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 April 1, 2023

☐ **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 May 8, 2023 the registrant had 127,584,869 shares of its common stock (excluding treasury shares) and 12,097,148 shares of its Class B common stock outstanding.

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

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

	April 1, 2023 (Unaudited)	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	**$ 847,534**	$ 610,825
Short-term investments	**186,892**	305,272
Accounts receivable, net	**444,021**	416,178
Inventories:		
Finished goods	**171,404**	156,234
Work in process	**282,166**	261,345
Raw materials	**203,111**	201,300
Total inventories	**656,681**	618,879
Prepaid expenses and other current assets	**170,767**	170,056
Total current assets	**2,305,895**	2,121,210
Property and equipment, at cost:		
Land	**76,269**	75,907
Buildings and improvements	**676,678**	658,829
Machinery and equipment	**2,910,769**	2,857,636
Construction in progress	**234,481**	243,038
Allowance for depreciation	**(2,755,509)**	(2,704,951)
Property and equipment, net	**1,142,688**	1,130,459
Right of use assets	**130,306**	131,193
Deferred income taxes	**106,197**	104,667
Goodwill	**201,657**	201,432
Other intangible assets, net	**75,965**	77,896
Other assets	**99,960**	98,796
Total assets	**$ 4,062,668**	$ 3,865,653

Continues on following page.

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

	April 1, 2023 (Unaudited)	December 31, 2022
Liabilities and equity		
Current liabilities:		
Trade accounts payable	**$ 219,802**	$ 189,099
Payroll and related expenses	**159,708**	166,079
Lease liabilities	**25,908**	25,319
Other accrued expenses	**246,529**	261,606
Income taxes	**97,307**	84,155
Total current liabilities	**749,254**	726,258
Long-term debt less current portion	**566,755**	500,937
U.S. transition tax payable	**83,010**	83,010
Deferred income taxes	**125,289**	117,183
Long-term lease liabilities	**107,221**	108,493
Other liabilities	**94,216**	92,530
Accrued pension and other postretirement costs	**189,606**	187,092
Total liabilities	**1,915,351**	1,815,503
Equity:		
Vishay stockholders' equity		
Common stock	**13,316**	13,291
Class B convertible common stock	**1,210**	1,210
Capital in excess of par value	**1,351,622**	1,352,321
Retained earnings	**870,975**	773,228
Treasury stock (at cost)	**(103,145)**	(82,972)
Accumulated other comprehensive income (loss)	**9,032**	(10,827)
Total Vishay stockholders' equity	**2,143,010**	2,046,251
Noncontrolling interests	**4,307**	3,899
Total equity	**2,147,317**	2,050,150
Total liabilities and equity	**$ 4,062,668**	$ 3,865,653

See accompanying notes.

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

	Fiscal quarters ended	
	April 1, 2023	**April 2, 2022**
Net revenues	**$ 871,046**	$ 853,793
Costs of products sold	**592,333**	594,685
Gross profit	**278,713**	259,108
Selling, general, and administrative expenses	**120,145**	112,855
Operating income	**158,568**	146,253
Other income (expense):		
Interest expense	**(5,120)**	(4,222)
Other	**3,329**	(5,751)
Total other income (expense)	**(1,791)**	(9,973)
Income before taxes	**156,777**	136,280
Income tax expense	**44,588**	32,330
Net earnings	**112,189**	103,950
Less: net earnings attributable to noncontrolling interests	**408**	377
Net earnings attributable to Vishay stockholders	**$ 111,781**	$ 103,573
Basic earnings per share attributable to Vishay stockholders	**$ 0.79**	$ 0.71
Diluted earnings per share attributable to Vishay stockholders	**$ 0.79**	$ 0.71
Weighted average shares outstanding - basic	**140,636**	145,053
Weighted average shares outstanding - diluted	**141,251**	145,553
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 April 1, 2023	Fiscal quarters ended April 2, 2022
Net earnings	**$ 112,189**	$ 103,950
Other comprehensive income (loss), net of tax		
Pension and other post-retirement actuarial items	**136**	1,559
Foreign currency translation adjustment	**19,723**	(13,484)
Other comprehensive income (loss)	**19,859**	(11,925)
Comprehensive income	**132,048**	92,025
Less: comprehensive income attributable to noncontrolling interests	**408**	377
Comprehensive income attributable to Vishay stockholders	**$ 131,640**	$ 91,648

See accompanying notes.

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

	Three fiscal months ended April 1, 2023	April 2, 2022
Operating activities		
Net earnings	**$ 112,189**	$ 103,950
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	**43,301**	40,650
(Gain) loss on disposal of property and equipment	**(64)**	(59)
Inventory write-offs for obsolescence	**8,986**	5,825
Deferred income taxes	**7,329**	2,347
Other	**269**	8,816
Net change in operating assets and liabilities	**(42,117)**	(127,944)
Net cash provided by operating activities	**129,893**	33,585
Investing activities		
Capital expenditures	**(45,574)**	(35,909)
Proceeds from sale of property and equipment	**326**	72
Purchase of short-term investments	**(41)**	(7,753)
Maturity of short-term investments	**121,768**	56,674
Other investing activities	**(892)**	(199)
Net cash provided by investing activities	**75,587**	12,885
Financing activities		
Net proceeds on revolving credit facility	**65,000**	-
Dividends paid to common stockholders	**(12,810)**	(13,259)
Dividends paid to Class B common stockholders	**(1,210)**	(1,210)
Repurchase of common stock held in treasury	**(20,173)**	(9,873)
Cash withholding taxes paid when shares withheld for vested equity awards	**(3,653)**	(2,123)
Net cash provided by (used in) financing activities	**27,154**	(26,465)
Effect of exchange rate changes on cash and cash equivalents	**4,075**	(4,865)
Net increase in cash and cash equivalents	**236,709**	15,140
Cash and cash equivalents at beginning of period	**610,825**	774,108
Cash and cash equivalents at end of period	**$ 847,534**	$ 789,248

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, 2021	$ 13,271	$ 1,210	$1,347,830	$ 401,694	$ -	$ (20,252)	$ 1,743,753	$ 2,967	$1,746,720
Net earnings	-	-	-	103,573	-	-	103,573	377	103,950
Other comprehensive income (loss)	-	-	-	-	-	(11,925)	(11,925)	-	(11,925)
Issuance of stock and related tax withholdings for vested restricted stock units (189,731 shares)	19	-	(2,142)	-	-	-	(2,123)	-	(2,123)
Dividends declared ($0.10 per share)	-	-	22	(14,491)	-	-	(14,469)	-	(14,469)
Stock compensation expense	-	-	3,842	-	-	-	3,842	-	3,842
Repurchase of common stock held in treasury (513,227 shares)	-	-	-	-	(9,873)	-	(9,873)	-	(9,873)
Balance at April 2, 2022	$ 13,290	$ 1,210	$1,349,552	$ 490,776	$ (9,873)	$ (32,177)	$ 1,812,778	$ 3,344	$1,816,122
Balance at December 31, 2022	**$ 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 and phantom 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**

See accompanying notes.

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, 2022. The results of operations for the three fiscal months ended April 1, 2023 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 2023 end on April 1, 2023, July 1, 2023, September 30, 2023, and December 31, 2023, respectively. The four fiscal quarters in 2022 ended on April 2, 2022, July 2, 2022, October 1, 2022, and December 31, 2022, 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.

MaxPower Semiconductor, Inc.

On October 28, 2022, the Company acquired all of the outstanding equity interests of MaxPower Semiconductor, Inc. ("MaxPower"), a San Jose, California-based fabless power semiconductor provider dedicated to delivering innovative and cost-effective technologies that optimize power management solutions. The acquisition of MaxPower will enhance the Company's current and future silicon carbide ("SiC") offerings for fast-growing markets such as electric vehicles.

The Company paid cash of $50,000, net of cash acquired, at closing. Related to the transaction, Vishay may also be required to make certain 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. The purchase price for U.S. GAAP purposes includes the fair value, as of the acquisition date, of certain future contingent payments to non-employee equity holders of MaxPower. The estimated fair value of this contingent consideration as of the acquisition date was $6,851. The contingent consideration liability is included in other accrued expenses and other liabilities in the accompanying balance sheet and is remeasured each reporting period, with changes reported as selling, general, and administrative expenses on the consolidated condensed statement of operations. See Note 13 for further discussion on the fair value measurement.

Based on an estimate of their fair values, the Company allocated $18,600 of the purchase price to definite-lived intangible assets. After allocating the purchase price to the assets acquired and liabilities assumed based on a preliminary estimation of their fair values at the date of acquisition, the Company recorded goodwill of $36,885 related to this acquisition. The goodwill related to this acquisition is included in the MOSFETs reporting unit for goodwill impairment testing. The purchase price allocation for this acquisition is considered preliminary as the Company is awaiting further information about the contingent payments. The estimated values of definite-lived intangible assets and goodwill have not changed as of April 1, 2023.

The results and operations of this acquisition have been included in the MOSFETs segment since October 28, 2022.

(dollars in thousands, except per share amounts)

Note 3 – 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:

	April 1, 2023	December 31, 2022
Right of use assets		
Operating Leases		
Buildings and improvements	**$ 125,579**	$ 126,933
Machinery and equipment	**4,727**	4,260
Total	**$ 130,306**	$ 131,193
Current lease liabilities		
Operating Leases		
Buildings and improvements	**$ 23,351**	$ 22,926
Machinery and equipment	**2,557**	2,393
Total	**$ 25,908**	$ 25,319
Long-term lease liabilities		
Operating Leases		
Buildings and improvements	**$ 105,119**	$ 106,693
Machinery and equipment	**2,102**	1,800
Total	**$ 107,221**	$ 108,493
Total lease liabilities	**$ 133,129**	$ 133,812

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	
	April 1, 2023	April 2, 2022
Lease expense		
Operating lease expense	**$ 6,881**	$ 6,452
Short-term lease expense	**256**	304
Variable lease expense	**152**	100
Total lease expense	**$ 7,289**	$ 6,856

The Company paid $7,199 and $6,332 for its operating leases in the three fiscal months ended April 1, 2023 and April 2, 2022, 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 9.7 years and the weighted-average discount rate is 6.1% as of April 1, 2023.

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

	April 1, 2023
2023 (excluding the three fiscal months ended April 1, 2023)	$ 20,012
2024	25,008
2025	21,643
2026	18,083
2027	16,675
Thereafter	76,142

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.

Note 4 – 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 April 1, 2023 and April 2, 2022 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.

During the three fiscal months ended April 1, 2023, the liabilities for unrecognized tax benefits increased by $511 on a net basis, primarily due to currency translation adjustments, accruals for current year tax positions, and interest.

(dollars in thousands, except per share amounts)

Note 5 – Long-Term Debt

Long-term debt consists of the following:

	April 1, 2023	December 31, 2022
Credit facility	**$ 107,000**	$ 42,000
Convertible senior notes, due 2025	**465,344**	465,344
Deferred financing costs	**(5,589)**	(6,407)
	566,755	500,937
Less current portion	**-**	-
	$ 566,755	$ 500,937

The following table summarizes some key facts and terms regarding the outstanding convertible senior notes due 2025 as of April 1, 2023:

	Convertible Senior Notes Due 2025
Issuance date	June 12, 2018
Maturity date	June 15, 2025
Principal amount as of April 1, 2023	$ 465,344
Cash coupon rate (per annum)	2.25%
Nonconvertible debt borrowing rate at issuance (per annum)	5.50%
Conversion rate effective March 16, 2023 (per $1 principal amount)	32.0705
Effective conversion price effective March 16, 2023 (per share)	$ 31.18
130% of the current effective conversion price (per share)	$ 40.53

Prior to December 15, 2024, the holders of the convertible senior notes due 2025 may convert their notes only under the following circumstances: (1) the sale price of Vishay common stock reaches 130% of the conversion price for a specified period; (2) the trading price of the notes falls below 98% of the product of the sale price of Vishay's common stock and the conversion rate for a specified period; or (3) upon the occurrence of specified corporate transactions. The convertible senior notes due 2025 are not currently convertible.

Upon conversion of 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.

The quarterly cash dividend program of the Company results in adjustments to the conversion rate and effective conversion price for the convertible senior notes due 2025 effective as of the ex-dividend date of each cash dividend. The conversion rate and effective conversion price for the convertible senior notes due 2025 is adjusted for quarterly cash dividends to the extent such dividends exceed $0.085 per share of common stock.

Credit Facility

The Company maintains a credit facility with a consortium of banks led by JPMorgan Chase Bank, N.A., as administrative agent, and the lenders, which was scheduled to mature on June 5, 2024 (the "Existing Credit Facility"). On May 8, 2023, the Company entered into an Amendment and Restatement Agreement, which provides an aggregate commitment of $750,000 of revolving loans available until May 8, 2028 (the “Amended and Restated Credit Facility”). The maturity date of the Amended and Restated Credit Facility will accelerate if within ninety-one days prior to the maturity of the Company’s convertible senior notes due 2025, the outstanding principal amount of such notes exceeds a defined liquidity measure as set forth in the Amended and Restated Credit Facility.

U.S. Dollar borrowings under the Amended and Restated Credit Facility bear interest at the Secured Overnight Financing Rate (“SOFR”) plus a credit spread and an interest margin. The Amended and Restated Credit Facility also allows for borrowings in euro, British sterling, and Japanese yen, subject to a $250,000 limit. Borrowings in foreign currency bear interest at a local reference rate plus an interest margin. The applicable interest margin is based on Vishay's total leverage ratio. Based on Vishay's current total leverage ratio, borrowings bear interest at SOFR plus 1.60%, including the applicable credit spread. Vishay also pays a commitment fee, also based on its total leverage ratio, on undrawn amounts. The undrawn commitment fee, based on Vishay's current total leverage ratio, is 0.25% per annum.

Similar to the Existing Credit Facility, the Amended and Restated Credit Facility requires the maintenance of financial covenant ratios. For compliance purposes, pursuant to the Amended and Restated Credit Facility, the leverage ratio is computed on a net basis, reducing the measure of outstanding debt by up to $250,000 of unrestricted cash. The Company must maintain a net leverage ratio of at least 3.25 to 1.00. Permitted investments and restricted payments are also subject to a pro forma net leverage ratio (2.75 to 1.00 and 2.50 to 1.00, respectively).

Other terms and conditions of the Amended and Restated Credit Facility are substantially similar to the Existing Credit Facility.

(dollars in thousands, except per share amounts)

Note 6 – 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	
	April 1, 2023	**April 2, 2022**
Dividends paid to stockholders	$ **14,020**	$ 14,469
Stock repurchases	**20,173**	9,873
Total	$ **34,193**	$ 24,342

The repurchased shares are being held as treasury stock. The number of shares of common stock being held as treasury stock was 5,156,794 and 4,240,573 as of April 1, 2023 and December 31, 2022, respectively.

Note 7 – Revenue Recognition

Sales returns and allowances accrual activity is shown below:

	Fiscal quarters ended	
	April 1, 2023	**April 2, 2022**
Beginning balance	$ **46,979**	$ 39,759
Sales allowances	**25,837**	27,377
Credits issued	**(33,275)**	(27,726)
Foreign currency	**(1,261)**	(249)
Ending balance	$ **38,280**	$ 39,161

See disaggregated revenue information in Note 11.

Note 8 – 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, 2023	$ (7,598)	$ (3,229)	**$ (10,827)**
Other comprehensive income (loss) before reclassifications	-	19,723	**$ 19,723**
Tax effect	-	-	**$ -**
Other comprehensive income before reclassifications, net of tax	-	19,723	**$ 19,723**
Amounts reclassified out of AOCI	177	-	**$ 177**
Tax effect	(41)	-	**$ (41)**
Amounts reclassified out of AOCI, net of tax	136	-	**$ 136**
Net other comprehensive income (loss)	$ 136	$ 19,723	**$ 19,859**
Balance at April 1, 2023	**$ (7,462)**	**$ 16,494**	**$ 9,032**

Reclassifications of pension and other post-retirement actuarial items out of AOCI are included in the computation of net periodic benefit cost. See Note 9 for further information.

(dollars in thousands, except per share amounts)

Note 9 – 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 first fiscal quarters of 2023 and 2022 for the Company's defined benefit pension plans:

	Fiscal quarter ended April 1, 2023		Fiscal quarter ended April 2, 2022	
	U.S. Plans	**Non-U.S. Plans**	**U.S. Plans**	**Non-U.S. Plans**
Net service cost	**$ -**	**$ 724**	$ -	$ 1,117
Interest cost	**499**	**1,695**	280	852
Expected return on plan assets	**-**	**(570)**	-	(460)
Amortization of prior service cost	**36**	**55**	36	56
Amortization of losses (gains)	**(30)**	**86**	427	1,271
Curtailment and settlement losses	**-**	**107**	-	279
Net periodic benefit cost	**$ 505**	**$ 2,097**	$ 743	$ 3,115

Other Postretirement Benefits

The following table shows the components of the net periodic benefit cost for the first fiscal quarters of 2023 and 2022 for the Company's other postretirement benefit plans:

	Fiscal quarter ended April 1, 2023		Fiscal quarter ended April 2, 2022	
	U.S. Plans	**Non-U.S. Plans**	**U.S. Plans**	**Non-U.S. Plans**
Service cost	**$ 5**	**$ 34**	$ 10	$ 63
Interest cost	**56**	**31**	45	15
Amortization of losses (gains)	**(80)**	**3**	86	23
Net periodic benefit cost	**$ (19)**	**$ 68**	$ 141	$ 101

(dollars in thousands, except per share amounts)

Note 10 – Stock-Based Compensation

The following table summarizes stock-based compensation expense recognized:

	Fiscal quarters ended April 1, 2023	Fiscal quarters ended April 2, 2022
Restricted stock units ("RSUs")	**$ 2,858**	$ 3,620
Phantom stock units	**107**	222
Total	**$ 2,965**	$ 3,842

The following table summarizes unrecognized compensation cost and the weighted average remaining amortization periods at April 1, 2023 *(amortization periods in years)*:

	Unrecognized Compensation Cost	Weighted Average Remaining Amortization Periods
Restricted stock units	**$ 10,041**	**0.9**
Phantom stock units	**-**	**n/a**
Total	**$ 10,041**	

Restricted Stock Units

RSU activity under the Company's 2007 Stock Incentive Program (the "2007 Program") as of April 1, 2023 and changes during the three 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, 2023	**894**	**$ 19.73**
Granted	**419**	**23.05**
Vested*	**(328)**	**18.76**
Cancelled or forfeited	**-**	**-**
Outstanding at April 1, 2023	**985**	**$ 21.47**
Expected to vest at April 1, 2023	**991**	

***** The number of RSUs vested includes shares that the Company withheld on behalf of employees to satisfy the statutory tax withholding requirements.

In addition to RSUs that vest based upon satisfaction of service or performance conditions, in 2023, the Company granted RSUs that vest based upon achievement of market conditions to certain executive officers. For RSUs with market conditions, the Company estimates the grant date fair value using a Monte Carlo valuation model and recognizes the expense for the awards over the period in which the condition is assessed regardless of whether the market condition is ultimately achieved. 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, 2024	165	-	165
January 1, 2025	168	-	168
January 1, 2026	178	-	178

Phantom Stock Units

Phantom stock unit activity under the 2007 Program as of April 1, 2023 and changes during the three 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, 2023	**226**	
Granted	**5**	**$ 21.48**
Dividend equivalents issued	**1**	
Redeemed for common stock*	**(94)**	
Outstanding at April 1, 2023	**138**	

***** The number of phantom stock units redeemed for common stock includes shares that the Company withheld on behalf of employees to satisfy the statutory tax withholding requirements.

(dollars in thousands, except per share amounts)

Note 11 – Segment Information

The following tables set forth business segment information:

	MOSFETs	Diodes	Optoelectronic Components	Resistors	Inductors	Capacitors	Total
Fiscal quarter ended April 1, 2023:							
Net revenues	**$ 198,181**	**$ 175,693**	**$ 60,403**	**$ 223,140**	**$ 80,338**	**$ 133,291**	**$ 871,046**
Segment operating income	**$ 58,017**	**$ 42,686**	**$ 17,300**	**$ 66,699**	**$ 20,979**	**$ 32,996**	**$ 238,677**
Fiscal quarter ended April 2, 2022:							
Net revenues	$ 172,674	$ 182,334	$ 81,016	$ 207,032	$ 82,777	$ 127,960	$ 853,793
Segment operating income	$ 48,524	$ 40,426	$ 28,159	$ 58,143	$ 22,199	$ 27,400	$ 224,851

	Fiscal quarters ended April 1, 2023	Fiscal quarters ended April 2, 2022
Reconciliation:		
Segment Operating Income	**$ 238,677**	$ 224,851
Unallocated Selling, General, and Administrative Expenses	**(80,109)**	(78,598)
Consolidated Operating Income	**$ 158,568**	$ 146,253
Unallocated Other Income (Expense)	**(1,791)**	(9,973)
Consolidated Income Before Taxes	**$ 156,777**	$ 136,280

(dollars in thousands, except per share amounts)

The Company has a broad line of products that it sells to OEMs, EMS companies, and independent distributors. The distribution of sales by customer type is shown below:

	Fiscal quarters ended April 1, 2023	Fiscal quarters ended April 2, 2022
Distributors	**$ 470,788**	$ 497,869
OEMs	**340,428**	297,429
EMS companies	**59,830**	58,495
Total Revenue	**$ 871,046**	$ 853,793

Net revenues were attributable to customers in the following regions:

	Fiscal quarters ended April 1, 2023	Fiscal quarters ended April 2, 2022
Asia	**$ 310,429**	$ 344,012
Europe	**326,561**	289,984
Americas	**234,056**	219,797
Total Revenue	**$ 871,046**	$ 853,793

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

	Fiscal quarters ended April 1, 2023	Fiscal quarters ended April 2, 2022
Industrial	**$ 325,960**	$ 337,369
Automotive	**284,499**	259,501
Computing	**43,169**	67,931
Military and Aerospace	**62,125**	46,498
Consumer Products	**46,534**	38,708
Power Supplies	**44,156**	40,282
Medical	**42,103**	32,491
Telecommunications	**22,500**	31,013
Total revenue	**$ 871,046**	$ 853,793

Note 12 – 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 April 1, 2023	Fiscal quarters ended April 2, 2022
Numerator:		
Net earnings attributable to Vishay stockholders	**$ 111,781**	$ 103,573
Denominator:		
Denominator for basic earnings per share:		
Weighted average shares	**140,496**	144,832
Outstanding phantom stock units	**140**	221
Adjusted weighted average shares - basic	**140,636**	145,053
Effect of dilutive securities:		
Restricted stock units	**615**	500
Dilutive potential common shares	**615**	500
Denominator for diluted earnings per share:		
Adjusted weighted average shares - diluted	**141,251**	145,553
Basic earnings per share attributable to Vishay stockholders	**$ 0.79**	$ 0.71
Diluted earnings per share attributable to Vishay stockholders	**$ 0.79**	$ 0.71

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 April 1, 2023	Fiscal quarters ended April 2, 2022
Restricted stock units	-	333

If the average market price of Vishay common stock is less than the effective conversion price of the convertible senior notes due 2025, no shares are included in the diluted earnings per share computation for the convertible senior notes due 2025. 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. Accordingly, the notes are not anti-dilutive when the average market price of Vishay common stock is less than the effective conversion price of the convertible senior notes due 2025.

(dollars in thousands, except per share amounts)

Note 13 – 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
April 1, 2023				
Assets:				
Assets held in rabbi trusts	**$ 50,154**	$ 26,269	$ 23,885	$ -
Available for sale securities	**$ 3,785**	3,785	-	-
	$ 53,939	**$ 30,054**	**$ 23,885**	**$ -**
Liability:				
MaxPower acquisition contingent consideration	**$ 6,898**	**$ -**	**$ -**	**$ 6,898**
December 31, 2022				
Assets:				
Assets held in rabbi trusts	$ 50,173	$ 27,168	$ 23,005	$ -
Available for sale securities	$ 3,677	3,677	-	-
Precious metals	$ 1,252	1,252	-	-
	$ 55,102	$ 32,097	$ 23,005	$ -
Liability:				
MaxPower acquisition contingent consideration	$ 6,870	$ -	$ -	$ 6,870

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

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.

From time to time, the Company purchases precious metals bullion in excess of its immediate manufacturing needs to mitigate the risk of supply shortages or volatile price fluctuations. The metals are valued based on quoted market prices on the last business day of the period. The fair value measurement of the metals is considered a Level 1 measurement within the fair value hierarchy. The inventory of precious metals bullion in excess of its immediate manufacturing needs was not material at April 1, 2023.

The Company may be required to make certain contingent payments to non-employee equity holders of MaxPower pursuant to the acquisition agreement, 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. 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 April 1, 2023 and December 31, 2022 is approximately $571,600 and $491,100, respectively, compared to its carrying value, excluding the deferred financing costs, of $572,344 and $507,344, respectively. 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 April 1, 2023 and December 31, 2022, 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 April 1, 2023 and December 31, 2022, 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 22, 2023.

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 electrification, data storage, and wireless communications by developing go-to-market strategies and investing in and expanding the thirty key product lines for growth that we have identified, increasing our capacity internally by investing approximately $385 million in 2023 and approximately $1.2 billion over the next three years primarily for capital expansion projects outside of China and externally by outsourcing production of commodity products to subcontractors, enhancing channel management, investing in internal resources by adding customer-facing engineers and filling gaps in technology and market coverage, promoting the full breadth of our portfolio through solution selling, and instituting a Think Customer First organizational culture.

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.

On May 8, 2023, we amended and restated our $750 million revolving credit agreement, which replaced our credit agreement that was scheduled to mature in June 2024. The amendment and restatement extends the maturity date of the revolving credit agreement until May 8, 2028, replaces the existing total leverage ratio used for financial covenant compliance measurement with a net leverage ratio, and replaces the LIBOR-based interest rate and related LIBOR-based mechanics applicable to U.S. dollar borrowings under the revolving credit agreement with an interest rate based on the Secured Overnight Financing Rate ("SOFR") (including a customary spread adjustment) and related SOFR-based mechanics. The maturity date of the amended and restated 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 Amended and Restated Credit Facility. Other terms and conditions are substantially unchanged.

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 will 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. 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 remained strong in the first fiscal quarter of 2023, but were negatively impacted by a distributor inventory correction that resulted in lower orders. We have experienced increased input costs. A portion of these increased costs are absorbed in inventory, which positively impacts gross profit when inventory is built, but will negatively impact gross profit when the inventory is sold. Average selling prices increased to offset higher costs.

Net revenues for the fiscal quarter ended April 1, 2023 were $871.0 million, compared to $855.3 million and $853.8 million for the fiscal quarters ended December 31, 2022 and April 2, 2022, respectively. The net earnings attributable to Vishay stockholders for the fiscal quarter ended April 1, 2023 were $111.8 million, or $0.79 per diluted share, compared to $72.8 million, or $0.51 per diluted share for the fiscal quarter ended December 31, 2022, and $103.6 million, or $0.71 per diluted share for the fiscal quarter ended April 2, 2022.

We define adjusted net earnings as net earnings 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 attributable to Vishay stockholders for the fiscal quarter ended December 31, 2022 includes items affecting comparability. The items affecting comparability are (*in thousands, except per share amounts*):

	Fiscal quarters ended		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
GAAP net earnings attributable to Vishay stockholders	$ **111,781**	$ 72,788	$ 103,573
Reconciling items affecting tax expense:			
Effect of change in indefinite reversal assertion	$ -	$ 59,642	$ -
Effect of changes in valuation allowances	-	(33,669)	-
Adjusted net earnings	$ **111,781**	$ 98,761	$ 103,573
Adjusted weighted average diluted shares outstanding	**141,251**	142,247	145,553
Adjusted earnings per diluted share	$ **0.79**	$ 0.69	$ 0.71

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

	Fiscal quarters ended		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
MOSFETs	$ **72,858**	$ 77,193	$ 58,746
Diodes	**48,129**	42,610	45,787
Optoelectronic Components	**21,940**	17,967	32,431
Resistors	**74,036**	58,057	65,022
Inductors	**23,723**	24,118	24,849
Capacitors	**38,027**	29,175	32,273
Gross profit	$ **278,713**	$ 249,120	$ 259,108

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		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
Net cash provided by continuing operating activities	$ **129,893**	$ 166,496	$ 33,585
Proceeds from sale of property and equipment	**326**	726	72
Less: Capital expenditures	**(45,574)**	(153,133)	(35,909)
Free cash	$ **84,645**	$ 14,089	$ (2,252)

Despite the distributor inventory correction that began in the fourth fiscal quarter of 2022 and continued in 2023, our results for the fiscal quarters ended April 1, 2023, December 31, 2022, and April 2, 2022 represent the continuation of the favorable business conditions that we have been experiencing.

Stockholder Return Policy

We are focused on enhancing stockholder value by growing our business and improving earnings per share. Over the next few years, we expect to experience higher internal growth rates than over the last decade. This expectation is based upon accelerated electrification, such as factory automation, electrical vehicles, and 5G infrastructures. To meet this expected increase in demand and to fully participate in growing markets, we intend to increase our capital expenditures for expansion outside of China in the mid-term. The increased capital expenditures will be primarily used to increase manufacturing capacity for the thirty key product lines for growth that we identified. The most significant expansion projects include building a 12-inch wafer fab in Itzehoe, Germany adjacent to our existing 8-inch fab, expanding our Inductors manufacturing, and expanding our GaAs fab in Heilbronn, Germany.

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	
	April 1, 2023	**April 2, 2022**
Dividends paid to stockholders	$ **14,020**	$ 14,469
Stock repurchases	**20,173**	9,873
Total	$ **34,193**	$ 24,342

During the fourth quarters of 2022 and 2021, we determined that substantially all unremitted foreign earnings in Israel and Germany, respectively, are no longer indefinitely reinvested. The changes in these indefinite reinvestment assertions will provide greater access to our worldwide cash balances to fund our growth plan and our Stockholder Return Policy, but also increased 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.

2023 Long-Term Incentive Plan

To better align our compensation programs with stockholders' interests, our Board has approved, and is proposing that its stockholders approve, the 2023 Long-Term Incentive Plan (the "2023 Plan") at our 2023 Annual Meeting of Stockholders scheduled to be held May 23, 2023. If approved by stockholders, the 2023 Plan will replace the Vishay Intertechnology, Inc. 2007 Stock Incentive Program (the “2007 Program”), which expires on May 20, 2024. The 2023 Plan allows the Company to grant stock options, stock appreciation rights, restricted stock, restricted stock units, other stock-based awards, phantom stock units, and other cash-based awards to employees, directors, consultants, and other service providers of the Company and its affiliates. If approved, the 2023 Plan will, among other changes, increase the total number of shares available for issuance to our employees and other service providers by up to 6,000,000 shares (subject to certain adjustments described in the 2023 Plan). If approved, we plan to grant an aggregate of approximately 800,000 time-vested restricted stock units to approximately 1,000 employees. Accordingly, stock compensation expense will increase in future periods.

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, the direct impact of the COVID-19 pandemic, 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 first fiscal quarter of 2022 through the first fiscal quarter of 2023 *(dollars in thousands)*:

	1st Quarter 2022	**2nd Quarter 2022**	**3rd Quarter 2022**	**4th Quarter 2022**	**1st Quarter 2023**
Net revenues	$ 853,793	$ 863,512	$ 924,798	$ 855,298	$ 871,046
Gross profit margin(1)	30.3%	30.3%	31.3%	29.1%	32.0%
Operating margin(2)	17.1%	17.5%	19.8%	15.8%	18.2%
End-of-period backlog	$ 2,416,700	$ 2,425,200	$ 2,261,400	$ 2,292,700	$ 2,169,400
Book-to-bill ratio	1.14	1.07	0.88	0.94	0.84
Inventory turnover	4.2	3.8	4.1	3.9	3.7
Change in ASP vs. prior quarter	2.4%	2.9%	0.0%	0.6%	1.2%

(1) Gross margin for the second fiscal quarter of 2022 includes $6.7 million of expenses directly related to the COVID-19 pandemic.
(2) Operating margin for the second fiscal quarter of 2022 includes $7.2 million of expenses directly related to the COVID-19 pandemic.

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

Revenues increased slightly versus the prior fiscal quarter primarily due to higher average selling prices and positive foreign currency impacts. Revenues increased slightly versus the first fiscal quarter of 2022 primarily due to higher average selling prices. The book-to-bill ratio and backlog were negatively impacted by a distributor inventory correction that continued in the first fiscal quarter of 2023. We continue to increase manufacturing capacity for critical product lines. Average selling prices increased in the first fiscal quarter to offset general inflation.

Gross profit margin increased versus the prior fiscal quarter and the first fiscal quarter of 2022. The increase versus the prior fiscal quarter is primarily due to higher average selling prices, positive foreign currency impacts, and the absorption of a portion of increased costs in inventory, which positively impacted gross profit in the current period, but will negatively impact gross profit when the inventory is sold. The increase versus the first fiscal quarter of 2022 is primarily due to higher average selling prices.

The book-to-bill ratio in the first fiscal quarter of 2023 decreased to 0.84 versus 0.94 in the fourth fiscal quarter of 2022. The book-to-bill ratio was negatively impacted by a distributor inventory correction that continued in the first fiscal quarter of 2023.

For the second fiscal quarter of 2023, we anticipate revenues between $860 million and $900 million at a gross margin of 29.0% plus/minus 50 basis points.

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 first fiscal quarter of 2022 through the first fiscal quarter of 2023 *(dollars in thousands)*:

	1st Quarter 2022	2nd Quarter 2022	3rd Quarter 2022	4th Quarter 2022	1st Quarter 2023
MOSFETs					
Net revenues	$ 172,674	$ 158,395	$ 225,186	$ 206,005	$ 198,181
Book-to-bill ratio	1.28	1.14	0.78	1.15	0.95
Gross profit margin	34.0%	35.0%	36.9%	37.5%	36.8%
Segment operating margin	28.1%	28.2%	31.9%	30.9%	29.3%
Diodes					
Net revenues	$ 182,334	$ 192,083	$ 209,012	$ 181,791	$ 175,693
Book-to-bill ratio	1.16	1.10	0.79	0.88	0.71
Gross profit margin	25.1%	27.8%	27.0%	23.4%	27.4%
Segment operating margin	22.2%	25.3%	24.6%	19.9%	24.3%
Optoelectronic Components					
Net revenues	$ 81,016	$ 77,936	$ 73,447	$ 63,985	$ 60,403
Book-to-bill ratio	0.78	0.86	0.57	0.78	0.72
Gross profit margin	40.0%	33.9%	35.3%	28.1%	36.3%
Segment operating margin	34.8%	28.7%	30.0%	20.1%	28.6%
Resistors					
Net revenues	$ 207,032	$ 213,176	$ 207,437	$ 205,161	$ 223,140
Book-to-bill ratio	1.24	1.05	1.08	0.85	0.88
Gross profit margin	31.4%	33.1%	33.0%	28.3%	33.2%
Segment operating margin	28.1%	29.9%	29.7%	25.3%	29.9%
Inductors					
Net revenues	$ 82,777	$ 89,608	$ 83,503	$ 75,198	$ 80,338
Book-to-bill ratio	1.14	0.97	1.02	0.83	1.04
Gross profit margin	30.0%	33.1%	30.8%	32.1%	29.5%
Segment operating margin	26.8%	30.0%	27.0%	28.9%	26.1%
Capacitors					
Net revenues	$ 127,960	$ 132,314	$ 126,213	$ 123,158	$ 133,291
Book-to-bill ratio	1.02	1.17	0.95	0.99	0.70
Gross profit margin	25.2%	24.5%	23.7%	23.7%	28.5%
Segment operating margin	21.4%	20.9%	20.1%	19.9%	24.8%

Results of Operations

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

	Fiscal quarters ended		
	April 1, 2023	December 31, 2022	April 2, 2022
Cost of products sold	68.0%	70.9%	69.7%
Gross profit	32.0%	29.1%	30.3%
Selling, general & administrative expenses	13.8%	13.3%	13.2%
Operating income	18.2%	15.8%	17.1%
Income before taxes and noncontrolling interest	18.0%	15.0%	16.0%
Net earnings attributable to Vishay stockholders	12.8%	8.5%	12.1%
________			
Effective tax rate	28.4%	42.9%	23.7%

Net Revenues

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

	Fiscal quarters ended		
	April 1, 2023	December 31, 2022	April 2, 2022
Net revenues	$ 871,046	$ 855,298	$ 853,793

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	% change
December 31, 2022	15,748	1.8%
April 2, 2022	17,253	2.0%

Changes in net revenues were attributable to the following:

Change attributable to:	vs. Prior Quarter	vs. Prior Year Quarter
Change in volume	-1.5%	-1.4%
Increase in average selling prices	1.2%	5.0%
Foreign currency effects	1.8%	-1.6%
Acquisition	0.1%	0.2%
Other	0.2%	-0.2%
Net change	1.8%	2.0%

Despite the distributor inventory correction that we are experiencing, the economic environment is good and we continue to increase manufacturing capacities. We were able to further increase prices to offset general inflation. Increased average selling prices contributed to the increase in net revenues versus the prior fiscal quarter and the first fiscal quarter of 2022. Positive foreign currency impacts also contributed to the increase versus the prior fiscal quarter.

Gross Profit Margins

Gross profit margins for the fiscal quarter ended April 1, 2023 were 32.0%, versus 29.1% and 30.3% for the comparable prior fiscal quarter and prior year period, respectively. Increased average selling prices contributed to the increase in net gross profit margins versus the prior fiscal quarter and the first fiscal quarter of 2022. We have experienced higher input costs. A portion of these costs are absorbed in inventory and will negatively impact gross profit when the inventory is sold.

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		
	April 1, 2023	December 31, 2022	April 2, 2022
Net revenues	$ 198,181	$ 206,005	$ 172,674
Gross profit margin	36.8%	37.5%	34.0%
Segment operating margin	29.3%	30.9%	28.1%

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	% change
December 31, 2022	$ (7,824)	-3.8%
April 2, 2022	$ 25,507	14.8%

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

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	-6.6%	4.0%
Increase in average selling prices	1.4%	10.1%
Foreign currency effects	1.0%	-1.0%
Acquisition	0.3%	0.9%
Other	0.1%	0.8%
Net change	-3.8%	14.8%

The MOSFET segment net revenues decreased versus the prior fiscal quarter, but increased significantly versus the prior year quarter. The decrease versus the prior fiscal quarter is primarily due to decreased sales to telecommunications and industrial end market customers and customers in the Americas region, partially offset by increased sales to automotive and consumer products end market customers and customers in the Asia and Europe regions. The increase versus the prior year quarter is primarily due to increased sales to automotive, industrial, and consumer product end market customers and customers in the Europe and Americas regions, partially offset by decreased sales to computing and telecommunications end market customers and customers in the Asia region.

Gross profit margin decreased versus the prior fiscal quarter, but increased versus the prior year quarter. The fluctuations are primarily due to sales volume fluctuations. Increased average selling prices positively impacted the current year period.

The segment operating margin decreased versus the prior fiscal quarter, but increased versus the prior year quarter. The fluctuations are primarily due to gross profit fluctuations. Increased segment SG&A expenses as a percentage of sales also impacted both comparison periods.

We continue to implement strategic price increases. Average selling prices increased versus the prior fiscal quarter and the prior year 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% within 3-4 years 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.

Diodes

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

	Fiscal quarters ended		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
Net revenues	$ 175,693	$ 181,791	$ 182,334
Gross profit margin	27.4%	23.4%	25.1%
Segment operating margin	24.3%	19.9%	22.2%

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	**% change**
December 31, 2022	$ (6,098)	-3.4%
April 2, 2022	$ (6,641)	-3.6%

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

	vs. Prior Quarter	**vs. Prior Year Quarter**
Change attributable to:		
Decrease in volume	-6.7%	-8.1%
Increase in average selling prices	2.0%	6.9%
Foreign currency effects	1.5%	-1.4%
Other	-0.2%	-1.0%
Net change	-3.4%	-3.6%

Net revenues of the Diodes segment decreased versus the prior fiscal quarter and the prior year quarter. The decreases are primarily due to decreased sales to customers in the Americas and Asia regions. The decrease versus the prior fiscal quarter is also due to decreased sales to industrial and power supplies end market customers. The decrease versus the prior year quarter is also due to decreased sales to industrial, telecommunications, and computing end market customers.

Gross profit margin increased versus the prior fiscal quarter and the prior year quarter. The increases are primarily due to increased average selling prices, decreased logistics costs, and our cost reduction measures, partially offset by increased materials, utilities, and labor costs.

The segment operating margin increased versus the prior fiscal quarter and prior year quarter. The increases are primarily due to increased gross profit. Decreased segment SG&A expenses also contributed to the increase versus the prior fiscal quarter.

We continue to implement strategic price increases across the product portfolio. Average selling prices increased versus the prior fiscal quarter and prior year quarter.

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		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
Net revenues	$ 60,403	$ 63,985	$ 81,016
Gross profit margin	36.3%	28.1%	40.0%
Segment operating margin	28.6%	20.1%	34.8%

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	**% change**
December 31, 2022	$ (3,582)	-5.6%
April 2, 2022	$ (20,613)	-25.4%

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

	vs. Prior Quarter	**vs. Prior Year Quarter**
Change attributable to:		
Decrease in volume	-8.3%	-25.3%
Increase in average selling prices	0.8%	2.3%
Foreign currency effects	2.3%	-1.6%
Other	-0.4%	-0.8%
Net change	-5.6%	-25.4%

Net revenues of our Optoelectronic Components segment decreased versus the prior fiscal quarter and the prior year quarter. The decrease versus the prior fiscal quarter is primarily due to decreased sales to power supplies end market customers and decreased sales to customers in the Americas region, partially offset by increased sales to telecommunications and industrial end market customers. The decrease versus the prior year quarter is due to decreased sales to all regions and all end market customers, particularly industrial end market customers.

Gross profit margin increased versus the prior fiscal quarter, but decreased versus the prior year quarter. The increase versus the prior fiscal quarter is primarily due to higher average selling prices and the absorption of a portion of increased input costs in inventory, which positively impacted gross profit in the current period, but will negatively impact gross profit when the inventory is sold. The decrease versus the prior year quarter is primarily due to lower sales volume and increased materials and labor costs, partially offset by higher average selling prices.

The segment operating margin increased versus the prior fiscal quarter, but decreased versus the prior year quarter. The fluctuations are primarily due to gross profit fluctuations.

Average selling prices increased versus the prior fiscal quarter and prior year quarter.

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		
	April 1, 2023	December 31, 2022	April 2, 2022
Net revenues	$ 223,140	$ 205,161	$ 207,032
Gross profit margin	33.2%	28.3%	31.4%
Segment operating margin	29.9%	25.3%	28.1%

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	% change
December 31, 2022	$ 17,979	8.8%
April 2, 2022	$ 16,108	7.8%

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

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Increase in volume	3.9%	6.7%
Increase in average selling prices	1.4%	3.1%
Foreign currency effects	2.5%	-2.2%
Other	1.0%	0.2%
Net change	8.8%	7.8%

Net revenues of the Resistors segment increased significantly versus the prior fiscal quarter and prior year quarter. The increase versus the prior fiscal quarter is primarily due to increased sales to industrial, military and aerospace, and automotive end market customers and customers in the Europe region. The increase versus the prior year quarter is primarily due to increased sales to military and aerospace, industrial, and automotive end market customers and customers in all regions.

The gross profit margin increased versus the prior fiscal quarter and the prior year quarter. The increase versus the prior fiscal quarter is primarily due to increased volume, increased average selling prices, manufacturing efficiencies, positive foreign currency impact, and the absorption of a portion of increased costs in inventory, which positively impacted gross profit in the current period, but will negatively impact gross profit when the inventory is sold. The increase versus the prior year quarter is primarily due to higher sales volume, increased average selling prices, and manufacturing efficiencies, partially offset by increased materials and labor costs.

The segment operating margin increased versus the prior fiscal quarter and prior year quarter. The increases are primarily due to increased gross profit.

Average selling prices increased versus the prior fiscal quarter and the prior year quarter.

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		
	April 1, 2023	December 31, 2022	April 2, 2022
Net revenues	$ 80,338	$ 75,198	$ 82,777
Gross profit margin	29.5%	32.1%	30.0%
Segment operating margin	26.1%	28.9%	26.8%

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	% change
December 31, 2022	$ 5,140	6.8%
April 2, 2022	$ (2,439)	-2.9%

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

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	4.7%	-4.1%
Increase in average selling prices	1.1%	2.0%
Foreign currency effects	0.9%	-0.7%
Other	0.1%	-0.1%
Net change	6.8%	-2.9%

Net revenues of the Inductors segment increased significantly versus the prior fiscal quarter, but decreased slightly versus the prior year quarter. The increase versus the prior fiscal quarter is primarily due to increased sales to automotive end market customers and customers in the Europe and Americas regions, partially offset by decreased sales to customers in the Asia region. The decrease versus the prior year quarter is primarily due to decreased sales to industrial end market customers and customers in the Asia region.

The gross profit margin decreased versus the prior fiscal quarter and the prior year quarter. The decrease versus the prior fiscal quarter is primarily due to increased labor costs and fixed cost inflation, partially offset by higher sales volume and increased average selling prices. The decrease versus the prior year quarter is primarily due to lower sales volume, manufacturing inefficiencies, and increased labor costs, partially offset by increased average selling prices and decreased logistics costs.

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

Average selling prices increased slightly versus the prior fiscal quarter and prior year quarter.

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		
	April 1, 2023	December 31, 2022	April 2, 2022
Net revenues	$ 133,291	$ 123,158	$ 127,960
Gross profit margin	28.5%	23.7%	25.2%
Segment operating margin	24.8%	19.9%	21.4%

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

	Fiscal quarter ended April 1, 2023	
	Change in net revenues	% change
December 31, 2022	$ 10,133	8.2%
April 2, 2022	$ 5,331	4.2%

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

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Increase in volume	5.2%	4.3%
Change in average selling prices	-0.3%	1.9%
Foreign currency effects	2.8%	-2.6%
Other	0.5%	0.6%
Net change	8.2%	4.2%

Net revenues of the Capacitors segment increased versus the prior fiscal quarter and the prior year quarter. The increase versus the prior fiscal quarter is primarily due to increased sales to industrial end market customers and customers in the Europe and Asia regions. The increase versus the prior year quarter is primarily due to increased sales to industrial and aerospace and military end market customers and customers in the Americas and Europe regions.

The gross profit margin increased versus the prior fiscal quarter and the prior year quarter. The increase versus the prior fiscal quarter is primarily due to increased volume, manufacturing efficiencies, and positive impact from increased inventory. The increase versus the prior year quarter is primarily due to higher sales volume and increased average selling prices, partially offset by manufacturing inefficiencies and increased materials and labor costs.

The segment operating margin increased versus the prior fiscal quarter and prior year quarter. The increases are primarily due to increased gross profit.

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

Selling, General, and Administrative Expenses

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

	Fiscal quarters ended		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
Total SG&A expenses	$ 120,145	$ 113,812	$ 112,855
as a percentage of revenues	13.8%	13.3%	13.2%

The sequential increase in SG&A expenses is primarily attributable to uneven attribution of stock compensation expense and cost inflation. SG&A expenses increased versus the prior year quarter due to cost inflation.

Other Income (Expense)

Interest expense for the fiscal quarter ended April 1, 2023 increased $0.6 million versus the fiscal quarter ended December 31, 2022 and increased by $0.9 million versus the fiscal quarter ended April 2, 2022. The increases are due to higher interest rates and higher average balances outstanding on the revolving credit facility.

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

	Fiscal quarters ended		
	April 1, 2023	**December 31, 2022**	**Change**
Foreign exchange gain (loss)	$ (1,490)	$ (5,005)	$ 3,515
Interest income	5,944	4,374	1,570
Other components of other periodic pension cost	(1,888)	(2,673)	785
Investment income (expense)	744	624	120
Other	19	62	(43)
	$ 3,329	$ (2,618)	$ 5,947

	Fiscal quarters ended		
	April 1, 2023	**April 2, 2022**	**Change**
Foreign exchange gain (loss)	$ (1,490)	$ (281)	$ (1,209)
Interest income	5,944	561	5,383
Other components of other periodic pension cost	(1,888)	(2,910)	1,022
Investment income (expense)	744	(3,116)	3,860
Other	19	(5)	24
	$ 3,329	$ (5,751)	$ 9,080

Income Taxes

For the fiscal quarter ended April 1, 2023, our effective tax rate was 28.4%, as compared to 42.9% and 23.7% for the fiscal quarters ended December 31, 2022 and April 2, 2022, respectively. We expect that our effective tax rate will be higher than the U.S. statutory rate, excluding unusual transactions. Unusual transactions impacted our effective tax rate for the prior fiscal quarter. These items totaled $26.0 million of tax expense in the fiscal quarter ended December 31, 2022.

During the three fiscal months ended April 1, 2023, the liabilities for unrecognized tax benefits increased by $0.5 million on a net basis, primarily due to currency translation adjustments, accruals for current year tax positions, and interest.

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 4 to our consolidated condensed financial statements.

Financial Condition, Liquidity, and Capital Resources

Our financial condition as of April 1, 2023 continued to be strong. Cash and short-term investments exceed our long-term debt balances, and 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, to reduce debt levels, and to pay dividends and repurchase stock.

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 $129.9 million for the three fiscal months ended April 1, 2023, as compared to cash flows provided by operations of $33.6 million for the three fiscal months ended April 2, 2022.

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:

	Fiscal quarters ended		
	April 1, 2023	**December 31, 2022**	**April 2, 2022**
Days sales outstanding ("DSO") [a]	45	45	43
Days inventory outstanding ("DIO") [b]	98	93	87
Days payable outstanding ("DPO") [c]	(32)	(31)	(37)
Cash conversion cycle	111	107	93

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.

The increase in inventory is partly due to an increase in input costs. The recognition of higher input costs in inventory will negatively impact gross profit when the inventory is sold.

Cash paid for property and equipment for the three fiscal months ended April 1, 2023 was $45.6 million, as compared to $35.9 million for the three fiscal months ended April 2, 2022. To be well positioned to service our customers and to fully participate in growing markets, we intend to increase our capital expenditures for expansion in the mid-term. We expect to invest approximately $385 million in 2023 and approximately $1.2 billion over the next three years primarily for capital expansion projects outside of China.

Free cash flow for the three fiscal months ended April 1, 2023 was negatively impacted by higher than usual capital expenditures, but still increased significantly versus the three fiscal months ended April 2, 2022 primarily due to a smaller increase in working capital. We expect our business to continue to be a reliable generator 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 April 1, 2023 and December 31, 2022 *(in thousands)*:

	April 1, 2023	**December 31, 2022**
Credit facility	**$ 107,000**	$ 42,000
Convertible senior notes, due 2025	**465,344**	465,344
Deferred financing costs	**(5,589)**	(6,407)
Total debt	**566,755**	500,937
Cash and cash equivalents	**847,534**	610,825
Short-term investments	**186,892**	305,272
Net cash and short-term investments (debt)	**$ 467,671**	$ 415,160

"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. We are aligning the maturity dates of our cash equivalents and short-terms investments in preparation of a planned repatriation late in the second fiscal quarter or early in the third fiscal quarter of 2023. This has resulted in a decrease in our short-term investment balance.

As of April 1, 2023, substantially all of our cash and cash equivalents and short-term investments were held in countries outside of the United States. 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. Our U.S. subsidiaries also have cash operating needs. The distribution of earnings from Israel and Germany to the United States will be used, in part, to fund our Stockholder Return Policy. We expect that cash on-hand and cash flows from operations will be sufficient to meet our longer-term financing needs related to normal operating requirements, regular dividend payments, share repurchases pursuant to our Stockholder Return Policy, and our research and development and capital expenditure plans. Our substantially undrawn credit facility provides us with significant operating liquidity in the United States.

On May 8, 2023, we amended and restated our $750 million revolving credit agreement, which replaced our credit agreement that was scheduled to mature in June 2024. The amendment and restatement extends the maturity date of the revolving credit agreement until 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.

We had $42 million outstanding on our revolving credit facility at December 31, 2022 and $107 million outstanding at April 1, 2023. We borrowed $87 million and repaid $22 million on the revolving credit facility during the three fiscal months ended April 1, 2023. The average outstanding balance on our revolving credit facility calculated at fiscal month-ends was $91.7 million and the highest amount outstanding on our revolving credit facility at a fiscal month end was $107 million during the three fiscal months ended April 1, 2023.

The amendment and restatement of the facility replaces the leverage ratio used for compliance measurement with a net leverage ratio, reducing the measure of outstanding debt by up to $250 million of unrestricted cash. Measurements prior to the amendment and restatement are based on a total leverage ratio.

Pursuant to the amended and restated credit facility, the financial maintenance covenants include (a) an interest coverage ratio of not less than 2.00 to 1; and (b) a net leverage ratio of not more than 3.25 to 1 (and a pro forma ratio of 3.00 to 1 on the date of incurrence of additional debt). The computation of these ratios is prescribed in Article VI of the Credit Agreement between Vishay Intertechnology, Inc. and JPMorgan Chase Bank, N.A., which has been filed with the SEC as Exhibit 10.1 to our current report on Form 8-K filed May 8, 2023.

The revolving 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).

We were in compliance with all financial covenants under the credit facility at April 1, 2023. Our interest coverage ratio and (total) leverage ratio were 31.69 to 1 and 0.71 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 have cross-default provisions that could accelerate repayment in the event the indebtedness under the credit facility is accelerated. The maturity date of the amended and restated 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 Amended and Restated Credit Facility.

Prior to the amendment and restatement, borrowings under the credit facility bore interest at LIBOR plus an interest margin. The applicable interest margin is based on our total leverage ratio. We also paid a commitment fee, also based on our total leverage ratio, on undrawn amounts. The amended and restated credit facility replaces the LIBOR-based interest rate and related LIBOR-based mechanics applicable to U.S. dollar borrowings under the revolving credit agreement with an interest rate based on SOFR (including a customary spread adjustment) and related SOFR-based mechanics. Borrowings in foreign currency bear interest at a local reference rate plus an interest margin. Based on our current total leverage ratio, any new borrowings will bear interest at SOFR plus 1.60% (including the applicable credit spread), and the undrawn commitment fee is 0.25% 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 expect, at least initially, to fund certain future obligations required to be paid by the U.S. parent company by borrowing under our revolving 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 are not currently convertible. 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.

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 because of COVID-19 or otherwise; 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 2022 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, 2022, filed with the SEC on February 22, 2023, describes our exposure to market risks. There have been no material changes to our market risks since December 31, 2022.

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, 2022, filed with the SEC on February 22, 2023 describes certain of our legal proceedings. There have been no material developments to the legal proceedings previously disclosed.

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, 2022, filed with the SEC on February 22, 2023.

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 April 1, 2023:

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
January 1 - 28	275,673	$ 22.60	275,673	$ 6,231,560	3,397,020
January 29 - February 25	312,885	$ 21.98	312,885	$ 6,877,213	3,084,135
February 26 - April 1	327,663	$ 21.56	327,663	$ 7,064,473	2,756,472
Total	**916,221**	**$ 22.02**	**916,221**	**$ 20,173,246**	**2,756,472**

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

10.1	Vishay Intertechnology, Inc. Form of Executive Officer Restricted Stock Unit Agreement.
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 - Lori Lipcaman, 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 – Lori Lipcaman, Chief Financial Officer.
101	Interactive Data File (Quarterly Report on Form 10-Q, for the quarterly period ended April 1, 2023, 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/ Lori Lipcaman
Lori Lipcaman
Executive Vice President and Chief Financial Officer
(as a duly authorized officer and principal financial and accounting officer)

Date: May 10, 2023

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: May 10, 2023

/s/ Joel Smejkal
Joel Smejkal
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Lori Lipcaman, 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: May 10, 2023

/s/ Lori Lipcaman
Lori Lipcaman
Chief Financial Officer

Exhibit 32.1

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 April 1, 2023 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
May 10, 2023

Exhibit 32.1

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 April 1, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lori Lipcaman, 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/ Lori Lipcaman
Lori Lipcaman
Chief Financial Officer
May 10, 2023

Exhibit 10.1

Vishay Intertechnology, Inc.
Executive Officer Restricted Stock Unit Agreement

THIS AGREEMENT, made as of the Grant Date, between Vishay Intertechnology, Inc. (the "Company") and the Participant named on the attached Grant Schedule.

RECITALS

The Company has adopted and maintains the Vishay Intertechnology, Inc. 2007 Stock Incentive Program, as amended and restated, (the "Program") to enhance the long-term performance of the Company and to provide selected individuals with an incentive to improve the growth and profitability of the Company by acquiring a proprietary interest in the success of the Company.

The Program provides that the Compensation Committee (the "Committee") of the Company's Board of Directors shall administer the Program, including the authority to determine the persons to whom awards will be granted and the amount and type of such awards.

The Committee has determined that the purposes of the Program would be furthered by granting the Participant Restricted Stock Units as set forth in this Agreement.

The parties therefore agree as follows:

1. Grant Schedule. Certain terms of the grant of Restricted Stock Units are set forth on the Grant Schedule that is attached to, and is a part of, this Agreement.

2. Grant of Restricted Stock Units. Pursuant to and subject to the terms and conditions set forth herein and in the Program, the Committee hereby grants to the Participant the number of Restricted Stock Units set forth on the Grant Schedule, a portion of which are subject to service-based vesting (the "Time-Based RSUs"), and a portion of which are subject to performance and service-based vesting (the "Performance-Based RSUs").

3. Grant Date. The Grant Date of these Restricted Stock Units is set forth on the Grant Schedule.

4. Incorporation of Program. All terms, conditions and restrictions of the Program are incorporated herein and made part hereof as if stated herein. If there is any conflict between the terms and conditions of the Program and this Agreement or any applicable employment agreement, the terms and conditions of the employment agreement will govern over those of the Program or this Agreement, and the terms and conditions of this Agreement will govern over those of the Program. Except as otherwise provided herein, including the Grant Schedule, all capitalized terms used herein will have the meaning given to such terms in the Program.

5. Performance Criteria. The number of Performance-Based RSUs that vest hereunder (if any) will depend on the level of achievement of the performance goals set forth on the Grant Schedule and may vary between zero and 200% of the target number of Performance-Based RSUs.

6. Vesting. The vesting conditions for these Restricted Stock Units are set forth in Section 2 of the Grant Schedule.

7. Transferability. The Restricted Stock Units are not transferable or assignable otherwise than by will or by the laws of descent and distribution. Any attempt to transfer Restricted Stock Units, whether by transfer, pledge, hypothecation or otherwise and whether voluntary or involuntary, by operation of law or otherwise, will not vest the transferee with any interest or right in or with respect to such Restricted Stock Units.

8. Termination of Employment. Upon the Participant's Termination of Employment, all then unvested Restricted Stock Units will be forfeited, unless otherwise provided in the Participant's employment agreement.

9. Designation of Beneficiary. The Participant has the right to designate in writing from time to time a beneficiary or beneficiaries for any Award by filing a written notice of such designation with the Committee. If the Participant's beneficiary predeceases the Participant and no successor beneficiary is designated, or if no valid designation has been made, the Participant's beneficiary will be the Participant's estate. In such an event, no payment will be made unless the Committee will have been furnished with such evidence as the Committee may deem necessary to establish the validity of the payment.

10. Issuance of Shares.

(a) With respect to the Time-Based RSUs: the Company will issue to the Participant one Share with respect to each vested Time-Based RSU (taking into account any acceleration of vesting contemplated by the Participant's employment agreement or otherwise) within 60 days following the earlier of (i) the Scheduled Vesting Date originally applicable to such Time-Based RSU (as set forth in the Grant Schedule), or (ii) the Participant's separation from service (within the meaning of Treas. Reg. § 1.409A-1(h) or any successor regulation).

(b) With respect to the Performance-Based RSUs: within 60 days following the end of the Performance Period (as defined in the Grant Schedule), the Company shall issue to the Participant a number of Shares equal to the number of Performance-Based RSUs that have vested as of such date, as determined in accordance with Section 2(b) of the Grant Schedule. Any such Performance-Based RSUs that have not vested as of the end of the Performance Period will be forfeited as of that time.

(c) This Award is subject to tax withholding in accordance with applicable law and Section 18 of the Program (and for this purpose, share withholding is authorized in the manner therein described).

(d) The Participant will not be deemed for any purpose to be, or have rights as, a stockholder of the Company by virtue of the grant of Restricted Stock Units, until shares of Common Stock are issued in settlement of such Restricted Stock Units pursuant to Section 10 hereof. Upon the issuance of a stock certificate or the making of an appropriate book entry on the books of the transfer agent, the Participant will have all of the rights of a stockholder.

(e) Notwithstanding any otherwise applicable provision of this Agreement, to the extent compliance with the requirements of Treasury Regulation § 1.409A-3(i)(2) (or any successor provision) is necessary to avoid the application of an additional tax under Section 409A of the Code to the issuance of shares to the Participant, then any issuance of shares to the Participant that would otherwise be made upon the Participant's separation from service will be deferred and delivered to the Participant immediately after the six-month period following that separation from service.

11. Company Policies. In consideration for the grant of this award of Restricted Stock Units, the Participant agrees to be subject to any policies of the Company and its affiliates regarding clawbacks, securities trading and hedging or pledging of securities that may be in effect from time to time, to the extent such policies are or become applicable to the Participant.

12. Securities Matters. The Company shall be under no obligation to effect the registration pursuant to the Securities Act of 1933, as amended (the "1933 Act") of any interests in the Program or any shares of Common Stock to be issued thereunder or to effect similar compliance under any state laws. The Company shall not be obligated to cause to be issued any shares, whether by means of stock certificates or appropriate book entries, unless and until the Company is advised by its counsel that the issuance of such shares is in compliance with all applicable laws, regulations of governmental authority and the requirements of any securities exchange on which shares of Common Stock are traded. The Committee may require, as a condition of the issuance of shares of Common Stock pursuant to the terms hereof, that the recipient of such shares make such covenants, agreements and representations, and that any certificates bear such legends and any book entries be subject to such electronic coding or stop order, as the Committee, in its sole discretion, deems necessary or desirable. The Participant specifically understands and agrees that the shares of Common Stock, if and when issued, may be "restricted securities," as that term is defined in Rule 144 under the 1933 Act and, accordingly, the Participant may be required to hold the shares indefinitely unless they are registered under such Act or an exemption from such registration is available.

13. Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party hereto upon any breach or default of any party under this Agreement, will impair any such right, power or remedy of such party, nor will it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring, nor will any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party or any provisions or conditions of this Agreement, must be in a writing signed by such party and will be effective only to the extent specifically set forth in such writing.

14. Right of Discharge Preserved. Nothing in this Agreement confers upon the Participant the right to continue in the employ or other service of the Company, or affect any right which the Company may have to terminate such employment or service.

15. Integration. The Program, this Agreement, including the Grant Schedule, and any applicable employment agreement contain the entire understanding of the parties with respect to its subject matter. There are no restrictions, agreements, promises, representations, warranties, covenants or undertakings with respect to the subject matter hereof other than those expressly set forth herein. Any applicable employment agreement and this Agreement, including, without limitation, the Program, supersede all prior agreements and understandings between the parties with respect to its subject matter.

16. Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all of which constitute one and the same instrument.

17. Governing Law. This Agreement is governed by and construed and enforced in accordance with the laws of the State of Delaware, without regard to the provisions governing conflict of laws.

18. Participant Acknowledgment. The Participant hereby acknowledges receipt of a copy of the Program and has carefully read and understands this Agreement and the Program. The Participant hereby acknowledges that all decisions, determinations and interpretations of the Committee in respect of the Program, this Agreement and the Restricted Stock Units are final and conclusive.

IN WITNESS WHEREOF, the parties have each executed this Agreement on the date indicated below, respectively.

VISHAY INTERTECHNOLOGY, INC.

By: ______________________________
Name: ___________________________
Title: ______________________________
Date: ______________________________

PARTICIPANT

By: ______________________________
Date: ______________________________

<u>Grant Schedule</u>

Participant's name: [______]

Grant Date: [______]

1. Number of Units:

Number of Time-Based RSUs	[______]
Target Number of Performance-Based RSUs	[______]

2. Vesting:

<u>Time-Based RSUs.</u> Subject to the Participant's continuous service with the Company through the applicable vesting date, [______] of the Time-Based RSUs will vest on [ ] (each, a "<u>Scheduled Vesting Date</u>").

(a) <u>Performance Based RSUs</u>. The vesting of the Performance-Based RSUs will be determined based on the Company's total shareholder return ("<u>TSR</u>") relative to the total shareholder return of the S&P Midcap 400 Index, in each case for the three-year period commencing on [______] and ending on [______] (or, if applicable under Section 2(c) below, ending on the date of a Change in Control) (the "<u>Performance Period</u>").

(i) A number of Performance-Based RSUs determined in accordance with the table below will vest and become non-forfeitable on the last day of the Performance Period; <u>provided that</u>, unless otherwise provided in the Participant's employment agreement, the vesting of any Performance-Based RSUs will also require the Participant's continuous service with the Company through the last day of the Performance Period:

Performance Level	**Company TSR for the Performance Period**	**% of the Target Number of Performance-Based RSUs Vesting**
Below Threshold	[______]	[______]
Threshold	[______]	[______]
Target	[______]	[______]
Stretch	[______]	[______]
Maximum	[______]	[______]

(ii) If the Company's TSR for the Performance Period is above the Threshold and below the Maximum performance level, but is not precisely equal to a performance level shown in the table above, the number of Performance-Based RSUs that vest will be determined based upon linear interpolation between the next higher and lower performance levels shown in the table above. Notwithstanding the foregoing, if the Company's TSR for the Performance Period is a negative number, the number of Performance-Based RSUs vesting will not exceed the target number of Performance-Based RSUs.

(iii) For purposes of this Agreement, in calculating the TSR for both the Company and the S&P Midcap 400 Index (i) dividends will be deemed reinvested, (ii) the opening values will be determined based on the average of the closing prices for the twenty trading days immediately preceding the Performance Period, and (iii) the ending values will be determined based on the average of the closing prices for the last twenty trading days of the Performance Period.

(iv) All determinations relevant to the administration of this Award (including, without limitation, the calculation of TSR and the number of Performance-Based RSUs vesting) will be made by the Committee, whose determinations will be final and binding on all parties.

(b) Change in Control. If a Change in Control occurs during both the Participant's service with the Company and before the last Scheduled Vesting Date, [then to the extent the Award is not assumed or continued by the surviving company,][1] the otherwise unvested portion of the Time-Based RSUs will then vest. If a Change in Control occurs during both the Participant's service and before [______], [then to the extent the Award is not assumed or continued by the surviving company,][2] the Performance-Based RSUs will then vest at the Target performance level, or if greater, at the level determined based on the TSR of the Company and the S&P Midcap 400 Index as of the date of such Change in Control. For avoidance of doubt, absent a termination of this arrangement in accordance with Section 3(c) below, the occurrence of a Change in Control will not alter the time that Shares are issued in settlement of Time-Based RSUs (which time is stated in Section 10(a) of the Agreement).

(c) Service with the Company. Solely for purposes of this Agreement, service with the Company will be deemed to include service with a Subsidiary (provided that for this purpose, status as a Subsidiary will be determined as of each date this clause is applied, not only at the time of the granting of this Award).

3. Section 409A:

(a) The Time-Based RSUs are intended to be compliant with the requirements of Section 409A of the Code and should be interpreted accordingly. The Performance-Based RSUs are intended to be exempt from the requirements of Section 409A of the Code and should be interpreted accordingly. Nonetheless, the Company makes no guarantee regarding the tax treatment of this Award.

(b) Notwithstanding any other provision of this Award, to the extent provided in Prop. Treas. Reg. § 1.409A-1(b)(4)(ii), Treas. Reg. § 1.409A-2(b)(7)(ii) or any successor provision, the Company may delay settlement of Restricted Stock Units if it reasonably determines that such settlement would violate federal securities laws or any other applicable law.

(c) The Company may unilaterally accelerate payment hereunder in connection with a termination of this arrangement conducted in a manner intended to be consistent with the requirements of Treas. Reg. § 1.409A-3(j)(4)(ix), to the extent applicable.

(d) To the extent any payment under this Award is conditioned on the effectiveness of a release of claims and the period afforded to consider the release spans two calendar years, payment will be made in the second calendar year.

4. HSR Compliance: Notwithstanding any contrary provision of this Agreement: No shares will be delivered in respect of Restricted Stock Units subject to this Agreement unless and until the Participant has complied with all applicable provisions of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the "HSR Act") with respect to the delivery of those shares. If the delivery of shares pursuant to this Agreement is delayed pursuant to the preceding sentence, the delivery shall occur on the first day that the Participant has complied with all applicable provisions of the HSR Act; provided that if the Participant has not complied with all applicable provisions of the HSR Act by the last day of the calendar year in which such shares are otherwise deliverable, such shares and all rights of the Participant under this Agreement will then be forfeited.

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[1] Included in award agreements for Messrs. Smejkal, Webster, Shoshani, Randebrock and Henrici, and Ms. Lipcaman

[2] Included in award agreements for Messrs. Smejkal, Webster, Shoshani, Randebrock and Henrici, and Ms. Lipcaman