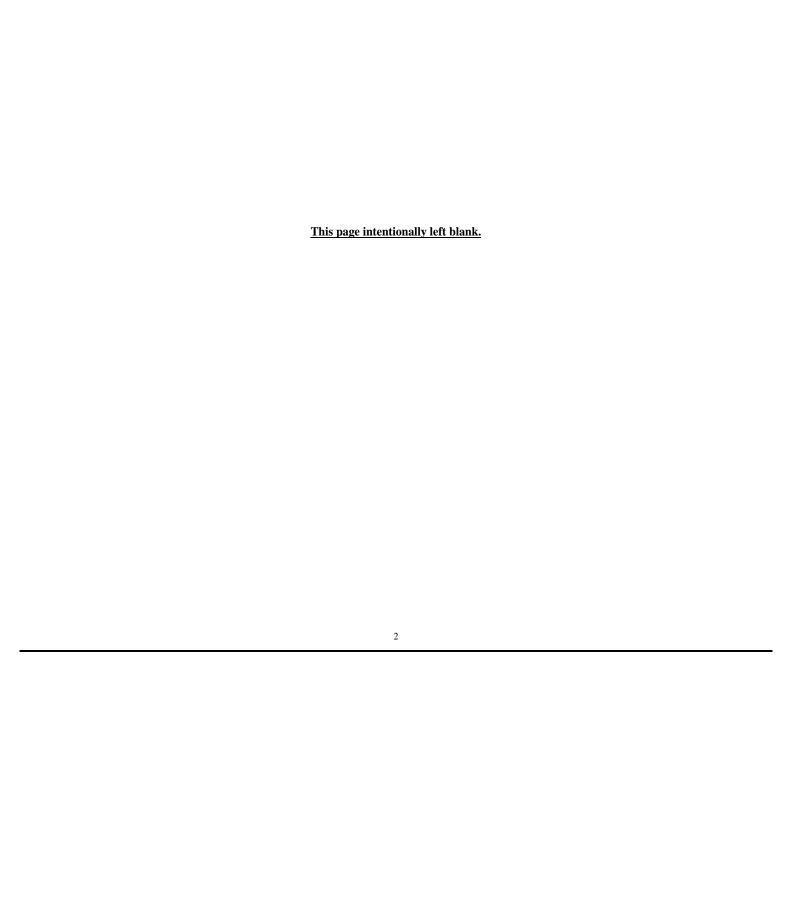
UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-Q

(Mark One)

	1, 2023	CATTLE EXCELLING HET OF 1954
☐ TRANSITION REPORT PURSUANT TO SE		URITIES EXCHANGE ACT OF 1934
	201101(10 011 10 (u) 01 1111 020 (
For the transition period from to		
	Commission File Number 011-	07416
Vi	shay Intertechnol	ogy. Inc.
	(Exact name of registrant as specified in	Ct /
Delaware		38-1686453
(State or Other Jurisdiction of Inco	orporation)	(I.R.S. Employer Identification Number)
63 Lancaster Avenue Malvern, Pennsylvania 1935		610-644-1300
(Address of Principal Executive		(Registrant's Area Code and Telephone Number)
Securities registered pursuant to Section 12(b) of the A	vet.	
Title of each class Common stock, par value \$0.10 per share	Trading symbol VSH	Name of exchange on which registered New York Stock Exchange LLC
Common stock, par value \$0.10 per share	VSII	New York Stock Exchange LLC
past 90 days. ⊠ Yes □ No Indicate by check mark whether the registrant has subn S-T (section 232.405 of this chapter) during the preced ⊠Yes □ No		ata File required to be submitted pursuant to Rule 405 of Regulation d that the registrant was required to submit such files.)
		a non-accelerated filer, a smaller reporting company, or an emerging reporting company," and "emerging growth company" in Rule 12b-2
Large Accelerated Filer ⊠		Accelerated filer □
Non-accelerated filer □ Emerging growth company □		Smaller reporting company □
If an emerging growth company, indicate by check mar financial accounting standards provided pursuant to Sec		the extended transition period for complying with any new or revised
Indicate by check mark whether the registrant is a shell \square Yes \boxtimes No	company (as defined in Rule 12b-2 of the	he Exchange Act).
	shares of its common stock (excluding t	reasury shares) and 12,097,148 shares of its Class B common stock
As of August 7, 2023 the registrant had 126,946,545 s outstanding.	shares of its common stock (excluding the	



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PART I - FINANCIAL INFORMATION

<u>Item 1. Financial Statements</u>

VISHAY INTERTECHNOLOGY, INC.

Consolidated Condensed Balance Sheets (In thousands)

Assets	July 1, 2023 (Unaudited)	December 31, 2022
Current assets:		
Cash and cash equivalents	\$ 1,089,420	\$ 610,825
Short-term investments	14,366	305,272
Accounts receivable, net	453,250	416,178
Inventories:	100,000	410,170
Finished goods	169,775	156,234
Work in process	278,645	261,345
Raw materials	211,619	201,300
Total inventories	660,039	618,879
10th involtorios	300,027	010,079
Prepaid expenses and other current assets	178,177	170,056
Total current assets	2,395,252	2,121,210
	· '	
Property and equipment, at cost:		
Land	76,872	75,907
Buildings and improvements	696,754	658,829
Machinery and equipment	2,961,214	2,857,636
Construction in progress	224,453	243,038
Allowance for depreciation	(2,786,772)	(2,704,951)
Property and equipment, net	1,172,521	1,130,459
D' 1. C	121 460	121 102
Right of use assets	131,460	131,193
Deferred income taxes	106,210	104,667
Deferred income taxes	100,210	104,007
Goodwill	203,940	201,432
Other intangible assets, net	75,111	77,896
Other assets	102,967	98,796
Total assets		
Total assets	\$ 4,187,461	\$ 3,865,653
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VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Balance Sheets (continued) (In thousands)

Liabilities and equity	July 1, 2023 (Unaudited)		De	December 31, 2022	
Current liabilities:					
Trade accounts payable	\$	234,004	\$	189,099	
Payroll and related expenses	Ψ	164,961	Ф	166,079	
Lease liabilities		26,117		25,319	
Other accrued expenses		249,382		261,606	
Income taxes		83,910		84,155	
Total current liabilities			_		
Total current natinities		758,374		726,258	
Long-term debt less current portion		639,668		500,937	
U.S. transition tax payable		46,117		83,010	
Deferred income taxes		133,996		117,183	
Long-term lease liabilities		107,149		108,493	
Other liabilities		98,693		92,530	
Accrued pension and other postretirement costs		189,022		187,092	
Total liabilities		1,973,019		1,815,503	
Total Intelligence	_	1,570,015		1,015,505	
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		1,354,753		1,352,321	
Retained earnings		952,062		773,228	
Treasury stock (at cost)		(123,371)		(82,972)	
Accumulated other comprehensive income (loss)		12,655		(10,827)	
Total Vishay stockholders' equity		2,210,625		2,046,251	
Noncontrolling interests		3,817		3,899	
Total equity		2,214,442		2,050,150	
Total liabilities and equity	\$	4,187,461	\$	3,865,653	
	7	,,	Ŧ	-,552,550	

See accompanying notes.

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

	Fiscal qu July 1, 2023		s ended July 2, 2022
Net revenues	\$ 892,11	0 \$	863,512
Costs of products sold	634,63	7	602,289
Gross profit	257,47	3	261,223
Selling, general, and administrative expenses	122,85	7	110,400
Operating income	134,61	5	150,823
Other income (expense):			
Interest expense	(6,40		(4,307)
Other	5,25	<u> </u>	1,380
Total other income (expense)	(1,14	<u>/</u>)	(2,927)
Income before taxes	133,46)	147,896
Income tax expense	38,05	<u> </u>	35,127
Net earnings	95,41	5	112,769
Less: net earnings attributable to noncontrolling interests	37	7	381
Net earnings attributable to Vishay stockholders	\$ 95,03	\$	112,388
Basic earnings per share attributable to Vishay stockholders	\$ 0.6	8 \$	0.78
Diluted earnings per share attributable to Vishay stockholders	\$ 0.6	8 \$	0.78
Weighted average shares outstanding - basic	139,76	1	143,996
Weighted average shares outstanding - diluted	140,47	3	144,397
Cash dividends per share	\$ 0.1	0 \$	0.10
See accompanying notes.			
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VISHAY INTERTECHNOLOGY, INC. Consolidated Statements of Comprehensive Income (Unaudited - In thousands)

	Fiscal quandrial July 1, 2023	rters ended July 2, 2022
Net earnings	\$ 95,415	\$ 112,769
Other comprehensive income (loss), net of tax		
Pension and other post-retirement actuarial items	148	1,365
Foreign currency translation adjustment	3,475	(49,532)
Other comprehensive income (loss)	3,623	(48,167)
Comprehensive income	99,038	64,602
Less: comprehensive income attributable to noncontrolling interests	377	381
Comprehensive income attributable to Vishay stockholders	\$ 98,661	\$ 64,221
See accompanying notes.		
7		

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

	<u>J</u>	Six fiscal mouly 1, 2023	s ended uly 2, 2022	
Net revenues	\$	1,763,156	\$	1,717,305
Costs of products sold		1,226,970		1,196,974
Gross profit		536,186		520,331
Selling, general, and administrative expenses		243,002		223,255
Operating income		293,184		297,076
Other income (expense):		(11 524)		(9.520)
Interest expense Other		(11,524) 8,586		(8,529) (4,371)
Total other income (expense)	_	(2,938)		
Total other income (expense)	_	(2,936)	_	(12,900)
Income before taxes		290,246		284,176
Income tax expense		82,642		67,457
Net earnings		207,604		216,719
Less: net earnings attributable to noncontrolling interests		785		758
Net earnings attributable to Vishay stockholders	\$	206,819	\$	215,961
Basic earnings per share attributable to Vishay stockholders	\$	1.48	\$	1.49
Diluted earnings per share attributable to Vishay stockholders	\$	1.47	\$	1.49
Weighted average shares outstanding - basic		140,201		144,527
Weighted average shares outstanding - diluted		140,865		144,978
Cash dividends per share	\$	0.20	\$	0.20
See accompanying notes.				
8				

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

		Jul	onths ended July 2, 2022			
Net earnings		\$	207,604	\$	216,719	
Other comprehensive income (loss), net of tax						
Pension and other post-retirement actuarial items			284		2,924	
Foreign currency translation adjustment			23,198		(63,016)	
Other comprehensive income (loss)			23,482		(60,092)	
Comprehensive income			231,086		156,627	
Less: comprehensive income attributable to noncontrolling interests			785		758	
Comprehensive income attributable to Vishay stockholders		\$	230,301	\$	155,869	
See accompanying notes.						
	9					

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

	Six fiscal mod July 1, 2023	nths ended July 2, 2022
Operating activities		
Net earnings	\$ 207,604	\$ 216,719
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	87,694	80,967
(Gain) loss on disposal of property and equipment	(495)	(293)
Inventory write-offs for obsolescence	18,023	10,777
Deferred income taxes	16,166	5,922
Stock compensation expense	6,082	4,889
Other	(811)	1,844
Change in U.S. transition tax liability	(27,670)	(14,757)
Change in repatriation tax liability	-	(25,201)
Net change in operating assets and liabilities	(69,461)	(172,555)
Net cash provided by operating activities	237,132	108,312
Investing activities		
Capital expenditures	(117,250)	(95,700)
Proceeds from sale of property and equipment	1,013	377
Purchase of short-term investments	(41)	(7,769)
Purchase of business, net of cash acquired	(5,003)	-
Maturity of short-term investments	293,282	66,763
Other investing activities	(892)	(199)
Net cash provided by (used in) investing activities	171,109	(36,528)
Financing activities		
Net proceeds on revolving credit facility	143,000	6,000
Debt issuance costs	(6,120)	-
Dividends paid to common stockholders	(25,538)	(26,389)
Dividends paid to Class B common stockholders	(2,419)	(2,419)
Repurchase of common stock held in treasury	(40,399)	(36,161)
Distributions to noncontrolling interests	(867)	(733)
Cash withholding taxes paid when shares withheld for vested equity awards	(3,653)	(2,123)
Net cash provided by (used in) financing activities	64,004	(61,825)
Effect of exchange rate changes on cash and cash equivalents	6,350	(18,474)
Net increase (decrease) in cash and cash equivalents	478,595	(8,515)
Cash and cash equivalents at beginning of period	610,825	774,108
Cash and cash equivalents at end of period	\$ 1,089,420	\$ 765,593

See accompanying notes.

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

	Comm		Class E Convertil Commo Stock	ole	Capital in Excess of Par Value	Reta Earn		Treasury Stock	O: Compr	nulated ther ehensive e (Loss)	Total Vishay Stockholders' Equity	Noncontrolling Interests		Total Equity
Balance at December 31, 2021	\$ 13,	271	\$ 1,2	10	\$ 1,347,830	\$ 401	1,694	\$ -	\$	(20,252)	\$ 1,743,753	\$ 2,967	\$	1,746,720
Net earnings		-		-	-	103	3,573	-		-	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)	l	19		_	(2,142)	ı	_	-		-	(2,123) -		(2,123)
Dividends declared (\$0.10 per														
share)		-		-	22	(14	1,491)	-		-	(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	\$ 1,2	10	\$ 1,349,552	\$ 490),776	\$ (9,873)	\$	(32,177)	\$ 1,812,778	\$ 3,344	\$	1,816,122
Net earnings		_		_			2,388				112,388			112,769
Other comprehensive income							-,				,			,
(loss)		_		_	_		_	_		(48,167)	(48,167) -		(48,167)
Distributions to noncontrolling										(10,201)	(10,10)	,		(10,201)
interests		_		_	_		_	_		_	_	(733))	(733)
Issuance of stock and related tax												(100)		(100)
withholdings for vested restricted														
stock units (11,308 shares)		1		_	(1)	1	_	_		_	_	_		_
Dividends declared (\$0.10 per		•			(1)									
share)		_		_	22	(14	1,361)	_		_	(14,339) -		(14,339)
Stock compensation expense		_		_	1,047	(1	-	_		_	1,047	,		1,047
Repurchase of common stock held					1,017						1,017			1,017
in treasury (1,400,039 shares)		_		_	_		_	(26,288)		_	(26,288) -		(26,288)
Balance at July 2, 2022	\$ 13.	291	\$ 1.3	10	\$ 1,350,620	\$ 589	8 803			(80,344)		·	\$	1,840,411
Barance at July 2, 2022	Ψ 15,	271	Ψ 1,2	.10	\$ 1,550,020	ψ 500	5,005	φ (30,101)	Ψ	(00,544)	φ 1,037,417	Ψ 2,772	Ψ	1,040,411
Balance at December 31, 2022	\$ 13.	201	¢ 1.7	10	\$ 1,352,321	¢ 773	3,228	\$ (82,972)	¢	(10,827)	\$ 2,046,251	¢ 2.900	Ф	2,050,150
	\$ 15,	291 -	Þ 1,2	10	\$ 1,332,321		1.781	\$ (02,972) -	Þ	(10,627)	111,781		Ф	112,189
Net earnings Other comprehensive income		-		-	-	11.	1,/01	_		19,859	19,859			19,859
Issuance of stock and related tax		-		-	-		-			19,639	19,639	-		19,639
withholdings for vested restricted		25			(3,678)						(3,653	`		(2 652)
stock units (254,513 shares)		23		-	(3,078)		-	-		-	(3,033	-		(3,653)
Dividends declared (\$0.10 per share)					14	(1/	1,034)				(14,020)		(14,020)
Stock compensation expense		-		-	2,965	(12	+,034)	-		_	2,965			2,965
		-		-	2,903		-	-		-	2,903	-		2,903
Repurchase of common stock held								(20.172)			(20.172	`		(20, 172)
in treasury (916,221 shares)	Φ 10	216	Φ 1.0	10	<u>-</u>	Φ 07/	-	(20,173)	ф	0.022	(20,173		ф	(20,173)
Balance at April 1, 2023	\$ 13,	316	\$ 1,2	10	\$ 1,351,622			\$ (103,145)	\$	9,032	\$ 2,143,010		\$	2,147,317
Net earnings		-		-	-	95	,038	-		-	95,038			95,415
Other comprehensive income		-		-	-		-	-		3,623	3,623	-		3,623
Distributions to noncontrolling														
interests		-		-	-		-	-		-	-	(867))	(867)
Dividends declared (\$0.10 per														
share)		-		-	14	(13	,951)	-		-	(13,937			(13,937)
Stock compensation expense		-		-	3,117		-	-		-	3,117	-		3,117
Repurchase of common stock held														
in treasury (847,202 shares)								(20,226)			(20,226			(20,226)
Balance at July 1, 2023	\$ 13,	316	\$ 1,2	10	\$1,354,753	\$952	,062	\$(123,371)	\$	12,655	\$ 2,210,625	\$ 3,817	\$2	,214,442
				_									_	

See accompanying notes.

(dollars in thousands, except per share amounts)

Note 1 - Basis of Presentation

The accompanying unaudited consolidated condensed financial statements of Vishay Intertechnology, Inc. ("Vishay" or the "Company") have been prepared in accordance with the instructions to Form 10-Q and therefore do not include all information and footnotes necessary for presentation of financial position, results of operations, and cash flows required by accounting principles generally accepted in the United States ("GAAP") for complete financial statements. The information furnished reflects all normal recurring adjustments which are, in the opinion of management, necessary for a fair summary of the financial position, results of operations, and cash flows for the interim periods presented. The financial statements should be read in conjunction with the consolidated financial statements filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2022. The results of operations for the fiscal quarter and six fiscal months ended July 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 July 1, 2023.

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

Centerline Technologies, LLC

On June 30, 2023, the Company acquired substantially all of the assets of Centerline Technologies, LLC ("Centerline"), a Massachusetts-based, privately held manufacturer of ceramic components used in many custom parts manufactured by certain of Vishay's Resistors businesses, for \$5,003. Based on an estimate of fair values, the Company allocated \$1,500 of the purchase price to definite-lived intangible assets. After allocating the purchase price to the assets acquired and liabilities assumed based on an estimation of their fair values at the date of acquisition, the Company recorded goodwill of \$2,213 related to this acquisition. The acquired business will be vertically integrated into the Company's Resistors segment, and the goodwill related to this acquisition is included in the Resistors reporting unit for goodwill impairment testing.

(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:

Right of use assets	July 1, 2023		De	cember 31, 2022
Operating Leases				
Buildings and improvements	\$	126,458	\$	126,933
Machinery and equipment		5,002		4,260
Total	\$	131,460	\$	131,193
Current lease liabilities				
Operating Leases				
Buildings and improvements	\$	23,456	\$	22,926
Machinery and equipment		2,661		2,393
Total	\$	26,117	\$	25,319
Long-term lease liabilities				
Operating Leases				
Buildings and improvements	\$	104,893	\$	106,693
Machinery and equipment		2,256		1,800
Total	\$	107,149	\$	108,493
Total lease liabilities	\$	133,266	\$	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				Six fiscal months ended			
	July 1, 2023			July 2, 2022		July 1, 2023		ly 2, 2022
<u>Lease expense</u>		<u>.</u>						
Operating lease expense	\$	6,887	\$	6,304	\$	13,768	\$	12,756
Short-term lease expense		252		236		508		540
Variable lease expense		159		-		311		100
Total lease expense	\$	7,298	\$	6,540	\$	14,587	\$	13,396

The Company paid \$13,966 and \$12,241 for its operating leases in the six fiscal months ended July 1, 2023 and July 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 9.6 years and the weighted-average discount rate is 6.2% as of July 1, 2023.

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

	July	1, 2023
2023 (excluding the six fiscal months ended July 1, 2023)	\$	13,840
2024		25,985
2025		22,556
2026		18,778
2027		17,258
Thereafter		80,762

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 July 1, 2023 and July 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 six fiscal months ended July 1, 2023, the liabilities for unrecognized tax benefits increased by \$616 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:

		ly 1, 2023	December 31, 2022		
Credit facility	\$	185,000	\$	42,000	
Convertible senior notes, due 2025		465,344		465,344	
Deferred financing costs		(10,676)		(6,407)	
		639,668		500,937	
Less current portion		-		-	
	\$	639,668	\$	500,937	

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

	Sen	onvertible nior Notes due 2025
Issuance date	Jui	ne 12, 2018
Maturity date	Jui	ne 15, 2025
Principal amount as of July 1, 2023	\$	465,344
Cash coupon rate (per annum)		2.25%
Nonconvertible debt borrowing rate at issuance (per annum)		5.50%
Conversion rate effective June 15, 2023 (per \$1 principal amount)		32.0879
Effective conversion price effective June 15, 2023 (per share)	\$	31.16
130% of the current effective conversion price (per share)	\$	40.51

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 "Previous 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 Previous 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 Previous 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					Six fiscal mo	nths ended	
	July 1, 2023			2, 2022	July	1, 2023	Jul	y 2, 2022
Dividends paid to stockholders	\$	13,937	\$	14,339	\$	27,957	\$	28,808
Stock repurchases		20,226		26,288		40,399		36,161
Total	\$	34,163	\$	40,627	\$	68,356	\$	64,969

The repurchased shares are being held as treasury stock. The number of shares of common stock being held as treasury stock was 6,003,996 and 4,240,573 as of July 1, 2023 and December 31, 2022, respectively.

Note 7 – Revenue Recognition

Sales returns and allowances accrual activity is shown below:

	Fiscal quarters ended					Six fiscal mo	onths ended	
	July 1, 2023		July 2, 2022		July 1, 2023		July	y 2, 2022
Beginning balance	\$	38,280	\$	39,161	\$	46,979	\$	39,759
Sales allowances		26,297		19,040		52,134		46,417
Credits issued		(16,853)	((16,569)		(50,128)		(44,295)
Foreign currency		1,626		(857)		365		(1,106)
Ending balance	\$	49,350	\$	40,775	\$	49,350	\$	40,775

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:

	othe reti act	ion and er post- rement uarial tems	tra	urrency anslation justment	 Total
Balance at January 1, 2023	\$	(7,598)	\$	(3,229)	\$ (10,827)
Other comprehensive income (loss) before reclassifications		-		23,198	\$ 23,198
Tax effect				<u>-</u>	\$ <u>-</u>
Other comprehensive income before reclassifications, net of tax		-		23,198	\$ 23,198
Amounts reclassified out of AOCI		355		-	\$ 355
Tax effect		(71)		<u> </u>	\$ (71)
Amounts reclassified out of AOCI, net of tax		284			\$ 284
Net other comprehensive income (loss)	\$	284	\$	23,198	\$ 23,482
Balance at July 1, 2023	\$	(7,314)	\$	19,969	\$ 12,655

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 second fiscal quarters of 2023 and 2022 for the Company's defined benefit pension plans:

	Fiscal quarter ended July 1, 2023					Fiscal quarter ended July 2, 2022			
U.S. Plans Non-U.S. Plans		U.	S. Plans	<u> </u>	Non-U.S. Plans				
Net service cost	\$	-	\$	723	\$	-	\$	1,068	
Interest cost		500		1,711		281		813	
Expected return on plan assets		-		(570)		-		(440)	
Amortization of prior service cost		36		56		36		53	
Amortization of losses (gains)		(30)		87		426		1,205	
Curtailment and settlement losses		<u>-</u>		106		<u> </u>		265	
Net periodic benefit cost	\$	506	\$	2,113	\$	743	\$	2,964	

The following table shows the components of the net periodic pension cost for the six fiscal months ended July 1, 2023 and July 2, 2022 for the Company's defined benefit pension plans:

	Six fiscal months ended July 1, 2023					Six fiscal months endo July 2, 2022			
	U.S. P	Non-U.S. Plans Plans		U.S.	U.S. Plans		Non-U.S. Plans		
Net service cost	\$	-	\$	1,447	\$	-	\$	2,185	
Interest cost		999		3,406		561		1,665	
Expected return on plan assets		-		(1,140)		-		(900)	
Amortization of prior service cost		72		111		72		109	
Amortization of losses (gains)		(60)		173		853		2,476	
Curtailment and settlement losses		-		213		-		544	
Net periodic benefit cost	\$	1,011	\$	4,210	\$	1,486	\$	6,079	

(dollars in thousands, except per share amounts)

Other Postretirement Benefits

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

	Fiscal quarter ended July 1, 2023					ended 22				
	Non-U.S.				Non-U.S.					
	U.S. Plans		ns Plans		Plans		U.S. Plans		Plans	
	4		Φ.	2.4	Φ.		ф			
Service cost	\$	6	\$	34	\$	9	\$	60		
Interest cost		56		31		44		14		
Amortization of losses (gains)		(81)		4		85		21		
Net periodic benefit cost	\$	(19)	\$	69	\$	138	\$	95		

The following table shows the components of the net periodic pension cost for the six fiscal months ended July 1, 2023 and July 2, 2022 for the Company's other postretirement benefit plans:

	Six	k fiscal mo July 1,	ded	Six fiscal months ended July 2, 2022				
	U.S.	U.S. Plans Plans			U.S.	Plans	Non-U.S. Plans	
Service cost	\$	11	\$	68	\$	19	\$	123
Interest cost		112		62		89		29
Amortization of losses (gains)		(161)		7		171		44
Net periodic benefit cost	\$	(38)	\$	137	\$	279	\$	196
	17							

(dollars in thousands, except per share amounts)

Note 10 - Stock-Based Compensation

2023 Long-Term Incentive Plan

The Company implemented the Vishay Intertechnology, Inc. 2023 Long-Term Incentive Plan (the "2023 Plan") after receiving stockholder approval at its 2023 Annual Meeting of Stockholders on May 23, 2023. The 2023 Plan allows the Company to grant up to 6,000,000 shares (subject to certain adjustments described in the 2023 Plan) of 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. Such instruments are available for grant until March 24, 2033. The Company granted approximately 733,000 time-vested restricted stock units to employees in the second fiscal quarter of 2023.

2007 Stock Incentive Program

Under the Company's 2007 Stock Incentive Program (the "2007 Program"), as amended and restated, certain executive officers and board members of the Company were granted restricted stock units. No further awards will be granted pursuant to the 2007 Program. Pursuant to the terms of the 2023 Plan, any shares of common stock that are subject to outstanding awards granted pursuant to the 2007 Program that subsequently cease to be subject to such awards as a result of the termination, expiration, cancellation, or forfeiture of such awards and any shares of common stock withheld in settlement of tax withholding obligations associated with outstanding awards granted pursuant to the 2007 Program may become available for issuance under the 2023 Plan. A total of 1,294,546 shares of common stock were subject to awards granted pursuant to the 2007 Program as of May 23, 2023.

The following table summarizes stock-based compensation expense recognized:

	J	Fiscal quar	ters en	ded	Six fiscal months ended			
	July 1, 2023		July 2, 2022		July 1, 2023		July 2, 2022	
Restricted stock units	\$	3,117	\$	1,047	\$	5,975	4,667	
Phantom stock units				<u>-</u>		107	222	
Total	\$	3,117	\$	1,047	\$	6,082	4,889	

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

	Com	ecognized pensation Cost	Weighted Average Remaining Amortization Periods
Restricted stock units	\$	25,283	1.7
Phantom stock units		<u>-</u>	n/a
Total	\$	25,283	

The Company currently expects all performance-based RSUs to vest and all of the associated unrecognized compensation cost for performance-based RSUs presented in the table above to be recognized.

(dollars in thousands, except per share amounts)

Restricted Stock Units

RSU activity under the Company's stock incentive programs as of July 1, 2023 and changes during the six fiscal months then ended are presented below (number of RSUs in thousands):

	Number of RSUs	A Gra Fair	eighted verage ant-date Value per Unit
Outstanding:			
January 1, 2023	894	\$	19.73
Granted*	1,152		24.32
Vested**	(328)		18.76
Cancelled or forfeited	<u>-</u>		-
Outstanding at July 1, 2023	1,718	\$	22.99
Expected to vest at July 1, 2023	1,838		

^{*} Employees in certain countries are granted equity-linked awards that will be settled in cash and are accounted for as liability awards. The liability awards are not material. The number of RSUs granted excludes these awards.

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	292	-	292

Phantom Stock Units

Phantom stock unit activity as of July 1, 2023 and changes during the six fiscal months then ended are presented below (number of phantom stock units in thousands):

	Number of units	Fair '	int-date Value per Unit
Outstanding:			
January 1, 2023	226		
Granted	5	\$	21.48
Dividend equivalents issued	1		
Redeemed for common stock*	(94)		
Outstanding at July 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.

^{**} The number of RSUs vested 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:

					Opt	toelectronic							Co	rporate /		
	\mathbf{M}	OSFETs		Diodes	Co	omponents		Resistors]	Inductors	C	apacitors		Other*		Total
Fiscal quarter ended July 1, 202	3:						_									
Net revenues	\$	207,388	\$	174,735	\$	64,449	\$	222,433	\$	89,239	\$	133,866	\$	-	\$	892,110
Segment Operating Income	\$	56,772	\$	35,110	\$	10,749	\$	57,363	\$	27,585	\$	28,177	\$	-	\$	215,756
Fiscal quarter ended July 2, 202	_															
Net revenues	\$	158,395	\$	192,083	\$	77,936	\$	213,176	\$	89,608	\$	132,314	\$	-	\$	863,512
Segment Operating Income	\$	44,602	\$	48,513	\$	22,395	\$	63,650	\$	26,914	\$	27,620	\$	(6,661)	\$	227,033
0. 6. 1 . 1 . 1 . 1 . 1																
Six fiscal months ended July 1, 2		_								4 40 ===						
Net revenues	\$	405,569	\$	350,428	\$	124,852	\$	445,573	\$	169,577	\$	267,157	\$	-	\$.	1,763,156
	ф	114 700	ф	===0/	ф	20.040	ф	101000	ф	40.74	ф	(1.150	ф		ф	454 400
Segment Operating Income	\$	114,789	\$	77,796	\$	28,049	\$	124,062	\$	48,564	\$	61,173	\$	-	\$	454,433
G'- G1	2022															
Six fiscal months ended July 2, 2				25.4.45	ф	150050	Φ.	400.000	ф	150.005	Φ.	2 50 27 1	Φ.		Φ.	
Net revenues	\$	331,069	\$	374,417	\$	158,952	\$	420,208	\$	172,385	\$	260,274	\$	-	\$	1,717,305
	ф	00.106	Ф	00.020	ф	50.554	Ф	101 500	Ф	40.110	Ф	55.020	ф	(6.661)	Ф	451.004
Segment Operating Income	\$	93,126	\$	88,939	\$	50,554	\$	121,793	\$	49,113	\$	55,020	\$	(6,661)	\$	451,884

^{*}Amounts reported in Corporate/Other above represent unallocated costs directly related to the COVID-19 pandemic, which are reported as costs of products sold on the consolidated condensed statement of operations.

	Fiscal quar y 1, 2023	nded y 2, 2022	Six fiscal moly 1, 2023	 ended ly 2, 2022
Reconciliation:			 	
Segment Operating Income	\$ 215,756	\$ 227,033	\$ 454,433	\$ 451,884
Impact of the COVID-19 Pandemic on Selling, General, and Administrative Expenses	-	(546)	-	(546)
Unallocated Selling, General, and Administrative Expenses	 (81,140)	 (75,664)	(161,249)	 (154,262)
Consolidated Operating Income	\$ 134,616	\$ 150,823	\$ 293,184	\$ 297,076
Unallocated Other Income (Expense)	(1,147)	(2,927)	 (2,938)	(12,900)
Consolidated Income Before Taxes	\$ 133,469	\$ 147,896	\$ 290,246	\$ 284,176

(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 quan	rters e	ended		Six fiscal m	nonths ended		
	Jul	ly 1, 2023	Ju	ly 2, 2022	Ju	ıly 1, 2023	J	uly 2, 2022	
Distributors	\$	487,107	\$	515,714	\$	957,895	\$	1,013,583	
OEMs		344,820		288,695		685,248		586,124	
EMS companies		60,183		59,103		120,013		117,598	
Total Revenue	\$	892,110	\$	863,512	\$	1,763,156	\$	1,717,305	

Net revenues were attributable to customers in the following regions:

		Fiscal quar	ters e	ended		Six fiscal m	onths ended		
	July 1, 2023			ly 2, 2022	Ju	ıly 1, 2023	Jı	ıly 2, 2022	
Asia	\$	323,527	\$	344,770	\$	633,956	\$	688,782	
Europe		326,461		275,965		653,022		565,949	
Americas		242,122		242,777		476,178		462,574	
Total Revenue	\$	892,110	\$	863,512	\$	1,763,156	\$	1,717,305	

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

	Fiscal quarters ended					Six fiscal m	onths ended		
	Jul	ly 1, 2023	July	2, 2022	Ju	ıly 1, 2023	Jι	ıly 2, 2022	
Industrial	\$	327,956	\$	350,955		653,916	\$	688,324	
Automotive		310,233		253,672		594,732		513,173	
Computing		41,083		57,035		84,252		124,966	
Military and Aerospace		68,741		55,703		130,866		102,201	
Consumer Products		41,616		43,147		88,150		81,855	
Power Supplies		44,631		41,144		88,787		81,426	
Medical		40,138		32,973		82,241		65,464	
Telecommunications		17,712		28,883		40,212		59,896	
Total Revenue	\$	892,110	\$	863,512	\$	1,763,156	\$	1,717,305	

(dollars in thousands, except per share amounts)

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					Six fiscal months ended				
	Jul	July 1, 2023			Ju	ly 1, 2023	Ju	ly 2, 2022			
Numerator:											
Net earnings attributable to Vishay stockholders	\$	95,038	\$	112,388	\$	206,819	\$	215,961			
Denominator:											
Denominator for basic earnings per share:											
Weighted average shares		139,627		143,773		140,062		144,305			
Outstanding phantom stock units		137		223		139		222			
Adjusted weighted average shares		139,764		143,996		140,201		144,527			
Effect of dilutive securities:											
Restricted stock units		714		401		664		451			
Dilutive potential common shares		714		401		664		451			
Denominator for diluted earnings per share:											
Adjusted weighted average shares - diluted		140,478		144,397		140,865		144,978			
Basic earnings per share attributable to Vishay stockholders	\$	0.68	\$	0.78	\$	1.48	\$	1.49			
basic earnings per share authorizable to visitaly stockholders	J	0.00	Ф	0.78	Φ	1.40	Ф	1.49			
Diluted earnings per share attributable to Vishay stockholders	\$	0.68	\$	0.78	\$	1.47	\$	1.49			

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 quar	ters ended	Six fiscal mo	nths ended
	July 1, 2023	July 2, 2022	July 1, 2023	July 2, 2022
Restricted stock units	318	333	159	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
July 1, 2023							
Assets:							
Assets held in rabbi trusts	\$ 50,856	\$	26,049	\$	24,807	\$	-
Available for sale securities	\$ 3,838		3,838		_		-
	\$ 54,694	\$	29,887	\$	24,807	\$	-
<u>Liability:</u>							
MaxPower acquisition contingent consideration	\$ 6,926	\$	-	\$	-	\$	6,926
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		<u>-</u>		<u>-</u>
	\$ 55,102	\$	32,097	\$	23,005	\$	-
V 1 1 111.							
<u>Liability:</u>							
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 July 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 July 1, 2023 and December 31, 2022 is approximately \$693,400 and \$491,100, respectively, compared to its carrying value, excluding the deferred financing costs, of \$650,344 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.

(dollars in thousands, except per share amounts)

At July 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 July 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 Value" 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 extended the maturity date of the revolving credit agreement until May 8, 2028, replaced the previous total leverage ratio used for financial covenant compliance measurement with a net leverage ratio, and replaced 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 second fiscal quarter of 2023, but were negatively impacted by a distributor inventory correction that resulted in lower orders. Gross profit was negatively impacted by the recognition of higher input costs that were previously absorbed in inventory.

Net revenues for the fiscal quarter ended July 1, 2023 were \$892.1 million, compared to \$871.0 million and \$863.5 million for the fiscal quarters ended April 1, 2023 and July 2, 2022, respectively. The net earnings attributable to Vishay stockholders for the fiscal quarter ended July 1, 2023 were \$95.0 million, or \$0.68 per diluted share, compared to \$111.8 million, or \$0.79 per diluted share for the fiscal quarter ended April 1, 2023, and \$112.4 million, or \$0.78 per diluted share for the fiscal quarter ended July 2, 2022.

Net revenues for the six fiscal months ended July 1, 2023 were \$1,763.2 million, compared to \$1,717.3 million for the six fiscal months ended July 2, 2022. The net earnings attributable to Vishay stockholders for the six fiscal months ended July 1, 2023 were \$206.8 million, or \$1.47 per diluted share, compared to \$216.0 million, or \$1.49 per diluted share for the six fiscal months ended July 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.

The items affecting comparability are (in thousands, except per share amounts):

	Fiscal quarters ended					_	ended			
	Jul	y 1, 2023	A	pril 1, 2023	J	uly 2, 2022	J	uly 1, 2023	Ju	ıly 2, 2022
GAAP net earnings attributable to Vishay stockholders	\$	95,038	\$	111,781	\$	112,388	\$	206,819	\$	215,961
Reconciling items affecting gross income:										
Impact of COVID-19 pandemic	\$	-	\$	-	\$	6,661	\$	-	\$	6,661
Other reconciling items affecting operating income:										
Impact of COVID-19 pandemic	\$	-	\$	-	\$	546	\$	-	\$	546
Reconciling items affecting tax expense:										
Tax effects of pre-tax items above	\$	-	\$	-	\$	(1,802)	\$	-	\$	(1,802)
Adjusted net earnings	\$	95,038	\$	111,781	\$	117,793	\$	206,819	\$	221,366
A directed and about a different about a sustain direct		140 470		141.251		144 207		140.965		144.079
Adjusted weighted average diluted shares outstanding		140,478		141,251		144,397		140,865		144,978
Adjusted earnings per diluted share	\$	0.68	\$	0.79	\$	0.82	\$	1.47	\$	1.53

The following table reconciles gross profit by segment to consolidated gross profit (*in thousands*). Direct costs of the COVID-19 pandemic are not allocated to the segments as the chief operating decision maker's evaluation of segment performance does not include these costs.

		Fi	iscal	quarters end	ed			Six fiscal m	onths	ended
	Ju	ly 1, 2023	Aj	oril 1, 2023	Ju	ly 2, 2022	Ju	ıly 1, 2023	Ju	ly 2, 2022
MOSFETs	\$	71,954	\$	72,858	\$	55,438	\$	144,812	\$	114,184
Diodes		40,877		48,129		53,369		89,006		99,156
Optoelectronic Components		15,609		21,940		26,430		37,549		58,861
Resistors		64,634		74,036		70,532		138,670		135,554
Inductors		30,808		23,723		29,690		54,531		54,539
Capacitors		33,591		38,027		32,425		71,618		64,698
Unallocated gross profit (loss)		-		-		(6,661)		-		(6,661)
Gross profit	\$	257,473	\$	278,713	\$	261,223	\$	536,186	\$	520,331
		26								

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*):

		Fi	iscal (quarters endo	ed			Six fiscal me	onths	ended
	Jul	y 1, 2023	Ap	oril 1, 2023	Jul	y 2, 2022	Ju	ıly 1, 2023	Ju	ly 2, 2022
Net cash provided by continuing operating activities	\$	107,239	\$	129,893	\$	74,727	\$	237,132	\$	108,312
Proceeds from sale of property and equipment		687		326		305		1,013		377
Less: Capital expenditures		(71,676)		(45,574)		(59,791)		(117,250)		(95,700)
Free cash	\$	36,250	\$	84,645	\$	15,241	\$	120,895	\$	12,989

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 July 1, 2023, April 1, 2023, and July 2, 2022 represent favorable business conditions.

Our free cash results were significantly impacted by the installment payments of the U.S. transition tax of \$27.7 million and \$14.8 million in the second fiscal quarters of 2023 and 2022, respectively, and \$25.2 million of payments of foreign, withholding, and claw-back cash taxes on foreign earnings in Israel for the net \$81.2 million that was repatriated to the U.S. in the second fiscal quarter of 2022.

Stockholder Value

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):

	I	Fiscal quar	ters end	ded	\mathbf{S}	ix fiscal mo	onths ended	
	July	1, 2023	July	2, 2022	July	1, 2023	July	2, 2022
Dividends paid to stockholders	\$	13,937	\$	14,339	\$	27,957	\$	28,808
Stock repurchases		20,226		26,288		40,399		36,161
Total	\$	34,163	\$	40,627	\$	68,356	\$	64,969

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.

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

	21	nd Quarter 2022	31	rd Quarter 2022	4	th Quarter 2022	1	st Quarter 2023	21	nd Quarter 2023
Net revenues	\$	863,512	\$	924,798	\$	855,298	\$	871,046	\$	892,110
Gross profit margin ⁽¹⁾		30.3%)	31.3%)	29.1%)	32.0%	ı	28.9%
Operating margin ⁽²⁾		17.5%)	19.8%)	15.8%)	18.2%	ı	15.1%
End-of-period backlog	\$	2,425,200	\$	2,261,400	\$	2,292,700	\$	2,169,400	\$	1,895,100
Book-to-bill ratio		1.07		0.88		0.94		0.84		0.69
Inventory turnover		3.8		4.1		3.9		3.7		3.9
Change in ASP vs. prior quarter		2.9%)	0.0%)	0.6%)	1.2%	ı	(0.7)%

- (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 and the second fiscal quarter of 2023 primarily due to increased volume and positive foreign currency impacts. Higher average selling prices also contributed to the increase versus the second fiscal quarter of 2022. The book-to-bill ratio and backlog were negatively impacted by a distributor inventory correction that continued in the second fiscal quarter of 2023. We continue to increase manufacturing capacity for critical product lines. Average selling prices decreased versus the prior fiscal quarter.

Gross profit margin decreased versus the prior fiscal quarter and the second fiscal quarter of 2022. The decrease versus the prior fiscal quarter is primarily due to lower average selling prices, manufacturing inefficiencies, and the recognition upon sale of increased costs previously absorbed in inventory. The decrease versus the first fiscal quarter of 2022 is primarily due to cost inflation, manufacturing inefficiencies, and the recognition upon sale of increased costs previously absorbed in inventory, partially offset by higher average selling prices.

The book-to-bill ratio in the second fiscal quarter of 2023 decreased to 0.69 versus 0.84 in the first fiscal quarter of 2023. The book-to-bill ratio was negatively impacted by a distributor inventory correction that continued in the second fiscal quarter of 2023.

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

MONE-FOX S 158,395 S 225,186 S 206,005 S 198,181 S 207,388		2nd	l Quarter 2022	3r	d Quarter 2022	4t	h Quarter 2022	1s	t Quarter 2023	2n	d Quarter 2023
Book-to-bill ratio 1.14 0.78 1.15 0.95 0.68 Gross profit margin 35.0% 36.9% 37.5% 36.8% 34.7% Segment operating margin 28.2% 31.9% 30.9% 29.3% 27.4% Diodes Net revenues \$ 192.083 \$ 209.012 \$ 181.791 \$ 175,693 \$ 174.735 Book-to-bill ratio 1.10 0.79 0.88 27.4% 23.4% Gross profit margin 22.5% 27.0% 23.4% 27.4% 23.4% Segment operating margin 25.3% 24.6% 30.9% 24.3% 20.1% Opticelectronic Components 8 77.936 \$ 73,447 \$ 63,985 \$ 60,403 \$ 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 222,438 Segment operating margin 23.7% 30.0% 20.1% 223,140 \$ 222,433 Book-to-bill ratio 1.05 1	MOSFETs Net revenues	\$	158,395	\$	225,186	\$	206,005	\$	198,181	\$	207,388
Segment operating margin 28.2% 31.9% 30.9% 29.3% 27.4% Diodes Net revenues \$ 192.083 \$ 209.012 \$ 181.791 \$ 175.693 \$ 174.735 Book-to-bill ratio 1.10 0.79 0.88 0.71 0.54 Gross profit margin 27.8% 27.0% 23.4% 27.4% 23.4% Segment operating margin 25.3% 24.6% 19.9% 24.3% 20.1% Optoelectronic Components 8 77.936 8 73.447 8 63.985 60.403 8 64.449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors 8 213.176 \$ 207.437 \$ 205.161 \$ 223.140 \$ 222.433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33	Book-to-bill ratio		1.14		0.78		1.15		0.95		0.68
Diodes Net revenues \$ 192,083 \$ 209,012 \$ 181,791 \$ 175,693 \$ 174,735 Book-to-bill ratio 1.10 0.79 0.88 0.71 0.54 Gross profit margin 27.8% 27.0% 23.4% 27.4% 23.4% Segment operating margin 25.3% 24.6% 19.9% 24.3% 20.1% Optoelectronic Components 8 77,936 \$ 73,447 \$ 63,985 \$ 60,403 \$ 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors 8 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors 8 89,608	Gross profit margin		35.0%		36.9%		37.5%)	36.8%)	34.7%
Net revenues	Segment operating margin		28.2%	ı	31.9%		30.9%)	29.3%)	27.4%
Book-to-bill ratio 1.10 0.79 0.88 0.71 0.54 Gross profit margin 27.8% 27.0% 23.4% 27.4% 23.4% Segment operating margin 25.3% 24.6% 19.9% 24.3% 20.1% Ontoelectronic Components Net revenues \$ 77,936 \$ 73,447 \$ 63,985 \$ 60,403 \$ 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors 8 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.9% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 </td <td><u>Diodes</u></td> <td></td>	<u>Diodes</u>										
Gross profit margin 27.8% 27.0% 23.4% 27.4% 23.4% Segment operating margin 25.3% 24.6% 19.9% 24.3% 20.1% Optoelectronic Components 8 77,936 8 73,447 8 63.985 8 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors 8 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors 8 89,608 8 83,503 75,198 8 80,338 8 9,239 Book-to-bill ratio	Net revenues	\$	192,083	\$	209,012	\$	181,791	\$	175,693	\$	174,735
Segment operating margin 25.3% 24.6% 19.9% 24.3% 20.1% Optical extronic Components Net revenues \$ 77,936 \$ 73,447 \$ 63,985 \$ 60,403 \$ 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors 8 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors 8 89,608 8 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.9%<	Book-to-bill ratio		1.10		0.79		0.88		0.71		0.54
Optoelectronic Components Net revenues \$ 77,936 \$ 73,447 \$ 63,985 \$ 60,403 \$ 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 30.0% 27.0% 28.9% 26.1% 30.9% Segment operating margin	Gross profit margin		27.8%		27.0%		23.4%)	27.4%)	23.4%
Net revenues \$ 77,936 \$ 73,447 \$ 63,985 \$ 60,403 \$ 64,449 Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27	Segment operating margin		25.3%		24.6%		19.9%)	24.3%)	20.1%
Book-to-bill ratio 0.86 0.57 0.78 0.72 0.70 Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.9% 27.0% 28.9% 26.1% 30.9% Capacitors 8 132,314 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Gross profit margin 33.9% 35.3% 28.1% 36.3% 24.2% Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio	Net revenues	\$	77,936	\$	73,447	\$	63,985	\$	60,403	\$	64,449
Segment operating margin 28.7% 30.0% 20.1% 28.6% 16.7% Resistors Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors 8 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 32.3 23.	Book-to-bill ratio		0.86		0.57		0.78		0.72		0.70
Resistors Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 \$ 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin	Gross profit margin		33.9%	ı	35.3%		28.1%)	36.3%)	24.2%
Net revenues \$ 213,176 \$ 207,437 \$ 205,161 \$ 223,140 \$ 222,433 Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 24.5% <t< td=""><td>Segment operating margin</td><td></td><td>28.7%</td><td></td><td>30.0%</td><td></td><td>20.1%</td><td>)</td><td>28.6%</td><td>)</td><td>16.7%</td></t<>	Segment operating margin		28.7%		30.0%		20.1%)	28.6%)	16.7%
Book-to-bill ratio 1.05 1.08 0.85 0.88 0.74 Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$89,608 \$83,503 \$75,198 \$80,338 \$89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$132,314 \$126,213 \$123,158 \$133,291 \$133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%											
Gross profit margin 33.1% 33.0% 28.3% 33.2% 29.1% Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Net revenues \$ 89,608 \$ 83,503 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Net revenues	\$	213,176	\$	207,437	\$	205,161	\$	223,140	\$	222,433
Segment operating margin 29.9% 29.7% 25.3% 29.9% 25.8% Inductors Inductors 889,608 83,503 75,198 80,338 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Book-to-bill ratio		1.05		1.08		0.85		0.88		0.74
Inductors Net revenues \$ 89,608 \$ 83,503 75,198 \$ 80,338 \$ 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Gross profit margin		33.1%		33.0%		28.3%)	33.2%)	29.1%
Net revenues \$ 89,608 \$ 83,503 75,198 \$ 80,338 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Segment operating margin		29.9%		29.7%		25.3%)	29.9%)	25.8%
Net revenues \$ 89,608 \$ 83,503 75,198 \$ 80,338 89,239 Book-to-bill ratio 0.97 1.02 0.83 1.04 0.84 Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Inductors										
Gross profit margin 33.1% 30.8% 32.1% 29.5% 34.5% Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%		\$	89,608	\$	83,503	\$	75,198	\$	80,338	\$	89,239
Segment operating margin 30.0% 27.0% 28.9% 26.1% 30.9% Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Book-to-bill ratio		0.97		1.02		0.83		1.04		0.84
Capacitors Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Gross profit margin		33.1%	ı	30.8%		32.1%)	29.5%)	34.5%
Net revenues \$ 132,314 \$ 126,213 \$ 123,158 \$ 133,291 \$ 133,866 Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Segment operating margin		30.0%	ı	27.0%		28.9%)	26.1%)	30.9%
Book-to-bill ratio 1.17 0.95 0.99 0.70 0.70 Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	<u>Capacitors</u>										
Gross profit margin 24.5% 23.7% 23.7% 28.5% 25.1% Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Net revenues	\$	132,314	\$	126,213	\$	123,158	\$	133,291	\$	133,866
Segment operating margin 20.9% 20.1% 19.9% 24.8% 21.0%	Book-to-bill ratio		1.17		0.95		0.99		0.70		0.70
	Gross profit margin		24.5%		23.7%		23.7%)	28.5%)	25.1%
31	Segment operating margin		20.9%		20.1%		19.9%)	24.8%)	21.0%
			31								

Results of Operations

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

	Fis	cal quarters ended	Six fiscal mor	nths ended	
	July 1, 2023	April 1, 2023	July 2, 2022	July 1, 2023	July 2, 2022
Cost of products sold	71.1%	68.0%	69.7%	69.6%	69.7%
Gross profit	28.9%	32.0%	30.3%	30.4%	30.3%
Selling, general & administrative expenses	13.8%	13.8%	12.8%	13.8%	13.0%
Operating income	15.1%	18.2%	17.5%	16.6%	17.3%
Income before taxes and noncontrolling interest	15.0%	18.0%	17.1%	16.5%	16.5%
Net earnings attributable to Vishay stockholders	10.7%	12.8%	13.0%	11.7%	12.6%
Effective tax rate	28.5%	28.4%	23.8%	28.5%	23.7%

Net Revenues

Net revenues were as follows (dollars in thousands):

		Fis	scal qı	ıarters ende	d		Six fiscal months ended			
	July	1, 2023	Apr	il 1, 2023	July	y 2, 2022	Ju	ly 1, 2023	Ju	ly 2, 2022
Net revenues	\$	892,110	\$	871,046	\$	863,512	\$	1,763,156	\$	1,717,305

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

]	Fiscal quarte July 1, 2		Six fiscal mo July 1	
	Chan	ge in net		Change in net	
	rev	enues	% change	revenues	% change
April 1, 2023	\$	21,064	2.4%	n/a	n/a
July 2, 2022	\$	28,598	3.3%	\$ 45,851	2.7%

Changes in net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	2.6%	1.4%	(0.1)%
Change in average selling prices	(0.7)%	1.1%	3.0%
Foreign currency effects	0.5%	0.6%	(0.5)%
Acquisition	0.0%	0.1%	0.2%
Other	0.0%	0.1%	0.1%
Net change	2.4%	3.3%	2.7%

Despite the distributor inventory correction that we are experiencing, the economic environment remains good and we continue to increase manufacturing capacities. Increased average selling prices contributed to the increase in net revenues versus the second fiscal quarter of 2022. Positive foreign currency impacts also contributed to the increase versus the prior fiscal quarter and the second fiscal quarter of 2022.

Gross Profit Margins

Gross profit margins for the fiscal quarter ended July 1, 2023 were 28.9%, versus 32.0% and 30.3%, for the comparable prior quarter and prior year period, respectively. Gross profit margins for the six fiscal months ended July 1, 2023 were 30.4%, versus 30.3% for the comparable prior year period. The decrease versus the prior fiscal quarter is primarily due to lower average selling prices, manufacturing inefficiencies, and the recognition upon sale of increased costs previously absorbed in inventory. The decrease versus the first fiscal quarter of 2022 is primarily due to cost inflation, manufacturing inefficiencies, and the recognition upon sale of increased costs previously absorbed in inventory, partially offset by higher average selling prices. The increase versus the prior year-to-date period is primarily due to higher average selling prices and increased volume, partially offset by increased materials, utilities, and labor costs.

Segments

Analysis of revenues and margins for our segments is provided below. Direct costs of the COVID-19 pandemic are not allocated to the segments.

MOSFETs

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

		Fi	iscal o	quarters end	ed			Six fiscal m	onths	ended
	Ju	ly 1, 2023	Ap	oril 1, 2023	Jı	aly 2, 2022	Ju	ıly 1, 2023	Ju	ıly 2, 2022
Net revenues	\$	207.388	\$	198.181	\$	158,395	\$	405,569	\$	331,069
Gross profit margin	Ψ	34.7%)	36.8%	Ψ	35.0%	Ψ	35.7%)	34.5%
Segment operating margin		27.4%)	29.3%)	28.2%		28.3%)	28.1%

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

	_	rter ended , 2023	Six fiscal mo July 1	
	Change in net		Change in net	
	revenues	% change	revenues	% change
April 1, 2023	\$ 9,207	4.6%	n/a	n/a
July 2, 2022	\$ 48,993	30.9%	\$ 74,500	22.5%

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

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Increase in volume	5.9%	26.5%	14.4%
Change in average selling prices	(1.7)%	1.8%	5.7%
Foreign currency effects	0.3%	0.6%	(0.3)%
Acquisition	0.0%	0.7%	0.8%
Other	0.1%	1.3%	1.9%
Net change	4.6%	30.9%	22.5%

The MOSFET segment net revenues increased moderately versus the prior fiscal quarter and increased significantly versus the prior year periods. The increase versus the prior fiscal quarter is primarily due to increased sales to distribution customers and customers in the Europe and Americas regions. The increase versus the prior year quarter is primarily due to increased sales to distribution customers, automotive and power supply end market customers, and customers in the Europe and Americas regions, partially offset by decreased sales to computing and telecommunications end market customers. The increase versus the prior year-to-date period is primarily due to increased sales to distribution customers, automotive, power supply, and industrial end market customers, and customers in the Europe and Americas regions, partially offset by decreased sales to computing and telecommunications end market customers.

Gross profit margin decreased versus the prior fiscal quarter and the prior year quarter, but increased versus the prior year-to-date period. The decrease versus the prior fiscal quarter is primarily due to decreased average selling prices and increased input costs, partially offset by increased sales volume. Gross profit increased versus the prior year quarter and gross profit margin was relatively flat due to increased costs. Gross profit margin increased versus the prior year-to-date period primarily due to increased sales volume and higher average selling prices, partially offset by higher material, labor, and utility costs and manufacturing inefficiencies.

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

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

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						Six fiscal months ended			
	July 1, 2023		April 1, 2023		July 2, 2022		July 1, 2023		July 2, 2022	
Net revenues	\$	174,735	\$	175,693	\$	192,083	\$	350,428	\$	374,417
Gross profit margin		23.4%	,)	27.4%	Ď	27.8%		25.4%)	26.5%
Segment operating margin		20.1%	,)	24.3%	,)	25.3%		22.2%)	23.8%

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

	Fiscal quarter ended July 1, 2023			Six fiscal months ended July 1, 2023		
	Change in net			Change in net		
	revenues		% change	revenues	% change	
April 1, 2023	\$	(958)	(0.5)%	n/a	n/a	
July 2, 2022	\$	(17,348)	(9.0)%	\$ (23,989)	(6.4)%	

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

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	1.1%	(8.3)%	(8.2)%
Change in average selling prices	(1.9)%	(1.5)%	2.6%
Foreign currency effects	0.3%	0.5%	(0.5)%
Other	0.0%	0.3%	(0.3)%
Net change	(0.5)%	(9.0)%	(6.4)%

Net revenues of the Diodes segment decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to decreased sales to consumer and power supply end market customers and customers in the Americas region. The decrease versus the prior year quarter is primarily due to decreased sales to distribution and EMS customers, power supply end market customers, and customers in the Americas and Asia regions. The decrease versus the prior year-to-date period is primarily due to decreased sales to distribution and EMS customers and customers in the Americas and Asia regions.

Gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to decreased average selling prices, increased material costs, and manufacturing inefficiencies. The decrease versus the prior year quarter is primarily due to lower sales volume, decreased average selling prices, and higher material, labor, and utility costs, partially offset by positive foreign currency impacts. The decrease versus the prior year-to-date period is primarily due to lower sales volume, manufacturing inefficiencies, and higher material and labor costs, partially offset by increased average selling prices and positive foreign currency impacts.

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

Average selling prices decreased versus the prior fiscal quarter and prior year quarter, but increased versus the prior year-to-date period.

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						Six fiscal months ended			
	July 1, 2023		April 1, 2023		July 2, 2022		July 1, 2023		July 2, 2022	
Net revenues	\$	\$ 64,449	\$	\$ 60.403	\$	\$ 77.936	\$	124.852	\$	158,952
Gross profit margin	Ψ	24.2%	ý	36.3%	Ψ	33.9%	Ψ	30.1%	Ψ)	37.0%
Segment operating margin		16.7%	ó	28.6%)	28.7%		22.5%)	31.8%

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

	Fiscal quarter ended July 1, 2023			Six fiscal months ended July 1, 2023		
	Change in net			Change in net		
	revenues		% change	revenues	% change	
April 1, 2023	\$	4,046	6.7%	n/a	n/a	
July 2, 2022	\$	(13,487)	(17.3)%	(34,100)	(21.5)%	

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

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	5.7%	(18.3)%	(21.9)%
Change in average selling prices	(0.3)%	0.2%	1.2%
Foreign currency effects	0.7%	0.8%	(0.4)%
Other	0.6%	0.0%	(0.4)%
Net change	6.7%	(17.3)%	(21.5)%

Net revenues of our Optoelectronic Components segment increased versus the prior fiscal quarter, but decreased significantly versus the prior year periods. The increase versus the prior fiscal quarter is primarily due to increased sales to distribution customers and customers in the Asia region, partially offset by decreased sales to customers in the Americas and Europe regions. The decrease versus the prior year quarter is due to decreased sales to all regions and all end market customers, particularly distribution customers and customers in the Americas region. The decrease versus the prior year-to-date period is primarily due to distribution customers and customers in all regions.

Gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to unfavorable product mix, manufacturing inefficiencies, higher input costs, and the recognition upon sale of increased costs previously absorbed in inventory. The decrease versus the prior year quarter is primarily due to lower sales volume, manufacturing inefficiencies, and higher material, subcontractor service, and utility costs. The decrease versus the prior year-to-date period is primarily due to lower sales volume, manufacturing inefficiencies, and increased materials and labor costs, partially offset by higher average selling prices.

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

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

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

Resistors

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

	Fiscal quarters ended						Six fiscal months ended			
	July 1, 2023		April 1, 2023		July 2, 2022		July 1, 2023		July 2, 2022	
£4.	ф	222 422	ф	222 1 10	ф	212.176	ф	115 550	ф	120 200
Net revenues	\$	222,433	\$	223,140	\$	213,176	\$	445,573	\$	420,208
Gross profit margin		29.1%)	33.2%)	33.1%		31.1%)	32.3%
Segment operating margin		25.8%)	29.9%)	29.9%		27.8%)	29.0%

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

	Fiscal quar July 1,		Six fiscal months ended July 1, 2023		
	Change in net revenues % change		Change in net	% change	
	revenues	70 Change	revenues	70 Change	
April 1, 2023	\$ (707)	(0.3)%	n/a	n/a	
July 2, 2022	\$ 9.257	4 3%	\$ 25,365	6.0%	

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

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	(0.8)%	1.5%	4.0%
Change in average selling prices	(0.3)%	1.7%	2.4%
Foreign currency effects	0.6%	0.9%	(0.6)%
Other	0.2%	0.2%	0.2%
Net change	(0.3)%	4.3%	6.0%

Net revenues of the Resistors segment decreased versus the prior fiscal quarter, but increased versus the prior year periods. The decrease versus the prior fiscal quarter is primarily due to decreased sales to military and aerospace and industrial end market customers and customers in the Europe region. The increase versus the prior year quarter is primarily due to increased sales to EMS customers, military and aerospace and industrial end market customers, and customers in all regions, particularly Europe. The increase versus the prior year-to-date period is primarily due to increased sales to distribution and EMS customers, military and aerospace and industrial end market customers, and customers in all regions, particularly Europe.

The gross profit margin decreased versus the prior fiscal quarter and the prior year periods. The decrease versus the prior fiscal quarter is primarily due to decreased volume, manufacturing inefficiencies, and the recognition upon sale of increased costs previously absorbed in inventory. The decrease versus the prior year quarter is primarily due to increased labor and material costs and manufacturing inefficiencies, partially offset by higher sales volume and increased average selling prices. The decrease versus the prior year-to-date period is primarily due to increased labor and material costs, partially offset by higher sales volume and increased average selling prices.

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

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

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

Inductors

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

	Fiscal quarters ended						Six fiscal months ended			
	Jul	y 1, 2023	Ap	ril 1, 2023	Ju	ly 2, 2022	Jı	ıly 1, 2023	Jı	ıly 2, 2022
				00.440						.=
Net revenues	\$	89,239	\$	80,338	\$	89,608	\$	169,577	\$	172,385
Gross profit margin		34.5%)	29.5%		33.1%		32.2%)	31.6%
Segment operating margin		30.9%)	26.1%		30.0%		28.6%)	28.5%

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

	F	iscal quart July 1,		Six fiscal mo July 1,	
	Change in net			Change in net	
	reve	enues	% change	revenues	% change
April 1, 2023	\$	8,901	11.1%	n/a	n/a
July 2, 2022	\$	(369)	(0.4)%	\$ (2,808)	(1.6)%

Changes in net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	9.5%	(2.5)%	(3.3)%
Increase in average selling prices	1.1%	1.9%	1.9%
Foreign currency effects	0.2%	0.3%	(0.2)%
Other	0.3%	(0.1)%	0.0%
Net change	11.1%	(0.4)%	(1.6)%

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

The gross profit margin increased versus the prior fiscal quarter and the prior year periods. The increase versus the prior fiscal quarter is primarily due to increased sales volume, higher average selling prices, and manufacturing efficiencies. The increases versus the prior year periods are primarily due to increased average selling prices and positive foreign currency impacts, partially offset by decreased sales volume.

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

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

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

Capacitors

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

		Fiscal quarters ended						Six fiscal months ended		
	Ju	ly 1, 2023	Ap	oril 1, 2023	Ju	ly 2, 2022	Jı	ıly 1, 2023	Jι	ıly 2, 2022
N-4	¢	133,866	ø	133,291	ď	122 214	¢	267 157	¢	260 274
Net revenues Gross profit margin	Ф	25.1%)	28.5%	ъ о́	132,314 24.5%	.	267,157 26.8%	.	260,274 24.9%
Segment operating margin		21.0%	ó	24.8%	ó	20.9%	ı	22.9%)	21.1%

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

	Fiscal quar July 1,		Six fiscal mo July 1,	
	Change in net		Change in net	
	revenues	% change	revenues	% change
April 1, 2023	\$ 575	0.4%	n/a	n/a
July 2, 2022	\$ 1.552	1.2%	\$ 6,883	2.6%

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

	vs. Prior Quarter	vs. Prior Year Quarter	vs. Prior Year-to-Date
Change attributable to:			
Change in volume	0.0%	(1.5)%	1.3%
Increase in average selling prices	0.6%	2.3%	2.1%
Foreign currency effects	0.7%	0.8%	(0.9)%
Other	(0.9)%	(0.4)%	0.1%
Net change	0.4%	1.2%	2.6%

Net revenues of the Capacitors segment increased slightly versus the prior fiscal quarter and the prior year periods. The increase versus the prior fiscal quarter is primarily due to increased sales to distribution end market customers and customers in the Asia region. The increase versus the prior year quarter is primarily due to increased sales to industrial end market customers and customers in the Asia and Europe regions, partially offset by decreased sales to distribution customers. The increase versus the prior year-to-date period is primarily due to increased sales to industrial end market customers and customers in the Asia and Europe regions, partially offset by decreased sales to distribution customers.

The gross profit margin decreased versus the prior fiscal quarter, but increased versus the prior year periods. The decrease versus the prior fiscal quarter is primarily due to manufacturing inefficiencies, higher labor costs, and negative impact from decreased inventory. The increase versus the prior year quarter is primarily due to increased average selling prices, favorable product mix, and positive foreign currency impact, partially offset by manufacturing inefficiencies, increased labor costs, and negative impact from decreased inventory. The increase versus the prior year-to-date period is primarily due to higher sales volume, increased average selling prices, favorable product mix, and positive foreign currency impact, partially offset by manufacturing inefficiencies, increased labor and material costs, and negative impact from decreased inventory.

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

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

Selling, General, and Administrative Expenses

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

		Fiscal quarters ended					Six fiscal months ended			
	_ July	July 1, 2023		April 1, 2023		July 2, 2022		July 1, 2023		ly 2, 2022
Total SG&A expenses	\$	122,857	\$	120,145	\$	110,400	\$	243,002	\$	223,255
as a percentage of revenues		13.8%	ó	13.8%	,)	12.8%)	13.8%)	13.0%

SG&A expenses increased versus the prior fiscal quarter and the prior year periods as expected. The increases are due to general inflation and higher compensation costs, including the implementation of the 2023 Long-Term Incentive Plan in the second fiscal quarter.

Other Income (Expense)

Interest expense for the fiscal quarter ended July 1, 2023 increased \$1.3 million versus the fiscal quarter ended April 1, 2023 and increased \$2.1 million versus the fiscal quarter ended July 2, 2022. Interest expense for the six fiscal months ended July 1, 2023 increased by \$3.0 million versus the six fiscal months ended July 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):

		Fi	scal quar	ters er	ıded	
			, 2023		y 2, 2022	Change
Foreign exchange gain (loss)		\$	1,203	\$	6,514	\$ (5,311)
Interest income			6,292		789	5,503
Other components of net periodic pension expense			(1,906)		(2,803)	897
Investment income (expense)			(193)		(2,858)	2,665
Other			(139)		(262)	 123
		\$	5,257	\$	1,380	\$ 3,877
		Fi	scal quar	ters er	nded	
		July 1	, 2023	Apr	il 1, 2023	Change
Foreign exchange gain (loss)		\$	1,203	\$	(1,490)	\$ 2,693
Interest income			6,292		5,944	348
Other components of net periodic pension expense			(1,906)		(1,888)	(18)
Investment income (expense)			(193)		744	(937)
Other			(139)		19	 (158)
		\$	5,257	\$	3,329	\$ 1,928
		Six	fiscal mo	onths e	ended	
		July 1	, 2023	July	y 2, 2022	Change
Foreign exchange gain (loss)		\$	(287)	\$	6,233	\$ (6,520)
Interest income			12,236		1,350	10,886
Other components of net periodic pension expense			(3,794)		(5,713)	1,919
Investment income (expense)			551		(5,974)	6,525
Other			(120)		(267)	147
		\$	8,586	\$	(4,371)	\$ 12,957
	39					

Income Taxes

For the fiscal quarter ended July 1, 2023, our effective tax rate was 28.5%, as compared to 28.4% and 23.8% for the fiscal quarters ended April 1, 2023 and July 2, 2022, respectively. For the six fiscal months ended July 1, 2023, our effective tax rate was 28.5%, as compared to 23.7% for the six fiscal months ended July 2, 2022. We expect that our effective tax rate will be higher than the U.S. statutory rate, excluding unusual transactions.

During the six fiscal months ended July 1, 2023, the liabilities for unrecognized tax benefits increased by \$0.6 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 July 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 \$237.1 million for the six fiscal months ended July 1, 2023, as compared to cash flows provided by operations of \$108.3 million for the six fiscal months ended July 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					
	July 1, 2023	April 1, 2023	July 2, 2022			
Days sales outstanding ("DSO") (a)	46	45	45			
Days inventory outstanding ("DIO") (b)	94	98	95			
Days payable outstanding ("DPO") (c)	(32)	(32)	(37)			
Cash conversion cycle	108	111	103			

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

Cash paid for property and equipment for the six fiscal months ended July 1, 2023 was \$117.3 million, as compared to \$95.7 million for the six fiscal months ended July 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 six fiscal months ended July 1, 2023 was negatively impacted by higher than usual capital expenditures, but still increased significantly versus the six fiscal months ended July 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 Value" above for additional information.

The following table summarizes the components of net cash and short-term investments (debt) at July 1, 2023 and December 31, 2022 (in thousands):

	Ju	ly 1, 2023	Dec	cember 31, 2022
Credit facility	\$	185,000	\$	42,000
Convertible senior notes, due 2025		465,344		465,344
Deferred financing costs		(10,676)		(6,407)
Total debt		639,668		500,937
Cash and cash equivalents		1,089,420		610,825
Short-term investments		14,366		305,272
Net cash and short-term investments (debt)	\$	464,118	\$	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 in the third fiscal quarter of 2023. This has resulted in a decrease in our short-term investment balance.

As of July 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 extended 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 \$185 million outstanding at July 1, 2023. We borrowed \$426 million and repaid \$283 million on the revolving credit facility during the six fiscal months ended July 1, 2023. The average outstanding balance on our revolving credit facility calculated at fiscal month-ends was \$129.2 million and the highest amount outstanding on our revolving credit facility at a fiscal month end was \$185 million during the six fiscal months ended July 1, 2023.

The amendment and restatement of the facility replaced 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 were 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 was 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 July 1, 2023. Our interest coverage ratio and net leverage ratio were 26.70 to 1 and 0.50 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 pay a commitment fee, also based on our total leverage ratio, on undrawn amounts. The amended and restated credit facility replaced 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 of 0.82 to 1, 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, Use of Proceeds, and Issuer Purchases of Equity Securities

The following table provides information regarding repurchases of our common stock during the fiscal quarter ended July 1, 2023:

	Total Number	Total Number of Shares Purchased as Average Price Part of Total Dollar Paid per Publicly Amount Share Announced Purchased					Maximum Number of Shares that May Yet Be Purchased Under the
Period	of Shares Purchased	,	ncluding mmission)	Plans or Programs	_	Under the Program	Plans or Programs
April 2 - 29	350,552	\$	21.64	350,552	\$	7,586,620	2,405,920
April 30 - May 27	263,749	\$	23.42	263,749	\$	6,175,786	2,142,171
May 28 - July 1	232,901	\$	27.75	232,901	\$	6,462,997	1,909,270
Total	847,202	\$	23.87	847,202	\$	20,225,403	1,909,270

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

Item 3. Defaults Upon Senior Securities

Not applicable.

<u>Item 4.</u> <u>Mine Safety Disclosures</u>

Not applicable.

Item 5. Other Information

During the fiscal quarter ended July 1, 2023, none of our directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, as amended) adopted or terminated a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-K of the Securities Act of 1933).

 10.1 Amendment and Restatement Agreement, dated as of May 8, 2023 among Vishay Intertechnology, Inc. and JPMorgan Chase Bar administrative agent, and the lenders and other parties thereto. Incorporated by reference to Exhibit 10.1 to our current report on Form May 8, 2023. 10.2 Vishay Intertechnology, Inc. 2023 Long-Term Incentive Plan. Incorporated by reference to Annex A to our definitive proxy statement, 	
May 8, 2023.	n 8-K, filed
10.2 Vishay Intertechnology, Inc. 2023 Long-Term Incentive Plan. Incorporated by reference to Annex A to our definitive proxy statement,	
4 0000 0 0000 4 117 1 000 11 11	dated April
4, 2023, for our 2023 Annual Meeting of Stockholders. 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 Smeikal, Chief Executive Officer.	302 01 the
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.	
22.1 Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – Joel Sm	ejkal, Chief
Executive Officer.	
22.2 Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – Lori Lipc	aman, Chief
Financial Officer.	
Interactive Data File (Quarterly Report on Form 10-Q, for the quarterly period ended July 1, 2023, furnished in iXBRL (Inline eXtensit	ole 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: August 9, 2023

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: August 9, 2023

/s/ Joel Smejkal Joel Smejkal Chief Executive Officer

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: August 9, 2023

/s/ Lori Lipcaman Lori Lipcaman Chief Financial Officer

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

In connection with the Quarterly Report of Vishay Intertechnology, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended July 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 August 9, 2023

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 July 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 August 9, 2023