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 28, 2024

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

For the transition period from _______ **to** _______

Commission File Number 011-07416

Vishay Intertechnology, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**38-1686453**
(State or Other Jurisdiction of Incorporation)	(I.R.S. Employer Identification Number)
63 Lancaster Avenue **Malvern, Pennsylvania 19355-2143**	**610-644-1300**
(Address of Principal Executive Offices)	(Registrant's Area Code and Telephone Number)

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

Title of each class	Trading symbol	Name of exchange on which registered
Common stock, par value $0.10 per share	VSH	New York Stock Exchange LLC

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 (section 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 4, 2024 the registrant had 123,741,102 shares of its common stock (excluding treasury shares) and 12,097,148 shares of its Class B common stock outstanding.

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FORM 10-Q
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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Balance Sheets
(Unaudited - In thousands)

	September 28, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	**$ 643,771**	$ 972,719
Short-term investments	**13,491**	35,808
Accounts receivable, net	**428,558**	426,674
Inventories:		
Finished goods	**173,353**	167,083
Work in process	**290,597**	267,339
Raw materials	**223,254**	213,098
Total inventories	**687,204**	647,520
Prepaid expenses and other current assets	**237,749**	214,443
Total current assets	**2,010,773**	2,297,164
Property and equipment, at cost:		
Land	**84,851**	77,006
Buildings and improvements	**769,865**	719,387
Machinery and equipment	**3,291,983**	3,053,868
Construction in progress	**295,147**	290,593
Allowance for depreciation	**(2,963,103)**	(2,846,208)
Property and equipment, net	**1,478,743**	1,294,646
Right of use assets	**125,969**	126,829
Deferred income taxes	**160,900**	137,394
Goodwill	**255,323**	201,416
Other intangible assets, net	**83,427**	72,333
Other assets	**105,223**	110,141
Total assets	**$ 4,220,358**	$ 4,239,923

Continues on following page.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Balance Sheets (continued)
(Unaudited - In thousands)

	September 28, 2024	December 31, 2023
Liabilities and equity		
Current liabilities:		
Trade accounts payable	**$ 209,864**	$ 191,002
Payroll and related expenses	**150,726**	161,940
Lease liabilities	**27,625**	26,485
Other accrued expenses	**275,159**	239,350
Income taxes	**51,052**	73,098
Total current liabilities	**714,426**	691,875
Long-term debt less current portion	**820,799**	818,188
U.S. transition tax payable	**-**	47,027
Deferred income taxes	**112,110**	95,776
Long-term lease liabilities	**101,012**	102,830
Other liabilities	**105,834**	87,918
Accrued pension and other postretirement costs	**192,614**	195,503
Total liabilities	**2,046,795**	2,039,117
Equity:		
Vishay stockholders' equity		
Common stock	**13,358**	13,319
Class B convertible common stock	**1,210**	1,210
Capital in excess of par value	**1,302,335**	1,291,499
Retained earnings	**1,035,395**	1,041,372
Treasury stock (at cost)	**(199,440)**	(161,656)
Accumulated other comprehensive income	**14,808**	10,337
Total Vishay stockholders' equity	**2,167,666**	2,196,081
Noncontrolling interests	**5,897**	4,725
Total equity	**2,173,563**	2,200,806
Total liabilities and equity	**$ 4,220,358**	$ 4,239,923

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Statements of Operations
(Unaudited - In thousands, except per share amounts)

	Fiscal quarters ended	
	September 28, 2024	September 30, 2023
Net revenues	**$ 735,353**	$ 853,653
Costs of products sold	**584,470**	616,010
Gross profit	**150,883**	237,643
Selling, general, and administrative expenses	**128,545**	122,513
Restructuring and severance costs	**40,614**	-
Operating income (loss)	**(18,276)**	115,130
Other income (expense):		
Interest expense	**(6,596)**	(7,153)
Loss on early extinguishment of debt	**-**	(18,874)
Other	**803**	7,409
Total other income (expense)	**(5,793)**	(18,618)
Income (loss) before taxes	**(24,069)**	96,512
Income tax expense (benefit)	**(5,076)**	30,557
Net earnings (loss)	**(18,993)**	65,955
Less: net earnings (loss) attributable to noncontrolling interests	**306**	426
Net earnings (loss) attributable to Vishay stockholders	**$ (19,299)**	$ 65,529
Basic earnings (loss) per share attributable to Vishay stockholders	**$ (0.14)**	$ 0.47
Diluted earnings (loss) per share attributable to Vishay stockholders	**$ (0.14)**	$ 0.47
Weighted average shares outstanding - basic	**136,793**	139,083
Weighted average shares outstanding - diluted	**136,793**	140,001
Cash dividends per share	**$ 0.10**	$ 0.10

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Statements of Comprehensive Income
(Unaudited - In thousands)

	Fiscal quarters ended	
	September 28, 2024	**September 30, 2023**
Net earnings (loss)	**$ (18,993)**	$ 65,955
Other comprehensive income (loss), net of tax		
Pension and other post-retirement actuarial items	**511**	363
Foreign currency translation adjustment	**31,266**	(38,901)
Other comprehensive income (loss)	**31,777**	(38,538)
Comprehensive income	**12,784**	27,417
Less: comprehensive income attributable to noncontrolling interests	**306**	426
Comprehensive income attributable to Vishay stockholders	**$ 12,478**	$ 26,991

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Statements of Operations
(Unaudited - In thousands, except per share amounts)

	Nine fiscal months ended September 28, 2024	Nine fiscal months ended September 30, 2023
Net revenues	**$ 2,222,871**	$ 2,616,809
Costs of products sold	**1,738,711**	1,842,980
Gross profit	**484,160**	773,829
Selling, general, and administrative expenses	**381,234**	365,515
Restructuring and severance costs	**40,614**	-
Operating income	**62,312**	408,314
Other income (expense):		
Interest expense	**(19,749)**	(18,677)
Loss on early extinguishment of debt	**-**	(18,874)
Other	**13,901**	15,995
Total other income (expense)	**(5,848)**	(21,556)
Income before taxes	**56,464**	386,758
Income tax expense	**20,134**	113,199
Net earnings	**36,330**	273,559
Less: net earnings attributable to noncontrolling interests	**1,172**	1,211
Net earnings attributable to Vishay stockholders	**$ 35,158**	$ 272,348
Basic earnings per share attributable to Vishay stockholders	**$ 0.26**	$ 1.95
Diluted earnings per share attributable to Vishay stockholders	**$ 0.25**	$ 1.94
Weighted average shares outstanding - basic	**137,281**	139,828
Weighted average shares outstanding - diluted	**138,039**	140,577
Cash dividends per share	**$ 0.30**	$ 0.30

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Statements of Comprehensive Income
(Unaudited - In thousands)

	Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**
Net earnings	**$ 36,330**	$ 273,559
Other comprehensive income (loss), net of tax		
Pension and other post-retirement actuarial items	**(1,297)**	647
Foreign currency translation adjustment	**5,768**	(15,703)
Other comprehensive income (loss)	**4,471**	(15,056)
Comprehensive income	**40,801**	258,503
Less: comprehensive income attributable to noncontrolling interests	**1,172**	1,211
Comprehensive income attributable to Vishay stockholders	**$ 39,629**	$ 257,292

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Statements of Cash Flows
(Unaudited - In thousands)

	Nine fiscal months ended September 28, 2024	Nine fiscal months ended September 30, 2023
Operating activities		
Net earnings	**$ 36,330**	$ 273,559
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	**155,272**	133,910
Gain on disposal of property and equipment	**(1,168)**	(495)
Inventory write-offs for obsolescence	**27,163**	27,469
Deferred income taxes	**(13,667)**	20,654
Stock compensation expense	**14,928**	11,610
Loss on early extinguishment of debt	-	18,874
Other	**14,506**	7,574
Change in U.S. transition tax liability	**(37,622)**	(27,670)
Change in repatriation tax liability	**(15,000)**	-
Net change in operating assets and liabilities, net of effects of businesses acquired	**(74,696)**	(106,050)
Net cash provided by operating activities	**106,046**	359,435
Investing activities		
Capital expenditures	**(175,175)**	(184,079)
Proceeds from sale of property and equipment	**1,397**	1,034
Purchase of businesses, net of cash acquired	**(200,185)**	(5,003)
Purchase of short-term investments	**(101,263)**	(82,166)
Maturity of short-term investments	**123,561**	308,021
Other investing activities	**(1,220)**	(1,219)
Net cash provided by (used in) investing activities	**(352,885)**	36,588
Financing activities		
Proceeds from long-term borrowings	**-**	750,000
Repurchase of convertible senior notes due 2025	**-**	(386,745)
Net payments on revolving credit facility	**-**	(42,000)
Debt issuance and amendment costs	**(1,062)**	(26,547)
Cash paid for capped call	-	(94,200)
Dividends paid to common stockholders	**(37,467)**	(38,207)
Dividends paid to Class B common stockholders	**(3,629)**	(3,629)
Repurchase of common stock held in treasury	**(37,784)**	(57,661)
Distributions to noncontrolling interests	**-**	(867)
Cash withholding taxes paid when shares withheld for vested equity awards	**(4,092)**	(3,994)
Net cash provided by (used in) financing activities	**(84,034)**	96,150
Effect of exchange rate changes on cash and cash equivalents	**1,925**	(7,879)
Net increase (decrease) in cash and cash equivalents	**(328,948)**	484,294
Cash and cash equivalents at beginning of period	**972,719**	610,825
Cash and cash equivalents at end of period	**$ 643,771**	$ 1,095,119

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.

Consolidated Condensed Statements of Equity

(Unaudited - In thousands, except share and per share amounts)

	Common Stock	Class B Convertible Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Vishay Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2022	$ 13,291	$ 1,210	$ 1,352,321	$ 773,228	$ (82,972)	$ (10,827)	$ 2,046,251	$ 3,899	$ 2,050,150
Net earnings	-	-	-	111,781	-	-	111,781	408	112,189
Other comprehensive income (loss)	-	-	-	-	-	19,859	19,859	-	19,859
Issuance of stock and related tax withholdings for vested restricted stock units (254,513 shares)	25	-	(3,678)	-	-	-	(3,653)	-	(3,653)
Dividends declared ($0.10 per share)	-	-	14	(14,034)	-	-	(14,020)	-	(14,020)
Stock compensation expense	-	-	2,965	-	-	-	2,965	-	2,965
Repurchase of common stock held in treasury (916,221 shares)	-	-	-	-	(20,173)	-	(20,173)	-	(20,173)
Balance at April 1, 2023	$ 13,316	$ 1,210	$ 1,351,622	$ 870,975	$ (103,145)	$ 9,032	$ 2,143,010	$ 4,307	$ 2,147,317
Net earnings	-	-	-	95,038	-	-	95,038	377	95,415
Other comprehensive income	-	-	-	-	-	3,623	3,623	-	3,623
Distributions to noncontrolling interests	-	-	-	-	-	-	-	(867)	(867)
Dividends declared ($0.10 per share)	-	-	14	(13,951)	-	-	(13,937)	-	(13,937)
Stock compensation expense	-	-	3,117	-	-	-	3,117	-	3,117
Repurchase of common stock held in treasury (847,202 shares)	-	-	-	-	(20,226)	-	(20,226)	-	(20,226)
Balance at July 1, 2023	$ 13,316	$ 1,210	$ 1,354,753	$ 952,062	$ (123,371)	$ 12,655	$ 2,210,625	$ 3,817	$ 2,214,442
Net earnings	-	-	-	65,529	-	-	65,529	426	65,955
Other comprehensive income (loss)	-	-	-	-	-	(38,538)	(38,538)	-	(38,538)
Issuance of stock and related tax withholdings for vested restricted stock units (21,617 shares)	2	-	(343)	-	-	-	(341)	-	(341)
Dividends declared ($0.10 per share)	-	-	12	(13,891)	-	-	(13,879)	-	(13,879)
Stock compensation expense	-	-	5,528	-	-	-	5,528	-	5,528
Repurchase of common stock held in treasury (630,446 shares)	-	-	-	-	(17,262)	-	(17,262)	-	(17,262)
Capped call transactions, net of tax	-	-	(73,382)	-	-	-	(73,382)	-	(73,382)
Balance at September 30, 2023	$ 13,318	$ 1,210	$ 1,286,568	$ 1,003,700	$ (140,633)	$ (25,883)	$ 2,138,280	$ 4,243	$ 2,142,523

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VISHAY INTERTECHNOLOGY, INC.

Consolidated Condensed Statements of Equity (continued)

(Unaudited - In thousands, except share and per share amounts)

	Common Stock	Class B Convertible Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Vishay Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2023	$ 13,319	$ 1,210	$ 1,291,499	$ 1,041,372	$ (161,656)	$ 10,337	$ 2,196,081	$ 4,725	$ 2,200,806
Net earnings	-	-	-	30,924	-	-	30,924	519	31,443
Other comprehensive income (loss)	-	-	-	-	-	(20,022)	(20,022)	-	(20,022)
Issuance of stock and related tax withholdings for vested restricted stock units (371,055 shares)	38	-	(4,091)	-	-	-	(4,053)	-	(4,053)
Dividends declared ($0.10 per share)	-	-	13	(13,765)	-	-	(13,752)	-	(13,752)
Stock compensation expense	-	-	5,344	-	-	-	5,344	-	5,344
Repurchase of common stock held in treasury (565,420 shares)	-	-	-	-	(12,538)	-	(12,538)	-	(12,538)
Balance at March 30, 2024	$ 13,357	$ 1,210	$ 1,292,765	$ 1,058,531	$ (174,194)	$ (9,685)	$ 2,181,984	$ 5,244	$ 2,187,228
Net earnings	-	-	-	23,533	-	-	23,533	347	23,880
Other comprehensive income (loss)	-	-	-	-	-	(7,284)	(7,284)	-	(7,284)
Issuance of stock and related tax withholdings for vested restricted stock units (19,809 shares)	1	-	(6)	-	-	-	(5)	-	(5)
Dividends declared ($0.10 per share)	-	-	13	(13,713)	-	-	(13,700)	-	(13,700)
Stock compensation expense	-	-	3,949	-	-	-	3,949	-	3,949
Repurchase of common stock held in treasury (554,587 shares)	-	-	-	-	(12,622)	-	(12,622)	-	(12,622)
Balance at June 29, 2024	$ 13,358	$ 1,210	$ 1,296,721	$ 1,068,351	$ (186,816)	$ (16,969)	$ 2,175,855	$ 5,591	$ 2,181,446
Net earnings (loss)	**-**	**-**	**-**	**(19,299)**	**-**	**-**	**(19,299)**	**306**	**(18,993)**
Other comprehensive income (loss)	**-**	**-**	**-**	**-**	**-**	**31,777**	**31,777**	**-**	**31,777**
Issuance of stock and related tax withholdings for vested restricted stock units (4,149 shares)	**-**	**-**	**(34)**	**-**	**-**	**-**	**(34)**	**-**	**(34)**
Dividends declared ($0.10 per share)	**-**	**-**	**13**	**(13,657)**	**-**	**-**	**(13,644)**	**-**	**(13,644)**
Stock compensation expense	**-**	**-**	**5,635**	**-**	**-**	**-**	**5,635**	**-**	**5,635**
Repurchase of common stock held in treasury (577,325 shares)	**-**	**-**	**-**	**-**	**(12,624)**	**-**	**(12,624)**	**-**	**(12,624)**
Balance at September 28, 2024	**$ 13,358**	**$ 1,210**	**$ 1,302,335**	**$ 1,035,395**	**$ (199,440)**	**$ 14,808**	**$ 2,167,666**	**$ 5,897**	**$ 2,173,563**

See accompanying notes.

(dollars in thousands, except per share amounts)

Note 1 – Basis of Presentation

The accompanying unaudited consolidated condensed financial statements of Vishay Intertechnology, Inc. ("Vishay" or the "Company") have been prepared in accordance with the instructions to Form 10-Q and therefore do not include all information and footnotes necessary for presentation of financial position, results of operations, and cash flows required by accounting principles generally accepted in the United States ("GAAP") for complete financial statements. The information furnished reflects all normal recurring adjustments which are, in the opinion of management, necessary for a fair summary of the financial position, results of operations, and cash flows for the interim periods presented. The financial statements should be read in conjunction with the consolidated financial statements filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2023. The results of operations for the fiscal quarter and nine fiscal months ended September 28, 2024 are not necessarily indicative of the results to be expected for the full year.

The Company reports interim financial information for 13-week periods beginning on a Sunday and ending on a Saturday, except for the first fiscal quarter, which always begins on January 1, and the fourth fiscal quarter, which always ends on December 31. The four fiscal quarters in 2024 end on March 30, 2024, June 29, 2024, September 28, 2024, and December 31, 2024, respectively. The four fiscal quarters in 2023 ended on April 1, 2023, July 1, 2023, September 30, 2023, and December 31, 2023, respectively.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current financial statement presentation.

Note 2 – Acquisition Activities

As part of its growth strategy, the Company seeks to expand through targeted acquisitions of other manufacturers of electronic components. These acquisition targets include businesses that have established positions in major markets, reputations for product quality and reliability, and product lines with which the Company has substantial marketing and technical expertise. It also includes certain businesses that possess technologies which the Company expects to further develop and commercialize.

Newport wafer fab

On March 5, 2024, the Company acquired Nexperia's wafer fabrication facility and operations located in Newport, South Wales, U.K. for $177,457 in cash, net of cash acquired. The transaction included contingent payments of up to $15,000, held in escrow pending receipt of an export license. The wafer fabrication facility is located on 28 acres and is an automotive-certified, 200mm semiconductor wafer fab with capacity to produce more than 30,000 wafers per month. See Note 15 for further discussion on the fair value measurement of the contingent consideration liability.

The transaction was funded by Vishay with cash on-hand. To effect the transaction, Vishay acquired a 100% interest in the legal entity Neptune 6 Limited, and its wholly-owned operating subsidiary, Nexperia Newport Limited, which owns and operates the Newport facility. Neptune 6 Limited was renamed "Vishay UK Holdings Limited," and Nexperia Newport Limited was renamed "Vishay Newport Limited."

Based on an estimate of fair values, the Company allocated the purchase price of the acquisition as follows:

Net working deficit (excluding cash and cash equivalents)	$	(339)
Property and equipment		148,109
Customer relationships		4,000
Other, net		1,315
Deferred taxes, net		(17,704)
Total identified assets and liabilities		135,381
Purchase price, net of cash acquired		177,457
Goodwill	$	42,076

The acquired assets and liabilities are included in the MOSFETs segment. The weighted average useful lives for customer relationships is 3 years. The goodwill associated with this transaction is not deductible for income tax purposes. The preliminary purchase price allocation is pending finalization of tax filings. There can be no assurance that the estimated amounts recorded represent the final purchase price allocation.

The Company recognized $2,984 of acquisition costs classified as a component of selling, general, and administrative expenses. These costs were recognized in the third and fourth fiscal quarters of 2023 and first fiscal quarter of 2024.

The results and operations of this acquisition have been included in the MOSFETs segment since March 5, 2024. The inclusion of this acquisition did not have material impact on the MOSFETs segment's or the Company's consolidated results.

Ametherm, Inc.

On June 5, 2024, the Company acquired all of the outstanding equity interests of Ametherm, Inc., a Carson City, Nevada-based manufacturer of inrush current limiting solutions and power thermistors, for $31,478 in cash, net of cash acquired. Based on a preliminary estimate of fair values, the Company allocated $17,000 of the purchase price to definite-lived intangible assets. After allocating the purchase price to assets acquired and liabilities assumed based on an estimation of their fair values at the date of acquisition, the Company recorded goodwill of $11,685 related to this acquisition. The goodwill related to this acquisition is included in the Resistors reporting unit for goodwill impairment testing. The results and operations of this acquisition have been included in the Resistors segment since June 5, 2024.

MaxPower Semiconductor, Inc.

In October 2022, the Company acquired all of the outstanding equity interests of MaxPower Semiconductor, Inc., ("MaxPower"). The Company paid cash of $50,000, net of cash acquired, at closing. The transaction also included possible contingent payments of up to $57,500, which would be payable upon the achievement of certain technology milestones, upon favorable resolution of certain technology licensing matters with a third party, and upon the disposition of MaxPower's investment in an equity affiliate. As of June 29, 2024, the contingent payments upon favorable resolution of certain technology licensing matters with a third party and upon the disposition of MaxPower's investment in an equity affiliate have been resolved. Additionally, $2,500 has been paid upon the achievement of the first technology milestone. The Company's estimate of the maximum possible contingent payments remaining is now $15,000. See Note 15 for further discussion on the fair value measurement of the contingent consideration liability.

Subsequent Event

On November 5, 2024 the Company entered into definitive agreements to acquire Birkelbach Kondensatortechnik GmbH and certain related assets ("Birkelbach") for approximately €17,000 ($18,500). The all-cash transaction is expected to close before December 31, 2024, subject to satisfaction of customary closing conditions.

Based in Erndtebrueck, Germany, Birkelbach is a manufacturer of metalized technical films for capacitor dielectrics. Vishay is a major customer of Birkelbach, and the acquired business will be vertically integrated into Vishay's Capacitors segment. The goodwill related to this acquisition will be included in the Capacitors reporting unit for goodwill impairment testing.

Note 3 – Goodwill and Other Intangible Assets

Goodwill

Goodwill represents the excess of the cost of businesses acquired over the fair value of the related net assets at the date of acquisition. Goodwill is not amortized but rather is tested for impairment at least annually. These tests are performed more frequently whenever events or changes in circumstances indicate that the assets might be impaired. The Company performs its annual goodwill impairment test as of the first day of the fourth fiscal quarter. During the third fiscal quarter of 2024, the Company identified the decrease in its share price in combination with the increase in the book value of its assets as a result of its acquisition and capital spending activities as potential indicators of impairment requiring an interim goodwill impairment test. The interim goodwill impairment test was performed as of September 28, 2024.

Using level 3 inputs, the Company performed a quantitative assessment of each of its business segments, which represent its reporting units for goodwill impairment testing purposes. The assessment was performed using a weighting of the income and market approaches to determine fair value. The Company used a discounted cash flow ("DCF") method, using unobservable inputs, as its income approach. The significant assumptions in the DCF method include projected EBITDA and a discount rate (and estimates in the discount rate inputs). The Company used comparable company market multiples for its market approach. The resulting estimates of fair value from the income approach and the market approach were then weighted equally in determining the overall estimated fair value of each reporting unit.

Based on the evaluation, the estimated fair value of each reporting unit was determined to exceed its carrying value, although the MOSFETs reporting unit's fair value exceeded its carrying value by less than 10%. No goodwill impairment charges were recognized, but if the MOSFETs reporting unit is not able to achieve its anticipated results and/or if its discount rate were to increase, its fair value would be adversely affected, which may result in future impairment. There is $76,322 of goodwill in this reporting unit as of September 28, 2024. The Company will continue to monitor its reporting units and related goodwill for any possible future non-cash impairment charges.

Note 4 – Restructuring and Related Activities

On September 24, 2024, the Company announced the implementation of restructuring actions designed to optimize the Company's manufacturing footprint and streamline business decision making.

The restructuring actions will be implemented in phases and include:

- Selling, general, and administrative functions will be streamlined beginning in the third fiscal quarter of 2024 through the fourth fiscal quarter of 2025.
- The closure of three manufacturing facilities. A Diodes segment back-end facility in Shanghai, China is expected to be closed by the end of 2026 with production transfers completed in phases beginning in the fourth quarter of 2025. In addition, two small facilities in the Resistors segment in Fichtelberg, Germany, and in Milwaukee, Wisconsin, are expected to be closed in 2026.
- Various changes in manufacturing operations and production transfers.

The Company recorded restructuring expenses pursuant to on-going benefit arrangements of $40,614 during the fiscal quarter ended September 28, 2024, primarily related to expected cash severance costs. Severance benefits are generally paid in a lump sum at cessation of employment. Payments prior to the end of the fiscal third quarter were not material. The current portion of the liability is $23,649 and is included in other accrued expenses in the accompanying consolidated condensed balance sheet. The non-current portion of the liability is $16,709 and is included in other liabilities in the accompanying consolidated condensed balance sheet.

Note 5 – Leases

The net right of use assets and lease liabilities recognized on the consolidated condensed balance sheets for the Company's operating leases were as follows:

	September 28, 2024	December 31, 2023
Right of use assets		
Operating Leases		
Buildings and improvements	**$ 117,613**	$ 121,578
Machinery and equipment	**8,356**	5,251
Total	**$ 125,969**	$ 126,829
Current lease liabilities		
Operating Leases		
Buildings and improvements	**$ 23,231**	$ 23,647
Machinery and equipment	**4,394**	2,838
Total	**$ 27,625**	$ 26,485
Long-term lease liabilities		
Operating Leases		
Buildings and improvements	**$ 96,945**	$ 100,489
Machinery and equipment	**4,067**	2,341
Total	**$ 101,012**	$ 102,830
Total lease liabilities	**$ 128,637**	$ 129,315

Lease expense is classified in the statements of operations based on asset use. Total lease cost recognized on the consolidated condensed statements of operations is as follows:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Lease expense				
Operating lease expense	**$ 7,553**	$ 7,035	**$ 22,312**	$ 20,803
Short-term lease expense	**262**	248	**738**	756
Variable lease expense	**120**	101	**482**	412
Total lease expense	**$ 7,935**	$ 7,384	**$ 23,532**	$ 21,971

The Company paid $22,618 and $20,912 for its operating leases in the nine fiscal months ended September 28, 2024 and September 30, 2023, respectively, which are included in operating cash flows on the consolidated condensed statements of cash flows. The weighted-average remaining lease term for the Company's operating leases is 8.9 years and the weighted-average discount rate is 6.6% as of September 28, 2024.

The undiscounted future lease payments for the Company's operating lease liabilities are as follows:

	September 28, 2024
2024 (excluding the nine fiscal months ended September 28, 2024)	$ 7,281
2025	27,615
2026	23,680
2027	18,814
2028	16,035
Thereafter	77,221

The undiscounted future lease payments presented in the table above include payments through the term of the lease, which may include periods beyond the noncancellable term. The difference between the total payments above and the lease liability balance is due to the discount rate used to calculate lease liabilities.

(dollars in thousands, except per share amounts)

Note 6 – Income Taxes

The provision for income taxes consists of provisions for federal, state, and foreign income taxes. The effective tax rates for the periods ended September 28, 2024 and September 30, 2023 reflect the Company's expected tax rate on reported income before income tax and tax adjustments. The Company operates in a global environment with significant operations in various jurisdictions outside the United States. Accordingly, the consolidated income tax rate is a composite rate reflecting the Company's earnings and the applicable tax rates in the various jurisdictions where the Company operates.

In December 2021, the Organization for Economic Co-operation and Development ("OECD") issued model rules for a new global minimum tax ("Pillar Two"). Various jurisdictions around the world have passed, or are in the process of passing, legislation to enact Pillar Two and certain Pillar Two rules take effect in 2024 and 2025 in those jurisdictions. The United States has not adopted Pillar Two. The Company is continuing to monitor the impacts of Pillar Two on its operations and does not anticipate a material increase in income tax expense associated with jurisdictions that have implemented an income inclusion rule. The Company is continuing to monitor and assess the impacts of Pillar Two rules set to take effect in 2025, such as the under-taxed profits rule.

The Company repatriated $120,000 of accumulated earnings to the United States in the second fiscal quarter of 2024 and paid withholding taxes, in Israel, of $15,000. The withholding tax expense for the repatriation was recorded in prior years.

During the nine fiscal months ended September 28, 2024, the liabilities for unrecognized tax benefits decreased $170 on a net basis, primarily due to statute expirations, partially offset by accruals for the current period.

Note 7 – Long-Term Debt

Long-term debt consists of the following:

	September 28, 2024	December 31, 2023
Credit facility	**$ -**	$ -
Convertible senior notes, due 2025	**95,102**	95,102
Convertible senior notes, due 2030	**750,000**	750,000
Deferred financing costs	**(24,303)**	(26,914)
	820,799	818,188
Less current portion	**-**	-
	$ 820,799	$ 818,188

The following table summarizes some key facts and terms regarding the outstanding convertible senior notes as of September 28, 2024:

	2025 Notes	2030 Notes
Issuance date	June 12, 2018	September 12, 2023
Maturity date	June 15, 2025*	September 15, 2030
Principal amount as of September 28, 2024	$ 95,102	$ 750,000
Cash coupon rate (per annum)	2.25%	2.25%
Conversion rate (per $1 principal amount)	32.1955	33.1609
Effective conversion price (per share)	$ 31.06	$ 30.16
130% of the current effective conversion price (per share)	$ 40.38	$ 39.21

*As the Company has the intent and ability to refinance its convertible senior notes due 2025 (the "2025 Notes") upon maturity using its revolving credit facility, the 2025 Notes remain classified as long-term liabilities.

On August 15, 2024, the Company entered into an amendment to its credit agreement with a consortium of banks led by JPMorgan Chase Bank, N.A., as administrative agent, and the lenders and other parties thereto (the "Credit Facility").

The amendment redefines the Interest Coverage Ratio to remove Capital Expenditures from the calculation, increases the minimum Interest Coverage Ratio to 3.25 to 1.00, increases the threshold of Indebtedness of Foreign Subsidiaries to the greater of $300,000 and 15% of Consolidated Tangible Net Worth as of the last day of the fiscal quarter for which financial statements are delivered, and increases the threshold of Investments of Subsidiaries that are not Loan Parties to $300,000.

Other significant terms and conditions of the Credit Facility have not been modified.

Deferred financing costs are recognized as non-cash interest expense. Non-cash interest expense was $1,249 and $3,675 for the fiscal quarter and nine fiscal months ended September 28, 2024, respectively, and $883 and $2,521 for the fiscal quarter and nine fiscal months ended September 30, 2023, respectively.

Subsequent to the end of the third fiscal quarter of 2024, the Company repurchased $40,684 principal amount of 2025 Notes. The repurchase was funded with a draw on the Credit Facility.

(dollars in thousands, except per share amounts)

Note 8 – Stockholders' Equity

In 2022, the Company's Board of Directors adopted a Stockholder Return Policy that will remain in effect until such time as the Board votes to amend or rescind the policy. The Stockholder Return Policy calls for the Company to return a prescribed amount of cash flows on an annual basis. The Company intends to return such amounts directly, in the form of dividends, or indirectly, in the form of stock repurchases.

The following table summarizes activity pursuant to this policy:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Dividends paid to stockholders	$ **13,644**	$ 13,879	$ **41,096**	$ 41,836
Stock repurchases	**12,624**	17,262	**37,784**	57,661
Total	$ **26,268**	$ 31,141	$ **78,880**	$ 99,497

The repurchased shares are being held as treasury stock. The number of shares of common stock being held as treasury stock was 9,233,213 and 7,535,881 as of September 28, 2024 and December 31, 2023, respectively.

Note 9 – Revenue Recognition

Sales returns and allowances accrual activity is shown below:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Beginning balance	$ **44,493**	$ 49,350	$ **47,760**	$ 46,979
Sales allowances	**21,969**	27,554	**68,200**	79,688
Credits issued	**(24,448)**	(31,034)	**(73,635)**	(81,162)
Foreign currency	**456**	(696)	**145**	(331)
Ending balance	$ **42,470**	$ 45,174	$ **42,470**	$ 45,174

Note 10 – Accumulated Other Comprehensive Income (Loss)

The cumulative balance of each component of other comprehensive income (loss) and the income tax effects allocated to each component are as follows:

	Pension and other post-retirement actuarial items	Currency translation adjustment	Total
Balance at January 1, 2024	$ (14,599)	$ 24,936	$ **10,337**
Other comprehensive income (loss) before reclassifications	(2,574)	5,768	$ **3,194**
Tax effect	-	-	$ **-**
Other comprehensive income before reclassifications, net of tax	(2,574)	5,768	$ **3,194**
Amounts reclassified out of AOCI	1,458	-	$ **1,458**
Tax effect	(181)	-	$ **(181)**
Amounts reclassified out of AOCI, net of tax	1,277	-	$ **1,277**
Net other comprehensive income (loss)	$ (1,297)	$ 5,768	$ **4,471**
Balance at September 28, 2024	$ **(15,896)**	$ **30,704**	$ **14,808**

Reclassifications of pension and other post-retirement actuarial items out of AOCI are included in the computation of net periodic benefit cost. See Note 11 for further information.

(dollars in thousands, except per share amounts)

Note 11 – Pensions and Other Postretirement Benefits

The Company maintains various retirement benefit plans. The service cost component of net periodic pension cost is classified in costs of products sold or selling, general, and administrative expenses on the consolidated condensed statements of operations based on the respective employee's function. The other components of net periodic pension cost are classified as other expense on the consolidated condensed statements of operations.

Defined Benefit Pension Plans

The following table shows the components of the net periodic pension cost for the third fiscal quarters of 2024 and 2023 for the Company's defined benefit pension plans:

	Fiscal quarter ended September 28, 2024		Fiscal quarter ended September 30, 2023	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Net service cost	$ -	$ 783	$ -	$ 717
Interest cost	381	1,688	499	1,708
Expected return on plan assets	-	(586)	-	(568)
Amortization of prior service cost	16	57	36	56
Amortization of losses (gains)	(108)	463	(30)	575
Curtailment and settlement losses	-	102	-	102
Net periodic benefit cost	$ 289	$ 2,507	$ 505	$ 2,590

The following table shows the components of the net periodic pension cost for the nine fiscal months ended September 28, 2024 and September 30, 2023 for the Company's defined benefit pension plans:

	Nine fiscal months ended September 28, 2024		Nine fiscal months ended September 30, 2023	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Net service cost	$ -	$ 2,349	$ -	$ 2,164
Interest cost	1,144	5,038	1,498	5,114
Expected return on plan assets	-	(1,764)	-	(1,708)
Amortization of prior service cost	49	171	108	167
Amortization of losses (gains)	(325)	1,373	(90)	748
Curtailment and settlement losses	-	308	-	315
Net periodic benefit cost	$ 868	$ 7,475	$ 1,516	$ 6,800

(dollars in thousands, except per share amounts)

Other Postretirement Benefits

The following table shows the components of the net periodic benefit cost for the third fiscal quarters of 2024 and 2023 for the Company's other postretirement benefit plans:

	Fiscal quarter ended September 28, 2024		Fiscal quarter ended September 30, 2023	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	$ 6	$ 61	$ 5	$ 34
Interest cost	53	62	56	32
Amortization of losses (gains)	(60)	21	(80)	3
Net periodic benefit cost	$ (1)	$ 144	$ (19)	$ 69

The following table shows the components of the net periodic pension cost for the nine fiscal months ended September 28, 2024 and September 30, 2023 for the Company's other postretirement benefit plans:

	Nine fiscal months ended September 28, 2024		Nine fiscal months ended September 30, 2023	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	$ 16	$ 181	$ 16	$ 102
Interest cost	158	184	168	94
Amortization of losses (gains)	(180)	62	(241)	10
Net periodic benefit cost	$ (6)	$ 427	$ (57)	$ 206

(dollars in thousands, except per share amounts)

Note 12 – Stock-Based Compensation

The following table summarizes stock-based compensation expense recognized:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Restricted stock units ("RSUs")	**$ 5,635**	$ 5,528	**$ 14,810**	11,503
Phantom stock units	**-**	-	**118**	107
Total	**$ 5,635**	$ 5,528	**$ 14,928**	11,610

The following table summarizes unrecognized compensation cost and the weighted average remaining amortization periods at September 28, 2024 *(amortization periods in years)*:

	Unrecognized Compensation Cost	Weighted Average Remaining Amortization Periods
Restricted stock units	**$ 31,130**	**2.2**
Phantom stock units	**-**	**n/a**
Total	**$ 31,130**	

Restricted Stock Units

RSU activity under the Company's stock incentive programs as of September 28, 2024 and changes during the nine fiscal months then ended are presented below *(number of RSUs in thousands)*:

	Number of RSUs	Weighted Average Grant-date Fair Value per Unit
Outstanding:		
January 1, 2024	**1,717**	**$ 23.03**
Granted*	**1,641**	**20.47**
Vested**	**(587)**	**23.05**
Cancelled or forfeited	**(125)**	**23.18**
Outstanding at September 28, 2024	**2,646**	**$ 21.43**
Expected to vest at September 28, 2024	**1,900**	

* Employees in certain countries are granted equity-linked awards that will be settled in cash and are accounted for as liability awards. The liability awards are not material. The number of RSUs granted excludes these awards.
** The number of RSUs vested includes shares that the Company withheld on behalf of employees to satisfy the statutory tax withholding requirements.

The number of performance-based RSUs that are scheduled to vest increases ratably based on the achievement of defined performance and market criteria between the established target and maximum levels. RSUs with performance-based and market-based vesting criteria are expected to vest as follows *(number of RSUs in thousands)*:

Vesting Date	Expected to Vest	Not Expected to Vest	Total
January 1, 2025	168	-	168
January 1, 2026	-	167	167
January 1, 2027	-	579	579
March 1, 2029	175	-	175

Phantom Stock Units

Phantom stock unit activity as of September 28, 2024 and changes during the nine fiscal months then ended are presented below *(number of phantom stock units in thousands)*:

	Number of units	Grant-date Fair Value per Unit
Outstanding:		
January 1, 2024	**120**	
Granted	**5**	**$ 23.51**
Dividend equivalents issued	**2**	
Outstanding at September 28, 2024	**127**	

(dollars in thousands, except per share amounts)

Note 13 – Segment Information

The following tables set forth business segment information:

	MOSFETs	Diodes	Optoelectronic Components	Resistors	Inductors	Capacitors	Total
Fiscal quarter ended September 28, 2024:							
Net revenues	**$ 147,134**	**$ 145,183**	**$ 63,227**	**$ 180,889**	**$ 90,253**	**$ 108,667**	**$ 735,353**
Segment Operating Income (Loss)	**$ (4,265)**	**$ 22,748**	**$ 6,153**	**$ 32,305**	**$ 23,649**	**$ 18,917**	**$ 99,507**
Fiscal quarter ended September 30, 2023:							
Net revenues	$ 205,027	$ 176,788	$ 64,441	$ 199,877	$ 89,947	$ 117,573	$ 853,653
Segment Operating Income	$ 52,755	$ 41,552	$ 13,087	$ 41,849	$ 25,078	$ 20,533	$ 194,854
Nine fiscal months ended September 28, 2024:							
Net revenues	**$ 455,360**	**$ 440,578**	**$ 165,436**	**$ 548,583**	**$ 272,965**	**$ 339,949**	**$2,222,871**
Segment Operating Income	**$ 5,616**	**$ 73,173**	**$ 16,339**	**$ 103,337**	**$ 71,377**	**$ 66,412**	**$ 336,254**
Nine fiscal months ended September 30, 2023:							
Net revenues	$ 610,596	$ 527,216	$ 189,293	$ 645,450	$ 259,524	$ 384,730	$2,616,809
Segment Operating Income	$ 167,544	$ 119,348	$ 41,136	$ 165,911	$ 73,642	$ 81,706	$ 649,287

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Reconciliation:				
Segment Operating Income	**$ 99,507**	$ 194,854	**$ 336,254**	$ 649,287
Restructuring and Severance Costs	**(40,614)**	-	**(40,614)**	-
Unallocated Selling, General, and Administrative Expenses	**(77,169)**	(79,724)	**(233,328)**	(240,973)
Consolidated Operating Income (Loss)	**$ (18,276)**	$ 115,130	**$ 62,312**	$ 408,314
Unallocated Other Income (Expense)	**(5,793)**	(18,618)	**(5,848)**	(21,556)
Consolidated Income (Loss) Before Taxes	**$ (24,069)**	$ 96,512	**$ 56,464**	$ 386,758

(dollars in thousands, except per share amounts)

The Company has a broad line of products that it sells to original equipment manufacturers ("OEMs"), electronic manufacturing services ("EMS") companies, and independent distributors. The distribution of sales by channel is shown below:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Distributors	**$ 406,468**	$ 438,126	**$ 1,200,456**	$ 1,396,021
OEMs	**278,801**	358,791	**871,739**	1,044,039
EMS companies	**50,084**	56,736	**150,676**	176,749
Total Revenue	**$ 735,353**	$ 853,653	**$ 2,222,871**	$ 2,616,809

Net revenues were attributable to customers in the following regions:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Asia	**$ 289,577**	$ 323,750	**$ 857,073**	$ 957,706
Europe	**256,296**	315,264	**793,183**	968,286
Americas	**189,480**	214,639	**572,615**	690,817
Total Revenue	**$ 735,353**	$ 853,653	**$ 2,222,871**	$ 2,616,809

The Company generates substantially all of its revenue from product sales to end customers in the industrial, automotive, telecommunications, computing, consumer products, power supplies, military and aerospace, and medical end markets. Sales by end market are presented below:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Industrial	**$ 243,610**	$ 297,506	**$ 753,872**	$ 951,422
Automotive	**279,597**	316,043	**834,998**	910,775
Military and Aerospace	**81,264**	67,623	**245,189**	198,489
Medical	**37,010**	34,447	**110,855**	116,688
Other	**93,872**	138,034	**277,957**	439,435
Total Revenue	**$ 735,353**	$ 853,653	**$ 2,222,871**	$ 2,616,809

Note 14 – Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share attributable to Vishay stockholders *(shares in thousands)*:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Numerator:				
Net earnings (loss) attributable to Vishay stockholders	**$ (19,299)**	$ 65,529	**$ 35,158**	$ 272,348
Denominator:				
Denominator for basic earnings (loss) per share:				
Weighted average shares	**136,667**	138,964	**137,155**	139,696
Outstanding phantom stock units	**126**	119	**126**	132
Adjusted weighted average shares	**136,793**	139,083	**137,281**	139,828
Effect of dilutive securities:				
Restricted stock units	**-**	918	**758**	749
Dilutive potential common shares	**-**	918	**758**	749
Denominator for diluted earnings (loss) per share:				
Adjusted weighted average shares - diluted	**136,793**	140,001	**138,039**	140,577
Basic earnings (loss) per share attributable to Vishay stockholders	**$ (0.14)**	$ 0.47	**$ 0.26**	$ 1.95
Diluted earnings (loss) per share attributable to Vishay stockholders	**$ (0.14)**	$ 0.47	**$ 0.25**	$ 1.94

Diluted earnings per share for the periods presented do not reflect the following weighted average potential common shares that would have an antidilutive effect or have unsatisfied performance conditions *(in thousands)*:

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Restricted stock units	**2,646**	3	**243**	107

If the average market price of Vishay common stock is less than the effective conversion prices of the convertible senior notes due 2025 and due 2030, respectively, no shares are included in the diluted earnings (loss) per share computation for the convertible senior notes due 2025 and due 2030. Upon Vishay exercising its existing right to legally amend the indenture governing the convertible senior notes due 2025, Vishay will satisfy its conversion obligations by paying $1 cash per $1 principal amount of converted notes and settle any additional amounts due in common stock. Pursuant to the indenture governing the convertible senior notes due 2030, Vishay will satisfy its conversion obligations by paying $1 cash per $1 principal amount of converted notes and settle any additional amounts due in cash and/or common stock.

In connection with the issuance of the convertible senior notes due 2030, the Company entered into capped call transactions, which were not included in the calculation of diluted earnings per share as their effect would have been anti-dilutive. The capped calls are intended to reduce the potential dilution to the Company's common stock in the event that at the time of conversion of the convertible senior notes due 2030 the Company's common stock price exceeds the conversion price of the convertible senior notes due 2030.

(dollars in thousands, except per share amounts)

Note 15 – Fair Value Measurements

The following table provides the financial assets and liabilities carried at fair value measured on a recurring basis:

	Total Fair Value	Level 1	Level 2	Level 3
September 28, 2024				
Assets:				
Assets held in rabbi trusts	**$ 54,943**	$ 25,654	$ 29,289	$ -
Available for sale securities	**$ 4,298**	4,298	-	-
	$ 59,241	**$ 29,952**	**$ 29,289**	**$ -**
Liability:				
Acquisitions contingent consideration	**$ 15,674**	$ -	$ -	$ 15,674
December 31, 2023				
Assets:				
Assets held in rabbi trusts	$ 50,378	$ 24,343	$ 26,035	$ -
Available for sale securities	$ 4,115	4,115	-	-
	$ 54,493	$ 28,458	$ 26,035	$ -
Liability:				
MaxPower acquisition contingent consideration	$ 938	$ -	$ -	$ 938

There have been no changes in the classification of any financial instruments within the fair value hierarchy in the periods presented.

During the third fiscal quarter, the Company performed an interim goodwill impairment test in which the fair value of the Company's reporting units was calculated. See additional information on the impairment test in Note 3.

The Company maintains non-qualified trusts, referred to as “rabbi” trusts, to fund payments under deferred compensation and non-qualified pension plans. Rabbi trust assets consist primarily of marketable securities, classified as available-for-sale and company-owned life insurance assets. The marketable securities held in the rabbi trusts are valued using quoted market prices on the last business day of the period. The company-owned life insurance assets are valued in consultation with the Company’s insurance brokers using the value of underlying assets of the insurance contracts. The fair value measurement of the marketable securities held in the rabbi trust is considered a Level 1 measurement and the measurement of the company-owned life insurance assets is considered a Level 2 measurement within the fair value hierarchy.

The Company holds investments in debt securities that are intended to fund a portion of its pension and other postretirement benefit obligations outside of the United States. The investments are valued based on quoted market prices on the last business day of the period. The fair value measurement of the investments is considered a Level 1 measurement within the fair value hierarchy.

The Company may be required to make certain contingent payments to non-employee equity holders of MaxPower pursuant to the acquisition agreement, which will be payable upon the achievement of certain technology milestones. The Company may be required to make certain contingent payments upon the receipt of an export license pursuant to the Newport wafer fab acquisition agreement. The fair value of these contingent consideration payments is determined by estimating the net present value of the expected cash flows based on the probability of expected payments. The fair value measurement of the contingent consideration is considered a Level 3 measurement within the fair value hierarchy.

The fair value of the long-term debt, excluding the derivative liabilities and deferred financing costs, at September 28, 2024 and December 31, 2023 is approximately $789,100 and $836,200, respectively, compared to its carrying value, excluding the deferred financing costs, of $845,102. The Company estimates the fair value of its long-term debt using a combination of quoted market prices for similar financing arrangements and expected future payments discounted at risk-adjusted rates, which are considered Level 2 inputs.

At September 28, 2024 and December 31, 2023, the Company’s short-term investments were comprised of time deposits with financial institutions that have maturities that exceed 90 days from the date of acquisition; however they all mature within one year from the respective balance sheet dates. The Company's short-term investments are accounted for as held-to-maturity debt instruments, at amortized cost, which approximates their fair value. The investments are funded with excess cash not expected to be needed for operations prior to maturity; therefore, the Company believes it has the intent and ability to hold the short-term investments until maturity. At each reporting date, the Company performs an evaluation to determine if any unrealized losses are other-than-temporary. No other-than-temporary impairments have been recognized on these securities, and there are no unrecognized holding gains or losses for these securities during the periods presented. There have been no transfers to or from the held-to-maturity classification. All decreases in the account balance are due to returns of principal at the securities’ maturity dates. Interest on the securities is recognized as interest income when earned.

At September 28, 2024 and December 31, 2023, the Company’s cash and cash equivalents were comprised of demand deposits, time deposits with maturities of three months or less when purchased, and money market funds. The Company estimates the fair value of its cash, cash equivalents, and short-term investments using Level 2 inputs. Based on the current interest rates for similar investments with comparable credit risk and time to maturity, the fair value of the Company's cash, cash equivalents, and held-to-maturity short-term investments approximate the carrying amounts reported in the consolidated condensed balance sheets.

The Company’s financial instruments also include accounts receivable and accounts payable. The carrying amounts for these financial instruments reported in the consolidated condensed balance sheets approximate their fair values.

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

This Management's Discussion and Analysis ("MD&A") is intended to provide an understanding of Vishay's financial condition, results of operations and cash flows by focusing on changes in certain key measures from period to period. The MD&A should be read in conjunction with our Consolidated Condensed Financial Statements and accompanying Notes included in Item 1. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in our Annual Report on Form 10-K, particularly in Item 1A. "Risk Factors," filed with the Securities and Exchange Commission on February 16, 2024.

Overview

Vishay Intertechnology, Inc. ("Vishay," "we," "us," or "our") manufactures one of the world’s largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets.

We operate in six segments based on product functionality: MOSFETs, Diodes, Optoelectronic Components, Resistors, Inductors, and Capacitors.

We are focused on enhancing stockholder value by growing our business and improving earnings per share. Since 1985, we have pursued a business strategy of growth through focused research and development and acquisitions. We plan to continue to grow our business through intensified internal growth supplemented by opportunistic acquisitions, while maintaining a prudent capital structure. To drive growth and optimize stockholder value, we plan to capitalize on the mega trends of e-mobility, sustainability, and connectivity through initiatives. We are developing go-to-market strategies and investing in and expanding the key product lines for growth that we have identified. In addition, we are strategically expanding our outsourced production of commodity products to subcontractors. At the same time, we are enhancing our channel management while investing in internal resources by adding customer-facing engineers and filling gaps in technology and market coverage. Taken together, each of these initiatives supports our Think Customer First organizational culture. To increase our internal capacity, we had planned to invest approximately $435 million in 2024. The industry recovery has been slower than expected. Accordingly, we adjusted our timetable for investments for our new 12-inch wafer fab in Itzehoe, Germany beyond 2024, and now expect total capital expenditures for 2024 to be between $360 million and $390 million. We remain committed to spending a total of $2.6 billion in total capital expenditures for the period 2023 - 2028. We can adjust the timing of our capital expenditures and still fulfill our customer commitments because we now have intermediate capacity due to the qualification of a foundry partner and the acquisition of the Newport wafer fab.

On March 5, 2024, we completed the acquisition of Nexperia’s wafer fabrication facility and operations located in Newport, South Wales, U.K. for approximately $177.5 million in cash, net of cash acquired. The wafer fabrication facility is located on 28 acres and is an automotive-certified, 200mm semiconductor wafer fab with capacity to produce more than 30,000 wafers per month. We plan to position the facility as a manufacturing excellence center and use it as the home for MaxPower to further develop and scale our SiC MOSFETs and diodes capabilities. We expect the facility to initially generate a net loss while we invest in new equipment and qualify new products.

In addition to enhancing stockholder value through growing our business, in 2022, our Board of Directors adopted a Stockholder Return Policy, which calls for us to return at least 70% of free cash flow, net of scheduled principal payments of long-term debt, on an annual basis. See further discussion in “Stockholder Return Policy” below.

Our business and operating results have been and will continue to be impacted by worldwide economic conditions. Our revenues are dependent on end markets that are impacted by consumer and industrial demand, and our operating results can be adversely affected by reduced demand in those global markets. In this volatile economic environment, we continue to closely monitor our fixed costs, capital expenditure plans, inventory, and capital resources to respond to changing conditions and to ensure we have the management, business processes, and resources to meet our future needs. We believe we can react quickly and professionally to changes in demand to minimize manufacturing inefficiencies and excess inventory build in periods of decline and maximize opportunities in periods of growth. The Company implemented restructuring programs in the third fiscal quarter of 2024 designed to optimize the Company's manufacturing footprint and streamline business decision making. We believe we have significant liquidity to withstand temporary disruptions in the economic environment.

We utilize several financial metrics, including net revenues, gross profit margin, operating margin, segment operating margin, end-of-period backlog, book-to-bill ratio, inventory turnover, change in average selling prices, net cash and short-term investments (debt), and free cash generation to evaluate the performance and assess the future direction of our business. See further discussion in “Financial Metrics” and “Financial Condition, Liquidity, and Capital Resources” below. The key financial metrics decreased slightly in the third fiscal quarter of 2024 primarily due to the negative impacts of an on-going distributor inventory correction. Net revenues and margins decreased versus the prior year periods primarily due to lower sales volume. The restructuring expense recognized in the third fiscal quarter also negatively impacted operating margin.

Net revenues for the fiscal quarter ended September 28, 2024 were $735.4 million, compared to $741.2 million and $853.7 million for the fiscal quarters ended June 29, 2024 and September 30, 2023, respectively. The net loss attributable to Vishay stockholders for the fiscal quarter ended September 28, 2024 was $(19.3) million, or $(0.14) per share, compared to net earnings of $23.5 million, or $0.17 per diluted share for the fiscal quarter ended June 29, 2024, and $65.5 million, or $0.47 per diluted share for the fiscal quarter ended September 30, 2023.

Net revenues for the nine fiscal months ended September 28, 2024 were $2,222.9 million, compared to $2,616.8 million for the nine fiscal months ended September 30, 2023. The net earnings attributable to Vishay stockholders for the nine fiscal months ended September 28, 2024 were $35.2 million, or $0.25 per diluted share, compared to $272.3 million, or $1.94 per diluted share for the nine fiscal months ended September 30, 2023.

We define adjusted net earnings as net earnings (loss) determined in accordance with GAAP adjusted for various items that management believes are not indicative of the intrinsic operating performance of our business. We define free cash as the cash flows generated from continuing operations less capital expenditures plus net proceeds from the sale of property and equipment. The reconciliations below include certain financial measures which are not recognized in accordance with GAAP, including adjusted net earnings, adjusted earnings per share, and free cash. These non-GAAP measures should not be viewed as alternatives to GAAP measures of performance or liquidity. Non-GAAP measures such as adjusted net earnings, adjusted earnings per share, and free cash do not have uniform definitions. These measures, as calculated by Vishay, may not be comparable to similarly titled measures used by other companies. Management believes that adjusted net earnings and adjusted earnings per share are meaningful because they provide insight with respect to our intrinsic operating results. Management believes that free cash is a meaningful measure of our ability to fund acquisitions, repay debt, and otherwise enhance stockholder value through stock repurchases or dividends. We utilize the free cash metric in defining our Stockholder Return Policy.

Net earnings (loss) attributable to Vishay stockholders include items affecting comparability. The items affecting comparability are (*in thousands, except per share amounts*):

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	**June 29, 2024**	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
GAAP net earnings (loss) attributable to Vishay stockholders	**$ (19,299)**	$ 23,533	$ 65,529	**$ 35,158**	$ 272,348
Reconciling items affecting operating income (loss):					
Restructuring and severance costs	**$ 40,614**	$ -	$ -	**$ 40,614**	$ -
Reconciling items affecting other income (expense):					
Loss on early extinguishment of debt	**$ -**	$ -	$ 18,874	**$ -**	$ 18,874
Reconciling items affecting tax expense (benefit):					
Tax effect of pre-tax items above	**$ (10,299)**	$ -	$ (498)	**$ (10,299)**	$ (498)
Adjusted net earnings	**$ 11,016**	$ 23,533	$ 83,905	**$ 65,473**	$ 290,724
Adjusted weighted average diluted shares outstanding	**137,558**	138,084	140,001	**138,039**	140,577
Adjusted earnings per diluted share	**$ 0.08**	$ 0.17	$ 0.60	**$ 0.47**	$ 2.07

The following table reconciles gross profit by segment to consolidated gross profit (*in thousands*).

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	**June 29, 2024**	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
MOSFETs	**$ 17,178**	$ 21,569	$ 68,665	**$ 64,220**	$ 213,477
Diodes	**29,245**	30,999	47,194	**92,614**	136,200
Optoelectronic Components	**11,548**	14,205	18,140	**32,754**	55,689
Resistors	**40,651**	41,182	49,156	**128,304**	187,826
Inductors	**27,366**	28,284	28,493	**82,437**	83,024
Capacitors	**24,895**	26,631	25,995	**83,831**	97,613
Gross profit	**$ 150,883**	$ 162,870	$ 237,643	**$ 484,160**	$ 773,829

Although the term "free cash" is not defined in GAAP, each of the elements used to calculate free cash for the year-to-date period is presented as a line item on the face of our consolidated condensed statement of cash flows prepared in accordance with GAAP and the quarterly amounts are derived from the year-to-date GAAP statements as of the beginning and end of the respective quarter. Free cash results are as follows (*in thousands*):

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	**June 29, 2024**	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Net cash provided by (used in) continuing operating activities	**$ 50,565**	$ (24,730)	$ 122,303	**$ 106,046**	$ 359,435
Proceeds from sale of property and equipment	**132**	514	21	**1,397**	1,034
Less: Capital expenditures	**(59,527)**	(62,564)	(66,829)	**(175,175)**	(184,079)
Free cash	**$ (8,830)**	$ (86,780)	$ 55,495	**$ (67,732)**	$ 176,390

Our results have been negatively impacted by the distributor inventory correction that began in the fourth fiscal quarter of 2022 and continued through the third fiscal quarter of 2024. The long-term outlook for our business remains strong, although our results are weaker than our prior fiscal quarter and prior year results.

Our free cash results were significantly impacted by the installment payments of the U.S. transition tax of $37.6 million and $27.7 million in the second fiscal quarters of 2024 and 2023, respectively, and $15.0 million of payments of withholding taxes on foreign earnings for the $120.0 million that was repatriated to the U.S. in the second fiscal quarter of 2024.

Stockholder Return Policy

In 2022, our Board of Directors adopted a Stockholder Return Policy, which calls for us to return at least 70% of free cash flow, net of scheduled principal payments of long-term debt, on an annual basis. We intend to return such amounts to stockholders directly, in the form of dividends, or indirectly, in the form of stock repurchases.

The following table summarizes activity pursuant to this policy *(in thousands):*

	Fiscal quarters ended		Nine fiscal months ended	
	September 28, 2024	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Dividends paid to stockholders	**$ 13,644**	$ 13,879	**$ 41,096**	$ 41,836
Stock repurchases	**12,624**	17,262	**37,784**	57,661
Total	**$ 26,268**	$ 31,141	**$ 78,880**	$ 99,497

We have determined that substantially all unremitted foreign earnings in Germany and Israel are no longer indefinitely reinvested. These indefinite reinvestment assertions provide greater access to our worldwide cash balances to fund our growth plan and our Stockholder Return Policy, but also negatively impact our effective tax rate.

The structure of our Stockholder Return Policy enables us to allocate capital responsibly among our business, our lenders, and our stockholders. We will continue to invest in growth initiatives including key product line expansions, targeted R&D, and synergistic acquisitions.

We have paid dividends each quarter since the first quarter of 2014, and the Stockholder Return Policy will remain in effect until such time as the Board votes to amend or rescind the policy. Implementation of the Stockholder Return Policy is subject to future declarations of dividends by the Board of Directors, market and business conditions, legal requirements, and other factors. The policy sets forth our intention, but does not obligate us to acquire any shares of common stock or declare any dividends, and the policy may be terminated or suspended at any time at our discretion, in accordance with applicable laws and regulations.

Financial Metrics

We utilize several financial metrics to evaluate the performance and assess the future direction of our business. These key financial measures and metrics include net revenues, gross profit margin, operating margin, segment operating income, segment operating margin, end-of-period backlog, and the book-to-bill ratio. We also monitor changes in inventory turnover and our or publicly available average selling prices ("ASP").

Gross profit margin is computed as gross profit as a percentage of net revenues. Gross profit is generally net revenues less costs of products sold, but also deducts certain other period costs, particularly losses on purchase commitments and inventory write-downs. Losses on purchase commitments and inventory write-downs have the impact of reducing gross profit margin in the period of the charge, but result in improved gross profit margins in subsequent periods by reducing costs of products sold as inventory is used. We also regularly evaluate gross profit by segment to assist in the analysis of consolidated gross profit. Gross profit margin and gross profit margin by segment are clearly a function of net revenues, but also reflect our cost management programs and our ability to contain fixed costs.

Operating margin is computed as gross profit less operating expenses, expressed as a percentage of net revenues. Operating margin is clearly a function of net revenues, but also reflects our cost management programs and our ability to contain fixed costs.

Our chief operating decision maker makes decisions, allocates resources, and evaluates business segment performance based on segment operating income. Only dedicated, direct selling, general, and administrative ("SG&A") expenses of the segments are included in the calculation of segment operating income. We do not allocate certain SG&A expenses that are managed at the regional or corporate global level to our segments. Accordingly, segment operating income excludes these SG&A expenses that are not directly traceable to the segments. Segment operating income would also exclude costs not routinely used in the management of the segments in periods when those items are present, such as restructuring and severance costs, and other items affecting comparability. Segment operating income is clearly a function of net revenues, but also reflects our cost management programs and our ability to contain fixed costs. Segment operating margin is segment operating income expressed as a percentage of net revenues.

End-of-period backlog is one indicator of future revenues. We include in our backlog only open orders that we expect to ship in the next twelve months. If demand falls below customers' forecasts, or if customers do not control their inventory effectively, they may cancel or reschedule the shipments that are included in our backlog, in many instances without the payment of any penalty. Therefore, the backlog is not necessarily indicative of the results to be expected for future periods.

An important indicator of demand in our industry is the book-to-bill ratio, which is the ratio of the amount of product ordered during a period as compared with the product that we ship during that period. A book-to-bill ratio that is greater than one indicates that our backlog is building and that we are likely to see increasing revenues in future periods. Conversely, a book-to-bill ratio that is less than one is an indicator of declining demand and may foretell declining revenues.

We focus on our inventory turnover as a measure of how well we are managing our inventory. We define inventory turnover for a financial reporting period as our costs of products sold for the four fiscal quarters ending on the last day of the reporting period divided by our average inventory (computed using each fiscal quarter-end balance) for this same period. A higher level of inventory turnover reflects more efficient use of our capital.

Pricing in our industry can be volatile. Using our and publicly available data, we analyze trends and changes in average selling prices to evaluate likely future pricing. The erosion of average selling prices of established products is typical for semiconductor products. We attempt to offset this deterioration with ongoing cost reduction activities and new product introductions. Our specialty passive components are more resistant to average selling price erosion. All pricing is subject to governing market conditions and is independently set by us.

The quarter-to-quarter trends in these financial metrics can also be an important indicator of the likely direction of our business. The following table shows net revenues, gross profit margin, operating margin, end-of-period backlog, book-to-bill ratio, inventory turnover, and changes in ASP for our business as a whole during the five fiscal quarters beginning with the third fiscal quarter of 2023 through the third fiscal quarter of 2024 *(dollars in thousands)*:

	3rd Quarter 2023	4th Quarter 2023	1st Quarter 2024	2nd Quarter 2024	3rd Quarter 2024
Net revenues	$ 853,653	$ 785,236	$ 746,279	$ 741,239	$ 735,353
Gross profit margin	27.8%	25.6%	22.8%	22.0%	20.5%
Operating margin(1)	13.5%	9.9%	5.7%	5.1%	(2.5)%
End-of-period backlog	$ 1,552,400	$ 1,381,800	$ 1,253,400	$ 1,145,400	$ 1,075,800
Book-to-bill ratio	0.63	0.75	0.82	0.86	0.88
Inventory turnover	3.7	3.6	3.5	3.4	3.4
Change in ASP vs. prior quarter	(0.8)%	(0.7)%	(2.5)%	(0.7)%	(1.0)%

(1) Operating margin for the third fiscal quarter of 2024 includes $40.6 million of restructuring and severance expenses (see Note 4 to our consolidated condensed financial statements).

See "Financial Metrics by Segment" below for net revenues, book-to-bill ratio, and gross profit margin broken out by segment.

Revenues decreased versus the prior fiscal quarter and the third fiscal quarter of 2023 primarily due to lower sales volume and lower average selling prices. The book-to-bill ratio increased slightly versus the prior fiscal quarter, but orders and backlog continued to be negatively impacted by the distributor inventory correction that continued in the third fiscal quarter of 2024. We continue to increase manufacturing capacity for critical product lines. Average selling prices decreased versus the prior fiscal quarter and prior year quarter.

Gross profit margin decreased versus the prior fiscal quarter and the prior year quarter primarily due to lower sales volume, decreased average selling prices, and increased depreciation expense. The impact of the Newport acquisition also contributed to the decrease versus the prior year quarter.

The book-to-bill ratio in the third fiscal quarter of 2024 increased to 0.88 versus 0.86 in the second fiscal quarter of 2024.

Financial Metrics by Segment

The following table shows net revenues, book-to-bill ratio, gross profit margin, and segment operating margin broken out by segment for the five fiscal quarters beginning with the third fiscal quarter of 2023 through the third fiscal quarter of 2024 *(dollars in thousands)*:

	3rd Quarter 2023	4th Quarter 2023	1st Quarter 2024	2nd Quarter 2024	3rd Quarter 2024
MOSFETs					
Net revenues	$ 205,027	$ 168,158	$ 153,173	$ 155,053	$ 147,134
Book-to-bill ratio	0.50	0.62	0.68	0.79	0.84
Gross profit margin	33.5%	27.3%	16.6%	13.9%	11.7%
Segment operating margin	25.7%	16.8%	5.3%	1.2%	(2.9)%
Diodes					
Net revenues	$ 176,788	$ 163,324	$ 149,130	$ 146,265	$ 145,183
Book-to-bill ratio	0.58	0.61	0.72	0.85	0.74
Gross profit margin	26.7%	24.1%	21.7%	21.2%	20.1%
Segment operating margin	23.5%	20.9%	17.4%	16.7%	15.7%
Optoelectronic Components					
Net revenues	$ 64,441	$ 53,853	$ 49,199	$ 53,010	$ 63,227
Book-to-bill ratio	0.57	0.59	0.89	0.82	0.77
Gross profit margin	28.1%	12.1%	14.2%	26.8%	18.3%
Segment operating margin	20.3%	3.4%	3.0%	16.4%	9.7%
Resistors					
Net revenues	$ 199,877	$ 198,022	$ 188,196	$ 179,498	$ 180,889
Book-to-bill ratio	0.65	0.82	0.79	0.87	0.95
Gross profit margin	24.6%	25.6%	24.7%	22.9%	22.5%
Segment operating margin	20.9%	22.0%	20.3%	18.3%	17.9%
Inductors					
Net revenues	$ 89,947	$ 87,868	$ 88,651	$ 94,061	$ 90,253
Book-to-bill ratio	0.85	0.91	0.96	0.97	0.83
Gross profit margin	31.7%	33.4%	30.2%	30.1%	30.3%
Segment operating margin	27.9%	29.6%	26.1%	26.1%	26.2%
Capacitors					
Net revenues	$ 117,573	$ 114,011	$ 117,930	$ 113,352	$ 108,667
Book-to-bill ratio	0.75	0.95	1.03	0.87	1.10
Gross profit margin	22.1%	25.3%	27.4%	23.5%	22.9%
Segment operating margin	17.5%	20.4%	22.5%	18.5%	17.4%

Goodwill

Goodwill represents the excess of the cost of businesses acquired over the fair value of the related net assets at the date of acquisition. Goodwill is not amortized but rather is tested for impairment at least annually. These tests are performed more frequently whenever events or changes in circumstances indicate that the assets might be impaired. We perform our annual goodwill impairment test as of the first day of the fourth fiscal quarter. During the third fiscal quarter of 2024, we identified the decrease in our share price in combination with the increase in the book value of our assets as a result of our acquisition and capital spending activities as potential indicators of impairment requiring an interim goodwill impairment test. The interim goodwill impairment test was performed as of September 28, 2024.

We performed a quantitative assessment of each of our reporting units using an equal weighting of income (discounted cash flow) and market approaches to determine fair value. We determined that the estimated fair value of each reporting unit exceeded its carrying value, although the MOSFETs reporting unit's fair value exceeded its carrying value by less than 10%. No goodwill impairment charges were recognized, but if the MOSFETs reporting unit is not able to achieve its anticipated results and/or if its discount rate were to increase, its fair value would be adversely affected, which may result in future impairment. There is $76.3 million of goodwill in this reporting unit as of September 28, 2024.

The acquisitions of MaxPower Semiconductor, Inc. and the Newport wafer fab, as well as the planned capacity expansions at Itzehoe and Newport, are long-term investments which were not expected to generate significant income or cash flows in the near-term, but should greatly enhance the long-term position of our MOSFETs business. Such investments have significantly increased the net asset base of our MOSFETs business without a corresponding increase in current income or cash flows. We continue to be committed to these long-term projects.

There are certain execution risks to our strategic plan. These execution risks, as well as the current market price of our common stock, result in the use of a relatively high discount rate in our discounted cash flow analysis. We will continue to monitor our reporting units and related goodwill for any possible future non-cash impairment charges.

See Note 3 to the consolidated condensed financial statements for additional information.

Results of Operations

Statements of operations' captions as a percentage of net revenues and the effective tax rates were as follows:

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Cost of products sold	79.5%	78.0%	72.2%	78.2%	70.4%
Gross profit	20.5%	22.0%	27.8%	21.8%	29.6%
Selling, general & administrative expenses	17.5%	16.9%	14.4%	17.2%	14.0%
Operating income (loss)	-2.5%	5.1%	13.5%	2.8%	15.6%
Income (loss) before taxes and noncontrolling interest	-3.3%	4.9%	11.3%	2.5%	14.8%
Net earnings (loss) attributable to Vishay stockholders	-2.6%	3.2%	7.7%	1.6%	10.4%
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Effective tax rate	21.1%	34.2%	31.7%	35.7%	29.3%

Net Revenues

Net revenues were as follows *(dollars in thousands)*:

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net revenues	$ 735,353	$ 741,239	$ 853,653	$ 2,222,871	$ 2,616,809

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		Nine fiscal months ended September 28, 2024	
	Change in net revenues	% change	Change in net revenues	% change
June 29, 2024	$ (5,886)	(0.8)%	n/a	n/a
September 30, 2023	$ (118,300)	(13.9)%	$ (393,938)	(15.1)%

Changes in net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Decrease in volume	(0.8)%	(11.0)%	(12.7)%
Decrease in average selling prices	(1.0)%	(4.7)%	(4.1)%
Foreign currency effects	0.5%	0.1%	0.0%
Acquisitions	0.1%	1.0%	1.1%
Other	0.4%	0.7%	0.6%
Net change	(0.8)%	(13.9)%	(15.1)%

Despite the distributor inventory correction that we are experiencing, the long-term prospects for our business remain favorable, and we continue to increase manufacturing capacities for critical product lines. The decrease in net revenues versus the prior fiscal quarter and prior year quarter are primarily due to decreased sales volume and average selling prices.

Gross Profit Margins

Gross profit margins for the fiscal quarter ended September 28, 2024 were 20.5%, versus 22.0% and 27.8%, for the comparable prior quarter and prior year period, respectively. Gross profit margins for the nine fiscal months ended September 28, 2024 were 21.8%, versus 29.6% for the comparable prior year period. Gross profit margin decreased versus the prior fiscal quarter primarily due to lower sales volume, decreased average selling prices, and increased depreciation expense. The decreases versus the prior year periods are primarily due to lower sales volume, decreased average selling prices, the impact of the Newport acquisition, and cost inflation.

Segments

Analysis of revenues and margins for our segments is provided below.

<u>*MOSFETs*</u>

Net revenues, gross profit margins, and segment operating margins of the MOSFETs segment were as follows *(dollars in thousands)*:

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net revenues	$ 147,134	$ 155,053	$ 205,027	$ 455,360	$ 610,596
Gross profit margin	11.7%	13.9%	33.5%	14.1%	35.0%
Segment operating margin	(2.9)%	1.2%	25.7%	1.2%	27.4%

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		Nine fiscal months ended September 28, 2024	
	Change in net revenues	% change	Change in net revenues	% change
June 29, 2024	$ (7,919)	(5.1)%	n/a	n/a
September 30, 2023	$ (57,893)	(28.2)%	$ (155,236)	(25.4)%

Changes in MOSFETs segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Decrease in volume	(3.8)%	(23.2)%	(21.1)%
Decrease in average selling prices	(1.8)%	(11.3)%	(10.9)%
Foreign currency effects	0.4%	0.1%	0.0%
Acquisition	0.0%	3.7%	4.4%
Other	0.1%	2.5%	2.2%
Net change	(5.1)%	(28.2)%	(25.4)%

Net revenues of the MOSFETS segment decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to decreased sales of Newport legacy products. The decreases versus the prior year quarter and prior year-to-date periods are primarily due to decreased sales to all end market customers and customers in all regions, partially offset by the Newport wafer fab acquisition.

Gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decreases versus the prior fiscal quarter and prior year periods are primarily due to lower sales volume and decreased average selling prices. Costs associated with the Newport wafer fab also contributed to the decreases versus the prior period years.

The segment operating margin decreased versus the prior fiscal quarter and the prior year periods. The decreases are primarily due to gross profit margin decreases.

Average selling prices decreased significantly versus the prior year periods, and to a lesser extent versus the prior fiscal quarter.

We continue to invest to expand mid- and long-term manufacturing capacity for strategic product lines. We have begun building a 12-inch wafer fab in Itzehoe, Germany adjacent to our existing 8-inch wafer fab, which we expect will increase our in-house wafer capacity by approximately 70% by 2028 and allow us to balance our in-house and foundry wafer supply.

We acquired leading edge silicon and silicon carbide MOSFETs products with our acquisition of MaxPower in the fourth fiscal quarter of 2022. We plan to use the Newport wafer fabrication facility acquired in the first fiscal quarter of 2024 as the home for MaxPower to further develop and scale our SiC MOSFETs and diodes capabilities.

Diodes

Net revenues, gross profit margins, and segment operating margins of the Diodes segment were as follows *(dollars in thousands):*

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	**June 29, 2024**	**September 30, 2023**	**September 28, 2024**	**September 30, 2023**
Net revenues	$ 145,183	$ 146,265	$ 176,788	$ 440,578	$ 527,216
Gross profit margin	20.1%	21.2%	26.7%	21.0%	25.8%
Segment operating margin	15.7%	16.7%	23.5%	16.6%	22.6%

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		**Nine fiscal months ended September 28, 2024**	
	Change in net revenues	**% change**	**Change in net revenues**	**% change**
June 29, 2024	$ (1,082)	(0.7)%	n/a	n/a
September 30, 2023	$ (31,605)	(17.9)%	$ (86,638)	(16.4)%

Changes in Diodes segment net revenues were attributable to the following:

	vs. Prior Quarter	**vs. Prior Year Quarter**	**vs. Prior Year-to-Date**
Change attributable to:			
Change in volume	0.4%	(14.6)%	(13.8)%
Decrease in average selling prices	(1.5)%	(4.0)%	(3.0)%
Foreign currency effects	0.4%	0.0%	(0.1)%
Other	0.0%	0.7%	0.5%
Net change	(0.7)%	(17.9)%	(16.4)%

Net revenues of the Diodes segment decreased slightly versus the prior fiscal quarter and significantly versus the prior year periods. The decrease versus the prior fiscal quarter was primarily due to decreased sales to distribution customers and customers in the Europe and Americas regions. The decreases versus the prior year periods are due to decreased sales to nearly all end market customers and customers in all regions.

Gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter was primarily due to lower average selling prices. The decreases versus the prior year periods are primarily due to lower sales volume and lower average selling prices. Higher labor and logistics costs also contributed to the decreases versus the prior year periods.

Segment operating margin decreased versus the prior fiscal quarter and the prior year periods. The decreases are primarily due to gross profit margin decreases.

Average selling prices decreased versus the prior fiscal quarter and the prior year periods.

We plan to use the Newport wafer fabrication facility acquired in the first fiscal quarter of 2024 as the home for MaxPower to further develop and scale our SiC MOSFETs and diodes capabilities.

Optoelectronic Components

Net revenues, gross profit margins, and segment operating margins of the Optoelectronic Components segment were as follows *(dollars in thousands):*

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net revenues	$ 63,227	$ 53,010	$ 64,441	$ 165,436	$ 189,293
Gross profit margin	18.3%	26.8%	28.1%	19.8%	29.4%
Segment operating margin	9.7%	16.4%	20.3%	9.9%	21.7%

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		Nine fiscal months ended September 28, 2024	
	Change in net revenues	% change	Change in net revenues	% change
June 29, 2024	$ 10,217	19.3%	n/a	n/a
September 30, 2023	$ (1,214)	(1.9)%	(23,857)	(12.6)%

Changes in Optoelectronic Components segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	20.1%	(0.6)%	(11.0)%
Decrease in average selling prices	(1.7)%	(1.9)%	(1.9)%
Foreign currency effects	0.9%	0.3%	0.1%
Other	0.0%	0.3%	0.2%
Net change	19.3%	(1.9)%	(12.6)%

Net revenues of the Optoelectronic Components segment increased versus the prior fiscal quarter, but decreased versus the prior year periods. The increase versus the prior fiscal quarter is due to increased sales to all end market customers and customers in all regions. The decrease versus the prior year quarter is primarily due to decreased sales to industrial end market customers and customers in the Europe and Americas regions. The decreases versus the prior year-to-date period is primarily due to decreased sales to distribution customers, all end market customers, and customers in the Europe and Americas regions.

Gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter and the prior year quarter are primarily due to lower average selling prices and the negative impact of inventory reduction. The decrease versus the prior year-to-date period is primarily due to decreased sales volume, lower average selling prices, and increased inventory obsolescence.

Segment operating margin decreased versus the prior fiscal quarter and the prior year periods. The fluctuations are primarily due to gross profit margin decreases.

Average selling prices decreased versus the prior fiscal quarter and the prior year periods.

We are now using our recently modernized and expanded wafer fab in Heilbronn, Germany.

Resistors

Net revenues, gross profit margins, and segment operating margins of the Resistors segment were as follows *(dollars in thousands):*

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net revenues	$ 180,889	$ 179,498	$ 199,877	$ 548,583	$ 645,450
Gross profit margin	22.5%	22.9%	24.6%	23.4%	29.1%
Segment operating margin	17.9%	18.3%	20.9%	18.8%	25.7%

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		Nine fiscal months ended September 28, 2024	
	Change in net revenues	% change	Change in net revenues	% change
June 29, 2024	$ 1,391	0.8%	n/a	n/a
September 30, 2023	$ (18,988)	(9.5)%	$ (96,867)	(15.0)%

Changes in Resistors segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	0.6%	(7.0)%	(13.2)%
Decrease in average selling prices	(1.5)%	(4.6)%	(2.7)%
Foreign currency effects	0.7%	0.2%	0.1%
Acquisitions	0.5%	0.6%	0.2%
Other	0.5%	1.3%	0.6%
Net change	0.8%	(9.5)%	(15.0)%

Net revenues of the Resistors segment increased slightly versus the prior fiscal quarter, but decreased significantly versus the prior year periods. The increase versus the prior fiscal quarter is primarily due to increased sales to distribution customers mainly in Asia and automotive and military and aerospace end market customers. The decreases versus the prior year periods were due to decreased sales to nearly all end market customers and customers in all regions.

Gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to lower average selling prices, increased labor costs, and increased materials costs. The decreases versus the prior year periods are primarily due to lower sales volume, lower average selling prices, increased labor costs, increased depreciation, and increased logistics costs.

Segment operating margin decreased versus the prior fiscal quarter and the prior year periods. The decreases are primarily due to gross profit margin decreases.

Average selling prices decreased versus the prior fiscal quarter and prior year periods.

We are increasing critical manufacturing capacities for certain product lines. We continue to broaden our business with targeted acquisitions of specialty resistors businesses.

Inductors

Net revenues, gross profit margins, and segment operating margins of the Inductors segment were as follows *(dollars in thousands):*

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net revenues	$ 90,253	$ 94,061	$ 89,947	$ 272,965	$ 259,524
Gross profit margin	30.3%	30.1%	31.7%	30.2%	32.0%
Segment operating margin	26.2%	26.1%	27.9%	26.1%	28.4%

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		Nine fiscal months ended September 28, 2024	
	Change in net revenues	% change	Change in net revenues	% change
June 29, 2024	$ (3,808)	(4.0)%	n/a	n/a
September 30, 2023	$ 306	0.3%	$ 13,441	5.2%

Changes in Inductors segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	(4.4)%	2.7%	7.5%
Change in average selling prices	0.1%	(2.4)%	(2.2)%
Foreign currency effects	0.3%	0.1%	0.0%
Other	0.0%	(0.1)%	(0.1)%
Net change	(4.0)%	0.3%	5.2%

Net revenues of the Inductors segment decreased versus the prior fiscal quarter, were flat versus the prior year fiscal quarter, and increased versus the prior year-to-date period. The decrease versus the prior fiscal quarter was primarily due to decreased sales to distribution and OEM customers, all end market customers, and customers in the Americas and Europe regions. The increase versus the prior year-to-date period is primarily due to increased sales to distribution customers, automotive and medical end market customers, and customers in all regions.

Gross profit margin was flat versus the prior fiscal quarter, but decreased versus the prior year periods. The decreases versus the prior year periods are primarily due to decreased average selling prices, higher logistics, materials, and labor costs, and start-up costs of a new manufacturing facility.

Segment operating margin was flat versus the prior fiscal quarter, but decreased versus the prior year periods. The decreases are primarily due to gross profit margin decreases.

Average selling prices were flat versus the prior fiscal quarter, but decreased versus the prior year periods.

We expect long-term growth in this segment, and are continuously expanding manufacturing capacity for certain product lines and evaluating acquisition opportunities, particularly of specialty businesses.

Capacitors

Net revenues, gross profit margins, and segment operating margins of the Capacitors segment were as follows *(dollars in thousands):*

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net revenues	$ 108,667	$ 113,352	$ 117,573	$ 339,949	$ 384,730
Gross profit margin	22.9%	23.5%	22.1%	24.7%	25.4%
Segment operating margin	17.4%	18.5%	17.5%	19.5%	21.2%

The change in net revenues versus the comparable prior periods was as follows *(dollars in thousands)*:

	Fiscal quarter ended September 28, 2024		Nine fiscal months ended September 28, 2024	
	Change in net revenues	% change	Change in net revenues	% change
June 29, 2024	$ (4,685)	(4.1)%	n/a	n/a
September 30, 2023	$ (8,906)	(7.6)%	$ (44,781)	(11.6)%

Changes in Capacitors segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Decrease in volume	(7.0)%	(7.5)%	(10.9)%
Change in average selling prices	1.1%	(0.2)%	(0.6)%
Foreign currency effects	0.7%	0.2%	0.0%
Other	1.1%	(0.1)%	(0.1)%
Net change	(4.1)%	(7.6)%	(11.6)%

Net revenues of the Capacitors segment decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to decreased sales to distribution customers, industrial end market customers, and customers in the Asia and Europe regions. The decrease versus the prior year quarter is primarily due to decreased sales to industrial and automotive end market customers and customers in the Europe region. The decrease versus the prior year-to-date period is primarily due to decreased sales to distribution customers, industrial and automotive end market customers, and customers in the Europe and Americas regions.

Gross profit margin decreased versus the prior fiscal quarter and the prior year-to-date period, but increased versus the prior year quarter. The decrease versus the prior fiscal quarter is due to lower sales volume, negative product mix, and increased utilities costs, partially offset by higher average selling prices. The increase versus the prior year quarter is due to improved production efficiencies and lower materials costs. The decrease versus the prior year-to-date period is due to lower sales volume, lower average selling prices, increased labor costs, higher material costs, and production inefficiencies.

Segment operating margin decreased versus the prior fiscal quarter and the prior year-to-date period, but was flat versus the prior year fiscal quarter. The decreases are primarily due to gross profit margin decreases.

Average selling prices increased versus the prior fiscal quarter, but decreased versus the prior year periods.

Selling, General, and Administrative Expenses

Selling, general, and administrative ("SG&A") expenses are summarized as follows *(dollars in thousands):*

	Fiscal quarters ended			Nine fiscal months ended	
	September 28, 2024	June 29, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Total SG&A expenses	$ 128,545	$ 124,953	$ 122,513	$ 381,234	$ 365,515
as a percentage of revenues	17.5%	16.9%	14.4%	17.2%	14.0%

The sequential increase in SG&A expenses is primarily attributable to higher stock-based compensation expense and higher research and development expenses, partially offset by lower bonus compensation. SG&A expenses increased versus the prior year periods due to higher stock-based compensation expense and general cost inflation.

On September 24, 2024, we announced a restructuring program designed, in part, to streamline business decision making. The programs are expected to generate annualized cost savings of approximately $12 million of selling, general and administration expenses, when the programs are fully implemented by the end of 2026. We expect SG&A expenses for the fourth fiscal quarter of 2024 to be approximately $126 million, reflecting SG&A cost savings realized from the program so far.

Other Income (Expense)

Interest expense for the fiscal quarter ended September 28, 2024 decreased $0.1 million versus the fiscal quarter ended June 29, 2024 and decreased $0.6 million versus the fiscal quarter ended September 30, 2023. Interest expense for the nine fiscal months ended September 28, 2024 increased by $1.1 million versus the nine fiscal months ended September 30, 2023. The decrease versus the prior year fiscal quarter is due to lower average outstanding balances on the revolving credit facility. The increase versus the prior year-to-date period is due to the issuance of the convertible senior notes due 2030 in the third fiscal quarter of 2023.

The following tables analyze the components of the line "Other" on the consolidated condensed statements of operations *(in thousands):*

	Fiscal quarters ended		
	September 28, 2024	September 30, 2023	Change
Foreign exchange gain (loss)	$ (3,727)	$ 1,407	$ (5,134)
Interest income	5,230	9,183	(3,953)
Other components of net periodic pension expense	(2,089)	(2,389)	300
Investment income (expense)	1,385	(1,419)	2,804
Other	4	627	(623)
	$ 803	$ 7,409	$ (6,606)

	Fiscal quarters ended		
	September 28, 2024	June 29, 2024	Change
Foreign exchange gain (loss)	$ (3,727)	$ 620	$ (4,347)
Interest income	5,230	6,663	(1,433)
Other components of net periodic pension expense	(2,089)	(2,056)	(33)
Investment income (expense)	1,385	(148)	1,533
Other	4	(68)	72
	$ 803	$ 5,011	$ (4,208)

	Nine fiscal months ended		
	September 28, 2024	September 30, 2023	Change
Foreign exchange gain (loss)	$ (1,814)	$ 1,120	$ (2,934)
Interest income	20,946	21,419	(473)
Other components of net periodic pension expense	(6,218)	(6,183)	(35)
Investment income (expense)	871	(868)	1,739
Other	116	507	(391)
	$ 13,901	$ 15,995	$ (2,094)

Income Taxes

For the fiscal quarter ended September 28, 2024, our effective tax rate was 21.1%, as compared to 34.2% and 31.7% for the fiscal quarters ended June 29, 2024 and September 30, 2023, respectively. For the nine fiscal months ended September 28, 2024, our effective tax rate was 35.7%, as compared to 29.3% for the nine fiscal months ended September 30, 2023. We expect that our effective tax rate will be higher than the U.S. statutory rate, excluding unusual transactions.

During the nine fiscal months ended September 28, 2024, the liabilities for unrecognized tax benefits decreased $0.2 million on a net basis, primarily due to statute expirations, partially offset by accruals for the current period.

We operate in a global environment with significant operations in various locations outside the United States. Accordingly, the consolidated income tax rate is a composite rate reflecting our earnings and the applicable tax rates in the various locations where we operate. Part of our historical strategy has been to achieve cost savings through the transfer and expansion of manufacturing operations to countries where we can take advantage of lower labor costs and available tax and other government-sponsored incentives.

Additional information about income taxes is included in Note 6 to our consolidated condensed financial statements.

Financial Condition, Liquidity, and Capital Resources

Our financial condition as of September 28, 2024 continued to be strong. We have historically been a strong generator of operating cash flows. The cash generated from operations is used to fund our capital expenditure plans, and cash in excess of our capital expenditure needs is available to fund our acquisition strategy, fund our Stockholder Return Policy, and to reduce debt levels.

Management uses a non-GAAP measure, "free cash," to evaluate our ability to fund acquisitions, repay debt, and otherwise enhance stockholder value through stock repurchases or dividends. See "Overview" above for "free cash" definition and reconciliation to GAAP.

Cash flows provided by operating activities were $106.0 million for the nine fiscal months ended September 28, 2024, as compared to cash flows provided by operations of $359.4 million for the nine fiscal months ended September 30, 2023.

In order to manage our working capital and operating cash needs, we monitor our cash conversion cycle. The following table presents the components of our cash conversion cycle during the five fiscal quarters beginning with the third fiscal quarter of 2023 through the third fiscal quarter of 2024:

	Fiscal quarters ended				
	3rd Quarter 2023	4th Quarter 2023	1st Quarter 2024	2nd Quarter 2024	3rd Quarter 2024
Days sales outstanding ("DSO") (a)	48	50	51	51	53
Days inventory outstanding ("DIO") (b)	96	101	104	105	106
Days payable outstanding ("DPO") (c)	(33)	(31)	(31)	(31)	(32)
Cash conversion cycle	111	120	124	125	127

a) DSO measures the average collection period of our receivables. DSO is calculated by dividing the average accounts receivable by the average net revenue per day for the respective fiscal quarter.
b) DIO measures the average number of days from procurement to sale of our product. DIO is calculated by dividing the average inventory by average cost of goods sold per day for the respective fiscal quarter.
c) DPO measures the average number of days our payables remain outstanding before payment. DPO is calculated by dividing the average accounts payable by the average cost of goods sold per day for the respective fiscal quarter.

Cash paid for property and equipment for the nine fiscal months ended September 28, 2024 was $175.2 million, as compared to $184.1 million for the nine fiscal months ended September 30, 2023. To be well positioned to service our customers and to fully participate in growing markets, we have increased and expect to maintain a relatively high level of capital expenditures for expansion in the mid-term. To increase our internal capacity, we had planned to invest approximately $435 million in 2024. The industry recovery has been slower than expected. Accordingly, we adjusted our timetable for investments for our new 12-inch wafer fab in Itzehoe, Germany beyond 2024, and now expect total capital expenditures for 2024 to be between $360 million and $390 million. We remain committed to spending a total of $2.6 billion in total capital expenditures for the period 2023 - 2028.

Free cash flow for the nine fiscal months ended September 28, 2024 decreased versus the nine fiscal months ended September 30, 2023 primarily due to decreased net earnings and withholding taxes paid for the repatriation of cash to the U.S. We expect that free cash flow will be negatively impacted by the expected high level of capital expenditures for expansion in 2023 - 2025 after which we expect to generate increasingly higher levels of free cash. There is no assurance, however, that we will be able to continue to generate cash flows from operations and free cash at our historical levels, or at all, going forward if the economic environment worsens.

In 2022, our Board of Directors adopted a Stockholder Return Policy that will remain in effect until such time as the Board votes to amend or rescind the policy. See "Stockholder Return Policy" above for additional information.

The following table summarizes the components of net cash and short-term investments (debt) at September 28, 2024 and December 31, 2023 *(in thousands)*:

	September 28, 2024	December 31, 2023
Credit facility	**$ -**	$ -
Convertible senior notes, due 2025	**95,102**	95,102
Convertible senior notes, due 2030	**750,000**	750,000
Deferred financing costs	**(24,303)**	(26,914)
Total debt	**820,799**	818,188
Cash and cash equivalents	**643,771**	972,719
Short-term investments	**13,491**	35,808
Net cash and short-term investments (debt)	**$ (163,537)**	$ 190,339

"Net cash and short-term investments (debt)" does not have a uniform definition and is not recognized in accordance with GAAP. This measure should not be viewed as an alternative to GAAP measures of performance or liquidity. However, management believes that an analysis of "net cash and short-term investments (debt)" assists investors in understanding aspects of our cash and debt management. The measure, as calculated by us, may not be comparable to similarly titled measures used by other companies.

We invest a portion of our excess cash in highly liquid, high-quality instruments with maturities greater than 90 days, but less than 1 year, which we classify as short-term investments on our consolidated balance sheets. As these investments were funded using a portion of excess cash and represent a significant aspect of our cash management strategy, we include the investments in the calculation of net cash and short-term investments (debt).

The interest rates on our short-term investments vary by location. Transactions related to these investments are classified as investing activities on our consolidated condensed statements of cash flows.

Our business is geographically diverse and our cash is generated by our subsidiaries around the world. Cash dividends to stockholders, share repurchases, and principal and interest payments on our debt instruments need to be paid by the U.S. parent company, Vishay Intertechnology, Inc. We continue to allocate capital responsibly between our business, our lenders, and our stockholders. The capital allocated to our business is further allocated between our subsidiaries to meet local operating cash needs, to fund capital expenditures as part of our growth plan, and to meet corporate funding needs while also aiming to minimize our tax expense.

During the second fiscal quarter of 2024, we repatriated $120 million of accumulated earnings to the United States and paid withholding taxes in Israel of $15 million. As of September 28, 2024, $24.8 million of our cash and cash equivalents and short-term investments were held by our U.S. subsidiaries. Based on expected cash payments pursuant to our Stockholder Return Policy and funding of the Newport expansion, we expect to be in a net borrowing position in the U.S. before year-end 2024. As of September, 2024, we have approximately $513 million of German and Israeli earnings that are deemed not indefinitely reinvested. Based on the expected timing of future repatriations, we estimate that the tax liability to repatriate these unremitted earnings will be approximately $76 million, which has been accrued, but will only be paid upon repatriation of the unremitted earnings. Repatriating these unremitted earnings earlier than currently planned may not be possible and would incur additional tax expense. We also have amounts of unremitted foreign earnings held by subsidiaries in countries other than Israel and Germany, which continue to be reinvested indefinitely, that we have not accrued for the incremental foreign income taxes and withholding taxes payable to foreign jurisdictions that would be incurred to repatriate these amounts. Certain of these subsidiaries are located in countries with restrictive regulations and high tax rates for repatriating cash. Due to the uncertainties associated with the ability, timing, and method to repatriate these unremitted earnings and other complexities associated with its hypothetical calculation, determination of the amount of tax expense that would be incurred to repatriate the unremitted earnings is not practicable, but could be significant. Our substantially undrawn credit facility provides us with adequate operating liquidity in the United States.

Upon successful completion of our growth plan, we expect to generate increasingly higher levels of free cash that will be sufficient to meet our long-term financing needs related to normal operating requirements, regular dividend payments, share repurchases pursuant to our Stockholder Return Policy, while allowing us to manage our repatriation and financing activities to minimize tax and interest expense. During the current period of intensified capital expenditures to achieve our growth plans, we are considering a combination of additional and alternative sources of financing and our cash on hand to fund a portion of the capital expenditures that would conserve cash for future acquisitions while enabling us to minimize tax expense.

We maintain a $750 million revolving credit agreement with a consortium of banks led by JPMorgan Chase Bank, N.A., that matures on May 8, 2028. The maximum amount available on the revolving credit facility is restricted by the financial covenants described below. The credit facility also provides us the ability to request up to $300 million of incremental facilities, subject to the satisfaction of certain conditions, which could take the form of additional revolving commitments, incremental “term loan A” or “term loan B” facilities, or incremental equivalent debt.

The credit facility limits or restricts us from, among other things, incurring indebtedness, incurring liens on its respective assets, making investments and acquisitions (assuming our pro forma net leverage ratio is greater than 2.75 to 1.00), making asset sales, and paying cash dividends and making other restricted payments (assuming our pro forma net leverage ratio is greater than 2.50 to 1.00).

On August 15, 2024, we entered into an amendment to the credit facility that redefines the Interest Coverage Ratio to remove Capital Expenditures from the calculation, increases the minimum Interest Coverage Ratio to 3.25 to 1.00, increases the threshold of Indebtedness of Foreign Subsidiaries to the greater of $300 million and 15% of Consolidated Tangible Net Worth as of the last day of the fiscal quarter for which financial statements are delivered, and increases the threshold of Investments of Subsidiaries that are not Loan Parties to $300 million.

Other significant terms and conditions of the credit facility have not been modified.

We were in compliance with all financial covenants under the credit facility at September 28, 2024. Our interest coverage ratio and net leverage ratio were 19.99 to 1 and 1.40 to 1, respectively. We expect to continue to be in compliance with these covenants based on current projections.

If we are not in compliance with all of the required financial covenants, the credit facility could be terminated by the lenders, and any amounts then outstanding pursuant to the credit facility could become immediately payable. Additionally, our convertible senior notes due 2025 and due 2030 have cross-default provisions that could accelerate repayment in the event the indebtedness under the credit facility is accelerated. The maturity date of the credit facility will accelerate if within ninety-one days prior to the maturity of our convertible senior notes due 2025, the outstanding principal amount of such notes exceeds a defined liquidity measure as set forth in the credit facility. The repurchase of $370.2 million principal amount of convertible senior notes due 2025 in 2023 reduces the risk that the maturity date of the credit facility will accelerate. Subsequent to the end of the third fiscal quarter of 2024, we repurchased an additional $40.7 million principal amount of convertible senior notes due 2025. The repurchase was funded with a draw on our revolving credit facility.

Borrowings under the credit facility bear interest at variable reference rates plus an interest margin. The applicable interest margin is based on our total leverage ratio. We also pay a commitment fee, also based on our total leverage ratio, on undrawn amounts. U.S. dollar borrowings under the credit facility are based on SOFR (including a customary spread adjustment). Borrowings in foreign currencies bear interest at currency-specific reference rates plus an interest margin. Based on our current total leverage ratio of 1.99 to 1, any new U.S. dollar borrowings will bear interest at SOFR plus 1.85% (including the applicable credit spread), and the undrawn commitment fee is 0.30% per annum.

The borrowings under the credit facility are secured by a lien on substantially all assets, including accounts receivable, inventory, machinery and equipment, and general intangibles (but excluding real estate, intellectual property registered or licensed solely for use in, or arising solely under the laws of, any country other than the United States, assets located solely outside of the United States and deposit and securities accounts), of Vishay and certain significant subsidiaries located in the United States, and pledges of stock in certain subsidiaries; and are guaranteed by certain significant subsidiaries.

We had no amount outstanding on our revolving credit facility at December 31, 2023 and September 28, 2024. We borrowed and repaid $58 million on the revolving credit facility during the nine fiscal months ended September 28, 2024. No amounts were outstanding on our revolving credit facility at any fiscal month-end. We expect, at least initially, to fund certain future obligations required to be paid by the U.S. parent company by borrowing under our credit facility. We also expect to continue to use the credit facility from time-to-time to meet certain short-term financing needs. Additional acquisition activity, convertible debt repurchases, or conversion of our convertible debt instruments may require additional borrowing under our credit facility or may otherwise require us to incur additional debt. No principal payments on our debt are due before 2025.

The convertible senior notes due 2025 and due 2030 are not currently convertible. Pursuant to the indenture governing the convertible senior notes due 2030, we will cash-settle the principal amount of $1,000 per note and settle any additional amounts in cash or shares of our common stock. Pursuant to the indenture governing the convertible senior notes due 2025 and the amendments thereto incorporated in the Supplemental Indenture dated December 23, 2020, we will cash-settle the principal amount of $1,000 per note and settle any additional amounts in shares of our common stock. We intend to finance the principal amount of any converted notes using borrowings under our credit facility. No conversions have occurred to date. We have the intent and ability to finance the principal amount of the convertible senior notes due 2025 using borrowings under our credit facility upon maturity of the notes.

Safe Harbor Statement

From time to time, information provided by us, including but not limited to statements in this report, or other statements made by or on our behalf, may contain "forward-looking" information within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "believe," "estimate," "will be," "will," "would," "expect," "anticipate," "plan," "project," "intend," "could," "should," or other similar words or expressions often identify forward-looking statements.

Such statements are based on current expectations only, and are subject to certain risks, uncertainties, and assumptions, many of which are beyond our control. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results, performance, or achievements may vary materially from those anticipated, estimated, or projected. Among the factors that could cause actual results to materially differ include: general business and economic conditions; delays or difficulties in implementing our cost reduction strategies; delays or difficulties in expanding our manufacturing capacities; manufacturing or supply chain interruptions or changes in customer demand (including due to political, economic, and health instability and military conflicts and hostilities); an inability to attract and retain highly qualified personnel; changes in foreign currency exchange rates; uncertainty related to the effects of changes in foreign currency exchange rates; competition and technological changes in our industries; difficulties in new product development; difficulties in identifying suitable acquisition candidates, consummating a transaction on terms which we consider acceptable, and integration and performance of acquired businesses; changes in applicable domestic and foreign tax regulations and uncertainty regarding the same; changes in U.S. and foreign trade regulations and tariffs and uncertainty regarding the same; changes in applicable accounting standards and other factors affecting our operations, markets, capacity to meet demand, products, services, and prices that are set forth in our filings with the SEC, including our annual reports on Form 10-K and our quarterly reports on Form 10-Q. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Our 2023 Annual Report on Form 10-K listed various important factors that could cause actual results to differ materially from projected and historic results. We note these factors for investors as permitted by the Private Securities Litigation Reform Act of 1995. Readers can find them in Part I, Item 1A, of that filing under the heading "Risk Factors." You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider any such list to be a complete set of all potential risks or uncertainties.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Part II, Item 7A, "Quantitative and Qualitative Disclosures About Market Risk," of our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 16, 2024, describes our exposure to market risks. There have been no material changes to our market risks since December 31, 2023.

Item 4. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

An evaluation was performed under the supervision and with the participation of our management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of the end of the period covered by this quarterly report to ensure that information required to be disclosed in reports that we file or submit under the Exchange Act are: (1) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms; and (2) accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

Item 3 of Part I of our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 16, 2024 describes certain of our legal proceedings. Except as described below, there have been no material developments to the legal proceedings previously disclosed.

Environmental Matters

Vishay is involved in environmental remediation programs at various sites currently or formerly owned by Vishay and its subsidiaries both within and outside of the U.S., in addition to involvement as a potentially responsible party ("PRP") at Superfund sites. Certain obligations as a PRP have arisen in connection with business acquisitions. The remediation programs are on-going and the ultimate cost of site cleanup is difficult to predict given the uncertainties regarding the extent of the required cleanup, the interpretation of applicable laws and regulations, and alternative cleanup methods.

Vishay GSI, Inc. ("VGSI"), a wholly owned subsidiary of the Company, was a direct defendant in two separate, but related, litigation matters previously pending in the United States District Court for the Eastern District of New York: (1) Hicksville Water District v. United States Department of Energy, et al.; and (2) Hicksville Water District v. Alsy Manufacturing, Inc. These cases contain claims for recovery of response costs under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), and allege that a predecessor's manufacturing operations in Hicksville, New York (the "Site"), between 1960 and 1993, impacted groundwater beneath and downgradient of the Site. The groundwater beneath and downgradient of the Site is part of the New Cassel/Hicksville Groundwater Contamination Site, which was added to the National Priorities List pursuant to CERCLA on September 15, 2011.

VGSI and the Hicksville Water District reached a comprehensive settlement of both cases brought by the Hicksville Water District that resolves all past and future claims, known and unknown. Vishay admitted no liability and agreed to pay the Hicksville Water District $3 million. The settlement was approved by the court and both cases were dismissed in late July 2024.

VGSI remains a defendant in one remaining case, 101 Frost Street Associates, L.P. v. United States Department of Energy et al., pending before the United States District Court for the Eastern District of New York. The remaining case contains claims for recovery of response costs under CERCLA, and alleges that a predecessor's manufacturing operations in the Site, between 1960 and 1993, impacted groundwater beneath and downgradient of the Site. VGSI is vigorously contesting plaintiff's claims and will aggressively prosecute its affirmative claims.

Item 1A. Risk Factors

There have been no material changes to the risk factors we previously disclosed under Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 16, 2024.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The following table provides information regarding repurchases of our common stock during the fiscal quarter ended September 28, 2024:

Period	Total Number of Shares Purchased	Average Price Paid per Share (including commission)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Total Dollar Amount Purchased Under the Program	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
June 30 - July 27	203,597	$ 23.36	203,597	$ 4,756,393	1,553,781
July 28 - August 24	317,575	$ 21.14	317,575	$ 6,714,481	1,236,206
August 25 - September 28	56,153	$ 20.53	56,153	$ 1,153,030	1,180,053
Total	**577,325**	**$ 21.87**	**577,325**	**$ 12,623,904**	**1,180,053**

In 2022, our Board of Directors adopted a Stockholder Return Policy, which calls for us to return at least 70% of free cash flow, net of scheduled principal payments of long-term debt, on an annual basis. We intend to return such amounts to stockholders directly, in the form of cash dividends, and/or indirectly, in the form of stock repurchases. The policy sets forth our intention, but does not obligate us to acquire any shares of common stock or declare any dividends, and the policy may be terminated or suspended at any time at our direction, in accordance with applicable laws and regulations.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

During the fiscal quarter ended September 28, 2024, the individual listed below serving as a director and officer (as defined in Rule 16a-1(f) of the Exchange Act) of the Company adopted a trading arrangement for the sale of the Company's securities as described in Item 408 of Regulation S-K of the Securities Act. The material terms of the plan which are intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) of the Exchange Act ("Rule 10b5-1 Plan"), are as follows:

- Marc Zandman, Executive Chairman of the Board of Directors and Chief Business Development Officer of the Company, adopted a Rule 10b5-1 Plan on September 7, 2024. Under this plan, the following shares may be sold:
  - (i) the number of shares of common stock acquired as a result of the vesting on January 1, 2025 of the Restricted Stock Units previously acquired by Mr. Zandman, net of any portion of such shares which are surrendered to the Company or sold to cover withholding taxes; and
  - (ii) the number of shares of common stock, if any, acquired as a result of the vesting in February 2025 of the Performance-Based Restricted Units previously acquired by Mr. Zandman, net of any portion of such shares which are surrendered to the Company or sold to cover withholding taxes.

Item 6. Exhibits

4.1	Second Supplemental Indenture, dated as of October 29, 2024, by and between Vishay Intertechnology, Inc. and HSBC Bank USA, N.A., as Trustee.
4.2	First Supplemental Indenture, dated as of October 29, 2024, by and between Vishay Intertechnology, Inc. and HSBC Bank USA, N.A. as Trustee.
10.1	First Amendment to the Amended and Restated Agreement, dated as of August 15, 2024, among Vishay Intertechnology, Inc. and JPMorgan Chase Bank, N.A., as administrative agent, and the lenders and other parties thereto, Incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K, filed August 15, 2024.
31.1	Certification pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - Joel Smejkal, Chief Executive Officer.
31.2	Certification pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - David E. McConnell, Chief Financial Officer.
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – Joel Smejkal, Chief Executive Officer.
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – David E. McConnell, Chief Financial Officer.
101	Interactive Data File (Quarterly Report on Form 10-Q, for the quarterly period ended September 28, 2024, furnished in iXBRL (Inline eXtensible Business Reporting Language)).
104	Cover Page Interactive Data File (formatted as Inline eXtensible Business Reporting Language and contained in Exhibit 101)

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.

VISHAY INTERTECHNOLOGY, INC.

/s/ David E. McConnell
David E. McConnell
Executive Vice President and Chief Financial Officer
(as a duly authorized officer and principal financial officer)

/s/ David L. Tomlinson
David L. Tomlinson
Senior Vice President - Chief Accounting Officer
(as a duly authorized officer and principal accounting officer)

Date: November 6, 2024

Exhibit 4.1

VISHAY INTERTECHNOLOGY, INC.
And
HSBC BANK USA, NATIONAL ASSOCIATION, as Trustee

SECOND SUPPLEMENTAL INDENTURE
Dated as of October 29, 2024
TO
INDENTURE
Dated as of June 12, 2018

2.25% Convertible Senior Notes due 2025

SECOND SUPPLEMENTAL INDENTURE, dated as of October 29, 2024 (this "Second Supplemental Indenture"), to the Indenture dated as of June 12, 2018 (as previously supplemented, the "Base Indenture") between Vishay Intertechnology, Inc., a Delaware corporation (the "Company"), and HSBC Bank USA, National Association, as trustee (the "Trustee").

W I T N E S S E T H

WHEREAS, the Company and the Trustee have heretofore executed and delivered the Base Indenture, and the Company has issued pursuant to the Base Indenture its 2.25% Convertible Senior Notes due 2025 (the "Notes");

WHEREAS, the Company and the Trustee have heretofore executed and delivered a First Supplemental Indenture dated as of December 23, 2020;

WHEREAS, Section 10.01 of the Base Indenture provides that the Company, when authorized by the resolutions of the Board of Directors, and the Trustee, at the Company's expense, may from time to time and at any time enter into an indenture or indentures supplemental thereto in order to cure any ambiguity, or correct any omission, defect or inconsistency in the Base Indenture, so long as such action will not adversely affect the interests of Holders of the Notes; *provided* that any such supplemental indenture made solely to conform the provisions of the Base Indenture to the "Description of the notes" section in the Offering Memorandum shall be deemed not to adversely affect the interests of the Holders of the Notes;

WHEREAS, the execution and delivery of this Second Supplemental Indenture has been duly authorized by the Board of Directors of the Company, and the Company has delivered to the Trustee such Board Resolution;

WHEREAS, all conditions and requirements necessary to make this Second Supplemental Indenture a valid, binding and legal instrument in accordance with its terms have been performed and fulfilled by the parties hereto and the execution and delivery thereof have been in all respects duly authorized by the parties hereto.

NOW, THEREFORE, in consideration of the premises and the covenants and agreements contained herein, and for other good and valuable consideration the receipt of which is hereby acknowledged, the Company and the Trustee hereby agree as follows:

ARTICLE 1

Section 1.1. Definitions.

Capitalized terms used in this Second Supplemental Indenture and not otherwise defined herein shall have the meanings assigned to such terms in the Base Indenture.

ARTICLE 2

Section 2.1. Amendments to Section 14.10(c) of the Base Indenture.

In order to cure an inconsistency regarding when the Company is required to provide notice to Holders pursuant to Section 14.10(c) of the Base Indenture, Section 14.10(c) of the Base Indenture is hereby amended by replacing the first paragraph of text of Section 14.10(c) with the following:

(c) voluntary or involuntary dissolution, liquidation or winding-up of the Company or (if holders of Common Stock of record will be entitled to exchange their Common Stock for securities or other property deliverable upon such dissolution, liquidation or winding-up) any of its Subsidiaries;

ARTICLE 3

Section 3.1. Effectiveness of Amendments to Base Indenture.

This Second Supplemental Indenture shall be effective upon the date hereof as first set forth above. In case of conflict between the terms and conditions contained in the Securities and those contained in the Base Indenture, as modified by this Second Supplemental Indenture, the provisions of the Base Indenture, as modified by this Second Supplemental Indenture, shall control.

Section 3.2. Continuing Effect of Base Indenture.

Except as expressly provided herein, all of the terms, provisions and conditions of the Base Indenture and the Securities shall remain in full force and effect.

Section 3.3. Construction of Second Supplemental Indenture.

This Second Supplemental Indenture is executed as and shall constitute an indenture supplemental to the Base Indenture with respect to the Securities and shall be construed in connection with and as part of the Base Indenture for all purposes with respect to the Securities, and every Holder of Securities heretofore or hereafter authenticated and delivered under the Base Indenture shall be bound by the Base Indenture as amended by this Second Supplemental Indenture. THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SECOND SUPPLEMENTAL INDENTURE.

Section 3.4. Trust Indenture Act Controls.

If any provision of this Second Supplemental Indenture limits, qualifies or conflicts with another provision that is required to be included in this Second Supplemental Indenture or the Base Indenture by the Trust Indenture Act of 1939, as amended, as in force at the date that this Second Supplemental Indenture is executed, the provisions required by said Act shall control.

Section 3.5. Trustee Disclaimer.

The recitals contained in this Second Supplemental Indenture shall be taken as the statements of the Company and the Trustee assumes no responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Second Supplemental Indenture.

Section 3.6. Counterparts.

The parties may sign any number of copies of this Second Supplemental Indenture. Each signed copy (including facsimile copies) shall be an original, but all of them together represent the same agreement.

Section 3.7. Severability.

In case any provision in this Second Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected.

IN WITNESS WHEREOF, the parties have caused this Second Supplemental Indenture to be duly executed as of the date first written above.

VISHAY INTERTECHNOLOGY, INC.

By /s/ David McConnell
Name: David McConnell
Title: Executive Vice President and Chief Financial Officer

HSBC BANK USA, NATIONAL ASSOCIATION,
as Trustee

By /s/ F. Acebedo
Name: F. Acebedo
Title: Vice President

Exhibit 4.2

VISHAY INTERTECHNOLOGY, INC.
And
HSBC BANK USA, NATIONAL ASSOCIATION, as Trustee

FIRST SUPPLEMENTAL INDENTURE
Dated as of October 29, 2024
TO
INDENTURE
Dated as of September 12, 2023

2.25% Convertible Senior Notes due 2030

FIRST SUPPLEMENTAL INDENTURE, dated as of October 29, 2024 (this "First Supplemental Indenture"), to the Indenture dated as of September 12, 2023 (the "Base Indenture") between Vishay Intertechnology, Inc., a Delaware corporation (the "Company"), and HSBC Bank USA, National Association, as trustee (the "Trustee").

W I T N E S S E T H

WHEREAS, the Company and the Trustee have heretofore executed and delivered the Base Indenture, and the Company has issued pursuant to the Base Indenture its 2.25% Convertible Senior Notes due 2030 (the "Notes");

WHEREAS, Section 10.01 of the Base Indenture provides that the Company, when authorized by the resolutions of the Board of Directors, and the Trustee, at the Company's expense, may from time to time and at any time enter into an indenture or indentures supplemental thereto in order to cure any ambiguity, or correct any omission, defect or inconsistency in the Base Indenture, so long as such action will not adversely affect the interests of Holders of the Notes; *provided* that any such supplemental indenture made solely to conform the provisions of the Base Indenture to the "Description of the notes" section in the Offering Memorandum shall be deemed not to adversely affect the interests of the Holders of the Notes;

WHEREAS, the execution and delivery of this First Supplemental Indenture has been duly authorized by the Board of Directors of the Company, and the Company has delivered to the Trustee such Board Resolution;

WHEREAS, all conditions and requirements necessary to make this First Supplemental Indenture a valid, binding and legal instrument in accordance with its terms have been performed and fulfilled by the parties hereto and the execution and delivery thereof have been in all respects duly authorized by the parties hereto.

NOW, THEREFORE, in consideration of the premises and the covenants and agreements contained herein, and for other good and valuable consideration the receipt of which is hereby acknowledged, the Company and the Trustee hereby agree as follows:

ARTICLE 1

Section 1.1. Definitions.

Capitalized terms used in this First Supplemental Indenture and not otherwise defined herein shall have the meanings assigned to such terms in the Base Indenture.

ARTICLE 2

Section 2.1. Amendments to Section 14.10(c) of the Base Indenture.

In order to cure an inconsistency regarding when the Company is required to provide notice to Holders pursuant to Section 14.10(c) of the Base Indenture, Section 14.10(c) of the Base Indenture is hereby amended by replacing the first paragraph of text of Section 14.10(c) with the following:

(c) voluntary or involuntary dissolution, liquidation or winding-up of the Company or (if holders of Common Stock of record will be entitled to exchange their Common Stock for securities or other property deliverable upon such dissolution, liquidation or winding-up) any of its Subsidiaries;

ARTICLE 3

Section 3.1. Effectiveness of Amendments to Base Indenture.

This First Supplemental Indenture shall be effective upon the date hereof as first set forth above. In case of conflict between the terms and conditions contained in the Securities and those contained in the Base Indenture, as modified by this First Supplemental Indenture, the provisions of the Base Indenture, as modified by this First Supplemental Indenture, shall control.

Section 3.2. Continuing Effect of Base Indenture.

Except as expressly provided herein, all of the terms, provisions and conditions of the Base Indenture and the Securities shall remain in full force and effect.

Section 3.3. Construction of First Supplemental Indenture.

This First Supplemental Indenture is executed as and shall constitute an indenture supplemental to the Base Indenture with respect to the Securities and shall be construed in connection with and as part of the Base Indenture for all purposes with respect to the Securities, and every Holder of Securities heretofore or hereafter authenticated and delivered under the Base Indenture shall be bound by the Base Indenture as amended by this First Supplemental Indenture. THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS FIRST SUPPLEMENTAL INDENTURE.

Section 3.4. Trust Indenture Act Controls.

If any provision of this First Supplemental Indenture limits, qualifies or conflicts with another provision that is required to be included in this First Supplemental Indenture or the Base Indenture by the Trust Indenture Act of 1939, as amended, as in force at the date that this First Supplemental Indenture is executed, the provisions required by said Act shall control.

Section 3.5. Trustee Disclaimer.

The recitals contained in this First Supplemental Indenture shall be taken as the statements of the Company and the Trustee assumes no responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this First Supplemental Indenture.

Section 3.6. Counterparts.

The parties may sign any number of copies of this First Supplemental Indenture. Each signed copy (including facsimile copies) shall be an original, but all of them together represent the same agreement.

Section 3.7. Severability.

In case any provision in this First Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected.

IN WITNESS WHEREOF, the parties have caused this First Supplemental Indenture to be duly executed as of the date first written above.

VISHAY INTERTECHNOLOGY, INC.

By /s/ David McConnell
Name: David McConnell
Title: Executive Vice President and Chief Financial Officer

HSBC BANK USA, NATIONAL ASSOCIATION,
as Trustee

By /s/ F. Acebedo
Name: F. Acebedo
Title: Vice President

Exhibit 31.1

CERTIFICATIONS

I, Joel Smejkal, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Vishay Intertechnology, 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(s) 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 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(s) 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 6, 2024

/s/ Joel Smejkal
Joel Smejkal
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, David E. McConnell, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Vishay Intertechnology, 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(s) 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 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(s) 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 6, 2024

/s/ David E. McConnell
David E. McConnell
Chief Financial Officer

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

In connection with the Quarterly Report of Vishay Intertechnology, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended September 28, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joel Smejkal, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

/s/ Joel Smejkal
Joel Smejkal
Chief Executive Officer
November 6, 2024

Exhibit 32.2

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

In connection with the Quarterly Report of Vishay Intertechnology, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended September 28, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David E. McConnell, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

/s/ David E. McConnell
David E. McConnell
Chief Financial Officer
November 6, 2024