be so construed or deemed amended without, in the Administrator's determination, materially altering the intent of the Plan or the Award, such provision will be stricken as to such jurisdiction, person or Award, and the remainder of the Plan and any such Award will remain in full force and effect.

21. **Choice of Law and Venue.** The Plan, all Awards granted thereunder, and all determinations made and actions taken pursuant hereto, to the extent not otherwise governed by the laws of the United States, will be governed by the laws of the state of Texas without giving effect to principles of conflicts of law. Participants irrevocably consent to the nonexclusive jurisdiction and venue of the state and federal courts located in the state of Texas.

22. **Legal Requirements.** The granting of Awards and the issuance of shares of Common Stock under the Plan are subject to and intended to comply with all Applicable Laws.

APPENDIX A
DEFINITIONS

For purposes of the Plan:

"Acceleration Conditions" means the Participant signs, and does not revoke, the Company's standard form of release of all claims so that it is effective not later than 60 days after the Termination of Service, resigns from all positions the Participant then holds with the Company, and otherwise complies with all continuing obligations to the Company.

"Acquired Entity" means any entity acquired by the Company or a Related Company or with which the Company or a Related Company merges or combines.

"Admin Portal" means any third-party online stock plan administration portal used to document and administer the Plan and Awards granted hereunder.

"Administrator" has the meaning set forth in Section 3(a) of the Plan.

"Applicable Law" means the requirements relating to the administration of this Plan and the Awards granted hereunder under any applicable securities, federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, listing rule, regulation, judicial decision, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any governmental body (including under the authority of any applicable self-regulating organization such as the Nasdaq Stock Market, New York Stock Exchange, or the Financial Industry Regulatory Authority).

"Award" means any Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit or cash-based award or other incentive payable in cash or in shares of Common Stock, as may be designated by the Administrator from time to time.

"Award Agreement" means the written document stating the terms of the Award.

"Board" means the Board of Directors of the Company.

"Cause," unless otherwise defined in an Award Agreement or in a written employment, services or other agreement between the Participant and the Company or a Related Company, means, with respect to a Participant, the occurrence of any of the following events: (a) such Participant's commission of any felony; (b) such Participant's commission of a crime involving fraud or dishonesty under the laws of the United States or any state thereof that are applicable to that Participant and which crime is reasonably likely to result in material adverse effects on the Company or a Related Company; (c) such Participant's material violation of any contract or agreement between the Participant and the Company or a Related Company or material breach of any statutory duty owed to the Company or a Related Company; (d) such Participant's unauthorized use or disclosure of the confidential information or trade secrets of the Company or a Related Company; or (e) such Participant's gross misconduct that is reasonably likely to result in material adverse effects on the Company or a Related Company. The determination that a termination of the Participant is either for Cause or without Cause will be made by the Administrator, in its sole discretion. Any determination by the Administrator that a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect on any determination of the rights or obligations of the Company or such Participant for any other purpose.

"Change of Control," unless the Administrator determines otherwise with respect to an Award at the time the Award is granted or unless otherwise defined for purposes of an Award in a written employment, services or other agreement between the Participant and the Company or a Related Company, means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(a) Any person or entity becomes the owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction.

(b) A Company Transaction.

However, the term Change of Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company.

In addition, a Change of Control will not be deemed to occur (i) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other entity or person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (ii) solely because the level of ownership held by any person or entity (the "Subject Person") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding. However, if a Change of Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities owned by the Subject Person over the designated percentage threshold, then a Change of Control will be deemed to occur.

If necessary for compliance with Section 409A, no transaction will be a Change of Control unless it is also a change in the ownership or effective control of the Company, or in the ownership of a substantial portion of the Company's assets, as provided in Section 409A(a)(2)(A)(v) of the Code and Treasury Regulations Section 1.409A-3(i)(5).

"Code" means the Internal Revenue Code of 1986, as amended from time to time.

"Committee" means a duly authorized committee of the Board that is structured to satisfy Applicable Laws for purposes of the actions being taken by that Committee.

"Common Stock" means the common stock, par value $0.001 per share, of the Company.

"Company" means Applied Optoelectronics, Inc., a Delaware corporation.

"Company Transaction" means:

(a) a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving entity in such merger, consolidation or similar transaction, or (B) more than 50% of the combined outstanding voting power of the parent of the surviving entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(b) a sale in one transaction or a series of transactions undertaken with a common purpose of more than 50% of the Company's outstanding voting securities; or

(c) a sale or other disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries, other than a sale or other disposition of all or substantially all of the consolidated assets of the Company and its subsidiaries to a person or entity, more than 50% of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the outstanding voting securities of the Company immediately prior to such sale or other disposition.

"Disability," unless otherwise defined by the Administrator for purposes of the Plan or in an Award Agreement or in a written employment, services or other agreement between the Participant and the Company or a Related Company, means a mental or physical impairment of the Participant that is expected to result in death or that has lasted or is expected to last for a continuous period of 12 months or more and that causes the Participant to be unable to perform the Participant's material duties for the Company or a Related Company and to be engaged in any substantial gainful activity, in each case as determined by the Company's chief human resources officer or other person performing that function or, in the case of directors and executive officers, the Administrator, each of whose determination will be conclusive and binding.

"Dividend Equivalent" means a credit, made at the discretion of the Administrator or as otherwise provided by the Plan, to the account of a Participant in an amount equal to the cash dividends paid on one share of Common Stock for each share represented by an Award held by such Participant. Dividend Equivalents will generally be subject to the same vesting restrictions as the related shares subject to the underlying Award. The Administrator may settle Dividend Equivalents in cash, shares of Common Stock, or a combination thereof.

"Effective Date" means the date the Plan is approved by the Board.

"Eligible Person" means any person eligible to receive an Award as set forth in Section 5 of the Plan.

"Exchange Act" means the Securities Exchange Act of 1934, as amended from time to time.

"Fair Market Value" means the per share fair market value of the Common Stock as established in good faith by the Administrator. In general, if the Common Stock is listed on an established stock exchange or national market system, the Administrator will use the closing sales price for the Common Stock on any given date during regular trading, or if not trading on that date, such price on the last preceding date on which the Common Stock was traded, unless determined otherwise by the Administrator using such methods or procedures as it may establish. If the Common Stock is not listed on a national stock exchange or national market system, the Administrator will determine Fair Market Value in a manner consistent with Sections 409A of the Code. However, in determining the value of a share for purposes of tax reporting purposes and such other purposes as determined by the Administrator, the Administrator may calculate Fair Market Value using the foregoing methods, the actual sales price in the transaction at issue (e.g., "*sell to cover*"*)*, or such other value determined by the Company's general counsel or principal financial officer in good faith in a manner that complies with applicable tax laws.

"Good Reason" will have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term as applicable to an Award and, in the absence of such agreement, such term means, with respect to a Participant, the Participant's resignation from all positions he or she then-holds with the Company following: (i) a reduction in the Participant's base salary of more than 10% or (ii) the required relocation of Participant's primary work location to a facility that increases the Participant's one-way commute by more than 50 miles, in either case, only if (x) Participant provides written notice to the Company's Chief Executive Officer within 30 days following such event identifying the nature of the event, (y) the Company fails to cure such event within 30 days following receipt of such written notice and (z) Participant's resignation is effective not later than 30 days thereafter.

"Grant Date" means the later of (a) the date on which the Administrator completes the corporate action authorizing the grant of an Award or such later date specified by the Administrator and (b) the date on which all conditions precedent to an Award have been satisfied, provided that conditions to the exercisability or vesting of Awards will not defer the Grant Date.

"Listing Rule" has the meaning set forth in Section 1 of the Plan.

"Nonqualified Stock Option," "Nonstatutory Stock Option," or "NSO" means an Option that does not qualify as an incentive stock option under Section 422 of the Code.

"Option" means a right to purchase Common Stock granted under Section 7 of the Plan. Options granted under the Plan will be Nonstatutory Stock Options.

"Outside Director" means a member of the Board who is not an employee of the Company or any Related Company.

"Parent Company" means a company or other entity which as a result of a Company Transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries.

"Participant" means any Eligible Person to whom an Award is granted.

"Performance Metrics" means performance objectives measuring achievement in earnings (including earnings per share or net earnings); earnings before interest, taxes and depreciation; earnings before interest, taxes, depreciation and amortization; total stockholder return; return on equity or average stockholder's equity; return on assets, investment, or capital employed; stock price; margin (including gross margin); income (before or after taxes); operating income; operating income after taxes; pre-tax profit; operating cash flow; sales or revenue targets; increases in revenue or product revenue; expenses and cost reduction goals; improvement in or attainment of working capital levels; economic value added (or an equivalent metric); market share; cash flow; cash flow per share; share price performance; debt reduction; customer satisfaction; stockholders' equity; capital expenditures; debt levels; operating profit or net operating profit; workforce diversity; growth of net income or operating income; billings; financing; regulatory milestones; stockholder liquidity; corporate governance and compliance; environmental or climate impact; social good impact; intellectual property; personnel matters; progress of internal research; progress of partnered programs; partner satisfaction; budget management; partner or collaborator achievements; internal controls, including those related to the Sarbanes-Oxley Act of 2002; investor relations, analysts and communication; implementation or completion of projects or processes; employee retention; strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property); establishing relationships with respect to the marketing, distribution and sale of the Company's products; supply chain achievements; co-development, co-marketing, profit sharing, joint venture or other similar arrangements; individual performance goals; corporate development and planning goals; and other measures of performance selected by the Administrator. Performance Metrics may be measured on an absolute basis or relative to a pre-established target, across or within Performance Periods, and, with respect to financial metrics, in accordance with or with deviations from either United States Generally Accepted Accounting Principles ("GAAP") or International Accounting Standards Board ("IASB") principles.

"Plan" means this 2023 Equity Inducement Plan.

"Related Company" means any "parent" or "subsidiary" of the Company, as such terms are defined under Rule 405 of the Securities Act. The Administrator will determine status as a Related Company.

"Restricted Stock" means an Award of shares of Common Stock, either without payment of a purchase price (a "Restricted Stock Bonus Award") or with payment of a purchase price (a "Restricted Stock Purchase Award").

"Restricted Stock Unit" or "RSU" means an Award denominated in units of Common Stock that represents an unfunded, unsecured right to receive the Fair Market Value of one share of Common Stock for each unit subject to the Award in cash, Common Stock or other securities, on the date of vesting or settlement.

"Rule 16b-3" means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

"Section 409A" means Section 409A of the Code.

"Securities Act" means the Securities Act of 1933, as amended from time to time.

"Service" means there has not been a Termination of Service with respect to a Participant.

"Stock Appreciation Right" or "SAR" means a right to receive, in cash, shares of Common Stock or other securities, (i) the Fair Market Value per share of Common Stock on the date of exercise minus the grant price per share of Common Stock subject to the SAR, multiplied by (ii) the number of shares of Common Stock with respect to which the SAR is exercised.

"Substitute Awards" means Awards granted or shares of Common Stock issued by the Company in substitution for awards previously granted by an Acquired Entity.

"Successor Company" means the surviving company, the successor company or Parent Company, as applicable, in connection with a Company Transaction.

"Termination of Service," unless the Administrator determines otherwise with respect to an Award, means a termination of employment relationship with the Company or a Related Company for any reason, whether voluntary or involuntary, including by reason of death or Disability. Any question as to whether and when there has been a Termination of Service for the purposes of an Award and the cause of such Termination of Service will be determined by the Company's chief human resources officer or other person performing that function or, with respect to directors and executive officers, by the Administrator, whose determination will be conclusive and binding. Transfer of a Participant's employment relationship between the Company and any Related Company will not be considered a Termination of Service for purposes of an Award. Unless the Administrator determines otherwise, a Termination of Service will be deemed to occur if the Participant's employment relationship is with an entity that has ceased to be a Related Company. A Participant's change in status from an employee of the Company or a Related Company to an Outside Director, consultant, advisor or independent contractor of the Company or a Related Company will not be considered a Termination of Service.

"Transfer" means, as the context may require, (a) any sale, assignment, pledge (as collateral for a loan or as security for the performance of an obligation or for any other purpose), hypothecation, mortgage, encumbrance or other disposition, whether by contract, gift, will, intestate succession, operation of law or otherwise, of all or any part of an Award or shares issued thereunder, as applicable, (b) any transaction designed to give the stockholder essentially the same economic benefit as any of the foregoing, and (c) any verb equivalent of the foregoing.

"Vesting Commencement Date" means the Grant Date or such other date selected by the Administrator as the date from which an Award begins to vest.

Exhibit 31.1

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 9, 2023

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

Exhibit 31.2

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 9, 2023

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

Exhibit 32.1

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, 2023, 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 9th day of November 2023.

/s/ CHIH-HSIANG (THOMPSON) LIN	/s/ STEFAN J. MURRY
CHIH-HSIANG (THOMPSON) LIN	STEFAN J. MURRY
President and Chief Executive Officer	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.