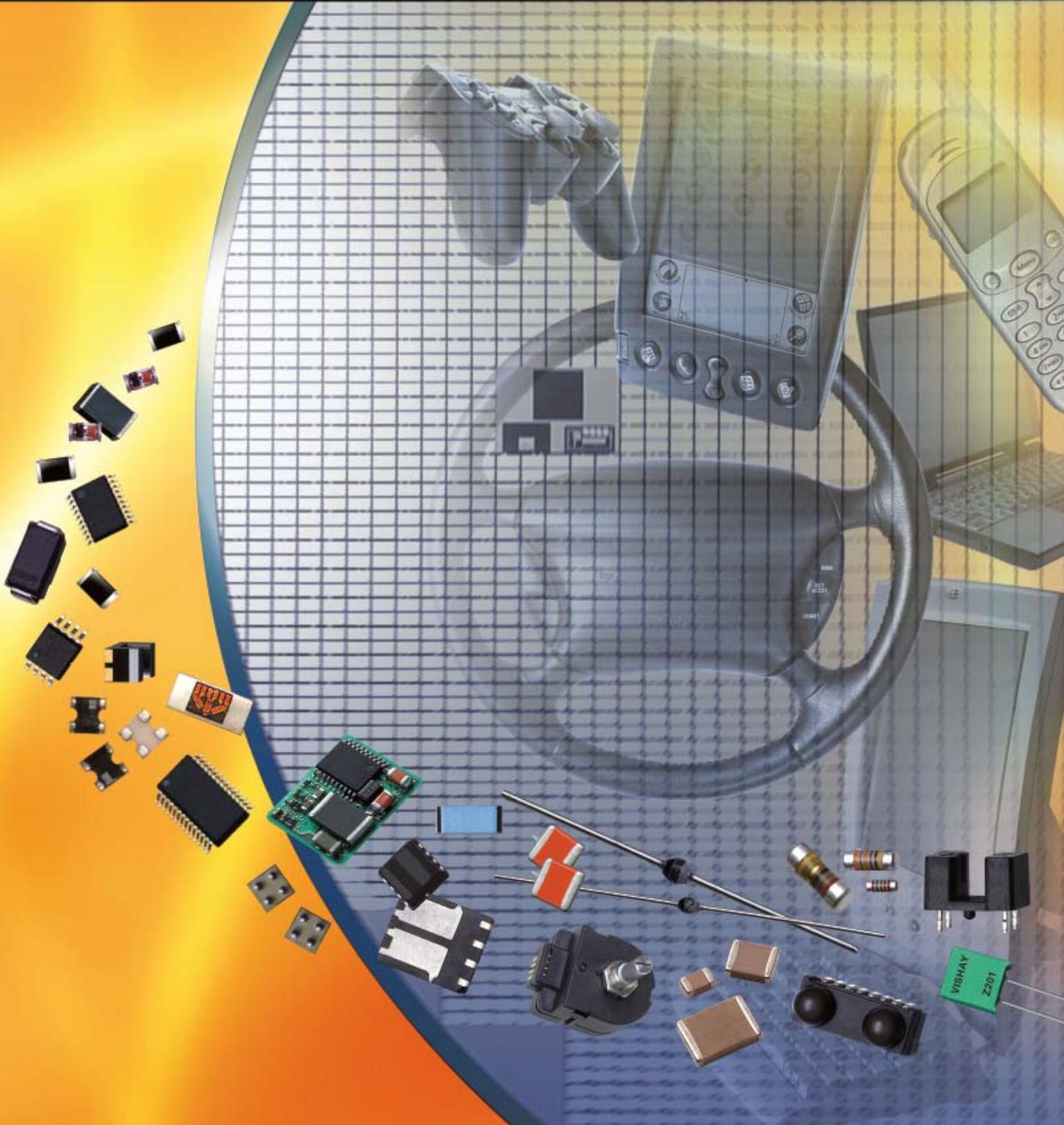




VISHAY INTERTECHNOLOGY, INC.  
**ANNUAL REPORT 2001**



One of the World's Largest Manufacturers of Discrete Semiconductors and Passive Components

# VISHAY INTERTECHNOLOGY, INC.

## 40 YEARS OF TECHNOLOGY LEADERSHIP

From its start in 1962, Vishay has been committed to innovation — the development of new manufacturing techniques, products, technologies and packaging methods. Innovation, the reason for Vishay's technology leadership, is a driving force within the Company.

## MANY NAMES, ONE MANUFACTURER

Vishay has grown through acquisition to include such top names in discrete electronic components as Dale, Sfernice, Draloric, Sprague, Vitramon, Siliconix, and General Semiconductor. All these and more are part of one global company: Vishay.

## ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENTS

Vishay is a Fortune 1,000 Company listed on the New York Stock Exchange. It is the largest U.S. and European manufacturer of passive electronic components (resistors, capacitors, inductors) and the number-two manufacturer of discrete semiconductors worldwide. Vishay employs over 20,000 people in more than 68 plants located in 14 countries.

[www.vishay.com](http://www.vishay.com)

page	TABLE OF CONTENTS
<b>1</b>	Financial Highlights
<b>2</b>	A Message from the Chairman
<b>5</b>	Innovation, Technology Leadership
<b>10</b>	The Vishay Story
<b>13</b>	Communications Market
<b>16</b>	Consumer Market
<b>18</b>	Computer Market
<b>20</b>	Automotive Market
<b>22</b>	Industrial and Medical Markets
<b>23</b>	Military and Aerospace Markets
<b>24</b>	List of Products
	Financial Report
inside back cover	Corporate Information

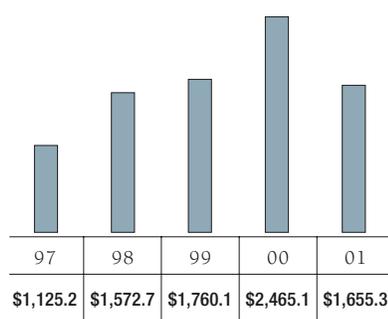
## ABOUT THE COVER

Vishay components are used in virtually all types of electronic devices and equipment, including cell phones, PDAs, game consoles, audio and video systems, computers, household appliances, lighting, scales, industrial equipment, subsystems in automobiles, airplanes, and spacecraft, etc.

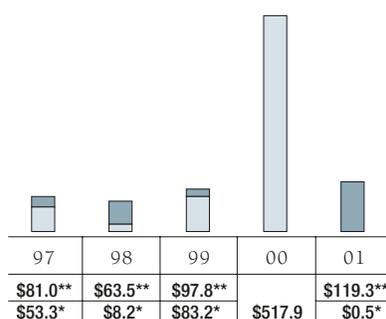
# VISHAY INTERTECHNOLOGY, INC.

## FINANCIAL HIGHLIGHTS

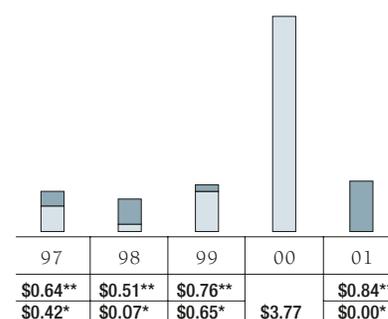
AS OF AND FOR THE YEAR ENDED DECEMBER 31 (In thousands, except per share amounts)	2001	2000	1999
Net sales .....	<b>\$ 1,655,346</b>	\$2,465,066	\$1,760,091
Operating profit .....	<b>14,250 ***</b>	696,498	193,744
Net earnings .....	<b>513 *</b>	517,864	83,237*
Depreciation and amortization .....	<b>163,387</b>	140,840	139,676
Basic earnings per share .....	<b>\$ 0.00 *</b>	\$ 3.83	\$ 0.66*
Diluted earnings per share .....	<b>\$ 0.00 *</b>	\$ 3.77	\$ 0.65*
Weighted average shares outstanding – basic .....	<b>141,171</b>	135,295	126,678
Weighted average shares outstanding – diluted .....	<b>142,514</b>	137,463	128,233
Cash flows from operations .....	<b>\$ 161,418</b>	\$ 542,319	\$ 239,547
Working capital .....	<b>1,096,034</b>	1,057,200	604,150
Property and equipment – net .....	<b>1,167,533</b>	973,554	930,545
Long-term debt .....	<b>605,031</b>	140,467	656,943
Stockholders' equity .....	<b>\$ 2,366,545</b>	\$1,833,855	\$1,013,592



**NET SALES**  
\$ in millions



**NET EARNINGS**  
\$ in millions



**DILUTED EARNINGS PER SHARE**  
\$ in millions

\* Includes charges for the sale of a subsidiary and a German tax rate change of \$14,562,000 (\$0.11 per share) for the year ended December 31, 1999, and restructuring expenses and unusual charges of \$118,776,000 (\$0.84 per share), \$55,335,000 (\$0.44 per share), and \$27,692,000 (\$0.22 per share) for the years ended December 31, 2001, 1998 and 1997, respectively.

\*\* Darker shade in graphs excludes charges for the sale of a subsidiary and a German tax rate change of \$14,562,000 (\$0.11 per share) for the year ended December 31, 1999, and restructuring expenses and unusual charges of \$118,776,000 (\$0.84 per share), \$55,335,000 (\$0.44 per share), and \$27,692,000 (\$0.22 per share) for the years ended December 31, 2001, 1998 and 1997, respectively.

\*\*\* Excluding the write-down of inventories (\$70,000,000), restructuring expense (\$61,908,000), and purchased research and development (\$16,000,000), operating profit would have been \$162,158,000.

## A MESSAGE FROM THE CHAIRMAN

### TO OUR SHAREHOLDERS, EMPLOYEES, CUSTOMERS, AND VENDORS:

#### YEAR 2001

While year 2000 was by far the most successful for Vishay, 2001 has been the most difficult year in the forty-year history of the Company. Due to the depressed worldwide electronics markets, our sales for the year 2001 were 33% below those of the extraordinary year 2000. As a result, we reduced the number of employees (before our General Semiconductor acquisition) by 6,000 during the year 2001; furthermore, we consolidated and closed some facilities and reduced expenses wherever possible.

At the same time, however, during 2001 we have made strategic moves to strengthen the Company and, I believe, have made the Company stronger today than it was one year ago.

- In June 2001, the Company paid off its long-term bank debt when it received \$294 million from the sale of zero-coupon convertible subordinated notes due 2021. This move enabled the Company to significantly strengthen its cash position and balance sheet.
- In July 2001, the Company announced its acquisition of the entire infrared components business of Infineon Technologies AG for approximately \$116 million. In fiscal year 2000,

Infineon's infrared components business had revenues of approximately \$133 million. With this acquisition, the Company now becomes the world's largest manufacturer of the transceiver modules that enable short-range connectivity among and between notebook computers, cell phones, PDAs, printers, and other devices. We also now become the second largest worldwide manufacturer of optocouplers used in many electronic devices and the largest manufacturer of infrared remote control transmitter modules.

- In November 2001, the Company acquired General Semiconductor, Inc., a leading manufacturer of power management devices. We are very excited about this acquisition. With this acquisition completed, Vishay becomes the #2 manufacturer of discrete semiconductors worldwide and the #1 manufacturer of diodes and rectifiers worldwide. The complementary nature of our product lines should result in substantial operational and marketing synergies and provide significantly more opportunities for additional cost savings. Vishay's strong balance sheet, coupled with General Semiconductor's reputation and market presence, should create an ideal platform for further growth through acquisitions in the semiconductor components market. Stockholders of General

**We will continue to pursue acquisition opportunities to facilitate the growth of our business and to strengthen our position in the markets we serve.**

**This is consistent with Vishay's historic ability to maintain a competitive edge throughout economic cycles.**

**In the year 2002 and beyond, we will continue to build on our position as a leader in the U.S., European and Asian electronic markets.**

## A MESSAGE FROM THE CHAIRMAN

Semiconductor received 0.563 of a share of Vishay's common stock for each General Semiconductor share, or a value of \$10.74 per General Semiconductor share based on Vishay's November 1, 2001 closing price of \$19.08. General Semiconductor had sales of \$494 million for the year ended December 31, 2000.

- In November 2001, the Company announced the acquisition of North American Capacitor Company (NACC), also known as Mallory. Mallory is a manufacturer of wet tantalum electrolytic capacitors, among other products. In the fiscal year ended October 31, 2001, Mallory had sales of approximately \$44 million. The acquisition of Mallory has resulted in Vishay becoming the largest producer of wet tantalum capacitors.

### FINANCIAL HIGHLIGHTS

For the year ended December 31, 2001, sales were \$1,655,346,000 compared to sales of \$2,465,066,000 in the previous year, a decrease of 33%. Before restructuring charges and other nonrecurring items of \$118,776,000, net earnings for the year ended December 31, 2001 were \$119,289,000 or \$0.84 per share compared to net earnings of \$517,864,000 or \$3.77 per share for the year ended December 31, 2000. After the restructuring charges and other non-

recurring items, net earnings for the year ended December 31, 2001 were \$513,000 or \$0.00 per share.

Despite the weak worldwide economic environment, the Company continued to generate cash from operations during year 2001. In fact, for the year ended December 31, 2001, the Company's cash flow from operations were \$161,418,000. Purchases of property and equipment for the year ended December 31, 2001 were \$162,493,000 and depreciation and amortization expense for the same period was \$163,387,000.

As previously stated, in June 2001, the Company paid off its long-term bank debt when it received \$294 million from the sale of zero-coupon convertible subordinated notes due 2021. As a result of this transaction and subsequent acquisitions, the long-term debt of the Company was \$605,031,000 at December 31, 2001 and the stockholders' equity at December 31, 2001 was \$2,366,545,000 resulting in a debt to equity ratio of 0.26. In addition, our cash balance at December 31, 2001 was \$367,115,000.

### LOOKING AHEAD

While year 2000 was an extraordinary year, we foresaw at that time a downturn for the year 2001. As we stated in last year's Annual Report, "2001 will

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**DR. FELIX ZANDMAN**

Chairman of the Board and Chief Executive Officer

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## A MESSAGE FROM THE CHAIRMAN

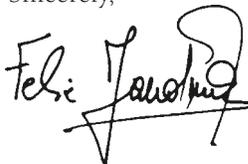
be a time for adjustment. We hope that this period of adjustment, characterized by customer inventory reductions, reduction in market demand, and order cancellations, will be temporary. However, this lower market profile will provide new opportunities for Vishay to leverage its strong financial position and aggressively pursue new acquisitions.” This is, in fact, what we accomplished during 2001. As a result of our acquisition strategy, we now have a company that has been transformed from being only in passive components to one that is now split in sales almost evenly between passive components and discrete semiconductors. Looking ahead, we believe this will enable the Company to grow its sales and net earnings faster than if we had stayed strictly a company in passive components.

We believe that the worst is behind us. We have continued to see improvements in orders in our discrete semiconductor (active) business. We believe that this is a sign of the beginning of a recovery in the semiconductor business and hope that our passive component business will follow suit as it did in previous recessions where the semiconductor sector was the first to recover.

We will continue to pursue acquisition opportunities to facilitate the growth of our business and to strengthen our position in the markets we serve. This is consistent with Vishay’s historic ability to maintain a competitive edge throughout economic cycles. In the year 2002 and beyond, we will continue to build on our position as a leader in the U.S., European and Asian electronic markets. We look with confidence and optimism towards the future when the electronic markets will recover.

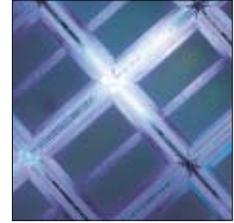
We are extremely grateful to our employees worldwide for their loyalty, skill, and energy, which have contributed significantly to our growth. We value highly the relationships we have with our customers and suppliers. To our fellow stockholders, we thank you for your continued confidence in Vishay. We look forward to meeting the challenges ahead.

Sincerely,



FELIX ZANDMAN  
CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER  
APRIL 2002

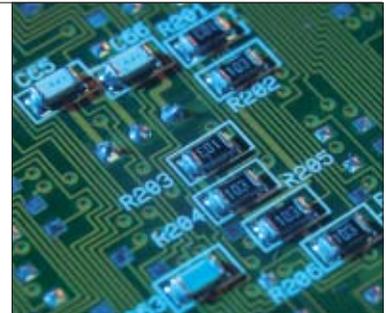
THE BOARD OF DIRECTORS, MANAGEMENT,  
AND EMPLOYEES OF VISHAY DEEPLY MOURN  
THE PASSING OF LUELLA B. SLANER ON  
NOVEMBER 3, 2001. LUELLA B. SLANER SERVED  
ON VISHAY’S BOARD OF DIRECTORS AND WAS  
THE WIFE OF THE LATE ALFRED P. SLANER,  
CO-FOUNDER OF VISHAY.



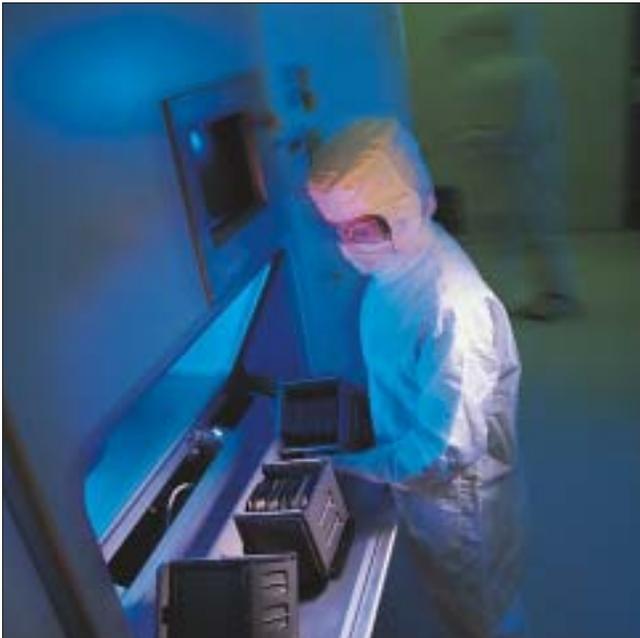
# ESSENTIAL BUILDING BLOCKS OF ELECTRONICS

Vishay makes electronic components used in virtually all types of electronic devices and equipment, including cell phones, PDAs, game consoles, audio and video systems, televisions and other “brown goods,” computers, household appliances (“white goods”), lighting, scales, medical equipment, industrial equipment, and subsystems in automobiles, airplanes, and spacecraft.

Vishay components are essential “building blocks” of electronic circuits that power communications and technology. Every day throughout the world — in homes, offices, factories, hospitals, highways, airports, and military bases — people depend on discrete semiconductors and passive components manufactured by Vishay.



*Top Photo:* Close-up of a silicon wafer.  
*Bottom Photo:* Part of a printed circuit board. Vishay chips and other electronic components attached to printed circuit boards are used in virtually all types of electronic devices and equipment.



A technician works in a semiconductor “clean room” where silicon wafers are processed. The wafers are separated into small chips used in discrete semiconductors or integrated circuits.

## ELECTRONIC COMPONENTS

All electronic products and equipment contain components. There are four basic categories of electronic components: semiconductors, passive components, printed circuit boards, and electromechanical components (connectors, switches). Vishay manufactures semiconductors (discrete semiconductors and some types of integrated circuits) and passive components. These components are attached to printed circuit boards for use in end-products of all kinds. Vishay also manufactures measurement sensors and equipment.

**DISCRETE SEMICONDUCTORS** (diodes, transistors, optoelectronic components) typically perform a single function in electronic circuits, the purpose of which is switching, amplifying, or rectifying and transmitting electrical signals. Semiconductors are referred to as “active” components because they require power to function.

**PASSIVE COMPONENTS** (resistors, capacitors, inductors) do not require a power supply to handle the signals that pass through them. Passive components are used to store electrical charges, to limit or resist electrical current, and for filtering, surge suppression, measurement, timing, and tuning applications.

# INNOVATIVE PRODUCTS



This automated equipment quality-tests surface-mount passive electronic components and inserts them into tape-and-reel packaging.

Vishay scientists and engineers bring to market technologies and components that lead to better and more advanced end-products for consumers and industry. Vishay's focus on research and development has led to patents, proprietary know-how, new manufacturing techniques, and a steady stream of new products that address customer needs.

## BLUE-CHIP CUSTOMER BASE (Partial List)\*

- ALCATEL
- ARROW
- AVNET/EBV
- BOSCH
- CELESTICA
- DELL
- DELPHI
- DYNAMAR
- ERICSSON
- FLEXTRONICS
- FUTURE
- IBM
- INTEL
- LG ELECTRONICS
- MOTOROLA
- NOKIA
- PHILIPS
- SAMSUNG
- SCI
- SEAGATE
- SIEMENS
- SOLETRON
- SONY
- TOMEN
- TTI
- UPPERTECH
- VISTEON
- WPI

\* Original-equipment manufacturers (OEMs), electronics manufacturing services (EMS) companies, distributors

## VISHAY ADVANTAGES

- INNOVATIVE PRODUCTS AND TECHNOLOGIES
- EXPERIENCED MANAGEMENT TEAM WITH PROVEN TRACK RECORD
- PROVEN GROWTH STRATEGY (25% COMPOUNDED ANNUAL GROWTH RATE IN SALES FOR LAST 15 YEARS)
- NUMBER-ONE OR LEADING INDUSTRY RANKINGS FOR MOST PRODUCTS
- ONE-STOP SHOPPING FOR DISCRETE COMPONENT SOLUTIONS



## DIODES

Discrete Semiconductors

Diodes are semiconductor devices with two terminals, an anode and a cathode. By allowing current to travel in only one direction, different types of diodes perform a number of useful functions. These include emitting visible light (as in light-emitting diodes, or LEDs), emitting infrared energy (as in infrared diodes for remote controls), voltage regulation (as in Zener diodes), switching (as in switching diodes), or surge protection (as in suppressor diodes).

# EXPERIENCED MANAGEMENT, ETHICAL LEADERSHIP

Prudent fiscal management and responsible, ethical leadership enable Vishay to fulfill its obligations to shareholders, customers, suppliers, and employees. Careful long-term planning by an experienced executive team has enabled Vishay to enhance its market position during both upturns and downturns in the global electronics industry. Historically, Vishay has maintained a competitive edge throughout economic cycles. Its strong financial balance sheet provides the foundation for organic growth and strategic acquisitions.

**MISSION STATEMENT**

**PROVIDE OUR CUSTOMERS WITH:**

- A SINGLE MANUFACTURING SOURCE FOR DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENTS
- QUALITY STATE-OF-THE-ART PRODUCTS AT COMPETITIVE PRICES
- A CONTINUOUS STREAM OF NEW PRODUCTS
- SUPERIOR CUSTOMER SERVICE WORLDWIDE

**PROVIDE OUR SUPPLIERS WITH:**

- RELIABLE LONG-TERM RELATIONSHIPS

**PROVIDE OUR SHAREHOLDERS WITH:**

- A GOOD RETURN ON THEIR INVESTMENT

**PROVIDE OUR EMPLOYEES WITH:**

- RESPONSIBLE AND ETHICAL LEADERSHIP
- A CREATIVE WORKING ENVIRONMENT
- RESPONSIBLE COMMUNITY MEMBERSHIP AT ALL VISHAY LOCATIONS

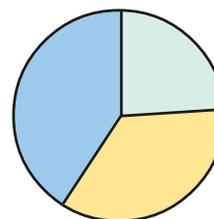
**RECTIFIERS**

Discrete Semiconductors

Rectifiers are semiconductors that convert alternating current (AC) into direct current (DC), a unidirectional current required for operation of many electronic systems. For example, a bridge rectifier is used in a clock radio to change the AC voltage from a wall outlet to a specific DC voltage.



# MARKET STRENGTH



**VISHAY SALES BY REGION, 2001**  
as percent

Americas	Asia	Europe
41%	24%	35%

Vishay's commitment to innovation and its financial strength have enabled it to grow through R&D and acquisitions. As a result, Vishay has market shares ranging from substantial to number-one for each of its products.

Vishay is number-two worldwide in discrete semiconductors, with these specific product rankings:

- NUMBER-1 WORLDWIDE IN INFRARED DATA COMMUNICATION DEVICES (IRDCs)
- NUMBER-1 WORLDWIDE IN DIODES AND RECTIFIERS
- NUMBER-1 WORLDWIDE IN LOW-VOLTAGE POWER MOSFETs
- NUMBER-2 WORLDWIDE IN OPTOCOUPERS
- NUMBER-3 WORLDWIDE IN OPTICAL SENSORS

Vishay is the number-one U.S. and European manufacturer of passive electronic components (resistors, capacitors, inductors), and is number-one worldwide in several specific passive-component categories, including wirewound resistors, foil resistors, wet tantalum capacitors, strain gage sensors, and others.

Because passive components and discrete semiconductors are used in the same end-products, Vishay's semiconductor acquisitions have enhanced its passive-components position in all major markets.

## VISHAY'S MAJOR MARKETS

all electronic circuits:

- COMMUNICATIONS EQUIPMENT
- CONSUMER ELECTRONICS
- COMPUTERS AND PERIPHERALS
- HOUSEHOLD APPLIANCES
- AUTOMOTIVE ELECTRONICS
- INDUSTRIAL ELECTRONICS
- MEDICAL ELECTRONICS
- MILITARY EQUIPMENT
- SECURITY EQUIPMENT
- AEROSPACE EQUIPMENT



## TRANSISTORS

Discrete Semiconductors

Transistors are semiconductor devices that amplify and switch analog signals, radio frequency signals, and power. Vishay manufactures both individual transistors and multiple-transistor components, including junction field-effect transistors (JFETs), metal-oxide-semiconductor field-effect transistors (MOSFETs), and bipolar junction transistors (BJTs).

# MANY NAMES, ONE MANUFACTURER



Vishay is an industry-leading manufacturer that partners with major original-equipment manufacturers (OEMs), electronics manufacturing services (EMS) companies, and distributors worldwide. Vishay's customers enjoy the benefits of one-stop shopping for discrete electronic component solutions. Vishay's product family, the broadest in the industry, includes top names in discrete semiconductors and passive components: General Semiconductor, Siliconix, Vitramon, Sprague, Draloric, Dale, and many others. These names and the products associated with them are integrated into one global company with one brand: Vishay.

VISHAY INCLUDES THESE  
NAMES AND OTHERS

- AZTRONIC**
- CERA-MITE**
- DALE**
- DRALORIC**
- ELECTRO-FILMS**
- ESTA**
- FOIL RESISTORS**
- GENERAL SEMICONDUCTOR**
- MEASUREMENTS GROUP**
- ROEDERSTEIN**
- SFERNICE**
- SILICONIX**
- SPECTROL**
- SPRAGUE**
- TANSITOR**
- TECHNO**
- TELEFUNKEN**
- THIN FILM**
- VITRAMON**

## MOSFETs

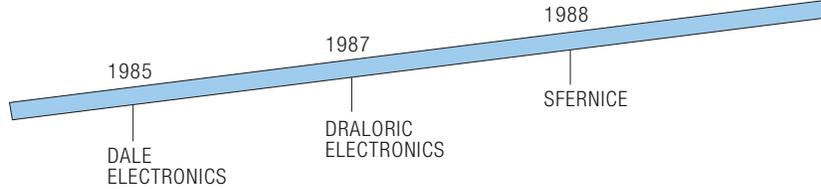
Discrete Semiconductors

MOSFETs — metal-oxide semiconductor field-effect transistors — are made up of many individual transistors (as many as six million) on one piece of silicon. Power MOSFETs are used to switch and manage power. Leading-edge silicon and packaging technologies help power MOSFETs to perform this function more efficiently — so a minimal amount of the energy passing through the device is wasted. Common uses include cell phones, notebook computers, communications networks, and electronics for automobiles.

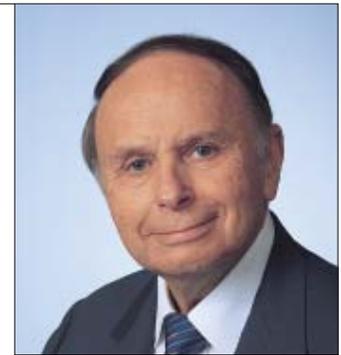


# THE VISHAY STORY

## STRATEGIC ACQUISITIONS



Vishay was founded in 1962. During the years that followed, the electronics industry has grown exponentially — and so has Vishay. Advances in technology have been profound, resulting in electronic devices that have changed the ways in which people worldwide communicate, travel, work, and play. Vishay has grown from a leader in one area — Bulk Metal® foil technology — to a leader in many areas of discrete-electronic-component technology. Technological innovation has always been a key part of Vishay’s identity.



Dr. Felix Zandman  
Chairman of the Board and  
Chief Executive Officer

### INITIAL TECHNOLOGY BREAKTHROUGHS

In the 1950s, as the electronics industry began its accelerated growth, Dr. Felix Zandman, a physicist, and current Chairman and CEO of Vishay, was issued patents for his PhotoStress® coatings and instruments. These devices are used to reveal and measure the distribution of stresses in structures under live load conditions such as airplanes and cars. Dr. Zandman’s research in this area led him to develop Bulk Metal foil resistors — ultra-precise, ultra-stable resistors that, even now, provide performance far beyond any other resistor available.

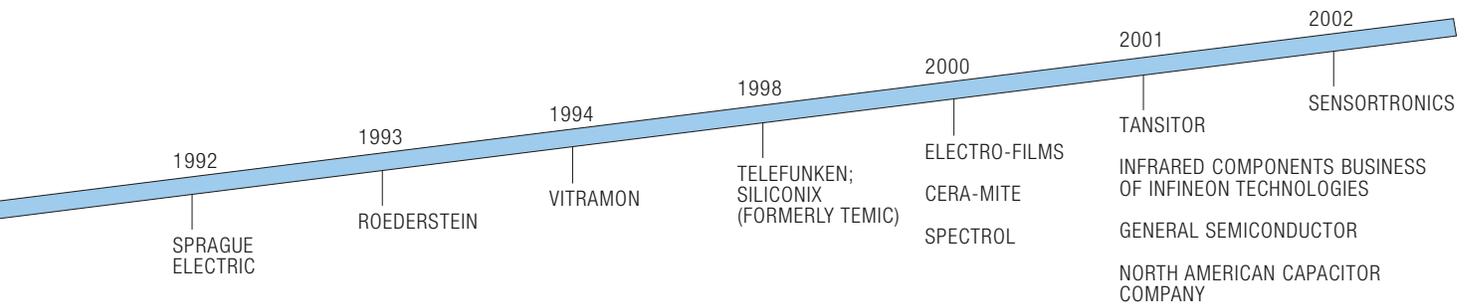
In 1962, Dr. Zandman, with the financial help of the late Alfred P. Slaner, founded Vishay to develop and manufacture Bulk Metal foil resistors. Concurrently, J.E. Starr, a colleague of Dr. Zandman, developed foil resistance strain gages, which also became a part of Vishay. The Company was named after Dr. Zandman’s and Mr. Slaner’s ancestral village in Lithuania, in memory of family members who perished in the Holocaust.

Throughout the ’60s and ’70s, Vishay established itself as a technical and market leader in PhotoStress products, strain gages, and foil resistors.

### ACQUISITIONS AND DRAMATIC GROWTH

By the early ’80s, Vishay was positioned to grow significantly. Because the markets for PhotoStress, resistance strain gages, and ultra-precise resistors were relatively small, the Company moved to expand into high-volume resistors. Such resistors are used by the billions every year, in virtually every sector of the electronics industry.

## THE VISHAY STORY



Vishay's strategy was to enter the market through the acquisition of respected, well-positioned manufacturers. The Company set strict acquisition criteria for technological strength, brand recognition, manufacturing capabilities, markets served, and management depth.

Beginning in 1985, Vishay acquired Dale Electronics, Draloric Electronics, and Sfernice. These new operations helped produce dramatic sales growth — from \$57 million to more than \$400 million in just three years. Vishay quickly achieved a position as the largest fixed resistor manufacturer in the United States and Europe.

These acquisitions also brought other passive electronic components into Vishay, such as inductors, specialty capacitors, plasma displays, specialty connectors, transformers, thermistors, potentiometers, and trimmers — complementing Vishay's strength in resistors. In fact, this diversification underscores the strategy that Vishay continues to pursue today — to be the manufacturer of the broadest line of discrete electronic components in the industry.

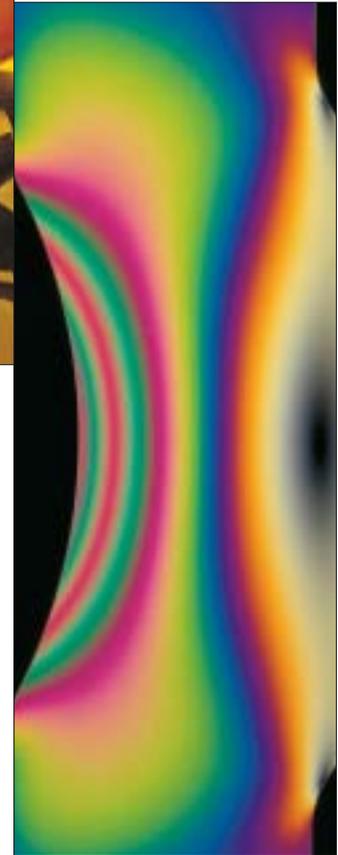
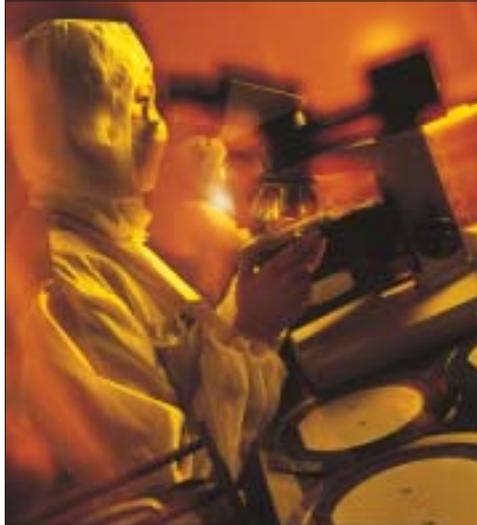
### NEW PRODUCTS AND MARKETS

In the early '90s, Vishay applied its acquisition strategy to the high-volume capacitor market, extending its range of products and increasing penetration in passive components. Major acquisitions included Sprague Electric, the inventor and manufacturer of tantalum capacitors; Roederstein, a manufacturer of film, aluminum, and ceramic disk capacitors and thick film chip resistors; and Vitramon, a high-quality manufacturer of multilayer ceramic chip capacitors. By 1994, annual sales had reached \$988 million.

### EXPANSION INTO SEMICONDUCTORS

In 1998, Vishay acquired the Semiconductor Business Group of TEMIC, which included Telefunken and 80.4% of Siliconix, producers of MOSFETs, RF transistors, diodes, optoelectronics, and power and analog switching integrated circuits.

## THE VISHAY STORY



### ONGOING GROWTH

During 2000, Vishay acquired passive-component companies Electro-Films, Ceramite, and Spectrol. Each of these acquisitions, while relatively small, strengthened Vishay's position in niche markets.

Vishay's acquisitions during 2001 included Tansitor, the infrared components business of Infineon Technologies, General Semiconductor, and North American Capacitor Company (Mallory). The addition of Infineon's infrared components group and General Semiconductor enhanced Vishay's existing Telefunken and Siliconix businesses — and propelled Vishay into the top ranks of discrete semiconductor manufacturers worldwide. The Tansitor and North American Capacitor Company (Mallory) acquisitions enhanced Vishay's position in tantalum capacitors.

Vishay's growth has been fueled by research and development, strategic acquisitions, a commitment to address customer needs, and an ongoing effort to improve product performance. The Company continues to explore acquisition opportunities in both passive components and semiconductors.

*Top Photo:* A technician inspects a silicon wafer.

*Bottom Photo:* An example of the colorful patterns that are revealed when a PhotoStress® coating is mounted to a test part or structure, subjected to load, and viewed with polarized light.



### OPTOELECTRONIC COMPONENTS

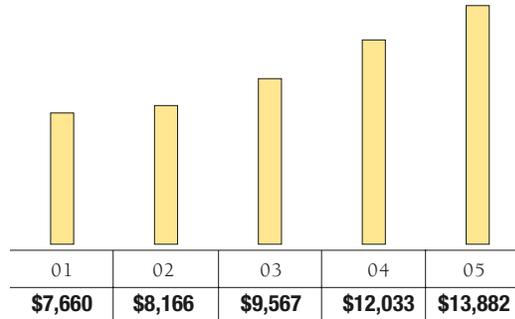
Optoelectronic components emit or detect light in electronic circuits. Types include infrared data communications devices (IRDCs) for wireless two-way data transfer; optocouplers for circuit isolation; IR emitters for one-way remote control; optical sensors for detection; and LEDs for light sources.

# COMMUNICATIONS MARKET



Communications market demand for the types of components manufactured by Vishay is projected to increase each year from 2001 through 2005. In the semiconductor categories where Vishay competes, global semiconductor usage (in dollar value) in communications electronics is expected to grow from \$7.660 billion in 2001 to \$13.882 billion in 2005. This is an increase of over 81%.\* During the same period, global passive component usage (fixed capacitors, fixed resistors, and inductors; in dollar value) in telecommunications electronics is expected to increase from \$2.376 billion to \$5.176 billion.\*\*

\* Source: Gartner Dataquest, February 2002  
 \*\* Source: Paumanok, March 2002

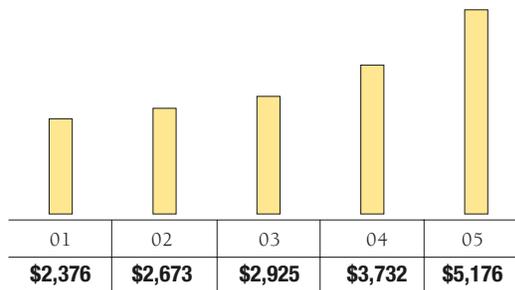


Millions of \$, estimated

### WORLDWIDE SEMICONDUCTOR CONSUMPTION<sup>†</sup> IN COMMUNICATIONS ELECTRONICS

<sup>†</sup> Includes only general purpose – analog IC, general purpose – discrete, and general purpose – optical

Source: Gartner Dataquest, February 2002



Millions of \$, estimated

### WORLDWIDE PASSIVE COMPONENT CONSUMPTION<sup>†</sup> IN TELECOMMUNICATIONS ELECTRONICS

<sup>†</sup> Includes only fixed capacitors, fixed resistors, and inductors

Source: Paumanok, March 2002

Individual telecommunications satellites (*top photo*) are part of the global communications infrastructure. PDAs (*bottom photo*) that enable individual recordkeeping are evolving into devices with complete two-way communication capabilities. Both satellites and PDAs use types of electronic components manufactured by Vishay.

## IRDCs

IRDCs — infrared data communications devices — are a type of optoelectronic component that enable two-way, wireless data transmission at very fast speeds. An infrared transceiver includes an IR emitting device, a detecting device, and an integrated control IC, all part of a special package design with two integrated optical lenses. IRDCs are used in PDAs, cell phones, computers, digital cameras, and other products.



# COMMUNICATIONS MARKET

Vishay parts are essential to the operation of cell phones, PDAs, and other communication devices. Each step of the way, Vishay components support the signals that — travelling via infrared links, telephone lines, coaxial cables, fiber optic systems, radio waves, microwave transmissions, and satellites — make possible voice and data communications worldwide.

A cell phone, depending on make and model, can have as many as 500 or more discrete electronic components. Virtually all of these are component types produced by Vishay. The dollar value of these components in a digital, tri-band phone can be over \$17.\*

The first generation of brick-like analog cell phones has been replaced by smaller, lighter, more powerful digital devices. Today, a brand-new generation of handheld units offers e-mail access, Web access, enhanced visual displays, and other features. New product features require additional electronic components. These include resistors, capacitors, inductors, diodes, discrete transistors, power MOSFETs, power ICs, optoelectronic components, and integrated modules from Vishay.

Vishay components are used, not just in cell phones and PDAs, but in virtually all types of communications-related products, including cordless phones and standard (landline) handsets, PBX equipment, voice and data switches, transmission equipment, optical networking equipment, power supplies, and even the communication satellites that dot our skies.

\* Source: Portelligent, 2001



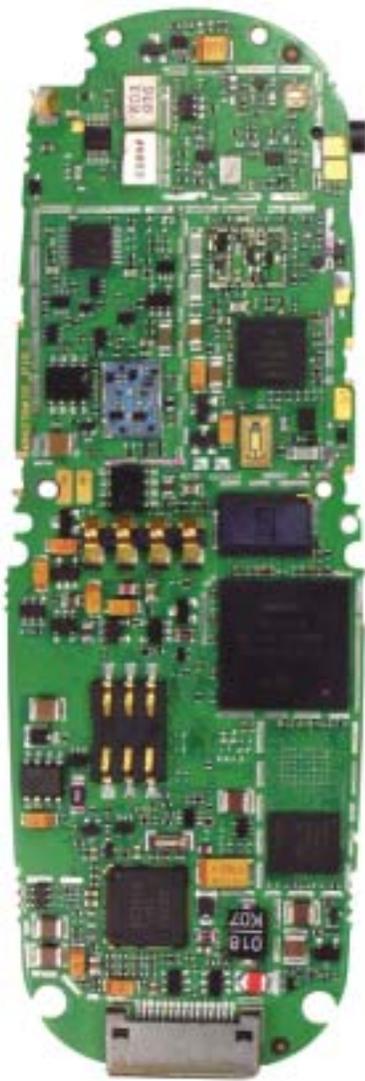
From microwave towers (*top photo*) that support voice and data communications to cell phones (*bottom photo*), practically all communications equipment relies on types of discrete semiconductors and passive components manufactured by Vishay.



## INTEGRATED CIRCUITS (ICs)

Integrated circuits (ICs) take the functions of discrete semiconductor and passive components and combine them together on a single chip. These may include “on-board” transistors, diodes, resistors, capacitors and other circuit components. Unlike discrete semiconductor components, which usually perform one function (such as switching), ICs are capable of performing multiple functions. Vishay produces analog switches and power ICs.

# COMPONENT CONTENT IN A CELL PHONE



Chip Resistor



Multilayer Ceramic  
Chip Capacitor



Diode



Low Power MOSFET



Power MOSFET



Molded Tantalum  
Chip Capacitor



Chip Inductor



Coated Tantalum  
Chip Capacitor

The photos on this page show both sides of a Motorola Timeport T260 GPRS (general packet radio service) cellular telephone. Highlighted are types of electronic components manufactured by Vishay.

## APPROXIMATE DOLLAR CONTENT PER PHONE\*

COMPONENT	DOLLAR CONTENT
Resistors	<b>\$1.12</b>
Capacitors	<b>3.78</b>
Magnetics	<b>1.06</b>
Diodes	<b>0.95</b>
Transistors	<b>5.80</b>
LEDs	<b>1.35</b>
MOSFETs	<b>1.93</b>
IRDC	<b>1.25</b>
Total Value	<b>\$17.24*</b>



## TOTAL NUMBER OF DISCRETE COMPONENTS = 514\*\*

\* Source: Portelligent, 2001

\*\* Excluding connectors, battery charger



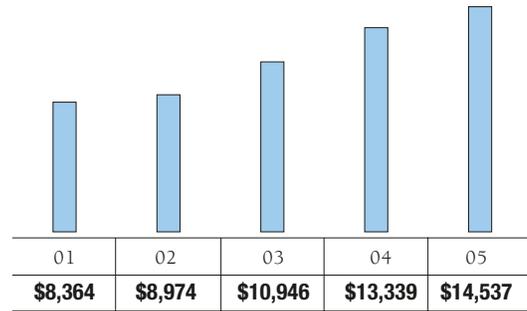
IRDC Transceiver



Power IC

Note: Individual components above and to the right are not shown to scale.

# CONSUMER MARKET



Millions of \$, estimated

## WORLDWIDE SEMICONDUCTOR CONSUMPTION<sup>†</sup> IN CONSUMER ELECTRONICS

<sup>†</sup> Includes only general purpose – analog IC, general purpose – discrete, and general purpose – optical

Source: Gartner Dataquest, February 2002

Video game consoles, digital video disk (DVD) players, CD players, televisions, camcorders and cameras, MP3 portable audio players (such as the Apple® iPod® and competing devices) — the consumer electronics market is huge and growing. Today, even children’s toys have electronic functions and remote control systems. This trend is driving increased global demand for Vishay components.

In 2001, the total dollar value of global semiconductor usage in consumer electronics, in the categories where Vishay competes, was \$8.364 billion. The projected figure for 2005 is \$14.537 billion. This represents an increase of almost 74%.<sup>\*</sup> Meanwhile, the total dollar value of global passive component usage (fixed capacitors, fixed resistors, and inductors) in consumer electronics is expected to grow from \$4.251 billion in 2001 to \$7.291 billion in 2005.<sup>\*\*</sup>

To put this into perspective, consider the DVD player, which has been termed the fastest-growing category of consumer electronic products.<sup>\*\*\*</sup> DVD sales worldwide are projected to grow from \$1.700 billion in 2001 to \$4.072 billion in 2005 — a compounded annual growth rate of 16.9%.

<sup>\*</sup> Source: Gartner Dataquest, February 2002

<sup>\*\*</sup> Source: Paumanok, March 2002

<sup>\*\*\*</sup> Source: *Electronic Engineering Times*, February 25, 2002



Sales of handheld remote controls, televisions, and other consumer electronics equipment help to drive demand for Vishay components. Vishay is the number-one worldwide manufacturer of infrared remote control transmitter modules.



## RESISTORS

Passive Components

Resistors are passive components that restrict current flow. They are used in virtually all electronic circuits. Resistor categories include foil, thin film, thick film, metal oxide film, carbon film, and wirewound. Resistive products also include resistor networks and arrays, in which multiple components are combined in a single package, and thermistors (*thermally sensitive resistors*).

## VISHAY MARKETS



Millions of \$, estimated

### WORLDWIDE PASSIVE COMPONENT CONSUMPTION<sup>†</sup> IN CONSUMER ELECTRONICS

<sup>†</sup> Includes only fixed capacitors, fixed resistors, and inductors

Source: Paumanok, March 2002



Even as consumers embrace DVD technology for video and audio playback, advanced formats are on the horizon. These include the HD-DVD playback format, with 9 gigabytes of storage per disc, and the Blu-ray format for high-definition video recording, which has a capacity of 27 gigabytes per side — an almost six-fold increase over current DVD technology.

Another example of the growth in consumer electronics is video game hardware. These systems — Sony PlayStation<sup>®</sup>2, Microsoft<sup>®</sup> Xbox<sup>™</sup>, Nintendo<sup>®</sup> GameCube<sup>™</sup>, and others — use types of semiconductors and passive components manufactured by Vishay. The total global value of these types of semiconductors and passive components consumed in video game controllers, consoles, and related devices is expected to grow from \$4.838 billion in 2001 to \$8.145 billion in 2005.\*

*Top Photo:* The growing popularity of DVD players, such as this one, increases demand for types of electronic components manufactured by Vishay.

*Bottom Photo:* Electronic components used in the Sony PlayStation<sup>®</sup>2 computer entertainment system include Vishay Siliconix power MOSFETs.

*Photo of Sony PlayStation<sup>®</sup>2 courtesy of Sony Corporation.*

In the consumer electronics market, as in all other major markets, end-products use both discrete semiconductors and passive components. This gives Vishay, which has the industry's broadest line of discrete semiconductors and passive components, a unique advantage.

\* Sources: Gartner Dataquest, February 2002; Paumanok, March 2002

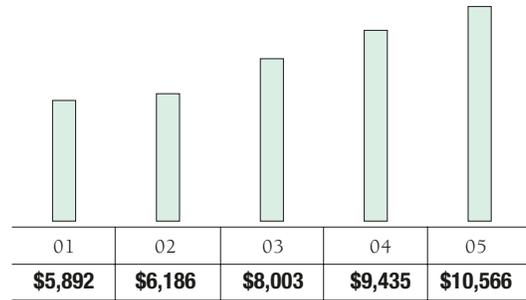
## MAGNETICS

Passive Components

Magnetics are passive components, including inductors and transformers, that use an internal magnetic field to change the phase of electrical current. Magnetic devices are used to change voltage levels and to isolate system sections with different ground levels. Inductors are used to control AC current and voltage and filter out unwanted electronic signals.



# COMPUTER MARKET



Millions of \$, estimated

## WORLDWIDE SEMICONDUCTOR CONSUMPTION<sup>†</sup> IN DATA PROCESSING ELECTRONICS

<sup>†</sup> Includes only general purpose – analog IC, general purpose – discrete, and general purpose – optical

Source: Gartner Dataquest, February 2002

A highly specialized integrated circuit on a computer's motherboard serves as the microprocessor that does all the calculations and coordinates the computer's activities. Each new generation of personal computer (PC) has a faster microprocessing speed — from 200 megahertz (200 million cycles per second) in 1995 to a blazingly fast 2 gigahertz (2 billion cycles per second) in 2002 — a 10-fold increase.

A typical computer motherboard with the now-obsolete Intel® 486 microprocessor chip had 124 passive components. In contrast, a motherboard with the Pentium® 4 microprocessor chip requires approximately 600 passive components — an almost five-fold increase. Behind this fact lies a basic truth: each newer and faster generation of computer microprocessor chip — from the 486 to the Pentium, Pentium II, Pentium III, and Pentium 4 — requires a greater number of supporting passive components.\*

\* Source: Vishay estimates, 2002



Vishay components are found in PC keyboards, PC monitors, notebook computers, printers, and virtually all other kinds of computer and data processing hardware.



## INTEGRATED MODULES

Integrated modules combine different components in a single package to save space, reduce assembly costs, and increase reliability. Vishay FunctionPAK™ dc-to-dc converter modules include all the active and passive components required for a complete power conversion solution in a single package that can be mounted directly to the circuit board.

## VISHAY MARKETS



Millions of \$, estimated

### WORLDWIDE PASSIVE COMPONENT CONSUMPTION<sup>†</sup> IN COMPUTERS/PERIPHERALS

<sup>†</sup> Includes only fixed capacitors, fixed resistors, and inductors

Source: Paumanok, March 2002



Computers also include substantial numbers of discrete semiconductors, many of which are produced by Vishay. In fact, Vishay discrete semiconductor and passive components are found in most parts of a PC — not just the motherboard, but also the monitor, keyboard, mouse, disk drive, and modem. In addition, Vishay components play key supporting roles in virtually all kinds of other data processing products — from smart cards and memory cards to servers and mainframe computers — as well as in printers, scanners, fax machines, and photocopiers.

The data processing electronics market is larger than any other single market sector, in terms of semiconductor and passive component consumption. In the semiconductor categories where Vishay competes, global semiconductor usage (in dollar value) in data processing electronics is expected to grow from \$5.892 billion in 2001 to \$10.566 billion in 2005. This is an increase of over 79%.\* Global passive component usage (fixed capacitors, fixed resistors, and inductors; in dollar value) in computer and peripheral electronics is expected to increase from \$3.099 billion in 2001 to \$5.305 billion in 2005.\*\*

\* Source: Gartner Dataquest, February 2002

\*\* Source: Paumanok, March 2002



## CAPACITORS

Passive Components

Capacitors are widely used to store energy and discharge it when needed. They deliver a stable voltage for a wide variety of functions, including power conversion, DC-linking, frequency conversion, and bypass, decoupling, and filtering applications. Capacitor types include tantalum (both solid and wet), ceramic (both multilayer chip and disk), film, power, heavy-current, and aluminum.





# AUTOMOTIVE MARKET

Millions of \$, estimated

## WORLDWIDE SEMICONDUCTOR CONSUMPTION<sup>†</sup> IN AUTOMOTIVE ELECTRONICS

<sup>†</sup> Includes only general purpose – analog IC, general purpose – discrete, and general purpose – optical

Source: Gartner Dataquest, February 2002

The automobile, in its infancy, was compared to the horse-and-carriage. Today, the automobile has a different point of reference: the computer. As mechanical functions are replaced by electronic functions, the automobile is becoming, more and more, a computer on wheels. For example, the Mercedes-Benz C-Class car contains 150 microprocessors.\* In all new automobiles of all sizes and brands, electronics are involved.

Vishay manufactures components that are used in a wide range of automotive applications — powertrain, body controls, safety, comfort, and driver information. Throughout an automobile, the parts with electronic functionality — airbags, audio system, brakes, climate-control system, engine, global positioning system (GPS), lighting, security system, steering, suspension, transmission, and more — use discrete semiconductors and passive components.

Over the years, Vishay has worked closely with automotive suppliers and manufacturers to develop electronic components that function reliably under extreme conditions, including high under-the-hood temperatures and heavy vibration. Vishay components used in automobiles include Power Metal Strip<sup>®</sup> resistors, multilayer ceramic capacitors, TRANSZORB<sup>®</sup> transient voltage suppressors, automotive power MOSFETs, glass-passivated Superrectifiers<sup>®</sup>, optical sensors, and many others.

Vishay components are helping to enable the transition from 12-V to 42-V system voltages, which will have a number of implications for automotive applications. As engineers and manufacturers cope with the consequences of rising voltage levels, the need to handle higher levels of power, more complex system architecture, and other concerns accompanying the transition from 12-V to 42-V system voltages, Vishay components will be involved.

\*Source: Red Herring, February 2002

## 1 POWERTRAIN



**Powertrain,  
Alternator,  
Ignition System,  
Engine Management**

## VISHAY MARKETS

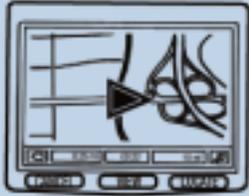


Millions of \$, estimated

### WORLDWIDE PASSIVE COMPONENT CONSUMPTION<sup>†</sup> IN AUTOMOTIVE ELECTRONICS

<sup>†</sup> Includes only fixed capacitors, fixed resistors, and inductors

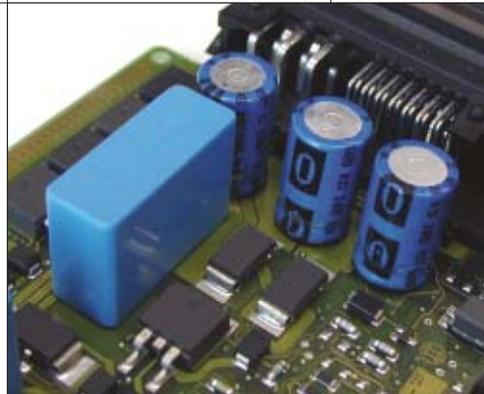
Source: Paumanok, March 2002

2 BODY CONTROLS	3 SAFETY	4 COMFORT	5 DRIVER INFORMATION
			
<b>HID-headlights, Suspension, Gear, Headlight Adjustment, Speed Control, Steering, Traction Control, Wiper Control</b>	<b>ABS, EPS, ASR, Airbag, Seatbelt, Immobilizer, Anti-theft</b>	<b>Central Locking, Power Window, Seat/Mirror Adjustment, Window/Mirror Heating, Sunroof, Climate Control, Interior Lighting, Neckrest Control</b>	<b>Instrument Cluster, Trip Computer, Audio System, Navigation System, Electric Clock</b>

In the semiconductor categories where Vishay competes, global semiconductor usage (in dollar value) in automotive electronics is expected to grow from \$4.358 billion in 2001 to \$6.812 billion in 2005. This is an increase of over 56%.\*\* Meanwhile, global passive component usage (fixed capacitors, fixed resistors, and inductors; in dollar value) in automotive electronics is expected to increase from \$1.476 billion in 2001 to \$2.962 billion in 2005.\*\*\*

\*\* Source: Gartner Dataquest, February 2002

\*\*\* Source: Paumanok, March 2002



A diesel engine control unit which uses electronic components manufactured by Vishay.

Photo courtesy of Robert Bosch GmbH.

# INDUSTRIAL AND MEDICAL MARKETS



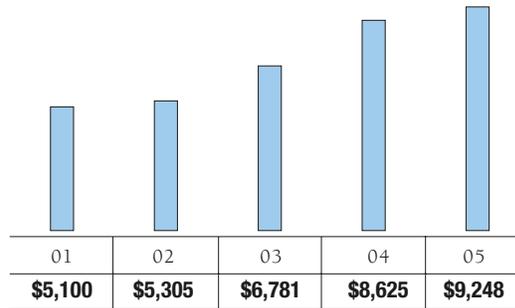
Industrial processes and equipment rely on electronic components for data handling, motor control, power management, filtering, and a variety of other applications. In the semiconductor categories where Vishay competes, global semiconductor usage (in dollar value) in industrial electronics is expected to grow from \$5.100 billion in 2001 to \$9.248 billion in 2005. This is an increase of over 81%.\* Meanwhile, global passive component usage (fixed capacitors, fixed resistors, and inductors; in dollar value) in industrial electronics is expected to increase from \$631 million in 2001 to \$1.075 billion in 2005.\*\*

Vishay manufactures semiconductors and passive components designed to handle wide voltage and capacitance ranges, extreme temperatures, space constraints, and other factors associated with industrial applications — from large, heavy machinery to testing and measurement equipment to handheld scanning devices.

In the medical market, where people’s lives depend on reliable and highly accurate monitoring and treatment, Vishay components are widely used. Vishay is a leading manufacturer of telemetry coils for defibrillators and pacemakers, transformers for defibrillators, tantalum capacitors for hearing aids, and electronic components for all types of medical instrumentation and equipment, from handheld oscilloscopes to MRI and CAT-scan machines. Vishay has a track record of excellent relationships with medical manufacturers.

\* Source: Gartner Dataquest, February 2002

\*\* Source: Paumanok, March 2002



Millions of \$, estimated

### WORLDWIDE SEMICONDUCTOR CONSUMPTION<sup>†</sup> IN INDUSTRIAL ELECTRONICS

<sup>†</sup> Includes only general purpose – analog IC, general purpose – discrete, and general purpose – optical

Source: Gartner Dataquest, February 2002



Millions of \$, estimated

### WORLDWIDE PASSIVE COMPONENT CONSUMPTION<sup>†</sup> IN INDUSTRIAL ELECTRONICS

<sup>†</sup> Includes only fixed capacitors, fixed resistors, and inductors

Source: Paumanok, March 2002

*Top Photo:* Vishay heavy-current capacitors are used in a wide range of industrial applications, including impulse current test systems.

*Photo courtesy of HighVolt Dresden.*



## MEASUREMENT SENSORS AND EQUIPMENT

Measurement sensors and equipment convert physical variables such as strain, force, weight, pressure, and displacement into measurable electrical signals. This broad product category includes both individual components and sophisticated instrumentation devices. Vishay is a leading manufacturer of strain gages, instrumentation (strain indicators, amplifiers, and data systems), transducers, and PhotoStress® products.

# MILITARY AND AEROSPACE MARKETS

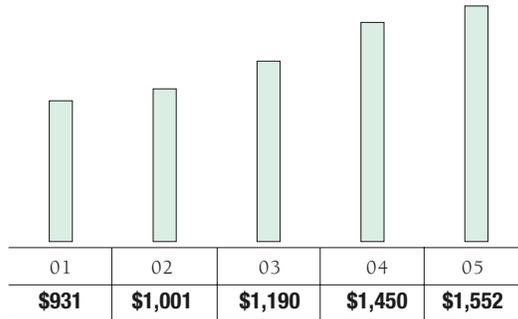


Vishay's commitment to military and aerospace customers dates back to the Company's founding four decades ago. For example, Vishay ultra-precision Bulk Metal® foil resistors have been used — and continue to be used — in the NASA space program, civilian airplanes, and military equipment. Military and aerospace equipment where Vishay components have been employed include tanks, submarines, missile systems, jet aircraft, satellites, the Hubble space telescope, and other equipment.

The types of electronic components manufactured by Vishay are also used in the growing field of surveillance and security, where companies are developing systems to protect against potential attacks on government facilities, office buildings, airports, energy plants, and other targets.

Vishay components used in military, security, and aerospace equipment are designed to function reliably when subjected to extremely hot and cold temperatures, intense vibration, and other environmental stresses. In addition, Vishay has the ability to custom-design and produce components to meet the high expectations of quality and reliability demanded by military and aerospace customers.

Vishay manufactures components that withstand the environmental extremes of spacecraft and airplanes such as the international space station (top photo) and the U.S. Air Force F-22 jet (bottom photo).  
 Space station photo: NASA; F-22 jet photo: U.S. Air Force

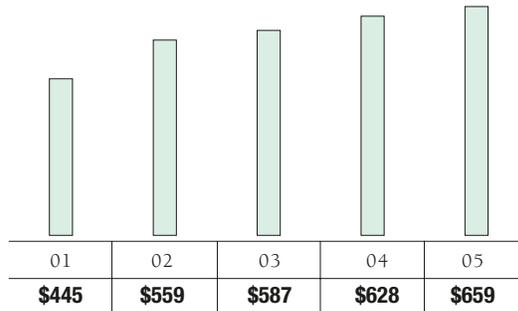


Millions of \$, estimated

### WORLDWIDE SEMICONDUCTOR CONSUMPTION<sup>†</sup> IN MILITARY/CIVILIAN AEROSPACE ELECTRONICS

<sup>†</sup> Includes only general purpose – analog IC, general purpose – discrete, and general purpose – optical

Source: Gartner Dataquest, February 2002



Millions of \$, estimated

### WORLDWIDE PASSIVE COMPONENT CONSUMPTION<sup>†</sup> IN MILITARY AND AEROSPACE ELECTRONICS

<sup>†</sup> Includes only fixed capacitors, fixed resistors, and inductors

Source: Paumanok, March 2002

In the semiconductor categories where Vishay competes, global semiconductor usage (in dollar value) in military and civilian aerospace electronics is expected to increase from \$931 million in 2001 to \$1.552 billion in 2005. This is an increase of almost 67%. \* Meanwhile, global passive component usage (fixed capacitors, fixed resistors, and inductors; in dollar value) in military and aerospace electronics is expected to increase from \$445 million in 2001 to \$659 million in 2005. \*\*

\* Source: Gartner Dataquest, February 2002

\*\* Source: Paumanok, March 2002

# VISHAY PRODUCTS

## DISCRETE SEMICONDUCTORS

### RECTIFIERS

- Schottky (single, dual)
- Standard, Fast and Ultra-fast Recovery (single, dual)
- Clamper/Damper
- Bridge
- Superrectifier®

### SMALL-SIGNAL DIODES

- Schottky and Switching (single, dual)
- Tuner/Capacitance (single, dual)
- Bandswitching
- PIN

### ZENER & SUPPRESSOR DIODES

- Zener Diodes (single, dual)
- TVS (TRANZORB®, Automotive, Arrays)

### MOSFETS

- Power MOSFETs
- JFETs

### RF TRANSISTORS

- Bipolar Transistors (AF and RF)
- Dual Gate MOSFETs
- MOSMICs®

### OPTOELECTRONICS

- IR Emitters, Detectors and IR Receiver Modules
- Opto Couplers and Solid State Relays
- Optical Sensors
- LEDs and 7-Segment Displays
- Infrared Data Transceiver Modules
- Custom Products

### ICS

- Power ICs
- Analog Switches

## INTEGRATED MODULES

- DC/DC Converters

## MEASUREMENT SENSORS AND EQUIPMENT

### STRAIN GAGES

- Stress Analysis
- Transducer-Class®
- Installation Accessories

### INSTRUMENTATION

- Strain Indicators
- Amplifiers
- Data Systems

### PHOTOSTRESS® PRODUCTS

- Polariscopes
- Plastics

### TRANSDUCERS

- Load Cells
- Linear Displacement Sensors

## PASSIVE COMPONENTS

### CAPACITORS

- Tantalum Capacitors
  - Solid Tantalum Capacitors
  - Wet Tantalum Capacitors
- Ceramic Capacitors
  - Multilayer Chip Capacitors
  - Disc Capacitors
- Film Capacitors
- Power Capacitors
- Heavy Current Capacitors
- Aluminum Capacitors

### RESISTIVE PRODUCTS

- Foil Resistors
- Film Resistors
  - Thin Film Resistors
  - Thick Film Resistors
  - Metal Oxide Film Resistors
  - Carbon Film Resistors
- Wirewound Resistors
- Variable Resistors
  - Cermet Variable Resistors
  - Wirewound Variable Resistors
  - Conductive Plastic Variable Resistors
- Networks/Arrays
- Non-linear Resistors
  - NTC Thermistors
  - PTC Thermistors

### MAGNETICS

- Inductors
- Transformers

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

**FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
[NO FEE REQUIRED]  
For the fiscal year ended December 31, 2001

**OR**

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
[NO FEE REQUIRED]  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

**Commission file number 1-7416**

**VISHAY INTERTECHNOLOGY, INC.**  
(Exact name of registrant as specified in its charter)

**Delaware** (State or other jurisdiction of incorporation or organization)      **38-1686453** (IRS employer identification no.)

**63 Lincoln Highway**  
**Malvern, Pennsylvania 19355-2120**  
(Address of principal executive offices)

**(610) 644-1300**

(Registrant's telephone number, including area code)

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

**Common Stock, \$0.10 par value**  
(Title of Class)

**New York Stock Exchange**  
(Exchange on which registered)

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. **Yes**  **No**

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of the common stock held by non-affiliates of the registrant as of March 27, 2002, assuming conversion of all its Class B common stock held by non-affiliates into common stock of the registrant, was \$2,923,632,000.

As of March 27, 2002, registrant had 143,947,182 shares of its common stock and 15,383,663 shares of its Class B common stock outstanding.

Portions of the registrant's definitive proxy statement, which will be filed within 120 days of December 31, 2001, are incorporated by reference into Part III.

## PART I

### Item 1. DESCRIPTION OF BUSINESS

#### **General**

Vishay Intertechnology, Inc. is a leading international manufacturer and supplier of passive and discrete active electronic components. Passive components include resistors, capacitors and inductors. Active components include diodes, transistors, rectifiers, power integrated circuits (ICs), infrared transceivers and optocouplers. Passive electronic components, discrete active electronic components and integrated circuits are the primary elements of every electronic circuit. We offer our customers “one-stop” access to one of the most comprehensive electronic component lines of any manufacturer in the United States, Europe and Asia in both the newer surface mount configuration and the traditional leaded form.

Our components are used in virtually every type of product that contains electronic circuitry, including:

- computer-related products,
- power management products,
- telecommunications equipment,
- measuring instruments,
- industrial equipment,
- automotive applications,
- process control systems,
- military and aerospace applications,
- consumer electronics,
- medical instruments, and
- electronic scales.

Since 1985, we have pursued a business strategy that principally consists of the following elements:

1. expanding within the electronic components industry, primarily through the acquisition of other manufacturers of electronic components that have established positions in major markets, reputations for product quality and reliability, and product lines with which we have substantial marketing and technical expertise;
2. reducing selling, general and administrative expenses through the integration or elimination of redundant sales offices and administrative functions at acquired companies;
3. achieving significant production cost savings through the transfer and expansion of manufacturing operations to regions such as Israel, Mexico, Portugal, the Czech Republic, the Republic of China (Taiwan) and the People’s Republic of China, where we can take advantage of lower labor costs and available tax and other government-sponsored incentives; and
4. maintaining significant production facilities in those regions where we market the bulk of our products in order to enhance the service and responsiveness that we provide to our customers.

As a result of this strategy, we have grown from a small manufacturer of precision resistors and strain gages to one of the world’s largest manufacturers and suppliers of a broad line of electronic components.

Our significant acquisitions in the last several years include:

*Siliconix and Telefunken.* We acquired an 80.4% interest in Siliconix incorporated (NASDAQ; SILI), in March 1998 from Daimler-Benz A.G. Siliconix is a publicly traded chip maker, based in Santa Clara, California, which designs, markets and manufactures power and analog semiconductor products for computers, cell phones,

fixed communications networks, automobiles and other electronic systems. Siliconix has manufacturing facilities in Santa Clara, California, maintains assembly and testing facilities in the Republic of China (Taiwan), is party to a joint venture in Shanghai, the People's Republic of China and has subcontractors in the Philippines, the People's Republic of China and the United States. Siliconix reported worldwide sales of \$305.6 million in 2001, \$473.1 million in 2000 and \$383.3 million in 1999.

In the same transaction, we acquired from Daimler-Benz, the semiconductor business unit of TEMIC Telefunken Microelectronic GmbH headquartered in Heilbronn, Germany, but promptly disposed of its integrated circuits division. Telefunken launched our expansion into discrete active components with a product line of diodes, RF transistors, metal-oxide-semiconductor field-effect transistors (MOSFET) switches, bipolar power switches, optoelectronic semiconductors, infrared data transceivers (IRDC), power MOSFETs, power ICs, signal processing switches and junction field-effect transistors (JFETs). Our net cost of these two acquisitions was approximately \$444 million.

*Electro-Films, Cera-Mite and Spectrol.* In May 2000, we acquired Electro-Films, Inc., a manufacturer of thin film components and networks on ceramic and silicon. In August 2000, we acquired Cera-Mite Corporation, a world-wide supplier of ceramic capacitors, used in power supplies, electronic lighting and other applications, and thermistors--temperature-sensitive resistors--used in refrigeration, HVAC, telecommunications and other electronic applications.

Separately, in August 2000, we acquired Spectrol, a manufacturer of sensing potentiometers used primarily in the automotive industry and trimmer potentiometers used in various kinds of electronic circuitry.

*Tansitor and Mallory.* In January 2001, we acquired Tansitor, a leading manufacturer of wet tantalum electrolytic capacitors and miniature conformal coated solid tantalum capacitors. These components have power management applications in the military, aerospace and medical industries. Later, in November 2001, we acquired the North American Capacitor Company, known as Mallory, a manufacturer and distributor of wet tantalum capacitors and other products. As a result of these two acquisitions, we have become the number one manufacturer of wet tantalum capacitors worldwide.

*Infineon.* In July 2001, we acquired the entire infrared components business of Infineon A.G. for approximately \$116 million. As a result, we added several new device types to our optoelectronics portfolio. We also became the largest supplier outside Japan of optocouplers and the largest supplier worldwide of infrared data transceivers (IRDCs).

*General Semiconductor.* On November 2, 2001, we completed the acquisition of General Semiconductor, Inc., a leader in the design, manufacture and distribution of semiconductors for the power management market. In the transaction, we exchanged 0.563 of a share of Vishay common stock for each share of General Semiconductor stock. Based on the closing price of our common stock, on November 2, 2001 the transaction was valued at approximately \$555 million. General Semiconductor manufactures and distributes a broad range of power management products, including rectifiers, transient voltage suppressors, small-signal transistors, diodes, MOSFETs and analog ICs. As a result of this acquisition, we became the number one manufacturer of diodes and rectifiers world-wide.

*Sensortronics.* In January 2002, we acquired the transducer and strain gage business of Sensortronics, Inc. This business, which includes load cells and torque transducers, expands the product portfolio of our measurements group, and makes us a world leader in stress analysis products.

In addition to our acquisition activity, during 2001 we took steps to assure our competitiveness, enhance our operating efficiency and strengthen our liquidity in the face of the economic downturn which broadly impacted the electronics industry during the year. In this regard, we:

- (i) closed or consolidated several manufacturing facilities and administrative offices;

- (ii) reduced our headcount, before acquisitions, by approximately six thousand employees; or a reduction of approximately 31%;
- (iii) integrated our acquisitions within our existing management and operational infrastructure;
- (iv) raised approximately \$294 million from the sale of convertible Liquid Yield Option Notes; and
- (v) relying on the strength of our balance sheet, continued our search for suitable acquisition candidates.

Vishay was incorporated in Delaware in 1962 and maintains its principal executive offices at 63 Lincoln Highway, Malvern, Pennsylvania 19355-2120. Our telephone number is (610) 644-1300.

## Products

We design, manufacture and market electronic components that cover a wide range of products and technologies. Our products primarily consist of:

- fixed resistors,
- tantalum capacitors,
- multi-layer ceramic chip capacitors (MLCCs),
- film capacitors,
- power MOSFETs,
- power integrated circuits,
- diodes and rectifiers,
- signal processing integrated circuits,
- transistors,
- voltage suppressors,
- infrared data transceivers (IRDCs),
- optocouplers, and
- strain gages and load cells

and, to a lesser extent:

- inductors,
- aluminum and specialty ceramic capacitors,
- transformers,
- plasma displays,
- thermistors, and
- potentiometers

We manufacture one of the broadest lines of surface mount devices, a format for electronic components that has evolved into the standard required by most customers. In addition, we continue to produce components in the traditional leaded form. We believe that we produce one of the broadest lines of discrete electronic components available from any single manufacturer.

### *Passive Components*

Passive components include resistors, capacitors and inductors. They are referred to as “passive” because they do not require power to operate. These components adjust and regulate voltage and current, store energy and filter frequencies. We also include in this category the products and services of our measurements group that employ passive components in electro-mechanical measurements.

Resistors are basic components used in all forms of electronic circuitry to adjust and regulate levels of voltage and current. They vary widely in precision and cost, and are manufactured from numerous materials and in many forms. Resistive components are classified as variable or fixed, depending on whether or not their resistance is adjustable. Resistors can also be used as measuring devices. We manufacture a line of thermistors, which are heat sensitive resistors. Other types of resistive sensors are used in strain gages for measurement of mechanical stress. See “Measurements Group” below.

We manufacture virtually all types of fixed resistors, both in discrete and network forms. These resistors are produced for virtually every segment of the resistive product market, from resistors used in the highest quality precision instruments for which the performance of the resistor is the most important requirement, to low-cost resistors for which price is the most important factor.

Capacitors perform energy storage, frequency control, timing and filtering functions in most types of electronic equipment. The more important applications for capacitors are:

- electronic filtering for linear and switching power supplies;
- decoupling and bypass of electronic signals for integrated circuits and circuit boards; and
- frequency control, timing and conditioning of electronic signals for a broad range of applications.

Our capacitor products include primarily solid tantalum surface mount chip capacitors, solid tantalum leaded capacitors, wet/foil tantalum capacitors, MLCC capacitors, and film capacitors. Each capacitor product has unique physical and electrical performance characteristics that make that type of capacitor useful for specific applications. Tantalum and MLCC capacitors are generally used in conjunction with integrated circuits in applications requiring low to medium capacitance values, “capacitance” being the measure of the capacitor’s ability to store energy. The tantalum capacitor is the smallest and most stable type of capacitor for its range of capacitance and is best suited for applications requiring medium capacitance values. MLCC capacitors, on the other hand, are more cost-effective for applications requiring lower capacitance.

Inductors use an internal magnetic field to change the phase of electric current. They are utilized in electronic circuitry to control alternating current and voltage, and to filter out unwanted electronic signals. They are also used in transformers to change voltage levels.

### *Measurements Group*

Vishay Measurements Group is a leading manufacturer of products for precision measurement of mechanical strains. Our products include strain gages, load cells, force measurement sensors, displacement sensors, and photoelastic sensors. These products are used in experimental stress analysis systems, as well as in the electronic measurement of loads (electronic scales), acceleration and fluid pressure. The Measurements Group also provides installation accessories for its products, instrumentation to sample and record measurement output and training seminars in stress analysis testing and transducer development and manufacture.

### *Active Components*

Our active electronic components include both discrete devices and integrated circuits (ICs). They are referred to as “active” because they require power to function. Discrete devices are single components or an arrangement of components that generate, control, regulate and amplify or switch electronic signals or energy.

Examples of our discrete active components include diodes, rectifiers, transient voltage suppressors, transistors and power MOSFETs. These devices are interconnected with passive components or other active components to create an electronic circuit. Our IC devices consist of a number of active and passive components interconnected on a single chip to perform a specific function. Examples of our integrated circuits include power ICs, motor control ICs and signal processing ICs. Our discrete active components and ICs are manufactured and marketed primarily through our majority-owned Siliconix subsidiary, our Telefunken unit and the recently acquired General Semiconductor business.

We also include in the category of active components, our line of optoelectronic components, manufactured and marketed by our Telefunken unit, and the recently acquired infrared components business of Infineon A.G.

#### *Discrete Devices*

Diodes and other rectifiers are used to convert electrical currents from alternating current (AC) into direct current (DC) by conducting electricity in one direction and blocking it in the reverse direction. Because electrical outlets carry AC while the vast majority of electronic devices use DC, rectifiers are used in a wide variety of applications. We offer a broad line of diodes and rectifiers with differing power, speed, cost, packaging and conversion (half wave or full wave) characteristics. Our rectifiers include a series of high voltage devices that have been optimized for power correction circuits.

Transient voltage suppressors protect electronic circuits by limiting voltage to a safe level. Examples of transient events that could damage unprotected circuits include static electricity charges and natural or induced lightning. Voltage suppressors protect circuits by absorbing large amounts of energy for short periods of time. We offer a broad range of state-of-the-art transient voltage suppressors for use in most modern electronic equipment.

Small signal diodes and transistors perform amplification, signal blocking, routing and switching functions at lower current levels. Our small-signal transistors range from the older junction field-effect transistors (JFETs), to newer products such as those based upon double-diffused metal oxide semiconductor (DMOS) technology.

Discrete power metal-oxide-semiconductor field-effect transistors (MOSFETs) are specialized field effect transistors used to switch and manage power in a broad range of electronic devices. These include particularly low-voltage applications such as cell phones, portable and desktop computers, automobiles, instrumentation and industrial applications. Our innovative “trench” power MOSFET technology offers very high cell density, very low on resistance and optimized switching parameters for high frequency DC-DC power conversion. Power MOSFETs conserve power and help prevent components from heating up.

#### *Integrated Circuits*

Power ICs are used in applications such as cellular phones, where an input voltage from a battery or other supply source must be switched, interfaced or converted to a level that is compatible with logic signals used by microprocessors and other digital components. Our ICs are designed to operate at higher frequencies without compromising efficiencies. Often our power MOSFETs and power ICs can be used together as chip sets with complementary performance characteristics optimized for a specific application.

Motor control ICs control the starting, speed or position of electric motors, such as the head positioning and spindle motors in hard disk drives.

Signal processing ICs are used for analog switching and multiplexing in devices that either receive or output analog (non-digital) signals. A recent application of this technology is in broadband communications devices such as DSL modems.

### *Optoelectronics*

Our line of optoelectronic components includes photo emitters and detectors, optocouplers and IRDCs.

Our photo detectors are light-sensitive semiconductor devices, and include linear photo diodes for light measurement, photo-transistors for light switching applications in printers, copiers, facsimile machines, vending machines and automobiles and high speed photo PIN diodes specially designed for infrared data transfer. Our photo detector products are available in a wide variety of sensitivity angles, light sensitivities, daylight filters and packaging shapes. Our infrared photo emitters are used for optical switching and data transfer applications, often in conjunction with our photo detectors, and in devices like infrared remote controls for televisions.

An optocoupler consists of a light emitting diode and a receiver facing each other through an insulation medium inside a light-isolated housing. The receiver may either be a photodetector or a pair of MOSFETs, and in the latter case the device is referred to as a solid state relay (SSR). The function of an optocoupler is to electrically isolate input and output signals. Our optocouplers are used in switchable power supplies, safety circuitry and programmable controllers for computer monitors, consumer electronics, telecommunications equipment and industrial systems.

Infrared data transceivers (IRDCs) consist of a detector photo diode, an infrared light emitting diode and a control IC. IRDCs are used for short range, two-way wireless, infrared data transfer between electronic devices such as mobile phones and other telecommunications equipment, computers and personal digital assistants (PDAs).

### *Packaging*

We have taken advantage of the growth of the surface mount component market, and we are an industry leader in designing and marketing surface mount devices. Surface mount devices adhere to the surface of a circuit board rather than being secured by leads that pass through holes to the back side of the board. Surface mounting provides distinct advantages over through-hole mounting. For example, surface mounting allows the placement of more components on a circuit board, which is particularly desirable in applications such as hand held computers and cellular phones where there is a continuing design trend towards product miniaturization. Surface mounting also facilitates automation, resulting in lower production costs for equipment manufacturers than those associated with leaded or through-hole mounted devices. We believe that we are a market leader in the development and production of a wide range of surface mount devices, including:

- thick film chip resistors,
- thick film resistor networks and arrays,
- metal film leadless resistors (MELFs),
- molded tantalum chip capacitors,
- coated tantalum chip capacitors,
- film capacitors,
- multi-layer ceramic chip capacitors,
- thin film chip resistors,
- thin film networks,
- wirewound chip resistors,
- power strip resistors,
- bulk metal foil chip resistors,
- current sensing chips,
- chip inductors,
- chip transformers,
- chip trimmers,
- NTC chip thermistors, and
- certain diodes and transistor products.

We also provide a number of component packaging styles to facilitate automated product assembly by our customers.

#### *Military Qualifications*

We have qualified certain products under various military specifications, approved and monitored by the United States Defense Electronic Supply Center (DESC), and under certain European military specifications. DESC qualification levels are based in part upon the rate of failure of products. In order to maintain the classification level of a product, we must continuously perform tests on the product and the results of these tests must be reported to DESC. If the product fails to meet the requirements for the applicable classification level, the product's classification may be reduced to a lower level. Products from some of our United States manufacturing facilities experience a reduction in product classification levels from time to time. During the time that the DESC classification level is reduced for a product with military application, net sales and earnings attributable to that product may be adversely affected.

#### **Customers**

We sell our products primarily to original equipment manufacturers (OEMs), OEM subcontractors that assemble printed circuit boards and independent distributors that maintain large inventories of electronic components for resale to OEMs.

To better serve our customers, we maintain production facilities in regions where we market the bulk of our products, principally in the U.S., Germany, France and the U.K. We work with our customers so that our products are incorporated into the design of electronic equipment at the research and prototype stages. We also employ a staff of application and field engineers to assist our customers, independent manufacturers' representatives and distributors in solving technical problems and developing products to meet specific needs.

Our largest customers vary from year to year, and no customer has long-term commitments to purchase our products. During 2001, no one customer accounted for more than 10% of our sales.

During 2001, approximately 41% of our net sales were attributable to customers in the United States, while the remainder was attributable to sales primarily in Europe and Asia.

#### *Marketing*

Our products are marketed through independent manufacturers' representatives compensated solely on a commission basis, by our own sales personnel and by independent distributors. We have regional sales personnel in several North American locations that make sales directly to OEMs and provide technical and sales support for independent manufacturers' representatives throughout the United States, Mexico and Canada. As noted, we also use independent distributors to resell our products. Outside North America, we use similar channels to sell our products in Brazil, France, Israel, Japan, the Republic of China (Taiwan), Singapore, South Korea, the United Kingdom and other countries in Europe and the Pacific Rim.

#### **Research and Development**

Many of our products and manufacturing processes have been invented, designed and developed by our engineers and scientists. We maintain strategically placed design centers where proximity to customers enables us to more easily gauge and satisfy the needs of local markets. These design centers are located in the United States, Germany, France, South Korea, Israel, the Republic of China (Taiwan) and the People's Republic of China.

We also maintain research and development staffs and promote programs at a number of our production facilities to develop new products and new applications of existing products, and to improve manufacturing techniques. This decentralized system encourages individual product development at individual manufacturing facilities that occasionally have applications at other facilities. Company research and development costs (exclusive of purchased in-process research and development) were approximately \$30.2 million for 2001, \$37.1 million for

2000 and \$35.0 million for 1999. These amounts include expenditures of our Siliconix subsidiary of \$17.2 million, \$21.0 million and \$17.0 million in 2001, 2000 and 1999, respectively, principally for the development of new power products and power ICs. These amounts do not include substantial expenditures for the development and manufacturing of machinery and equipment for new processes and for cost reduction measures.

Although we have numerous United States and foreign patents covering certain of our products and manufacturing processes, no particular patent is considered material to our business.

### **Sources of Supplies**

Although most materials incorporated in our products are available from a number of sources, certain materials, particularly tantalum and palladium, are available only from a relatively limited number of suppliers.

We are a major consumer of the world's annual production of tantalum. Tantalum, a metal purchased in powder or wire form, is the principal material used in the manufacture of tantalum capacitors. There are currently three major suppliers that process tantalum ore into capacitor grade tantalum powder. Due to the strong demand for our tantalum capacitors and difficulty in obtaining sufficient quantities of tantalum powder from our suppliers, we stockpiled tantalum ore in 2000 and early 2001. During the year ended December 31, 2001, we subsequently experienced a significant decrease in sales due to declining orders and the deferral or cancellation of existing orders. Our tantalum capacitor business was particularly affected by this year's slowdown in sales. Prices for tantalum ore and powder decreased during this period. As a result, we recorded in cost of goods sold write-downs of \$52,000,000 on tantalum inventories during the year ended December 31, 2001. If the downward pricing trend were to continue, we could again be required to write down the carrying amount of tantalum ore.

During the period of shortage, we entered into long-term contracts to purchase specified quantities of tantalum at fixed prices through 2005. Under the terms of these contracts, the tantalum purchase commitments are approximately \$145,000,000 for 2002 and approximately \$150,000,000 annually for 2003 through 2005. In addition, we may make purchases of tantalum from our other suppliers at prices that are subject to periodic adjustment. The fixed prices for tantalum under the long term contracts could exceed the market price at various times during the terms of the contracts. Also, the quantities of powder and wire committed to or that we otherwise purchase could exceed our production demands. If this were to happen we could be required to take further write-downs.

Palladium, a metal used to produce multi-layered ceramic capacitors, is found primarily in South Africa and Russia. Palladium is a commodity product subject to price volatility. The price of palladium has fluctuated in the range of approximately \$201 to \$970 per troy ounce during the last three years. As of December 31, 2001, the price of palladium was approximately \$446 per troy ounce. During the year ended December 31, 2001, we recorded in cost of products sold a write-down of \$18,000,000 on palladium inventories.

From time to time there have been short-term market shortages of raw materials. While these shortages have not historically adversely affected our ability to increase production of products containing tantalum and palladium, they have historically resulted in higher raw material costs. We cannot assure you that any of these market shortages in the future would not adversely affect our ability to increase production, particularly during periods of growing demand for our products, such as at the beginning of an economic upturn.

### **Inventory and Backlog**

We manufacture both standardized products and those designed and produced to meet customer specifications. We maintain an inventory of resistors and other standardized components. Backlogs of outstanding orders for our products were \$337.9 million, \$773.1 million and \$505.1 million, respectively, at December 31, 2001, 2000 and 1999. The decrease in backlog at December 31, 2001 primarily reflects the decrease in demand during 2001 for both our passive and active components as a result of the global slowdown in the electronics industry, particularly in the personal computer and cell phone markets.

Many of the orders that comprise our backlog may be canceled by customers without penalty. Customers may on occasion double and triple order components from multiple sources to ensure timely delivery when backlog

is particularly long. Customers often cancel orders when business is weak and inventories are excessive, a phenomenon that we have experienced in the current economic slowdown. Therefore, the amount of our backlog may exceed the level of orders that will ultimately be delivered. Our results of operations could be adversely impacted if customers cancel a material portion of orders in our backlog.

## **Competition**

We face strong competition in various product lines from both domestic and foreign manufacturers that produce products using technologies similar to ours. Our main competitors for tantalum capacitors are KEMET Corporation, AVX Corporation and NEC Electronics, Inc. For MLCC capacitors, our principal competitors are KEMET, AVX, Murata and TDK Corp. For thick film chip resistors, our competitors are Rohm Corp., Koa Speer Electronics Inc. and Yageo Corporation. For wirewound and metal film resistors, the principal competitors are I.R.C. Inc., Rohm Corp. and Ohmite Manufacturing Company. For active components, competitors are International Rectifier, Philips, N.V., ON Semiconductor, Rohm Corp., Motorola, Inc., Fairchild Semiconductor Corp., Maxim, Shindengen Electric Manufacturing Co. Ltd., Sanken Electric Co. Ltd., ST Microelectronics N.V. and Samsung Electro-Mechanics Co., Ltd. There are many other companies that produce products in the markets in which we compete.

Our competitive position depends on our product quality, know-how, proprietary data, marketing and service capabilities and business reputation, as well as on price. We compete for sales of certain products on the basis of our marketing and distribution network, which provides a high level of customer service. For example, we work closely with our customers to have our components incorporated into their electronic equipment at the early stages of design and production and maintain redundant production sites for most of our products to ensure an uninterrupted supply of products. We have also established a National Accounts Management Program, which provides our largest customers with one national account executive who can cut across business unit lines for sales, marketing and contract coordination. In addition, the breadth of our product offerings enables us to strengthen our market position by providing customers with “one-stop” access to one of the broadest selections of passive electronic components available directly from a manufacturing source.

## **Manufacturing Operations**

We strive to balance the location of our manufacturing facilities. In order to better serve our customers, we maintain some of our production facilities in regions where we market the bulk of our products, such as the United States, Germany, France, Asia and the United Kingdom. To maximize production efficiencies, we seek whenever practicable, to establish manufacturing facilities in countries, such as the Czech Republic, Israel, Malaysia, Mexico, the People’s Republic of China, the Philippines, Portugal, and the Republic of China (Taiwan), where we can take advantage of lower labor and tax costs and, in the case of Israel, to take advantage of various government incentives, including grants and tax relief.

Some of our most sophisticated manufacturing operations are the production of power semiconductor components. This manufacturing process involves two phases of production: wafer fabrication and assembly (or packaging). Wafer fabrication subjects silicon wafers to various thermal, metallurgical and chemical process steps that change their electrical and physical properties. These process steps define cells or circuits within numerous individual devices (termed “dies” or “chips”) on each wafer. Assembly is the sequence of production steps that divides the wafer into individual chips and encloses the chips in structures (termed “packages”) that make them usable in a circuit. Both wafer fabrication and assembly phases incorporate wafer level and device level electrical testing to ensure that device design integrity has been achieved.

At December 31, 2001, approximately 44% of our identifiable assets were located in the United States, approximately 22% were located in Europe, approximately 16% were located in Israel, and approximately 18% were located in Asia. In the United States, our manufacturing facilities are located in Nebraska, Maine, Pennsylvania, California, North Carolina, Wisconsin, Virginia, Connecticut, Florida, Maryland, New York and South Dakota. In Europe, our main manufacturing facilities are located in Germany and France. We also have manufacturing facilities in the Czech Republic, Hungary, Israel, Malaysia, Mexico, the People’s Republic of China, the Philippines, Portugal and the Republic of China (Taiwan). Over the past several years, we have invested substantial resources to increase capacity and to maximize automation in our plants, which we believe will further reduce production costs.

We are aggressively undertaking to have the quality systems at most of our major manufacturing facilities approved under the ISO 9001 international quality control standard. ISO 9001 is a comprehensive set of quality program standards developed by the International Standards Organization. A majority of our manufacturing operations have already received ISO 9001 approval and others are actively pursuing such approval.

In 2001, we accelerated the implementation of our strategy to shift manufacturing emphasis to higher automation in higher labor cost regions and to relocate a fair amount of production to regions with lower labor costs. As a result, we incurred significant restructuring costs in the year ended December 31, 2001, associated with the downsizing and closing of manufacturing facilities in Europe. We may continue to incur such expenses in 2002.

See Note 14 of the Notes to the Consolidated Financial Statements, "Business Segment and Geographic Area Data," for financial information by geographic area.

### **Israeli Government Incentives**

We have substantial manufacturing operations in Israel, where we benefit from the government's employment and tax incentive programs designed to increase employment, lower wage rates and increase our ability to attract a highly-skilled labor force, all of which have contributed substantially to our growth and profitability. For the year ended December 31, 2001, sales of products manufactured in Israel accounted for approximately 25.3% of our net sales.

Under the terms of the Israeli government's incentive programs, once a project is approved, the recipient is eligible to receive the benefits of the related grants for the life of the project, so long as the recipient continues to meet preset eligibility standards. None of our approved projects has ever been cancelled or modified, and we have already received approval for a majority of the projects contemplated by our capital expenditure program. However, as a result of the recent economic downturn, we were forced to lay off a significant number of employees in Israel. While the number of employees continues to satisfy the eligibility requirements for our Israeli government grants, economic circumstances could compel future additional layoffs. Also, over the past few years, the Israeli government has scaled back or discontinued some of its incentive programs. There can be no assurance that we will maintain our eligibility for existing projects or that in the future the Israeli government will continue to offer new incentive programs applicable to us or that, if it does, such programs will provide the same level of benefits we have historically received or that we will continue to be eligible to take advantage of them. Because we have received approvals for most projects currently contemplated, we do not anticipate that cutbacks in the incentive programs for new projects would have an adverse impact on our earnings and operations for at least several years.

We might be materially adversely affected if events were to occur in the Middle East that interfered with our operations in Israel. However, we have never experienced any material interruption in our Israeli operations in our 31 years of operations there, in spite of several Middle East crises, including wars.

### **Environment, Health and Safety**

We have adopted an Environmental Health and Safety Corporate Policy that commits us to achieve and maintain compliance with applicable environmental laws, to promote proper management of hazardous materials for the safety of our employees and the protection of the environment, and to minimize the hazardous materials generated in the course of our operations. This policy is implemented with accountability directly to the Chairman of the Board of Directors. In addition, our manufacturing operations are subject to various federal, state and local laws restricting discharge of materials into the environment.

We are not involved in any pending or threatened proceedings that would require curtailment of our operations. We continually expend funds to ensure that our facilities comply with applicable environmental regulations. In regard to all of our facilities, we have completed our undertaking to comply with environmental regulations relating to the elimination of chlorofluorocarbons ("CFCs") and ozone depleting substances ("ODS") pursuant to the Clean Air Act amendments of 1990. We have completely eliminated the use of CFCs and ODS in our manufacturing processes, and all facilities are currently in compliance with the Clean Air Act.

While we believe that we are in material compliance with applicable environmental laws, we cannot accurately predict future developments and do not necessarily have knowledge of past occurrences on sites that we currently occupy. More stringent environmental regulations may be enacted in the future, and we cannot determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with these regulations. Moreover, the risk of environmental liability and remediation costs is inherent in the nature of our business and, therefore, there can be no assurance that material environmental costs, including remediation costs, will not arise in the future.

We have been named a Potentially Responsible Party (“PRP”) at nine Superfund sites, including two Siliconix facilities and have become responsible for certain obligations as a PRP in connection with our acquisition of General Semiconductor. We expend minimal amounts in connection with several of these sites and do not expect costs associated with the others to be material.

The ultimate cost of site cleanup is difficult to predict given the uncertainties regarding the extent of the required cleanup, the interpretation of applicable laws and regulations and alternative cleanup methods. Based upon our experience with the foregoing environmental matters, we have concluded that there is at least a reasonable possibility that we will incur remedial costs in the range of \$30 million to \$35 million. As of December 31, 2001, we concluded that the best estimate within this range is \$32.5 million, of which \$2.5 million is included in accrued expenses and other current liabilities and \$30.0 million is included in other long-term liabilities on the Consolidated Balance Sheet. The majority of the environmental reserve is due to the acquisition of General Semiconductor, Inc. In view of our financial position and reserves for environmental matters of \$32.5 million, we have concluded that any potential payment of such estimated amounts will not have a material adverse effect on our consolidated financial position, results of operations or liquidity.

With each acquisition, we attempt to identify potential environmental concerns and to minimize, or obtain indemnification for, the environmental matters we may be required to address. In addition, we establish reserves for specifically identified potential environmental liabilities. We believe that the reserves we have established are adequate. Nevertheless, we often unavoidably inherit certain pre-existing environmental liabilities, generally based on successor liability doctrines. Although we have never been involved in any environmental matter that has had a material adverse impact on our overall operations, there can be no assurance that in connection with any past or future acquisition we will not be obligated to address environmental matters that could have a material adverse impact on our operations.

## **Employees**

As of December 31, 2001, we employ approximately 21,410 full time employees of whom approximately 16,015 are located outside the United States. Some of our employees outside the U.S. are members of trade unions, and employees at one small U.S. facility are represented by a union. Our relationship with our employees is good. However, no assurance can be given that, if we continue to restructure our operations in response to changing economic conditions, labor unrest or strikes, especially at European facilities, will not occur. See “Legal Proceedings.”

**Item 2. PROPERTIES**

As of December 31, 2001, we maintain approximately 68 manufacturing facilities. The principal locations of such facilities, along with available space including administrative offices, are:

<u>Owned Locations</u>	<u>Approx. Available Space (Square Feet)</u>
<u>United States</u>	
Columbus and Norfolk, NE*	298,000
Sanford, ME	225,000
Malvern and Bradford, PA*	222,000
Santa Clara, CA	220,000
Wendell and Statesville, NC*	194,000
Grafton and Oconto, WI*	165,000
Roanoke, VA	128,000
Monroe, CT	91,000

\* 2 locations

<u>Non-U.S.</u>	
Israel (4 locations)	990,000
Germany (12 locations)	845,000
France (5 locations)	449,000
Republic of China (Taiwan) (2 locations)	400,000
Czech Republic (5 locations)	368,000
Portugal	301,000
Malaysia	296,000
Hungary	194,000
Austria	153,000
Philippines	146,000
People's Republic of China	84,000

We own an additional 180,000 square feet of manufacturing facilities located in Florida, Maryland, New York, South Dakota, and Mexico.

Available leased facilities in the United States include 265,000 square feet of space located in California, Massachusetts, New York, Rhode Island and South Dakota. Foreign leased facilities consist of 224,000 square feet in China, 220,000 square feet in Mexico, 13,000 square feet in England, 204,000 square feet in Germany, 131,000 square feet in Hungary, 75,000 square feet in the Czech Republic and 4,000 square feet in Japan.

In the opinion of management, our properties and equipment generally are in good operating condition and are adequate for our present needs. We do not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities.

**Item 3. LEGAL PROCEEDINGS**

From time to time we are involved in routine litigation incidental to our business. Management believes that such matters, either individually or in the aggregate, should not have a material adverse effect on our business or financial condition.

As part of our 1996 restructuring program, our subsidiary, Sprague France S.A., laid off certain workers at our facility in Tours, France. The trade union representing the workers at the Sprague facility claimed that the layoffs were not economically motivated, and were therefore prohibited under French law. A court ruled that, although we would not be required to rehire the employees, we would have to pay damages equal to approximately

10 million French Francs (approximately U.S. \$1,331,000) as of March 28, 2002, to the former employees. We have appealed this decision.

Our 80.4% owned subsidiary, Siliconix, is a party to two environmental proceedings. The first involves property that Siliconix vacated in 1972. In July 1989, the California Regional Water Quality Control Board (RWQCB) issued Cleanup and Abatement Order No. 89-115 both to Siliconix and the current owner of the property. The Order alleged that Siliconix contaminated both the soil and the groundwater on the property by the improper disposal of certain chemical solvents. The RWQCB considered both parties to be liable for the contamination and sought to have them decontaminate the site to acceptable levels. Siliconix subsequently reached a settlement of this matter with the current owner of the property. The settlement provided that the current owner will indemnify Siliconix and its employees, officers, and directors against any liability that may arise out of any governmental agency actions brought for environmental cleanup of the subject site, including liability arising out of RWQCB Order No. 89-115, to which Siliconix remains nominally subject.

The second proceeding involves Siliconix's Santa Clara, California facility, which we have owned and occupied since 1969. In February 1989, the RWQCB issued Cleanup and Abatement Order No. 89-27 to Siliconix. The Order is based on the discovery of contamination of both the soil and the groundwater on the property by certain chemical solvents. The Order calls for Siliconix to specify and implement interim remedial actions and to evaluate final remedial alternatives. The RWQCB issued a subsequent order requiring Siliconix to complete the decontamination. Siliconix has substantially completed its compliance with the RWQCB's orders.

Our subsidiary General Semiconductor has been named a PRP at several Superfund sites. See "Environment, Health and Safety".

In February and March 2001, several purported class action complaints were filed in the Delaware Court of Chancery and the California Superior Court against us, Siliconix and the directors of Siliconix in connection with our proposal in February 2001 to purchase all issued and outstanding shares of Siliconix that we did not already own. The class actions alleged that our proposed offer was unfair and a breach of fiduciary duty. One of the Delaware class actions also alleged that we had usurped Siliconix inventory and patents, appropriated Siliconix's separate corporate identity, and obtained a below-market loan from Siliconix. The actions sought injunctive relief, damages and other relief. The Delaware Chancery Court denied a preliminary injunction motion seeking to enjoin our tender offer, which was commenced in May 2001 but not successfully completed. Our motion and that of Siliconix to dismiss the actions in Delaware and for summary judgment are pending. The actions in California have been stayed.

#### **Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

On November 2, 2001, the following matters were submitted to the vote of our security holders at a special meeting of stockholders:

1. amending our certificate of incorporation to increase the number of authorized shares of capital stock of the Company; and
2. approving the issuance of common stock in connection with the acquisition of General Semiconductor, Inc.

78,115,060 votes of common stock were cast on the proposal to amend our certificate of incorporation, out of which 74,275,045 were voted in favor and 3,840,015 voted against. 78,143,382 votes of common stock were cast on the proposal to issue common stock in connection with the acquisition of General Semiconductor, Inc. out of which 77,258,019 were voted in favor and 885,363 voted against. 15,378,108 votes of Class B common stock were cast and all voted in favor of the proposal to amend our certificate of incorporation and the proposal to issue common stock in connection with the acquisition of General Semiconductor.

Each share of common stock is entitled to one vote and each share of Class B common stock is entitled to 10 votes on matters voted upon by stockholders.

**Item 4A.****EXECUTIVE OFFICERS OF THE REGISTRANT**

The following table sets forth certain information regarding our executive officers as of March 28, 2002.

<u>Name</u>	<u>Age</u>	<u>Positions Held</u>
Felix Zandman*	73	Chairman of the Board and Chief Executive Officer
Avi D. Eden*	54	Vice-Chairman of the Board, Executive Vice President and General Counsel
Gerald Paul*	53	Chief Operating Officer, President and Director
Richard N. Grubb*	55	Executive Vice President, Treasurer, Chief Financial Officer and Director
Robert A. Freece*	61	Senior Vice President and Director
William J. Spires	60	Vice President and Secretary

\* Member of the Executive Committee of the Board of Directors.

Dr. Felix Zandman, a founder of the Company, has been the Chief Executive Officer and a Director of the Company since its inception. Dr. Zandman had been President of the Company from its inception until March 16, 1998, when Dr. Gerald Paul was appointed President of the Company. Dr. Zandman has been Chairman of the Board since March 1989.

Avi D. Eden has been a Director and General Counsel of the Company since June 1988, and has been Vice Chairman of the Board and an Executive Vice President of the Company since August 1996.

Dr. Gerald Paul has served as a Director of the Company since May 1993 and has been Chief Operating Officer and an Executive Vice President of the Company since August 1996. On March 16, 1998, Dr. Paul was appointed President of the Company. He was President of Vishay Electronic Components, Europe from January 1994 to August 1996. Dr. Paul has been Managing Director of Draloric Electronic GmbH, an affiliate of the Company, since January 1991. Dr. Paul has been employed by Draloric since February 1978.

Richard N. Grubb has been a Director, Vice President, Treasurer and Chief Financial Officer of the Company since May 1994, and has been an Executive Vice President of the Company since August 1996. Mr. Grubb has been associated with the Company in various capacities since 1972.

Robert A. Freece has been a Director of the Company since 1972. He was a Vice President of the Company from 1972 until 1994, and has been a Senior Vice President since May 1994.

William J. Spires has been a Vice President and Secretary of the Company since 1981. Mr. Spires has been Vice President - Industrial Relations since 1980 and has been employed by the Company since 1970.

## PART II

### Item 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SECURITY HOLDER MATTERS

Our common stock is listed on the New York Stock Exchange under the symbol VSH. The following table sets forth the high and low sales prices for our common stock as reported on the New York Stock Exchange Composite Tape for the quarterly periods within the 2000 and 2001 calendar years indicated. Stock prices have been restated to reflect a stock split in June 2000. We do not currently pay cash dividends on our capital stock. Our policy is to retain earnings to support the growth of our business and we do not intend to change this policy at the present time. In addition, we are restricted from paying cash dividends under the terms of our revolving credit agreement. See Note 5 to the Consolidated Financial Statements. Holders of record of our common stock totaled approximately 1,900 at March 27, 2002.

#### COMMON STOCK MARKET PRICES

	<u>Calendar 2000</u>		<u>Calendar 2001</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
First Quarter	\$40.88	\$18.58	\$22.75	\$13.75
Second Quarter	\$62.63	\$35.00	\$27.98	\$17.00
Third Quarter	\$44.75	\$26.00	\$25.25	\$16.08
Fourth Quarter	\$31.75	\$13.88	\$21.88	\$16.86

At March 27, 2002, we had outstanding 15,383,663 shares of Class B common stock, par value \$.10 per share, each of which entitles the holder to ten votes. The Class B common stock generally is not transferable except in certain very limited instances, and there is no market for those shares. The Class B common stock is convertible, at the option of the holder, into common stock on a share for share basis. Substantially all of such Class B common stock is owned by Dr. Felix Zandman our chairman and chief executive officer, the estate of Mrs. Luella B. Slaner, a former director, and trusts for the benefit of the grandchildren of Mrs. Slaner, either directly or beneficially.

**Item 6. SELECTED FINANCIAL DATA**

The following table sets forth selected consolidated financial information of the Company for the fiscal years ended December 31, 2001, 2000, 1999, 1998 and 1997. This table should be read in conjunction with the Consolidated Financial Statements of the Company and the related notes thereto included elsewhere in this Form 10-K.

	As of and for the Year Ended December 31,				
	<u>2001</u> (1)	<u>2000</u>	<u>1999</u> (2)	<u>1998</u> (3)	<u>1997</u> (4)
Income Statement Data (in thousands, except per share amounts):					
Net sales	\$1,655,346	\$2,465,066	\$1,760,091	\$1,572,745	\$1,125,219
Interest expense	16,848	25,177	53,296	49,038	18,819
Earnings before income taxes and minority interest	10,103	690,225	134,711	42,646	89,561
Income taxes	5,695	148,186	36,940	30,624	34,167
Minority interest	3,895	24,175	14,534	3,810	2,092
Net earnings	513	517,864	83,237	8,212	53,302
Basic earnings per share(5)	\$0.00	\$3.83	\$ 0.66	\$ 0.07	\$ 0.42
Diluted earnings per share(5)	\$0.00	\$3.77	\$ 0.65	\$ 0.07	\$ 0.42
Weighted average shares outstanding – basic (5)	141,171	135,295	126,678	126,665	126,627
Weighted average shares outstanding – diluted (5)	142,514	137,463	128,233	126,797	126,904
Balance Sheet Data (in thousands):					
Total assets	\$3,951,523	\$2,783,658	\$2,323,781	\$2,462,744	\$1,719,648
Long-term debt	605,031	140,467	656,943	814,838	347,463
Working capital	1,096,034	1,057,200	604,150	650,483	455,134
Stockholders' equity	2,366,545	1,833,855	1,013,592	1,002,519	959,648

- (1) Includes the results from January 1, 2001 of Tansitor, July 27, 2001 of Infineon U.S., November 2, 2001 of General Semiconductor, and November 7, 2001 of Mallory. Also includes restructuring expenses net of taxes, of \$39,972,000; write-down of raw materials inventory, net of taxes, of \$57,431,000; purchased research and development (no tax effect) of \$16,000,000; and other expenses, net of taxes, of \$5,373,000 for a total of \$118,776,000 (\$0.84 per share).
- (2) Includes the sale of Nicolitch, S.A. and a tax rate change in Germany reduced net earnings by \$14,562,000 (\$0.11 per share).
- (3) Includes the results from March 1, 1998 of Siliconix and Telefunken and special charges after taxes of \$55,335,000 (\$0.44 per share).
- (4) Includes the results from July 1, 1997 of Lite-On Power Semiconductor Corporation and special charges after taxes of \$27,692,000 (\$0.22 per share).
- (5) Adjusted to reflect a three-for-two stock split distributed June 9, 2000, a five-for-four stock split distributed June 22, 1999 and 5% stock dividends paid on June 11, 1998 and June 9, 1997.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### Overview

2001 was a difficult year in the electronic components business, as it was for economies in the United States and much of the world. In part, our depressed operating results for 2001 were attributable to the same factors that contributed to the exceptional operating results in 2000, results that far exceeded any in the history of our Company. Throughout most of 2000 our customers, especially our distributors, built up sizeable inventories, out of concern over possible product shortages and rising prices fueled by overly optimistic assessments of customer demand. Because inventories were out of proportion to actual demand, orders for new products dropped off significantly in 2001. In addition, the softening of demand for our products, which we began to see in the fourth quarter of 2000, became more pronounced during 2001, particularly in the telecommunications and computer markets.

#### *Product Demand*

Demand for our products, and for products in our industry generally, affects our operating results in two ways. When demand is lower, we experience substantial downward pressure on pricing. Also, lower demand results in lower unit sales levels. With smaller revenues over which to spread our fixed costs, our gross profit margins decline. We felt both of these effects in our business in 2001.

Because we regard customer demand as such an important parameter in analyzing our business, we carefully monitor the indicators of demand. One of these indicators is our backlog level. Backlogs were down in 2001. Moreover, in uncertain economic times, such as those we experienced in 2001, orders are more susceptible to cancellation, so that backlog as a measure of future sales becomes less reliable. We also have to look at the nature of the orders in our backlog. Orders that provide for longer delivery times indicate that customers are ordering for inventory rather than immediate requirements. The delivery times for these types of orders could be pushed out and, especially in a soft economy, provide less assurance of ultimate sales. Orders for short-term delivery are less subject to push out or cancellation, are indicative of the immediate needs of our customers and are likely to be a better barometer of the direction of our business.

A second 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 orders are 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 likely foretells declining sales.

The quarter-to-quarter trends in backlog and book-to-bill ratio can also be an important indicator of the likely direction of our business. The following table shows the end-of-period backlog and the book-to-bill ratio for our business as a whole during the five quarters beginning with the last quarter of 2000 and through the last quarter of 2001. We think that the improving trend of book-to-bill ratio will continue in 2002, but we cannot assure you that this will be so.

	<u>4<sup>th</sup> Quarter 2000</u>	<u>1<sup>st</sup> Quarter 2001</u>	<u>2<sup>nd</sup> Quarter 2001</u>	<u>3<sup>rd</sup> Quarter 2001</u>	<u>4<sup>th</sup> Quarter 2001</u>
End of Period Backlog	\$773,089,000	\$505,732,000	\$342,144,000	\$302,754,000	\$337,883,000 (1)
Book-to-Bill Ratio	0.69	0.53	0.59	0.77	0.89

(1) Includes \$70,360,000 of backlog attributable to the business of General Semiconductor.

### *Segments*

Our management evaluates our operating results along the lines of two major segments, passive components and active components. Passive components include resistors, capacitors and inductors. These are necessary elements of all electronic circuits and are referred to as passive because they do not require power to operate. We also include in this segment strain gages and load cells, because the core components of these devices are resistors that are sensitive to various types of mechanical stress. We began our business as a manufacturer of passive components, and this remains major part of our business.

We are now also one of the world's leading manufacturers of active electronic components. These include transistors, diodes, rectifiers, certain types of integrated circuits and optoelectronic products. These components are referred to as active because they require power to function. We entered the active component business in 1998 with the acquisition from Daimler-Benz of Telefunken, a manufacturer of optoelectronic components and small signal transistors, and of an 80.4% interest in Siliconix, a manufacturer of power integrated circuits. In 2001, we substantially increased our presence in the active component market, first with the acquisition in July of the optoelectronic infrared business of Infineon A.G., and later with the acquisition in November of General Semiconductor, a manufacturer of rectifiers and power management components whose business is complementary to that of Siliconix. As a percentage of our total sales, active components were 39% in 2001, 34% in 2000 and 43% in 1999.

The passive and active segments of our business have historically responded differently to phases of the business cycle. Having strong capabilities in both areas not only gives us a broad line of products to offer our customers, it also smoothes, to some extent, the business swings that we experience. When business slows down, active components are usually first to feel the effects of the downturn that are later experienced by passive components. Similarly, when business begins to increase, our semiconductor products usually lead the recovery, followed some time later by capacitors and resistors. We are seeing certain indications that this pattern of recovery may repeat itself in the current environment.

We also find that the commodity and specialty products in our passive segment react differently in different parts of the business cycle. Commodity products, which have general use and application, experience significant fluctuations in demand. The variations in demand experienced by specialty products, which are produced for specific purposes and, in some cases, to the specific design criteria of purchasers, are far less pronounced. This disparity has a corresponding effect on the respective profit margins for commodity and specialty products.

The following table shows our sales and book-to-bill ratios broken out by segment for the five quarters beginning with the last quarter of 2000 and through the last quarter of 2001:

<u>Sales (\$)/ Book-to-bill</u>	<u>4<sup>th</sup> Quarter 2000</u>	<u>1<sup>st</sup> Quarter 2001</u>	<u>2<sup>nd</sup> Quarter 2001</u>	<u>3<sup>rd</sup> Quarter 2001</u>	<u>4<sup>th</sup> Quarter 2001</u>
Passive Components	\$451,264,000 0.67	\$392,658,000 0.49	\$250,973,000 0.49	\$188,708,000 0.72	\$178,295,000 0.83
Active Components	\$192,353,000 0.74	\$165,807,000 0.64	\$132,464,000 0.79	\$143,585,000 0.84	\$202,856,000 <sup>(1)</sup> 0.94 <sup>(1)</sup>

(1) Includes \$51,274,000 attributable to General Semiconductor for active components. Excluding General Semiconductor, the book-to-bill ratio for active components during the fourth quarter of 2001 would have been 0.95.

### *Cost Management*

We place a strong emphasis on reducing our costs. One way we do this is by moving production to the extent possible from high labor cost markets, such as the United States and Western Europe, to lower labor cost markets, such as Israel, Mexico, the Republic of China (Taiwan), the People's Republic of China and Eastern Europe. The percentage of our total headcount in lower labor cost countries is a measure of the extent to which we are successful in implementing this program. This percentage was 61% at the end of 2001 as compared to 57% at the

end of 2000, and was positively affected by our acquisition activity during 2001. We are hopeful that as we integrate the new acquisitions we will be able to further increase this percentage.

During 2001, we focused on reducing both variable and fixed costs in response to our industry's downturn. We reduced our variable labor headcount by 6,050 positions or 35% and fixed labor headcount by 960 positions or 17%. These numbers do not take into account the additions to our workforce as a result of the 2001 acquisition activity. We also closed several factories during the year. We estimate that as a result of our cost containment activities we were able to reduce fixed costs during 2001 by approximately \$14 million.

#### *Israeli Government Incentives*

Our production facilities in Israel benefit from incentives offered by the Israeli government for creation of jobs and capital investment in that country. These benefits take the form of government grants and reduced tax rates that are lower than those in the United States. These reduced tax rates apply to projects specifically approved by the Israeli government and, depending on project size, are available for periods of ten or fifteen years. The effect of lower tax rates in Israel, as compared to the statutory rate in the United States, resulted in increases in net earnings of \$3,009,000, \$89,745,000 and \$12,469,000 for the years ended December 31, 2001, 2000 and 1999, respectively.

Israeli government grants are awarded to specific projects. These grants are intended to promote employment in Israel's industrial sector and are conditioned on the recipient maintaining certain prescribed employment levels. Grants are paid when the related projects become operational, and the Israeli government approves the project. Israel government grants, recorded as a reduction in the costs of products sold, were \$19,064,000, \$15,721,000 and \$14,256,000 in the years 2001, 2000 and 1999, respectively. At December 31, 2001, our balance sheet reflected \$57,208,000 in deferred grant income.

Our production in Israel has been adversely affected by the current economic downturn. Despite the economic situation in which we were forced to make lay-offs in Israel, in 2001 we were able to maintain employment at our facilities in Israel at levels sufficient to maintain our qualification for grants previously awarded to us. If we were no longer able to maintain the required level of employment in the future, we could be required to return grant funds that were previously awarded to us. The effect of the return of these funds would be to reduce our income in future years. Also, if the current business climate continues, we might not initiate new projects that qualify for grants or reduced tax rates or the Israeli government could curtail or eliminate the programs from which we have benefited in the past.

#### *Inventory Write-Downs and Purchase Commitments*

During 2001, we wrote-down our raw material inventories of tantalum, which we use in the production of tantalum capacitors, and palladium, which is used in the production of multi-layer ceramic capacitors. Demand for these products, particularly on the commodity side, experienced a significant decline in 2001, and market prices for tantalum ore and powder and palladium wire were sharply lower. We purchased our inventories of tantalum and palladium when demand was vigorous and prices were substantially higher. As required by accounting rules, we recorded our inventories at the lower of cost or market, and reduced the carrying value of our tantalum by \$52,000,000 and palladium by \$18,000,000 in 2001. The write-downs are reflected in our income statement as an increase in cost of goods sold.

During the period of shortage, we entered into long-term contracts to purchase specified quantities of tantalum at fixed prices through 2005. Under the terms of these contracts, the tantalum purchase commitments are approximately \$145,000,000 for 2002 and approximately \$150,000,000 annually for 2003 through 2005. In addition, we may make purchases of tantalum from our other suppliers at prices that are subject to periodic adjustment. The fixed prices for tantalum under the long term contracts could exceed the market price at various times during the terms of the contracts. Also, the quantities of powder and wire committed to or that we otherwise purchase could exceed our production demands. If this were to happen we could be required to take further write-downs.

### *Foreign Currency*

In 2001, we realized approximately 59% of our revenues from customers outside the United States. Any third party sales not using the U.S. dollar as the functional currency must report sales in local currency and be translated at the weighted average exchange rate. This translation will have an impact on the net sales line of the income statement and also on the expense lines of the income statement. We generally do not purchase foreign currency exchange contracts or other derivative instruments to hedge our exposure to foreign currency fluctuations.

### **Critical Accounting Policies**

Our significant accounting policies are summarized in Note 1 to our Consolidated Financial Statements. We identify here a number of policies which entail significant judgments or estimates.

#### *Revenue recognition*

We record revenues at the time that we ship products to our customers. Many of our shipments are to distributors, who purchase for resale to end-users. The distributors have certain limited rights to return products. They are also entitled to certain price protection benefits, which give them credit for unsold products that they continue to hold in inventory when we reduce our book prices for these items. At the time we record sales to these distributors, we also recognize allowances against net sales for estimated product returns and price protection. To estimate these allowances, we review historical returns and price adjustments on both a consolidated level and on an individual distributor level as well as the general business and economic climate. These procedures require the exercise of significant judgments, but we believe they enable us to estimate reasonably future credits for returns and price adjustments.

#### *Accounts Receivable*

Our receivables represent a significant portion of our current assets. We are required to estimate the collectability of our receivables and to establish allowances for the amount of receivables that will prove uncollectible. We base these allowances on our historical collection experience, the length of time our receivables are outstanding, the financial circumstances of individual customers, and general business and economic conditions. In difficult economic periods such as in 2001, it becomes more difficult to accurately assess collectability, and we are likely to increase the size of our collection reserves relative to the amount of receivables outstanding.

#### *Inventories*

We value our inventories at the lower of cost or market, with cost determined under the first-in first-out method and market based upon net realizable value. The valuation of our inventories requires our management to make market estimates. For instance, in the case of tantalum powder, we estimate market value by obtaining current quotations from a number of available sources of supply. For work in progress goods, we are required to estimate the cost to completion of the products and the prices at which we will be able to sell the products. For finished goods, we must assess the prices at which we believe the inventory can be sold. As noted, we recorded substantial write-downs of our tantalum and palladium inventories in 2001.

#### *Estimates of Restructuring Expense and Purchase Related Restructuring Costs*

In 2001, we recorded restructuring costs of approximately \$95,000,000 related to our acquisitions and \$61,908,000 related to our existing businesses. Our acquisition-related restructuring costs included, among other things, costs related to an exit plan that management began to formulate prior to the acquisition of General Semiconductor. Our restructuring activities related to our existing business were designed to cut both our fixed and variable costs, particularly in response to the reduced demand for our products occasioned by the electronics industry downturn experienced in 2001. These included the closing of facilities and the termination of employees. Acquisition-related costs are included in the allocation of the cost of the acquired business and generally add to goodwill. Other restructuring costs are expensed during the period in which we determine that we will incur those costs, and all of the requirements for accrual are met.

Because these costs are recorded based upon estimates, our actual expenditures for the restructuring activities may differ from the initially recorded costs. If this happens, we will have to adjust our estimates in future periods. In the case of acquisition-related restructuring costs, this would generally require a change in value of the goodwill appearing on our balance sheet, but would not affect our earnings. In the case of other restructuring costs, we could be required either to record additional expenses in future periods, if our initial estimates were too low, or to reverse part of the charges that we recorded initially, if our initial estimates were too high.

## Results of Operations

Income statement captions as a percentage of sales and the effective tax rates were as follows:

	<u>Year Ended December 31</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>
Costs of products sold	77.0%	59.2%	73.8%
Gross profit	23.0	40.8	26.2
Selling, general and administrative expenses	16.8	12.1	14.5
Operating income	0.9	28.3	11.0
Earnings before income taxes and minority interest	0.6	28.0	7.7
Net earnings	0.0	21.0	4.7
Effective tax rate	56.4	21.5	27.4

### *Net Sales, Gross Profits and Margins*

Sales for the year ended December 31, 2001 decreased \$809,720,000 or 32.9% from the prior year, reflecting the downturn in the electronics industry that we experienced in 2001. The strengthening of the U.S. dollar against foreign currencies for the year ended December 31, 2001, in comparison to the prior year, resulted in decreases in reported sales of \$16,338,000. We experienced lower sales in both our active and passive components businesses. The decline was particularly pronounced in our commodity business for passive components such as capacitors and resistors. The decline in the year-to-year sales numbers reflects both lower unit sales volume and substantial downward pricing pressure. The decline was evidenced in virtually all of our end markets, but was particularly pronounced in wireless communications and computers.

Costs of products sold as a percentage of net sales were 77.0% for the year ended December 31, 2001 as compared to 59.2% for the prior year. Gross profit, as a percentage of net sales, for the year ended December 31, 2001 was 23.0% as compared to 40.8% for the prior year. The erosion in profit margins, in both the active and passive segments, reflects reduced volume and lower prices in 2001, offset, to some extent, by a reduction in fixed costs during the year. For the year ended December 31, 2001, costs of products sold included \$70,000,000 for the write-down of tantalum and palladium inventories.

Net sales for the year ended December 31, 2000 increased \$704,975,000 or 40.1% from the prior year. Both the passive and active components segments contributed to this increase. The strengthening of the U.S. dollar against foreign currencies for the year ended December 31, 2000, in comparison to the prior year, resulted in decreases in reported sales of \$105,615,000. Strong demand, particularly in the wireless communications market, for our products and increased average selling prices contributed to the sales growth.

Costs of products sold for the year ended December 31, 2000 were 59.2% of net sales, as compared to 73.8% for the prior year. Gross profit, as a percentage of net sales, for the year ended December 31, 2000 was 40.8% as compared to 26.2% for the prior year. Both the passive and active components segments contributed to the improved gross margins.

See “Israeli Government Incentives” regarding Israeli government grants, which are recorded as a reduction in costs of products sold.

The following tables show sales and gross profit margins separately for our passive and active segments.

*Passive Components*

	<u>Year Ended December 31</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>
Net Sales	\$1,010,634,000	\$1,627,860,000	\$1,008,266,000
Gross Profit Margin	20.6%	41.7%	22.4%

Net sales of passive components for the year ended December 31, 2001 decreased by \$617,227,000 or 37.9% from comparable sales of the prior year. The decrease in net sales was primarily due to low volume and strong pricing pressure with respect to commodity products and tantalum molded capacitor products. The decrease in the passive components business gross profit margins in 2001 was related to strong pricing pressure, particularly with respect to commodity products, excess capacity and higher costs for palladium and tantalum powder. Additionally, write-downs of \$70,000,000 on tantalum and palladium inventories were taken during the year ended December 31, 2001, negatively impacting gross profit.

Sales of passive components for the year ended December 31, 2000 increased by \$619,595,000 or 61.5% over comparable sales from the prior year. Strong demand, particularly in the wireless communications market, for our products, and increased average selling prices contributed to the sales growth. The increase in the passive components business gross profit margins in 2000 over 1999 were attributable to price and volume increases in the resistor, tantalum capacitor, and multi-layer ceramic chip capacitor product lines.

*Active Components*

	<u>Year Ended December 31</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>
Net Sales	\$644,712,000	\$837,206,000	\$751,825,000
Gross Profit Margin	26.9%	39.0%	31.4%

Net sales of the active components business for the year ended December 31, 2001 decreased by \$192,494,000 or 23% from comparable sales of the prior year. The decrease in the active components business net sales was primarily due to the decrease in net sales of Siliconix, of which Vishay owns 80.4%. Siliconix’s net sales for the year ended December 31, 2001 were \$305,566,000 as compared to \$473,145,000, a 35.4% decrease. The decrease from the prior year was primarily due to the downturn in the computer and cellular phone handset markets, which resulted in reduced demand for the Company’s products, and overly optimistic industry forecasts for the cell phone handset market, which led to excess handset inventories.

Revenues in the active segment for 2001 reflect revenues of \$82,655,000 from the acquisitions of the U.S. infrared business of Infineon in July 2001 and General Semiconductor in November 2001. Excluding the contribution of these acquisitions, net sales in 2001 would have decreased by 32.9% as compared to 2000 and gross profit margin would have been 26.9%.

Net sales for the active components business for the year ended December 31, 2000 increased by \$85,381,000 or 11.4% as compared to the prior year. The increase reflected strong demand and higher selling prices. Gross profit margins in the active components business increased for the year ended December 31, 2000 over the prior year as a result of continued cost reductions, increased manufacturing efficiencies and an improved product mix. The increase reflects improvements at the Siliconix operation, where gross profit margins increased to 46.0% of net sales in 2000 compared to 41.0% in 1999. This increase resulted from economies of scale in manufacturing operations, productivity improvements, and further advances in technologies.

### *Selling, General and Administrative Expenses*

Selling, general, and administrative expenses for the year ended December 31, 2001 were 16.8% of net sales as compared to 12.1% of net sales for the prior year. The higher percentage in 2001 was due to reduced sales levels. Selling, general and administrative expenses decreased by \$19,144,000 for the year ended December 31, 2001, as compared to the prior year. We continue to implement cost reduction initiatives company-wide, with particular emphasis on reducing headcount in high labor cost countries.

Our selling, general, and administrative expenses for the year ended December 31, 2000 were 12.1% of net sales, as compared to 14.5% for the prior year. This reduction was a result of higher net sales in 2000 as compared to 1999 and reflects company-wide cost reduction initiatives, particularly the reduction of headcount in high labor cost countries.

### *Restructuring Expense*

Restructuring expense was \$61,908,000 for the year ended December 31, 2001. Restructuring of European, Asia Pacific, and Israeli operations included \$27,064,000 of employee termination costs covering approximately 3,778 technical, production, administrative and support employees located in Austria, France, Germany, Hungary, Israel, the Philippines and Portugal. Our European operations also recorded \$2,191,000 of noncash costs associated with the write-down of buildings and equipment that are no longer in use. In the United States, \$13,870,000 of restructuring expense relates to termination costs for approximately 1,885 technical, production, administrative and support employees. The remaining \$18,783,000 of restructuring expense relates to the noncash write-down of buildings and equipment that are no longer in use.

The restructuring expense reflects the cost reduction programs that we have currently implemented. As of December 31, 2001, \$23,838,000 of severance costs have been paid. The remaining \$17,096,000 of severance costs, currently shown in other accrued expenses, should be paid by December 31, 2002.

### *Purchased Research and Development*

We estimated that \$16,000,000 of the General Semiconductor purchase price represents purchased in-process technology that had not reached technological feasibility and had no alternative future use. Accordingly, this amount was expensed with no tax benefit upon the acquisition of General Semiconductor. The value assigned to purchased in-process technology was determined by identifying research projects in areas for which technological feasibility has not been established. The value was determined by estimating the costs to develop the purchased in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that takes into account the uncertainty surrounding the successful development of the purchased in-process technology. If these projects are not successfully developed, our future revenue and profitability may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

### *Interest Expense*

Interest expense for the year ended December 31, 2001 decreased by \$8,329,000 when compared to the prior year. This decrease was a result of lower average outstanding bank borrowings and lower interest rates on borrowings in 2001 as compared to the prior year. During the second quarter of 2001, we paid down the debt then outstanding under our revolving credit agreement with the proceeds received from the issuance of Liquid Yield Option Notes (LYONs). We also added \$172,500,000 principal amount of 5.75% Convertible Subordinated Debentures and \$85,000,000 of bank debt in November 2001 from the acquisition of General Semiconductor (see Note 5 to the Consolidated Financial Statements).

Our interest costs decreased by \$28,119,000 for the year ended December 31, 2000 from the prior year. This decrease was a result of lower bank borrowings during the year 2000 as compared to the prior year. We received net proceeds of \$395,449,000 from our offering of common stock in May 2000, which we used to pay down long-term debt.

### *Other Income*

Other income for the year ended December 31, 2001 was \$12,701,000 as compared to \$18,904,000 for the comparable prior year period. Other income for the year ended December 31, 2001 consists primarily of interest income, gains on disposal of property and equipment, and foreign exchange gains.

Other income (expense) was \$18,904,000 for the year ended December 31, 2000 as compared to an expense of \$5,737,000 in the prior year. The 2000 amount includes higher interest income, a gain on sale of subsidiaries, and a gain from the termination of interest rate swap agreements. We used proceeds received from our offering of common stock in May 2000 and cash flows from operations to pay down debt outstanding under our long-term revolving credit agreement. In connection with debt repayments, we terminated \$200,000,000 notional amount of interest rate swap agreements and recognized pretax gains of \$8,919,000. These amounts were partially offset by foreign exchange losses of \$7,305,000.

### *Minority Interest*

Minority interest decreased by \$20,280,000 for the year ended December 31, 2001 as compared to the prior year primarily due to the decrease in net earnings of Siliconix, of which we own 80.4%.

Minority interest increased by \$9,641,000 for the year ended December 31, 2000 as compared to the prior year primarily due to the increase in net earnings of Siliconix.

### *Income Taxes*

The effective tax rate for the year ended December 31, 2001 was 56.4% as compared to 21.5% for the prior year. The increase in the tax rate for 2001 reflects a significant decrease in net earnings, as compared to 2000, in low tax jurisdictions, and the non-tax deductibility of the purchased research and development expense (\$16,000,000) related to the acquisition of General Semiconductor. The continuing low tax rates in Israel applicable to the Company, as compared to the statutory rate in the United States, resulted in increases in net earnings of \$3,009,000 and \$89,745,000 for the years ended December 31, 2001 and 2000, respectively. The more favorable Israeli tax rates are applied to specific approved projects and are normally available for a period of ten or fifteen years.

Our effective tax rate for the year ended December 31, 2000 was 21.5% as compared to 27.4% for the prior year. The higher tax rate for the year ended December 31, 1999 reflects the non-tax deductibility of the loss on the sale of Nicolitch, S.A. Tax expense on the sale of Nicolitch, S.A. was \$1,416,000. Also, a tax rate change in Germany resulted in a decrease in German deferred tax assets, which increased tax expense by \$1,939,000. Exclusive of the effect of the sale of Nicolitch, S.A. and the tax rate change in Germany, the effective tax rate on earnings before minority interest for the year ended December 31, 1999 would have been 23.2%.

### **Financial Condition and Liquidity**

Cash flows from operations were \$161,418,000 for the year ended December 31, 2001 compared to \$542,319,000 for the prior year. The decrease in cash flows from operations reflects the effect of the economic downturn in 2001 on our operating results. Net purchases of property and equipment for the year ended December 31, 2001 were \$162,493,000 compared to \$229,781,000 in the prior year, reflecting the slowdown in the business. We also used cash of \$172,468,000 for acquisitions in 2001, primarily for acquisitions of Tansitor in January 2001, the infrared business of Infineon A.G. in July 2001 and Mallory in November 2001. The acquisitions were funded in part by our cash balances and in part from borrowings. See Note 2 to the Consolidated Financial Statements for discussion of these acquisitions.

We made net payments of \$100,047,000 on our revolving credit lines during 2001, which were funded primarily from the proceeds of our LYONs offering referred to below. See Notes 2 and 3 to the Consolidated Financial Statements for discussion of restructuring costs paid during 2001 and expected to be paid in the future. Other accrued expenses include \$112,096,000 of acquisition-related costs and other restructuring costs expected to be paid in cash subsequent to December 31, 2001.

In May 2001, we completed the offering of \$550 million aggregate principal amount at maturity of Liquid Yield Option Notes (LYONs) at an offering price of price of \$551.26 per \$1,000 aggregate principal amount at maturity of notes. The net proceeds to us of this offering were approximately \$294.1 million. The LYONs are convertible into approximately 9.7 million shares of our common stock. The LYONs may be put to us at their accreted value on June 4 of each of 2004, 2006, 2011 and 2016 at a purchase price per \$1,000 aggregate principal amount at maturity of \$602.77, \$639.76, \$742.47 and \$816.67, respectively. See Note 5 to the Consolidated Financial Statements for discussion of the terms of the LYONs.

We completed our acquisition of General Semiconductor on November 2, 2001 in a stock-for-stock transaction resulting in the issuance of 21,305,127 shares of our common stock. General Semiconductor had outstanding \$172.5 million principal amount 5.75% convertible notes, which as a result of the acquisition are now convertible into approximately 6.3 million shares of Vishay common stock. As required by the terms of the notes, following the merger, General Semiconductor made an offer to repurchase the notes at 101% of their principal amount plus accrued interest. As a result of this offer, we acquired notes with a principal amount of \$1.5 million in January, 2002.

At December 31, 2001, we had a current ratio, (current assets to current liabilities), of 3.3 to 1, compared with a ratio of 3.5 to 1 at December 31, 2000. Our ratio of long-term debt, less current portion, to stockholders' equity was 0.26 to 1 at December 31, 2001 compared to 0.08 to 1 at December 31, 2000. The increase in long-term debt ratio reflects the issuance of the LYONs, the effect of the General Semiconductor convertible notes, and the issuance of shares of common stock in the General Semiconductor acquisition.

Our bank credit facility, as currently amended, provides for a \$660,000,000 long-term revolving credit and swing line facility maturing on June 1, 2005, subject to our right to request year-to-year renewals. Borrowings under the facility bear interest at variable rates based, at our option, on the prime rate or a eurocurrency rate, and in the case of any swing line advance, the quoted rate. The borrowings are secured by pledges of stock in certain of our significant subsidiaries and indirect subsidiaries and guaranteed by certain of our significant subsidiaries. We are required to pay facility fees on the long-term facility. The credit facility restricts us from paying cash dividends, and requires us to comply with certain financial covenants. See Note 5 to the Consolidated Financial Statements for additional information.

We believe that available sources of credit, together with cash expected to be generated from operations, will be sufficient to satisfy our anticipated financing needs for working capital, capital expenditures and opportunistic acquisitions during the next twelve months.

## Commitments

As of December 31, 2001 the Company had contractual obligations in the form of non-cancelable operating leases (see Note 11 to the Consolidated Financial Statements) and long-term contracts for the purchase of tantalum powder and wire (see Note 13 to the Consolidated Financial Statements), as follows:

(in thousands)

	<u>Payments Due by Period</u>				
	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>4-5 years</u>	<u>After 5 years</u>
Operating Leases	\$113,365	\$19,252	\$30,134	\$21,472	\$42,507
Tantalum purchases	<u>\$595,000</u>	<u>\$145,000</u>	<u>\$300,000</u>	<u>\$150,000</u>	<u>0</u>
Total	<u>\$708,365</u>	<u>\$164,252</u>	<u>\$330,134</u>	<u>\$171,472</u>	<u>\$42,507</u>

## **Euro Conversion**

On January 1, 2002, 11 of the 15 member countries of the European Union implemented the adoption of the euro as their common legal currency. We do not expect costs of system modifications required by this implementation to be material, nor do we expect the use of the euro to materially and adversely affect our financial condition or results of operations. We continue to evaluate the impact of the euro introduction.

## **Inflation**

Normally, inflation does not have a significant impact on our operations as our products are not generally sold on long-term contracts. Consequently, we can adjust our selling prices, to the extent permitted by competition, to reflect cost increases caused by inflation.

## **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. Such statements involve a number of risks, uncertainties and contingencies, many of which are beyond our control, which may cause actual results, performance or achievements to differ materially from those anticipated. Set forth below are important factors that could cause our results, performance or achievements to differ materially from those in any forward-looking statements made by us or on our behalf.

### **Changes in Product Demand, Competition, Backlog**

- We and others in the electronic and semiconductor component industry have recently experienced a decline in product demand on a global basis, resulting in order cancellations and deferrals. This decline is primarily attributable to a slowing of growth in the personal computer and cellular telephone product markets. This slowdown may continue and may become more pronounced. The current slowdown in demand, as well as recessionary trends in the global economy, makes it more difficult for us to predict our future sales, which also makes it more difficult to manage our operations, and could adversely impact our results of operations. In the past, adverse economic trends that resulted in a slowdown in demand for electronic components have materially and adversely impacted our results of operations. There is a risk that distributors and other customers for our products have inventories that are overstocked from the prior business cycle. This could cause a lower demand for our products in the initial phase of an economic upturn even if production in the electronics markets increases. In addition, at the initial stage of a business cycle, increased efforts by distributors to sell inventory remaining from the prior cycle may cause average selling prices to decrease. Our published operating results for 2001 reflect some of these industry trends. For example, during 2001, restructuring costs were approximately \$61.9 million as a result of our accelerated effort to streamline operations in response to the continued weakness in the electronic components market at the time.
- Our business is highly competitive worldwide, with low transportation costs and few import barriers. We compete principally on the basis of product quality and reliability, availability, customer service, technological innovation, timely delivery and price. The electronic components industry has become increasingly concentrated and globalized in recent years and our major competitors, some of which are larger than us, have significant financial resources and technological capabilities.
- Many of the orders that comprise our backlog may be canceled by customers without penalty. Customers may on occasion double and triple order components from multiple sources to ensure timely delivery when backlog is particularly long. Customers often cancel orders when business is weak and inventories are excessive, a phenomenon that we are experiencing in the

current economic slowdown. Therefore, we cannot be certain the amount of our backlog does not exceed the level of orders that will ultimately be delivered. Our results of operations could be adversely impacted if customers cancel a material portion of orders in our backlog.

### **Product Development, Business Expansion**

- Our future operating results are dependent, in part, on our ability to develop, produce and market new and innovative products, to convert existing products to surface mount devices and to customize certain products to meet customer requirements. There are numerous risks inherent in this complex process, including the risks that we will be unable to anticipate the direction of technological change or that we will be unable to timely develop and bring to market new products and applications to meet customers' changing needs.
- Our long-term historical growth in revenues and net earnings has resulted, in large part, from our strategy of expansion through acquisitions. However, we cannot assure you that we will identify or successfully complete transactions with suitable acquisition candidates in the future. We also cannot assure you that acquisitions we complete will be successful. If an acquired business fails to operate as anticipated or cannot be successfully integrated with our other businesses, our results of operations, enterprise value, market value and prospects could all be materially and adversely affected.
- If we were to undertake a substantial acquisition for cash, the acquisition would likely need to be financed in part through bank borrowings or the issuance of public or private debt. This would likely decrease our ratio of earnings to fixed charges and adversely affect other leverage criteria. Under our existing credit facility, we are required to obtain our lenders' consent for certain additional debt financing, to comply with other covenants including the application of specific financial ratios, and are restricted from paying cash dividends on our capital stock. We cannot assure you that the necessary acquisition financing would be available to us on acceptable terms when required. If we were to undertake an acquisition for equity, the acquisition may have a dilutive effect on the interests of the holders of our common stock.
- Our business is cyclical and in periods of a rising economy may experience intense demand for our products. During such periods, we may have difficulty expanding our manufacturing to satisfy demand. Factors which could limit such expansion include delays in procurement of manufacturing equipment, shortages of skilled personnel and capacity constraints at our facilities. If we are unable to meet our customers' requirements and our competitors sufficiently expand production, we could lose customers and/or market share. This could have an adverse effect on our financial condition and results of operations and prospects.
- Any drop in demand or increase in supply of our products due to the expansion of production capacity by our competitors could cause a dramatic drop in average sales prices causing a decrease in gross margins.

### **Foreign Operations and Sales**

- We have operations in 14 countries around the world outside the United States, and approximately 59% of our revenues during 2001 were derived from sales to customers outside the United States. Some of the countries in which we operate have in the past experienced and may continue to experience political, economic and military instability or unrest. These conditions could have an adverse impact on our ability to operate in these regions and, depending on the extent and severity of these conditions, could materially and adversely affect our overall financial condition and operating results.

- We have increased our operations in Israel over the past several years. The low tax rates in Israel applicable to earnings of our operations in that country, compared to the rates in the United States, have had the effect of increasing our net earnings. In addition, we have taken advantage of certain incentive programs in Israel, which take the form of grants designed to increase employment in Israel. Any significant increase in the Israeli tax rates or reduction or elimination of the Israeli grant programs that have benefited us could have an adverse impact on our results of operations. See Note 1 to the Consolidated Financial Statements for the year ended December 31, 2001, contained in this annual report, for a description of our accounting policy for grants received by certain subsidiaries from governments outside the United States.

### **Restructuring and Cost Reduction Activities**

- Our strategy is aimed at achieving significant production cost savings through the transfer and expansion of manufacturing operations to and in countries with lower production costs, such as the Czech Republic, Israel, Mexico, the People's Republic of China, Portugal and the Republic of China (Taiwan). In this process, we may experience under-utilization of certain plants and factories in high labor cost regions and capacity constraints in plants and factories located in low labor cost regions. This may result, initially, in production inefficiencies and higher costs. These costs include those associated with compensation in connection with work force reductions and plant closings in the higher labor cost regions, start-up expenses, manufacturing and construction delays, and increased depreciation costs in connection with the initiation or expansion of production in lower labor cost regions.
- As we implement transfers of certain of our operations, we may experience strikes or other types of labor unrest as a result of lay-offs or termination of employees in high labor cost countries.
- Our strategy also focuses on the reduction of selling, general and administrative expenses through the integration or elimination of redundant sales offices and administrative functions at acquired companies. Our inability to achieve these goals could have an adverse effect on our results of operations.

### **Raw Materials**

- Our results of operations may be adversely impacted by:
  1. difficulties in obtaining raw materials, supplies, power, natural resources and any other items needed for the production of our products;
  2. the effects of quality deviations in raw materials, particularly tantalum powder, palladium and ceramic dielectric materials; and
  3. the effects of significant price increases for tantalum or palladium, or an inability to obtain adequate supplies of tantalum or palladium from the limited number of suppliers.
  4. the effects of significant decreases in the prices for tantalum or palladium on existing inventories and purchase commitments for these materials. See "Description of the Business - Sources of Supplies" above.

### **Environmental Issues**

- Our manufacturing operations, products and/or product packaging are subject to environmental laws and regulations governing air emissions, wastewater discharges, the handling, disposal and remediation of hazardous substances, wastes and certain chemicals

used or generated in our manufacturing processes, employee health and safety labeling or other notifications with respect to the content or other aspects of our processes, products or packaging, restrictions on the use of certain materials in or on design aspects of our products or product packaging and responsibility for disposal of products or product packaging. More stringent environmental regulations may be enacted in the future, and we cannot presently determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with these regulations. In order to resolve liabilities at various sites, we have entered into various administrative orders and consent decrees, some of which may be, under certain conditions, reopened or subject to renegotiation.

### **The Class B Common Stock**

- We have two classes of common stock: common stock and Class B common stock. The holders of common stock are entitled to one vote for each share held, while the holders of Class B common stock are entitled to 10 votes for each share held. Currently, the Chairman and CEO owns or has voting power over substantially all of our Class B common stock and accordingly controls approximately 49.1% of our outstanding voting power. As a result, Dr. Zandman is able to effectively control stockholder action.
- Effective control of our company by holders of the Class B common stock may make us less attractive as a target for a takeover proposal. It may also make it more difficult or discourage a merger proposal or proxy contest for the removal of the incumbent directors. Accordingly, this may deprive the holders of common stock of an opportunity they might otherwise have to sell their shares at a premium over the prevailing market price in connection with a merger or acquisition of the Company with or by another company.

## **New Accounting Standards**

### *Derivative Financial Instruments*

Effective January 1, 2001, we adopted Statement of Financial Accounting Standards No. 133, *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133). SFAS 133 requires all derivative instruments to be recognized as either assets or liabilities and measured at fair value. The accounting for changes in fair value depends upon the purpose of the derivative instrument and whether it is designated and qualifies for hedge accounting. We use interest rate swap agreements to modify variable rate obligations to fixed rate obligations, thereby reducing exposure to market rate fluctuations. The interest rate swap agreements are designated as hedges. The effective portion of gains or losses is reported in other comprehensive income and the ineffective portion, if any, is reported in net income.

### *Business Combinations and Goodwill*

In June 2001, the Financial Accounting Standards Board (FASB) issued Statements of Financial Accounting Standards No. 141, *Business Combinations* (SFAS 141), and No. 142, *Goodwill and Other Intangible Assets* (SFAS 142). SFAS 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001. SFAS 141 also includes guidance on the initial recognition and measurement of goodwill and other intangible assets arising from business combinations completed after June 30, 2001. SFAS 142 prohibits the amortization of goodwill and intangible assets with indefinite useful lives. SFAS 142 requires that these assets be reviewed for impairment at least annually. Intangible assets with finite lives will continue to be amortized over their estimated useful lives.

We will apply SFAS 142 beginning in the first quarter of 2002. Application of the non-amortization provisions of SFAS 142 is expected to result in an increase in net income of \$10,210,000 (\$0.06 per share) in 2002. We will test goodwill for impairment using the two-step process prescribed in SFAS 142. The first step is a screen for potential impairment, while the second step measures the amount of the impairment, if any. We expect to perform the first of the required impairment tests of goodwill and indefinite lived intangible assets as of January 1, 2002 in the first quarter of 2002. If an impairment charge were to result from these transitional impairment tests, it would be reflected as the cumulative effect of a change in accounting principle in the first quarter of 2002. We have not yet determined what the effect of these tests will be on the earnings and financial position of the Company.

## **Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

### **Market Risk Disclosure**

Our cash flows and earnings are subject to fluctuations resulting from changes in foreign currency exchange rates and interest rates. We manage our exposure to these market risks through internally established policies and procedures and, when deemed appropriate, through the use of derivative financial instruments. Our policies do not allow speculation in derivative instruments for profit or execution of derivative instrument contracts for which there are no underlying exposures. We do not use financial instruments for trading purposes and we are not a party to any leveraged derivatives. We monitor our underlying market risk exposures on an ongoing basis and believe that we can modify or adapt our hedging strategies as needed.

We are exposed to changes in U.S. dollar LIBOR interest rates on our floating rate revolving credit facility. At December 31, 2001, the outstanding balance under this facility was \$125,000,000. On a selective basis, we from time to time enter into interest rate swap or cap agreements to reduce the potential negative impact increases in interest rates could have on our outstanding variable rate debt. The impact of interest rate instruments on our results of operations in each of the three years ended December 31, 2001, December 31, 2000 and December 31, 1999 was not significant. See Notes 5 and 12 to Consolidated Financial Statements for components of our long-term debt and interest rate swap arrangements.

In August 1998, we entered into six interest rate swap agreements with a total notional amount of \$300,000,000 to manage interest rate risk related to our multicurrency revolving line of credit. As of December 31,

2001, five of these six agreements had been terminated. The remaining agreement, which expires in 2003, has a notional amount of \$100,000,000 and requires us to make payments to the counterparty at variable rates based on USD-LIBOR-BBA rates. At December 2001, 2000 and 1999, we paid a weighted average fixed rate of 5.77%, 5.77% and 5.61%, respectively, and received a weighted average variable rate of 1.93%, 6.66% and 6.49%, respectively. The fair value of our interest rate swap agreements, based on current market rates, approximated a net payable of \$4,686,000 at December 31, 2001 and a net receivable of \$51,000 at December 31, 2000. During the year ended December 31, 2001, the Company recorded a pre tax loss of \$3,668,000 relating to an ineffective hedge for a portion of time relating to an interest rate swap agreement (see Note 7 to the Consolidated Financial Statements).

### **Foreign Exchange Risk**

We are exposed to foreign currency exchange rate risks. Our significant foreign subsidiaries are located in Germany, France, Israel and the Far East. In most locations, we have introduced a "netting" policy where subsidiaries pay all intercompany balances within thirty days. In September 1999, a subsidiary of ours entered into foreign currency forward exchange contracts to manage the effect of exchange rate changes on certain foreign currency denominated transactions. As of December 31, 2001, we did not have any outstanding foreign currency forward exchange contracts.

In the normal course of business, our financial position is routinely subjected to a variety of risks, including market risks associated with interest rate movements, currency rate movements on non-U.S. dollar denominated assets and liabilities and collectability of accounts receivable.

### **Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

The following Consolidated Financial Statements of the Company and our subsidiaries, together with the report of independent auditors thereon, are presented under Item 14 of this report:

Report of Independent Auditors

Consolidated Balance Sheets -- December 31, 2001 and 2000.

Consolidated Statements of Operations -- for the years ended December 31, 2001, 2000 and 1999.

Consolidated Statements of Cash Flows -- for the years ended December 31, 2001, 2000, and 1999.

Consolidated Statements of Stockholders' Equity -- for the years ended December 31, 2001, 2000 and 1999.

Notes to Consolidated Financial Statements-- December 31, 2001.

### **Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

### **PART III**

Information with respect to Items 10, 11, 12 and 13 on Form 10-K is set forth in our definitive proxy statement, which will be filed within 120 days of December 31, 2001, our most recent fiscal year. Such information is incorporated herein by reference, except that information with respect to Executive Officers of Registrant is set forth in Part I, Item 4A hereof under the caption, "Executive Officers of the Registrant."

## PART IV

### Item 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

- (a) (1) All Consolidated Financial Statements of the Company and its subsidiaries for the year ended December 31, 2001 are filed herewith. See Item 8 of this Report for a list of such financial statements.
- (2) All financial statement schedules for which provision is made in the applicable accounting regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable and therefore have been omitted.
- (3) Exhibits-- See response to paragraph (c) below.
- (b) None.
- (c) Exhibits:
  - 2.1 Agreement and Plan of Merger, dated as of July 31, 2001, by and among Vishay Intertechnology, Inc., Vishay Acquisition Corp., and General Semiconductor, Inc. Incorporated by reference to Annex A to the Joint Proxy Statement/Prospectus forming a part of the Registration Statement on Form S-4 (No. 333-69004) filed on September 6, 2001.
  - 3.1 Composite Amended and Restated Certificate of Incorporation of the Company dated August 3, 1995. Incorporated by reference to Exhibit 3.1 to the Company's quarterly report on Form 10-Q for the quarter ended June 30, 1995 (the "1995 Form 10-Q"). Certificate of Amendment of Composite Amended and Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to Form 10-Q for the quarter ended June 30, 1997 (the "1997 Form 10-Q"). Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to Form 8-K File filed November 13, 2001.
  - 3.2 Amended and Restated Bylaws of Registrant. Incorporated by reference to Exhibit 3.1 to the Company's quarterly report on Form 10-Q for the quarter ended March 31, 2001.
  - 4.1 Indenture dated as of June 4, 2001 between the Vishay Intertechnology, Inc. and Bank of New York as Trustee (incorporated by reference to Exhibit 4.1 to Current Report of Registrant on Form 8-K filed on June 18, 2001 under the Securities Exchange Act of 1934 except that clause (x) of Section 5 thereof is corrected to read "(x) 0.0625% of the average LYON Market Price for the Five Day Period with respect to such Contingent Interest Period and").
  - 4.2 Indenture dated as of December 14, 1999 between General Semiconductor, Inc. and The Bank of New York as Trustee (incorporated by reference to Exhibit 4.5 to the Registration Statement on Form S-3 (No. 333-94513) filed by General Semiconductor, Inc. on January 12, 2000).
  - 4.3 First Supplemental Indenture dated as of November 2, 2001 among General Semiconductor, Inc., Vishay Intertechnology, Inc., and The Bank of New York as Trustee to Indenture dated as of December 14, 1999.
  - 4.4 Second Supplemental Indenture dated as of January 8, 2002 among General Semiconductor, Inc., Vishay Intertechnology, Inc., and The Bank of New York as Trustee to Indenture dated as of December 14, 1999.
  - 10.1 Performance-Based Compensation Plan for Chief Executive Officer of Registrant. Incorporated by reference to Exhibit 10.1 to Form 10-K for fiscal year ended December 31, 1993.

- 10.2 Vishay Intertechnology, Inc. Amended and Restated Long Term Revolving Credit Agreement, dated as of June 1, 1999, by and among Vishay and the Permitted Borrowers (as defined therein), the Lenders (as defined therein), and Comerica Bank, as administrative agent. Incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-3 (No. 333-52594) filed December 22, 2000.
- 10.3 First Amendment to Amended and Restated Vishay Intertechnology, Inc. Long Term Revolving Credit Agreement and Other Loan Documents, dated as of August 31, 2000, by and among the Company and the Permitted Borrowers (as defined therein), Comerica Bank and the other Lenders signatory thereto, and Comerica Bank, as administrative agent. Incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form S-3 (No. 333-52594) filed December 22, 2000.
- 10.4 Employment Agreement, dated as of March 15, 1985, between the Company and Dr. Felix Zandman. Incorporated by reference to Exhibit 10.12 to the Company's Registration Statement on Form S-2 (No. 33-13833).
- 10.5 Vishay Intertechnology, Inc. 1995 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14ADR filed April 7, 1995.
- 10.6 Vishay Intertechnology, Inc. 1997 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14A filed April 16, 1998.
- 10.7 Vishay Intertechnology, Inc. 1998 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14A filed April 16, 1998.
- 10.8 Money Purchase Plan Agreement of Measurements Group, Inc. Incorporated by reference to Exhibit 10(a)(6) to Amendment No. 1 to the Company's Registration Statement on Form S-7 (No. 2-69970).
21. Subsidiaries of the Registrant.
23. Consent of Independent Auditors.

SIGNATURES

Pursuant to the requirement of Section 13 or 15(d) 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.

April 1, 2002

/s/ Felix Zandman  
Felix Zandman, Chairman  
of the Board and Chief  
Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated below.

April 1, 2002

/s/ Felix Zandman  
Felix Zandman, Chairman  
of the Board and Chief  
Executive Officer  
(Principal Executive Officer)

April 1, 2002

/s/ Avi D. Eden  
Avi D. Eden, Vice-Chairman  
of the Board, Executive Vice President  
and General Counsel

April 1, 2002

/s/ Gerald Paul  
Gerald Paul, Director, President  
and Chief Operating Officer

April 1, 2002

/s/ Richard N. Grubb  
Richard N. Grubb, Director,  
Executive Vice President, Treasurer and Chief  
Financial Officer  
(Principal Financial and  
Accounting Officer)

April 1, 2002

/s/ Robert A. Freece  
Robert A. Freece, Director,  
Senior Vice President

April 1, 2002

/s/ Eli Hurvitz  
Eli Hurvitz, Director

April 1, 2002

/s/ Edward B. Shils  
Edward B. Shils, Director

April 1, 2002

/s/Ziv Shoshani  
Ziv Shoshani, Director

April 1, 2002

/s/Mark I. Solomon  
Mark I. Solomon, Director

April 1, 2002

/s/Jean-Claude Tine  
Jean-Claude Tine, Director

April 1, 2002

/s/Marc Zandman  
Marc Zandman, Director

April 1, 2002

/s/Ruta Zandman  
Ruta Zandman, Director

Vishay Intertechnology, Inc.  
Consolidated Financial Statements  
Years ended December 31, 2001, 2000, and 1999

Contents

Report of Independent Auditors .....	F-1
Audited Consolidated Financial Statements	
Consolidated Balance Sheets .....	F-2
Consolidated Statements of Operations.....	F-4
Consolidated Statements of Cash Flows.....	F-5
Consolidated Statements of Stockholders' Equity.....	F-7
Notes to Consolidated Financial Statements .....	F-8

## Report of Independent Auditors

Board of Directors and Stockholders  
Vishay Intertechnology, Inc.

We have audited the accompanying consolidated balance sheets of Vishay Intertechnology, Inc. as of December 31, 2001 and 2000, and the related consolidated statements of operations, cash flows, and stockholders' equity for each of the three years in the period ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Vishay Intertechnology, Inc. at December 31, 2001 and 2000, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

As discussed in Note 1 to the financial statements, the Company has not yet adopted Statement of Financial Accounting Standards No. 142. However, the transition provisions of that Statement preclude the amortization of goodwill acquired in a business combination for which the acquisition date is after June 30, 2001.

/s/ Ernst & Young LLP

Philadelphia, Pennsylvania  
February 6, 2002, except for Note 17,  
as to which the date is February 13, 2002

**Vishay Intertechnology, Inc.**

**Consolidated Balance Sheets**

*(In thousands, except per share and share amounts)*

	<b>December 31</b>	
	<b>2001</b>	<b>2000</b>
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 367,115	\$ 337,213
Accounts receivable, less allowances of \$17,126 and \$12,630	382,358	452,579
Inventories:		
Finished goods	260,161	179,286
Work in process	136,842	130,682
Raw materials	204,454	215,894
Deferred income taxes	63,084	32,051
Prepaid expenses and other current assets	160,613	127,169
Total current assets	1,574,627	1,474,874
Property and equipment – at cost:		
Land	92,311	47,625
Buildings and improvements	289,672	265,311
Machinery and equipment	1,397,262	1,168,241
Construction in progress	82,269	83,768
	1,861,514	1,564,945
Less allowances for depreciation	(693,981)	(591,391)
	1,167,533	973,554
Goodwill	1,077,790	295,759
Other intangible assets	83,337	–
Other assets	48,236	39,471
Total assets	\$ 3,951,523	\$ 2,783,658

	<b>December 31</b>	
	<b>2001</b>	<b>2000</b>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Notes payable to banks	\$ 11,241	\$ 8,250
Trade accounts payable	89,467	120,070
Payroll and related expenses	71,841	111,132
Other accrued expenses	292,596	146,157
Income taxes	13,081	31,915
Current portion of long-term debt	367	150
Total current liabilities	<u>478,593</u>	<u>417,674</u>
Long-term debt – less current portion	605,031	140,467
Deferred income taxes	90,340	79,109
Deferred income	57,208	55,162
Minority interest	66,516	63,480
Other liabilities	139,273	93,157
Accrued pension costs	148,017	100,754
Stockholders' equity:		
Preferred Stock, par value \$1.00 per share: authorized – 1,000,000 shares; none issued		
Common Stock, par value \$.10 per share: authorized – 300,000,000 shares; 143,795,355 and 122,408,402 shares outstanding after deducting 332,850 and 225,673 shares in treasury	14,380	12,241
Class B convertible Common Stock, par value \$.10 per share: authorized – 40,000,000 shares; 15,496,634 and 15,518,546 shares outstanding after deducting 279,453 shares in treasury	1,550	1,552
Capital in excess of par value	1,865,979	1,319,426
Retained earnings	615,968	615,455
Unearned compensation	(921)	(1,248)
Accumulated other comprehensive loss	(130,411)	(113,571)
Total stockholders' equity	<u>2,366,545</u>	<u>1,833,855</u>
Total liabilities and stockholders' equity	<u>\$ 3,951,523</u>	<u>\$ 2,783,658</u>

*See accompanying notes.*

**Vishay Intertechnology, Inc.**

**Consolidated Statements of Operations**

*(In thousands, except per share and share amounts)*

	<b>Year ended December 31</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>
Net sales	\$ 1,655,346	\$ 2,465,066	\$ 1,760,091
Costs of products sold	1,273,827	1,459,784	1,299,705
Gross profit	381,519	1,005,282	460,386
Selling, general, and administrative expenses	278,171	297,315	254,282
Amortization of goodwill	11,190	11,469	12,360
Restructuring expense	61,908	—	—
Purchased research and development	16,000	—	—
	14,250	696,498	193,744
Other income (expense):			
Interest expense	(16,848)	(25,177)	(53,296)
Other	12,701	18,904	(5,737)
	(4,147)	(6,273)	(59,033)
Earnings before income taxes and minority interest	10,103	690,225	134,711
Income taxes	5,695	148,186	36,940
Minority interest	3,895	24,175	14,534
Net earnings	\$ 513	\$ 517,864	\$ 83,237
Basic earnings per share	\$ 0.00	\$ 3.83	\$ 0.66
Diluted earnings per share	\$ 0.00	\$ 3.77	\$ 0.65
Weighted average shares outstanding:			
Basic	141,171,000	135,295,000	126,678,000
Diluted	142,514,000	137,463,000	128,233,000

*See accompanying notes*

**Vishay Intertechnology, Inc.**

**Consolidated Statements of Cash Flows**

*(In thousands)*

	Year ended December 31		
	2001	2000	1999
<b>Operating activities</b>			
Net earnings	\$ 513	\$ 517,864	\$ 83,237
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	163,387	140,840	139,676
(Gain) loss on sale of subsidiaries	–	(5,851)	10,073
(Gain) loss on disposal of property and equipment	(1,472)	2,320	1,146
Minority interest in net earnings of consolidated subsidiaries	3,895	24,175	14,534
Equity in earnings of affiliate	–	2,577	2,195
Purchased research and development	16,000	–	–
Noncash charge for change in fair value of interest rate swap	3,668	–	–
Accretion of interest on convertible debentures	5,313	–	–
Writedowns of property and equipment included in restructuring expense	20,975	–	–
Changes in operating assets and liabilities, net of effects of businesses acquired or sold:			
Accounts receivable	120,095	(148,414)	(72,776)
Inventories	6,038	(140,084)	25,998
Prepaid expenses and other current assets	(7,321)	(62,687)	14,451
Accounts payable	(71,761)	28,507	15,838
Other current liabilities	(105,685)	106,084	24,146
Other	7,773	76,988	(18,971)
Net cash provided by operating activities	161,418	542,319	239,547
<b>Investing activities</b>			
Purchases of property and equipment	(162,493)	(229,781)	(119,638)
Proceeds from sale of property and equipment	9,911	7,267	7,934
Purchases of businesses, net of cash acquired	(172,468)	(42,384)	–
Net cash proceeds from divestitures	–	33,162	9,118
Net cash used in investing activities	(325,050)	(231,736)	(102,586)

**Vishay Intertechnology, Inc.**

**Consolidated Statements of Cash Flows (continued)**

*(In thousands)*

	Year ended December 31		
	2001	2000	1999
<b>Financing activities</b>			
Net payments on revolving credit lines	\$ (100,047)	\$ (506,686)	\$ (143,496)
Proceeds from long-term borrowings	415	-	197
Principal payments on long-term debt	(444)	(385)	(4,481)
Proceeds from convertible subordinated debentures	294,096	-	-
Purchase of treasury stock	(850)	(5,765)	-
Proceeds from sale of common stock	-	395,449	-
Proceeds from stock options exercised	854	39,873	-
Net changes in short-term borrowings	3,274	39	6,752
Net cash provided by (used in) financing activities	197,298	(77,475)	(141,028)
Effect of exchange rate changes on cash	(3,764)	(1,088)	(4,469)
Increase (decrease) in cash and cash equivalents	29,902	232,020	(8,536)
Cash and cash equivalents at beginning of year	337,213	105,193	113,729
Cash and cash equivalents at end of year	\$ 367,115	\$ 337,213	\$ 105,193

*See accompanying notes.*

Vishay Intertechnology, Inc.

Consolidated Statements of Stockholders' Equity

(In thousands, except share amounts)

	Common Stock	Class B Convertible Common Stock	Capital in Excess of Par Value	Retained Earnings	Compensation Unearned	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance at January 1, 1999	\$ 11,129	\$ 1,560	\$ 984,406	\$ 14,354	\$ (1,131)	\$ (7,799)	\$ 1,002,519
Net earnings	-	-	-	83,237	-	-	83,237
Foreign currency translation adjustment	-	-	-	-	-	-	-
Pension liability adjustment	-	-	-	-	-	(76,553)	(76,553)
Comprehensive income	-	-	-	-	-	3,343	3,343
Stock issued (46,511 shares)	5	-	503	-	(508)	-	10,027
Stock options exercised (87,819 shares)	9	-	482	-	-	-	491
Conversions from Class B to common (42,206 shares)	4	(4)	-	-	-	-	-
Tax effects relating to stock plan	-	-	2	-	-	-	2
Amortization of unearned compensation	-	-	-	-	553	-	553
Balance at December 31, 1999	11,147	1,556	985,393	97,591	(1,086)	(81,009)	1,013,592
Net earnings	-	-	-	517,864	-	-	517,864
Foreign currency translation adjustment	-	-	-	-	-	(32,468)	(32,468)
Pension liability adjustment	-	-	-	-	-	(94)	(94)
Comprehensive income	-	-	-	-	-	-	485,302
Stock issued (53,716 shares)	5	-	1,699	-	(1,704)	-	-
Stock options exercised (2,656,171 shares)	266	-	39,607	-	-	-	39,873
Conversions from Class B to common (36,347 shares)	4	(4)	-	-	-	-	-
Common stock repurchase (200,000 shares)	(20)	-	(5,745)	-	-	-	(5,765)
Sale of common stock (8,392,500 shares)	839	-	394,610	-	-	-	395,449
Termination of Lite-On stock appreciation rights	-	-	(108,495)	-	-	-	(108,495)
Tax effects relating to stock plan	-	-	12,357	-	-	-	12,357
Amortization of unearned compensation	-	-	-	-	1,542	-	1,542
Balance at December 31, 2000	12,241	1,552	1,319,426	615,455	(1,248)	(113,571)	1,833,855
Net earnings	-	-	-	513	-	-	513
Foreign currency translation adjustment	-	-	-	-	-	(7,638)	(7,638)
Pension liability adjustment	-	-	-	-	-	(8,557)	(8,557)
Cumulative effect of adoption of SFAS No. 133	-	-	-	-	-	51	51
Loss on derivative financial instruments, net of taxes of \$374	-	-	-	-	-	(696)	(696)
Comprehensive loss	-	-	-	-	-	-	-
Stock issued (22,573 shares)	2	-	443	-	(446)	-	(1)
Stock options exercised (85,877 shares)	9	-	845	-	-	-	854
Conversions from Class B to common (21,917 shares)	2	(2)	-	-	-	-	-
Common stock repurchase (48,500 shares)	(5)	-	(846)	-	-	-	(851)
Tax effects relating to stock plan	-	-	423	-	-	-	423
Amortization of unearned compensation	-	-	-	-	773	-	773
Stock issued - General Semiconductor acquisition (21,305,127 shares)	2,131	-	497,688	-	-	-	499,819
Stock options issued - General Semiconductor acquisition	-	-	48,000	-	-	-	48,000
Balance at December 31, 2001	\$ 14,380	\$ 1,550	\$ 1,865,979	\$ 615,968	\$ (921)	\$ (130,411)	\$ 2,366,545

See accompanying notes.

## **Vishay Intertechnology, Inc.**

### **Notes to Consolidated Financial Statements**

December 31, 2001

Vishay Intertechnology, Inc. is an international manufacturer and supplier of passive and active electronic components, particularly resistors, capacitors, inductors, power MOSFETS, power conversion and motor control integrated circuits, transistors, diodes and optoelectronic components. Electronic components manufactured by the Company are used in virtually all types of electronic products, including those in the computer, telecommunications, military/aerospace, instrument, automotive, medical, and consumer electronics industries.

#### **1. Summary of Significant Accounting Policies**

##### **Principles of Consolidation**

The consolidated financial statements include the accounts of Vishay Intertechnology, Inc. and its majority-owned subsidiaries, after elimination of all significant intercompany transactions, accounts, and profits. Investments in 20%- to 50%-owned companies are accounted for on the equity method. Investments in other companies are carried at cost.

##### **Revenue Recognition**

The Company recognizes revenue when products are shipped to customers. The Company has agreements with distributors that provide limited rights of return and protection against price reductions initiated by the Company. The effect of these programs is estimated based on historical experience and provisions are recorded at the time of shipment.

##### **Shipping and Handling Costs**

Shipping and handling costs are included in costs of products sold.

##### **Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ significantly from those estimates.

##### **Inventories**

Inventories are stated at the lower of cost, determined by the first-in, first-out method, or market.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**1. Summary of Significant Accounting Policies (continued)**

**Depreciation**

Depreciation is computed principally by the straight-line method based upon the estimated useful lives of the assets. Depreciation of capital lease assets is included in total depreciation expense. Depreciation expense was \$149,225,000, \$126,285,000, and \$125,847,000 for the years ended December 31, 2001, 2000, and 1999, respectively.

**Construction in Progress**

The estimated cost to complete construction in progress at December 31, 2001 was \$7,531,000.

**Goodwill**

Goodwill represents the excess of purchase price over net assets acquired. Goodwill acquired prior to July 1, 2001 has been amortized principally over periods ranging from 20-40 years using the straight-line method. Goodwill acquired after June 30, 2001 has not been amortized in accordance with the transition provisions of Statement of Financial Accounting Standards (SFAS) No. 142, *Goodwill and Other Intangible Assets*. The recoverability of goodwill was evaluated at the operating unit level by an analysis of operating results and consideration of other significant events or changes in the business environment. If an operating unit had current operating losses, and based upon projections there was a likelihood that such operating losses would continue, the Company determined whether impairment existed on the basis of undiscounted expected future cash flows from operations before interest for the remaining amortization period. If impairment existed, goodwill was reduced by the estimated shortfall of discounted cash flows. Goodwill will be subject to an initial impairment test in connection with the adoption of SFAS No. 142 effective January 1, 2002, and annual impairment tests as required by SFAS No. 142 thereafter. Accumulated amortization amounted to \$69,995,000 and \$60,061,000 at December 31, 2001 and 2000, respectively.

**Intangible Assets**

Other intangible assets consist of trademarks (\$35,000,000) and completed technology of businesses acquired after June 30, 2001 (\$48,337,000). Trademarks have an indefinite life and therefore are not amortized. Completed technology is being amortized over estimated useful lives of seven to ten years.

## **Vishay Intertechnology, Inc.**

### **Notes to Consolidated Financial Statements (continued)**

#### **1. Summary of Significant Accounting Policies (continued)**

##### **Cash Equivalents**

Cash and cash equivalents includes demand deposits and all highly liquid investments with maturities of three months or less when purchased.

##### **Research and Development Expenses**

The amount charged to expense for research and development (exclusive of purchased in-process research and development) aggregated \$30,176,000, \$37,103,000, and \$35,038,000, for the years ended December 31, 2001, 2000, and 1999, respectively. The Company spends additional amounts for the development of machinery and equipment for new processes and for cost reduction measures.

##### **Grants**

Grants received by certain foreign subsidiaries from foreign governments, primarily in Israel, are recognized as income in accordance with the purpose of the specific contract and in the period in which the related expense is incurred. Grants from the Israeli government recognized as a reduction of costs of products sold were \$19,064,000, \$15,721,000, and \$14,256,000 for the years ended December 31, 2001, 2000, and 1999, respectively. Grants receivable of \$14,858,000 and \$23,792,000 are included in other current assets at December 31, 2001 and 2000, respectively. Deferred grant income was \$57,208,000 and \$55,162,000 at December 31, 2001 and 2000, respectively. The grants are subject to certain conditions, including maintaining specified levels of employment for periods up to ten years. Noncompliance with such conditions could result in the repayment of grants. However, management expects that the Company will comply with all terms and conditions of the grants.

##### **Minority Interest**

Minority interest represents the ownership interests of third parties in the net assets and results of operations of certain consolidated subsidiaries.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**1. Summary of Significant Accounting Policies (continued)**

**Stock-Based Compensation**

SFAS No. 123, *Accounting for Stock-Based Compensation*, encourages entities to record compensation expense for stock-based employee compensation plans at fair value but provides the option of measuring compensation expense using the intrinsic value method prescribed in Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees*. The Company accounts for stock-based compensation in accordance with APB No. 25. Note 10 presents pro forma results of operations as if SFAS No. 123 had been used to account for stock-based compensation plans.

**Derivative Financial Instruments**

Effective January 1, 2001, the Company adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. SFAS No. 133 requires all derivative instruments to be recognized as either assets or liabilities and measured at fair value. The accounting for changes in fair value depends upon the purpose of the derivative instrument and whether it is designated and qualifies for hedge accounting. The Company uses interest rate swap agreements to modify variable rate obligations to fixed rate obligations, thereby reducing exposure to market rate fluctuations. The interest rate swap agreements are designated as hedges. The effective portion of gains or losses is reported in other comprehensive income and the ineffective portion, if any, is reported in net income.

**Commitments and Contingencies**

Liabilities for loss contingencies, including environmental remediation costs, arising from claims, assessments, litigation, fines, penalties, and other sources are recorded when it is probable that a liability has been incurred and the amount of the assessment and/or remediation can be reasonably estimated. The costs for a specific environmental cleanup site are discounted if the aggregate amount of the obligation and the amount and timing of the cash payments for that site are fixed or reliably determinable generally based upon information derived from the remediation plan for that site. Recoveries from third parties that are probable of realization and can be reasonably estimated are separately recorded, and are not offset against the related environmental liability.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**1. Summary of Significant Accounting Policies (continued)**

**Accounting Pronouncements Pending Adoption**

In June 2001, the Financial Accounting Standards Board (FASB) issued SFAS No. 141, *Business Combinations*, and SFAS No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001. SFAS No. 141 also includes guidance on the initial recognition and measurement of goodwill and other intangible assets arising from business combinations completed after June 30, 2001. SFAS No. 142 prohibits the amortization of goodwill and intangible assets with indefinite useful lives. SFAS No. 142 requires that these assets be reviewed for impairment at least annually. Intangible assets with finite lives will continue to be amortized over their estimated useful lives.

The Company will apply SFAS No. 142 beginning in the first quarter of 2002. Application of the nonamortization provisions of SFAS No. 142 is expected to result in an increase in net income of \$10,210,000 (\$0.06 per share) in 2002. The Company will test goodwill for impairment using the two-step process prescribed in SFAS No. 142. The first step is a screen for potential impairment, while the second step measures the amount of the impairment, if any. The Company expects to perform the first of the required impairment tests of goodwill and indefinite-lived intangible assets as of January 1, 2002 in the first quarter of 2002. If an impairment charge were to result from these transitional impairment tests, it would be reflected as the cumulative effect of a change in accounting principle in the first quarter of 2002. The Company has not yet determined what the effect, if any, of these tests will be on the earnings and financial position of the Company.

Goodwill related to the Company's acquisitions of General Semiconductor, Infineon and Mallory, described in Note 2, all of which were completed after June 30, 2001, has not been amortized in accordance with the transition provisions of SFAS No. 142. This had the effect of increasing net income by \$6,485,000 (\$0.05 per share) in 2001.

In 2001, the FASB issued SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. This statement supersedes SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of*, and provides a single accounting model for long-lived assets to be disposed and broadens the presentation of discontinued operations to include more disposal transactions. SFAS No. 144 is effective for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years, with early application encouraged. The Company will adopt this statement beginning January 1, 2002.

## Vishay Intertechnology, Inc.

### Notes to Consolidated Financial Statements (continued)

#### 1. Summary of Significant Accounting Policies (continued)

##### Reclassifications

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

#### 2. Acquisitions and Divestitures

In January 2001, the Company purchased Tansitor, a manufacturer of wet tantalum electrolytic capacitors and miniature conformal coated solid tantalum capacitors, for \$18.3 million in cash. The acquisition was accounted for as a purchase and included in the results of operations of the passives segment from January 1, 2001. Goodwill of \$14,539,000 was amortized in 2001 based on a twenty-year life.

On July 27, 2001, the Company agreed to purchase from Infineon Technologies AG, Munich, the Infineon optoelectronic infrared components business. This business produces optocouplers and optoelectric infrared data components transceivers (IRDC). The total purchase price for this transaction was approximately \$116 million in cash. A partial payment of \$78 million was made on July 27, 2001. A second payment of \$38 million was made on December 31, 2001. The acquisition was funded with cash on hand. Under the terms of the agreement, the Company purchased Infineon's U.S. development, marketing, and distribution activities located in the San Jose, California headquarters and a manufacturing facility located in Malaysia. The results of operations of Infineon's U.S. infrared components business are included in the results of the actives segment from July 27, 2001. The results of operations of the Malaysia facility are included as of December 31, 2001. The purchase price has been preliminarily allocated, pending finalization of appraisals, as follows:

Current assets	\$ 35,444,000
Property, plant, and equipment	27,575,000
Completed technology	12,000,000
Current liabilities	(12,125,000)
Goodwill	53,179,000
Total purchase price	<u>\$ 116,073,000</u>

## Vishay Intertechnology, Inc.

### Notes to Consolidated Financial Statements (continued)

#### 2. Acquisitions and Divestitures (continued)

On November 7, 2001, the Company acquired Yosemite Investment, Inc. d/b/a North American Capacitor Company, also known as Mallory, for approximately \$45 million in cash. The Company borrowed funds from its revolving credit facility to finance the acquisition. With manufacturing facilities in Greencastle, Indiana and Glasgow, Kentucky, Mallory is a leading manufacturer of wet tantalum electrolytic capacitors, among other businesses. The results of operations of Mallory are included in the passives segment as of November 7, 2001. The preliminary purchase price allocation is as follows:

Current assets	\$ 11,033,000
Property, plant, and equipment	6,347,000
Current liabilities	(3,555,000)
Long-term debt	(857,000)
Goodwill	31,684,000
Total purchase price	<u>\$ 44,652,000</u>

On November 2, 2001, the Company acquired General Semiconductor, Inc. a leading manufacturer of rectifiers and power management devices, following approval of the transaction and related matters by stockholders of the two companies. Stockholders of General Semiconductor received 0.563 shares of Vishay Common Stock for each General Semiconductor share in a tax-free exchange (21,305,127 shares). Vested options to purchase 4,282,000 shares of Vishay Common Stock were issued in exchange for General Semiconductor options. General Semiconductor also has outstanding \$172.5 million principal amount of 5.75% convertible notes, which as a result of the acquisition are now convertible into approximately 6.3 million shares of Vishay Common Stock. The results of operations of General Semiconductor are included in the results of the actives segment from November 2, 2001. The purchase price was as follows:

Fair value of shares issued	\$ 499,818,000
Fair value of options issued	48,000,000
Acquisition expenses	7,028,000
Total purchase price	<u>\$ 554,846,000</u>

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**2. Acquisitions and Divestitures (continued)**

Under purchase accounting, the total purchase price is allocated to assets acquired and liabilities assumed based on their estimated fair values. The allocation of the purchase price is based on a preliminary evaluation of the fair value of General Semiconductor's tangible and identifiable intangible assets acquired and liabilities assumed at the date of the merger based upon currently available information. There can be no assurance that the estimated amounts represent the final purchase allocation. The purchase price has been preliminarily allocated, pending finalization of appraisals, to the acquired assets and liabilities based on fair values as follows:

Current assets	\$ 122,111,000
Property, plant, and equipment	189,297,000
Other assets	48,963,000
Trademarks	35,000,000
Completed technology	36,337,000
Current liabilities	(181,193,000)
Long-term debt	(255,502,000)
Other noncurrent liabilities	(132,284,000)
Goodwill	692,117,000
Total purchase price	<u>\$ 554,846,000</u>

In connection with the General Semiconductor acquisition, the Company recorded restructuring liabilities of \$94,643,000 in connection with an exit plan that management began to formulate prior to the acquisition date. Approximately \$88,242,000 of these liabilities relate to employee termination costs covering approximately 1,460 technical, production, administrative and support employees located in the United States, Europe, and the Pacific Rim. The remaining \$6,401,000 relate to provisions for lease cancellations and other costs. The liability is recorded in other accrued expenses and is expected to be paid out by the first quarter of 2003. The exit plan is not yet finalized. Future adjustments to increase or decrease the restructuring liabilities would increase or decrease goodwill.

Management estimated that \$16,000,000 of the General Semiconductor purchase price represents purchased in-process technology that had not reached technological feasibility and had no alternative future use. Accordingly, this amount was expensed with no tax benefit upon consummation of the acquisition. The value assigned to purchased in-process technology was determined by identifying research projects in areas for which technological feasibility has not been established. The value was determined by estimating the costs to develop the purchased in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that takes into account the uncertainty surrounding the successful

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**2. Acquisitions and Divestitures (continued)**

development of the purchased in-process technology. If these projects are not successfully developed, future revenue and profitability of Vishay may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

Had the acquisitions been made at the beginning of the respective periods, the Company's pro forma unaudited results would have been (in thousands, except per share amounts):

	<b>Year ended December 31</b>	
	<b>2001</b>	<b>2000</b>
Net sales	\$ 2,089,213	\$ 3,153,616
Net earnings (loss)	(39,335)	575,594
Basic earnings (loss) per share	(0.25)	3.68
Diluted earnings (loss) per share	(0.25)	3.46

The pro forma information includes adjustments for interest expense that would have been incurred to finance the acquisitions, adjustments to depreciation based on the fair value of property, plant, and equipment acquired, write-off of purchased in-process research and development, amortization of goodwill for acquisitions prior to July 1, 2001, and related tax effects. Goodwill related to the acquisitions is not tax deductible.

The unaudited pro forma results are not necessarily indicative of the results that would have been attained had the acquisitions occurred at the beginning of the periods presented.

During 2000, the Company acquired certain assets and assumed certain liabilities of Spectrol Electronics Corporation and Spectrol Electronics Limited and acquired 100% of the common stock of Cera-Mite Corporation and of Electro-Films, Inc. The combined cash purchase price was \$42,384,000. The results of operations of Electro-Films, Cera-Mite, and Spectrol have been included in the Company's results from June 1, 2000, August 1, 2000, and September 1, 2000, respectively. Goodwill (\$19,707,000) has been amortized over 20 years using the straight-line method. The pro forma effect of these acquisitions was not material for 2000 or 1999.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**2. Acquisitions and Divestitures (continued)**

On May 31, 2000, the Company entered into a definitive agreement for the sale of its 65% interest in Lite-On Power Semiconductor Corporation (LPSC) to the Lite-On Group for \$40,736,000 in cash and the transfer to the Company of the rights under the SARs (see Note 6) issued in July 1997. The fair value of the SARs was \$108,495,000 as of May 31, 2000. A pretax gain of \$8,401,000 is included in other income in 2000 in connection with the sale of the Company's 65% interest in LPSC.

On November 30, 2000, the Company sold V-Tech Latino Americana LTDA, its Brazilian distribution subsidiary. In connection with the sale, the Company received cash proceeds of approximately \$400,000 and recorded a noncash pretax loss of \$2,550,000, which is included in other income (expense).

On March 26, 1999, the Company sold Nicolitch, S.A., its French manufacturer of printed circuit boards. In connection with the sale, the Company received proceeds of approximately \$9,118,000 and recorded a noncash pretax loss of \$10,073,000, which is included in other income (expense).

**3. Restructuring Expense**

Restructuring expense was \$61,908,000 for the year ended December 31, 2001. Restructuring of European, Asia Pacific, and Israeli operations included \$27,064,000 of employee termination costs covering approximately 3,778 technical, production, administrative and support employees located in France, Hungary, Portugal, Austria, the Philippines, Germany, and Israel. The European operations also recorded \$2,191,000 of noncash costs associated with the writedown of buildings and equipment that are no longer in use. In the United States, \$13,870,000 of restructuring expense relates to termination costs for approximately 1,885 technical, production, administrative and support employees. The remaining \$18,783,000 of restructuring expense relates to the noncash writedown of buildings and equipment that are no longer in use.

The restructuring expense reflects the cost reduction programs currently being implemented by the Company. As of December 31, 2001, \$23,838,000 of severance costs has been paid. The remaining \$17,096,000 of severance costs, currently shown in other accrued expenses, should be paid by December 31, 2002.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**4. Income Taxes**

Earnings before income taxes and minority interest consists of the following components:

	<b>Year ended December 31</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>		
Domestic	\$ (55,598)	\$ 177,852	\$ 26,717
Foreign	65,701	512,373	107,994
	\$ 10,103	\$ 690,225	\$ 134,711

Significant components of income taxes are as follows:

	<b>Year ended December 31</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>		
Current:			
U.S.	\$ 6,194	\$ 51,965	\$ 1,685
Foreign	9,197	11,936	6,810
State	641	4,744	728
	16,032	68,645	9,223
Deferred:			
U.S.	(12,392)	62,156	21,957
Foreign	4,031	17,540	5,333
State	(1,976)	(155)	427
	(10,337)	79,541	27,717
	\$ 5,695	\$ 148,186	\$ 36,940

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**4. Income Taxes (continued)**

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

	<b>December 31</b>	
	<b>2001</b>	<b>2000</b>
	<i>(In thousands)</i>	
Deferred tax assets:		
Pension and other retiree obligations	\$ 41,500	\$ 18,393
Net operating loss carryforwards	38,869	32,406
Tax credit carryforwards	13,080	2,143
Restructuring reserves	23,678	3,412
Other accruals and reserves	51,348	32,595
Total deferred tax assets	168,475	88,949
Less valuation allowance	(10,256)	(19,658)
Net deferred tax assets	158,219	69,291
Deferred tax liabilities:		
Tax over book depreciation	88,377	83,489
Non-amortizable intangible assets	26,412	-
Other – net	16,284	16,966
Total deferred tax liabilities	131,073	100,455
Net deferred tax assets (liabilities)	\$ 27,146	\$ (31,164)

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**4. Income Taxes (continued)**

A reconciliation of income tax expense at the U.S. federal statutory income tax rate to actual income tax expense is as follows:

	<b>Year ended December 31</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>		
Tax at statutory rate	\$ 3,536	\$ 241,579	\$ 47,149
State income taxes, net of U.S. federal tax benefit	(382)	3,064	606
Effect of foreign operations	(4,894)	(99,520)	(13,717)
Purchased research and development	5,600	-	-
Other	1,835	3,063	2,902
	\$ 5,695	\$ 148,186	\$ 36,940

At December 31, 2001, the Company had the following significant net operating loss carryforwards for tax purposes (in thousands):

		<b>Expires</b>
Czech Republic	\$ 3,411	2005 – 2007
France	4,594	2006
Germany	44,972	No expiration
Israel	2,471	No expiration
Portugal	6,680	2002 – 2007
United States	51,151	2021

Approximately \$22,486,000 of the carryforward in Germany resulted from the Company's acquisition of Roederstein, GmbH in 1993. Valuation allowances of \$7,324,000 and \$19,068,000 have been recorded at December 31, 2001 and 2000, respectively, for deferred tax assets related to foreign net operating loss carryforwards. In 2001 and 2000, respectively, tax benefits recognized through reductions of the valuation allowance had the effect of reducing goodwill of acquired companies by \$4,901,000 and \$2,693,000. If additional tax benefits are recognized in the future through further reduction of the valuation allowance, \$2,547,000 of such benefits will reduce goodwill.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**4. Income Taxes (continued)**

At December 31, 2001, the Company had the following tax credit carryforwards available (*in thousands*):

		<b>Expires</b>
Federal Alternative Minimum Tax	\$ 7,625	No expiration
California Investment Credit	6,094	2007 – 2010
California Research Credit	2,169	No expiration

At December 31, 2001, no provision had been made for U.S. federal and state income taxes on approximately \$937,880,000 of foreign earnings, which are expected to be reinvested indefinitely. Upon distribution of those earnings in the form of dividends or otherwise, the Company would be subject to U.S. income taxes (subject to an adjustment for foreign tax credits), state income taxes, and withholding taxes payable to the various foreign countries. Determination of the amount of unrecognized deferred U.S. income tax liability is not practicable because of the complexities associated with its hypothetical calculation.

Income taxes paid were \$72,953,000, \$45,703,000, and \$5,463,000 for the years ended December 31, 2001, 2000, and 1999, respectively.

**5. Long-Term Debt**

Long-term debt consists of the following:

	<b>December 31</b>	
	<b>2001</b>	<b>2000</b>
	<i>(In thousands)</i>	
Multicurrency revolving credit loans	\$ 125,000	\$ 140,000
Convertible subordinated notes, LYONs, due 2021	308,506	–
Other debt and capital lease obligations	1,390	617
Convertible subordinated notes, GSI, due 2006	170,502	–
	605,398	140,617
Less current portion	367	150
	\$ 605,031	\$ 140,467

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**5. Long-Term Debt (continued)**

The Company has a \$660,000,000 long-term revolving credit and swing line facility which matures on June 1, 2005, subject to the Company's right to request year-to-year renewals. Interest on the long-term facility is payable at prime or other variable interest rate options. The Company is required to pay facility fees on the long-term facility. As of December 31, 2001, the Company had \$125,000,000 outstanding under the long-term revolving credit facility (interest rate of 2.43%; 5.77% after giving effect to interest rate swaps).

Borrowings under the loan agreement are secured by pledges of stock in certain significant subsidiaries and certain guaranties by significant subsidiaries. The credit facility restricts the Company from paying cash dividends and requires the Company to comply with other covenants, including the maintenance of specific financial ratios.

On June 4, 2001, the Company completed a private placement of \$550,000,000 face amount Liquid Yield Option Notes (LYONs) due 2021. In connection with the sale of the LYONs, the Company received net proceeds of \$294,096,000 and used the proceeds to pay down existing bank debt. Each LYON has a \$1,000 face amount and was offered at a price of \$551.26 (55.126% of the principal amount at maturity). The Company will not pay interest on the LYONs prior to maturity unless contingent interest becomes payable. Instead, on June 4, 2021, the maturity date of the LYONs, the holders will receive \$1,000 per LYON. The issue price of each LYON represents a yield to maturity of 3.00%, excluding any contingent interest. The LYONs are subordinated in right of payment to all of the Company's existing and future senior indebtedness.

At any time on or before the maturity date, the LYONs are convertible into Vishay Common Stock at a rate of 17.6686 shares of Common Stock per \$1,000 principal amount at maturity. The conversion rate may be adjusted under certain circumstances, but it will not be adjusted for accrued original issue discount.

The Company is required to pay contingent interest to the holders of the LYONs during the six-month period commencing June 4, 2006 and during any six-month period thereafter if the average market price of a LYON for a certain measurement period immediately preceding the applicable six-month period equals 120% or more of the sum of the issue price and accrued original issue discount for such LYON. The amount of contingent interest payable during any six-month period will be the sum of any contingent interest payable in the first and second three-month periods during such six-month period. During any three-month period in which contingent interest becomes payable, the contingent interest payable per LYON for such period will be equal to the greater of (1) 0.0625% of the average market price of a LYON for the measurement period referred to above or (2) the sum of all regular cash dividends paid by the Company per share on its common stock during such three-month period multiplied by the number of shares of common stock issuable upon conversion of a LYON at the then-applicable conversion rate.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**5. Long-Term Debt (continued)**

The holders of the LYONs may require the Company to repurchase all or a portion of their LYONs on June 4, 2004, 2006, 2011, and 2016 at various prices set forth in the notes. The Company may choose to pay the purchase price in cash, Common Stock, or a combination of both. The Company may redeem for cash all or a portion of the LYONs at any time on or after June 4, 2006 at the prices set forth in the notes.

General Semiconductor, which was acquired by the Company on November 2, 2001, has outstanding \$172.5 million principal amount of 5.75% convertible subordinated notes due December 15, 2006. The notes were recorded at their fair value of \$170.5 million as of the November 2, 2001 acquisition date. Interest on the convertible notes is payable semiannually on June 15 and December 15 of each year. As a consequence of the Company's acquisition of General Semiconductor, the convertible notes became convertible into approximately 6.3 million shares of the Company's Common Stock. The convertible notes are redeemable at the Company's option, in whole or in part, at any time on or after December 15, 2002 at a premium of 103.286% of par value declining annually to 100.821% at December 15, 2005 and thereafter.

Aggregate annual maturities of long-term debt, assuming that the Company is required to repurchase the LYONs in 2004, are as follows: 2002 – \$367,000; 2003 – \$255,000; 2004 – \$308,755,000; 2005 – \$214,000; 2006 – \$295,664,000; and thereafter – \$143,000.

At December 31, 2001, the Company had committed and uncommitted short-term credit lines with various U.S. and foreign banks aggregating \$78,516,000, of which \$67,275,000 was unused. The weighted average interest rate on short-term borrowings outstanding as of December 31, 2001 and 2000 was 2.53% and 6.57%, respectively.

Interest paid was \$15,685,000, \$29,930,000, and \$53,605,000 for the years ended December 31, 2001, 2000, and 1999, respectively.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**6. Stockholders' Equity**

The Company's Class B Common Stock carries ten votes per share while the Common Stock carries one vote per share. Class B shares are transferable only to certain permitted transferees while the Common Stock is freely transferable. Class B shares are convertible on a one-for-one basis at any time into shares of Common Stock.

The Company completed a public offering of its Common Stock on May 15, 2000, selling 8,392,500 shares at a price of \$49.00 (adjusted for the June 9, 2000 three-for-two stock split). The total net proceeds to the Company from the offering, after deducting the underwriting discount and estimated expenses, were approximately \$395,449,000. These proceeds were used to repay a portion of the debt outstanding under its long-term revolving credit facility.

In connection with the Company's acquisition of 65% of LPSC in July 1997, the Company issued stock appreciation rights (SARs) to the Lite-On Group (former owners of LPSC). The SARs represented the right to receive, in stock, the increase in value on the equivalent of 3,200,000 shares of the Company's Common Stock, above \$11.68 per share. On January 24, 2000, the Company exercised its right to call the SARs. Based on the call price of \$26.43 per share and the average closing price of Vishay shares for the thirty days prior to January 24, 2000, the Company would have had to issue 2,294,000 shares of Common Stock to settle the SARs. In connection with the sale of its 65% interest in LPSC to the Lite-On Group (see Note 2), the Lite-On Group transferred its rights under the SARs to Vishay.

On November 2, 2001, the stockholders approved an increase in the authorized capital stock of the Company. The total authorized Common Stock was increased from 150,000,000 to 300,000,000 shares and the Class B Common Stock was increased from 20,000,000 to 40,000,000 shares.

On August 10, 2000, the Board of Directors of the Company authorized the repurchase of up to 5,000,000 shares of its Common Stock from time to time in the open market. As of December 31, 2001, the Company had repurchased 248,500 shares for a total of \$6,616,000.

Unearned compensation relating to Common Stock issued under employee stock plans is being amortized over periods ranging from three to five years. At December 31, 2001, 305,126 shares were available for issuance under stock plans.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**7. Other Income (Expense)**

Other income (expense) consists of the following:

	<b>Year ended December 31</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>		
Foreign exchange gains (losses)	\$ 611	\$ (7,305)	\$ 86
Loss on ineffective interest rate swap	(3,668)	-	-
Interest income	15,092	9,652	3,968
Equity in net income of affiliates	-	2,577	2,195
Gain on termination of interest rate swap agreements	-	8,919	-
Gains (losses) on sale of subsidiaries	-	5,851	(10,073)
Gains (losses) on disposal of property and equipment	1,472	(2,320)	(1,179)
Other	(806)	1,530	(734)
	<u>\$ 12,701</u>	<u>\$ 18,904</u>	<u>\$ (5,737)</u>

In connection with repayments of debt in 2000, the Company terminated \$200,000,000 notional amount of interest rate swap agreements (see Note 12) and recognized pretax gains of \$8,919,000.

During the year ended December 31, 2000, the Company sold its 65% interest in LPSC and all of the assets of V-Tech Latino American LTDA. The sale of LPSC resulted in a pretax gain of \$8,401,000 and the sale of V-Tech resulted in a pretax loss of \$2,550,000. During the year ended December 31, 1999, the Company sold Nicolitch S.A. and recorded a pretax loss of \$10,073,000 (see Note 2).

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**8. Other Comprehensive Income**

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

	<b>Beginning Balance</b>	<b>Before-Tax Amount</b>	<b>Tax Benefit (Expense)</b>	<b>Net-of-Tax Amount</b>	<b>Ending Balance</b>
	<i>(In thousands)</i>				
December 31, 2001					
Pension liability adjustment	\$ (5,137)	\$ (13,281)	\$ 4,724	\$ (8,557)	\$ (13,694)
Currency translation adjustment	(108,434)	(7,638)	-	(7,638)	(116,072)
Loss on derivative financial instruments	-	(1,019)	374	(645)	(645)
	<u>\$ (113,571)</u>	<u>\$ (21,938)</u>	<u>\$ 5,098</u>	<u>\$ (16,840)</u>	<u>\$ (130,411)</u>
December 31, 2000					
Pension liability adjustment	\$ (5,043)	\$ 1,258	\$ (1,352)	\$ (94)	\$ (5,137)
Currency translation adjustment	(75,966)	(32,468)	-	(32,468)	(108,434)
	<u>\$ (81,009)</u>	<u>\$ (31,210)</u>	<u>\$ (1,352)</u>	<u>\$ (32,562)</u>	<u>\$ (113,571)</u>
December 31, 1999					
Pension liability adjustment	\$ (8,386)	\$ 6,177	\$ (2,834)	\$ 3,343	\$ (5,043)
Currency translation adjustment	587	(76,553)	-	(76,553)	(75,966)
	<u>\$ (7,799)</u>	<u>\$ (70,376)</u>	<u>\$ (2,834)</u>	<u>\$ (73,210)</u>	<u>\$ (81,009)</u>

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**9. Pensions and Other Postretirement Benefits**

The Company maintains several defined benefit pension and nonpension postretirement plans which cover substantially all full-time U.S. employees. The U.S. pension plans of General Semiconductor are included as of November 2, 2001. The following table sets forth a reconciliation of the benefit obligation, plan assets, and accrued benefit cost related to these plans:

	<b>Pension Benefits</b>		<b>Other Benefits</b>	
	<b>2001</b>	<b>2000</b>	<b>2001</b>	<b>2000</b>
	<i>(In thousands)</i>			
Change in benefit obligation:				
Benefit obligation at beginning of year	\$ 116,008	\$ 104,447	\$ 7,964	\$ 7,331
Service cost	3,092	2,528	240	225
Interest cost	9,023	7,858	678	545
Employee contributions	2,019	2,067	-	-
Actuarial losses (gains)	(169)	6,152	325	104
Plan amendments	-	-	-	314
Benefits paid	(7,565)	(7,044)	(523)	(555)
Acquisition of General Semiconductor	70,865	-	11,602	-
Benefit obligation at end of year	<u>\$ 193,273</u>	<u>\$ 116,008</u>	<u>\$ 20,286</u>	<u>\$ 7,964</u>
Change in plan assets:				
Fair value of plan assets at beginning of year	\$ 102,918	\$ 99,440		
Actual return on plan assets	(1,078)	2,982		
Company contributions	5,113	5,473		
Plan participants' contributions	2,019	2,067		
Benefits paid	(7,565)	(7,044)		
Acquisition of General Semiconductor	63,779	-		
Fair value of plan assets at end of year	<u>\$ 165,186</u>	<u>\$ 102,918</u>		
Funded status	\$ (28,087)	\$ (13,090)	\$ (20,286)	\$ (7,964)
Unrecognized net actuarial loss (gain)	26,812	15,772	(671)	(187)
Unrecognized transition obligation (asset)	(302)	(193)	2,128	2,322
Unamortized prior service cost	-	8	639	732
Additional minimum liability	(8,864)	-	-	-
Net amount recognized	<u>\$ (10,441)</u>	<u>\$ 2,497</u>	<u>\$ (18,190)</u>	<u>\$ (5,097)</u>

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**9. Pensions and Other Postretirement Benefits (continued)**

	<b>Pension Benefits</b>		<b>Other Benefits</b>	
	<b>2001</b>	<b>2000</b>	<b>2001</b>	<b>2000</b>
	<i>(In thousands)</i>			
Amounts recognized in the consolidated balance sheets consist of:				
Prepaid benefit cost	\$ —	\$ 7,018	\$ —	\$ —
Accrued benefit liability	(19,305)	(4,521)	(18,190)	(5,097)
Accumulated other comprehensive loss	8,864	—	—	—
Net amount recognized	<u>\$ (10,441)</u>	<u>\$ 2,497</u>	<u>\$ (18,190)</u>	<u>\$ (5,097)</u>
Weighted-average assumptions as of December 31:				
Discount rate	7.25%	7.25%	7.25%	7.25%
Expected return on plan assets	8.50%-9.50%	8.50%-9.50%		
Rate of compensation increase	4.50%	4.50%		

	<b>Pension Benefits</b>			<b>Other Benefits</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>					
Components of net periodic benefit cost:						
Annual service cost	\$ 5,388	\$ 4,595	\$ 5,255	\$ 240	\$ 225	\$ 264
Less expected employee contributions	2,296	2,067	1,959	—	—	—
Net service cost	3,092	2,528	3,296	240	225	264
Interest cost	9,023	7,858	6,981	678	545	496
Expected return on plan assets	(10,048)	(8,703)	(8,259)	—	—	—
Amortization of prior service cost	6	67	98	93	93	31
Amortization of transition obligation	311	110	110	194	194	214
Amortization of (gains) losses	514	556	461	—	(17)	6
Net periodic benefit cost	<u>\$ 2,898</u>	<u>\$ 2,416</u>	<u>\$ 2,687</u>	<u>\$ 1,205</u>	<u>\$ 1,040</u>	<u>\$ 1,011</u>

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**9. Pensions and Other Postretirement Benefits (continued)**

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the pension plans with accumulated benefit obligations in excess of plan assets were \$121,472,000, \$107,553,000, and \$99,210,000, respectively, as of December 31, 2001 and \$21,829,000, \$21,355,000, and \$15,899,000, respectively, as of December 31, 2000.

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the pension plans with projected benefit obligations in excess of plan assets were \$121,472,000, \$107,553,000, and \$99,210,000, respectively, as of December 31, 2001 and \$116,008,000, \$102,340,000, and \$102,918,000, respectively, as of December 31, 2000.

The Company maintains two unfunded nonpension postretirement plans funded as costs are incurred. One plan, which covers the Company's employees, is contributory, with employee contributions adjusted for general inflation or inflation in costs under the plan. The plan was amended in 1993 to cap employer contributions at 1993 levels. The second plan covers all full-time U.S. General Semiconductor employees not covered by a collective bargaining agreement who meet defined age and service requirements. This plan is the primary provider of benefits for retirees up to age 65, after which Medicare becomes the primary provider. The impact of a one-percentage-point change in assumed health care cost trend rates on the net periodic benefit cost and postretirement benefit obligation is immaterial.

Many of the Company's U.S. employees are eligible to participate in 401(k) savings plans, some of which provide for Company matching under various formulas. The Company's matching expense for the plans was \$3,182,000, \$3,161,000, and \$3,196,000 for the years ended December 31, 2001, 2000, and 1999, respectively.

The Company provides pension and similar benefits to employees of certain foreign subsidiaries consistent with local practices. German subsidiaries of the Company have defined benefit pension plans. The German pension plans of General Semiconductor are included as of November 2, 2001. The following table sets forth a reconciliation of the benefit obligation, plan assets, and accrued benefit cost related to the German plans:

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**9. Pensions and Other Postretirement Benefits (continued)**

	<b>2001</b>	<b>2000</b>
	<i>(In thousands)</i>	
Change in benefit obligation:		
Benefit obligation at beginning of year	\$ 90,548	\$ 98,108
Service cost	391	440
Interest cost	5,301	5,755
Actuarial gains	(26)	(915)
Benefits paid	(4,845)	(4,871)
Foreign currency translation	(3,845)	(7,969)
Acquisition of General Semiconductor	5,873	—
Benefit obligation at end of year	\$ 93,397	\$ 90,548
Change in plan assets:		
Fair value of plan assets at beginning of year	\$ 13,417	\$ 13,726
Actual return on plan assets	1,019	677
Company contributions	1,947	2,408
Benefits paid	(2,440)	(2,514)
Foreign currency translation	(806)	(880)
Fair value of plan assets at end of year	\$ 13,137	\$ 13,417
Funded status	\$ (80,260)	\$ (77,131)
Unrecognized net actuarial losses	1,560	4,347
Unrecognized transition asset	18	(9)
Unamortized prior service cost	(6)	58
Net amount recognized	\$ (78,688)	\$ (72,735)

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**9. Pensions and Other Postretirement Benefits (continued)**

	<b>2001</b>	<b>2000</b>
	<i>(In thousands)</i>	
Amounts recognized in the consolidated balance sheets consist of:		
Accrued benefit liability	\$ (84,298)	\$ (78,742)
Accumulated other comprehensive income	5,610	6,007
Net amount recognized	<u>\$ (78,688)</u>	<u>\$ (72,735)</u>
Weighted-average assumptions as of December 31:		
Discount rate	6.50%	6.50%
Rate of compensation increase	3.00%	3.00%

	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>		
Components of net periodic benefit cost:			
Service cost	\$ 391	\$ 440	\$ 554
Interest cost	5,301	5,755	6,501
Expected return on plan assets	(444)	(440)	(488)
Amortization of prior service cost	36	45	65
Amortization of transition asset	(3)	(4)	(6)
Amortization of losses	97	151	250
Net periodic benefit cost	<u>\$ 5,378</u>	<u>\$ 5,947</u>	<u>\$ 6,876</u>

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the German pension plans with accumulated benefit obligations and projected benefit obligations in excess of plan assets were \$81,463,000, \$81,646,000, and \$13,137,000, respectively, as of December 31, 2001 and \$90,548,000, \$89,064,000, and \$13,417,000, respectively, as of December 31, 2000.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**10. Stock Options**

The Company has three stock option programs. Under the 1995 Stock Option Program, certain key executives of the Company were granted options on March 19, 1995, to purchase 2,283,000 shares of the Company's Common Stock. The options were fully vested on the date of grant and expired March 1, 2000, with one-third exercisable at \$12.21, one-third exercisable at \$15.36, and one-third exercisable at \$21.94. As of December 31, 2000, options to purchase 2,010,000 shares had been exercised under this plan and the remaining options had been canceled.

Under the 1997 Stock Option Program, certain executive officers, key employees, and consultants of the Company were granted options on May 21, 1998, to purchase 2,687,000 shares of the Company's Common Stock. The options were fully vested on the date of grant and expire June 1, 2008, with one-third exercisable at \$10.89, one-third exercisable at \$12.53, and one-third exercisable at \$13.61. As of December 31, 2001, options to purchase 528,000 shares have been exercised under this plan.

Under the 1998 Stock Option Program, certain executive officers and key employees were granted options, as summarized in the following table:

<b>Date of Grant</b>	<b># of Options</b>	<b>Exercise Price</b>	<b>Vesting</b>	<b>Expiration</b>
October 6, 1998	1,598,000	\$ 5.60	Evenly over 6 years	March 16, 2008
October 8, 1999	1,334,000	15.33	Evenly over 6 years	October 8, 2009
August 4, 2000	50,000	30.00	Evenly over 5 years, beginning August 4, 2003	August 4, 2010
October 12, 2000	1,114,000	25.13	Evenly over 6 years	October 12, 2010

On May 18, 2000, the stockholders of the Company approved an increase in the number of shares available for grant under Vishay's 1998 Stock Option Program. As a result, the number of shares available for grant under this program increased from 2,953,500 to 4,453,500. As of December 31, 2001, options to purchase 278,000 shares have been exercised under this plan.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**10. Stock Options (continued)**

On November 2, 2001, Vishay acquired General Semiconductor and General Semiconductor became a wholly owned subsidiary of the Company. As a result of the acquisition, each outstanding option to acquire General Semiconductor common stock became exercisable for shares of Vishay Common Stock. Based on the conversion ratio in the acquisition of 0.563 of a Vishay share for each General Semiconductor share, the former General Semiconductor options become exercisable in the aggregate for 4,282,000 shares of Vishay Common Stock. All such options were immediately vested and exercisable as a result of the merger but the terms of the options otherwise remained unchanged.

The following table summarizes the Company's stock option activity (*options in thousands*):

	2001		2000		1999	
	Number of Options	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price
Outstanding at beginning of year	5,646	\$14.29	7,493	\$12.67	6,295	\$11.96
Granted	—	—	1,164	25.34	1,334	15.33
Exercised	(86)	9.99	(2,656)	15.08	(88)	5.60
Forfeited	—	—	—	—	—	—
Canceled	(273)	17.82	(355)	10.41	(48)	6.05
Acquisition of General Semiconductor	4,282	18.10	—	—	—	—
Outstanding at end of year	<u>9,569</u>	15.97	<u>5,646</u>	14.29	<u>7,493</u>	12.67
Exercisable at end of year	<u>7,358</u>	15.74	<u>2,651</u>	11.96	<u>4,866</u>	13.83
Available for future grants	<u>958</u>		<u>760</u>		<u>69</u>	

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**10. Stock Options (continued)**

The following table summarizes information concerning stock options outstanding and exercisable at December 31, 2001 (*options in thousands*):

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number of Options	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price
\$2.64	3	2.57	\$ 2.64	3	\$ 2.64
\$5.60	1,039	6.76	5.60	445	5.60
\$10.89 - \$12.53	1,289	6.39	11.76	1,289	11.76
\$12.54 - \$13.61	1,387	6.36	13.23	1,387	13.23
\$14.32 - \$14.99	93	2.34	14.43	93	14.43
\$15.33	1,097	7.77	15.33	362	15.33
\$15.43 - \$16.41	1,394	8.56	15.97	1,394	15.97
\$16.52 - \$20.86	1,368	6.87	18.95	1,368	18.95
\$21.43 - \$24.30	593	4.20	22.42	593	22.42
\$25.13 - \$34.52	1,306	8.50	25.91	424	26.96
Total	<u>9,569</u>	7.08	\$15.97	<u>7,358</u>	\$15.74

The following is provided to comply with the disclosure requirements of SFAS No. 123. If compensation cost for the Company's stock option programs had been determined using the fair-value method prescribed by SFAS No. 123, the Company's results would have been reduced to the pro forma amounts indicated below (*in thousands, except per share amounts*):

	Year ended December 31		
	2001	2000	1999
Net earnings	\$(3,229)	\$515,296	\$82,103
Basic earnings per share	(0.02)	3.81	0.65
Diluted earnings per share	(0.02)	3.75	0.64

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**10. Stock Options (continued)**

The weighted average fair value of the options granted was estimated using the Black-Scholes option pricing model, with the assumptions presented below. All options granted in 2000 had a weighted average fair value of \$11.64 and a weighted average exercise price of \$25.34. All options granted in 1999 had an exercise price equal to the market value and a weighted average fair value of \$6.21.

	<u>2000</u>	<u>1999</u>
	<u>1998 Stock Option Program</u>	<u>1998 Stock Option Program</u>
Expected dividend yield	–	–
Risk-free interest rate	5.8%	6.0%
Expected volatility	58.2%	51.3%
Expected life (in years)	4.7	4.5

**11. Commitments and Contingencies**

Total rental expense under operating leases was \$22,994,000, \$21,431,000, and \$21,390,000 for the years ended December 31, 2001, 2000, and 1999, respectively.

Future minimum lease payments for operating leases with initial or remaining noncancelable lease terms in excess of one year are as follows: 2002 – \$19,252,000; 2003 – \$17,230,000; 2004 – \$12,904,000; 2005 – \$11,007,000; 2006 – \$10,465,000; and thereafter – \$42,507,000.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**11. Commitments and Contingencies (continued)**

**Environmental Matters**

The Company is subject to various federal, state, local and foreign laws and regulations governing environmental matters, including the use, discharge and disposal of hazardous materials. The Company's manufacturing facilities are believed to be in substantial compliance with current laws and regulations. Complying with current laws and regulations has not had a material adverse effect on the Company's financial condition. As part of the acquisition of General Semiconductor by Vishay on November 2, 2001, the Company assumed ongoing environmental matters.

The Company has engaged independent consultants to assist management in evaluating potential liabilities related to environmental matters. Management assesses the input from these independent consultants along with other information known to the Company in its effort to continually monitor these potential liabilities. Management assesses its environmental exposure on a site-by-site basis, including those sites where the Company has been named as a "potentially responsible party." Such assessments include the Company's share of remediation costs, information known to the Company concerning the size of the hazardous waste sites, their years of operation and the number of past users and their financial viability. The Company has a reserve recorded at December 31, 2001 for environmental matters relating to General Semiconductor. While the ultimate outcome of these matters cannot be determined, management does not believe that the final disposition of these matters will have a material adverse effect on the Company's financial position, results of operations, or cash flows beyond the amounts previously provided for in the financial statements.

The Company's present and past facilities have been in operation for many years, and over that time in the course of those operations, such facilities have used substances which are or might be considered hazardous, and the Company has generated and disposed of wastes which are or might be considered hazardous. Therefore, it is possible that additional environmental issues may arise in the future, which the Company cannot now predict.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**11. Commitments and Contingencies (continued)**

**Litigation**

In February and March 2001, several purported class action complaints were filed in the Delaware Court of Chancery and the California Superior Court against the Company, Siliconix and the directors of Siliconix in connection with a proposal announced by the Company in February 2001 to purchase all issued and outstanding shares of Siliconix that the Company did not already own. The class actions alleged that the Company's proposed offer was unfair and a breach of fiduciary duty. One of the Delaware class actions also alleged that the Company had usurped Siliconix inventory and patents, appropriated Siliconix's separate corporate identity, and obtained a below-market loan from Siliconix. The actions sought injunctive relief, damages and other relief. The Delaware Chancery Court denied a preliminary injunction motion seeking to enjoin the Company's tender offer, which was commenced in May 2001 but not successfully completed. Motions of the Company and Siliconix to dismiss the actions in Delaware and for summary judgment are pending. The actions in California have been stayed.

The Company is not a party to any other pending legal proceedings other than various claims and lawsuits arising in the normal course of business and those for which the Company is indemnified. The Company is of the opinion that these litigations or claims will not have a material negative effect on its consolidated financial position, results of operations, or cash flows.

**12. Financial Instruments**

The Company uses financial instruments in the normal course of its business, including derivative financial instruments, for purposes other than trading. These financial instruments include debt and interest rate swap agreements. The notional or contractual amounts of these commitments and other financial instruments are discussed below.

**Concentration of Credit Risk**

Financial instruments with potential credit risk consist principally of cash and cash equivalents and accounts receivable. The Company maintains cash and cash equivalents with various major financial institutions. Concentrations of credit risk with respect to receivables are generally limited due to the Company's large number of customers and their dispersion across many countries and industries. At December 31, 2001, the Company had no significant concentrations of credit risk. At December 31, 2000, the Company had one customer that represented 13.7% of accounts receivable. The customer's accounts receivable balance has been collected as of December 31, 2001.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**12. Financial Instruments (continued)**

**Interest Rate Swap Agreements**

In August 1998, the Company entered into six interest rate swap agreements, maturing in 2003, with a total notional amount of \$300,000,000 to manage interest rate risk related to its multicurrency revolving line of credit. These interest rate swap agreements required the Company to make payments to the counterparties at the fixed rate stated in the agreements, and in return to receive payments from the counterparties at variable rates. During fiscal 2000, the Company terminated \$200,000,000 notional amount of interest rate swap agreements and recognized a pretax gain of \$8,919,000. At December 31, 2001, the Company had outstanding one interest rate swap agreement with a notional amount of \$100,000,000. At December 31, 2001 and 2000, the Company paid a weighted average fixed rate of 5.77%, respectively, and received a weighted average variable rate of 1.93% and 6.66%, respectively. The fair value of the interest rate swap agreements, based on current market rates, approximated a net payable of \$4,686,000 at December 31, 2001 and a net receivable of \$51,000 at December 31, 2000. During the year ended December 31, 2001, the Company recorded a pretax loss of \$3,668,000 relating to an ineffective hedge for a portion of time relating to an interest rate swap agreement (see Note 7).

**Cash and Cash Equivalents, Notes Payable, and Long-Term Debt**

The carrying amounts reported in the consolidated balance sheets approximate fair value.

**13. Current Vulnerability Due to Certain Concentrations**

**Customer Concentrations**

A material portion of the Company's revenues are derived from the worldwide communications and computer markets. These markets have historically experienced wide variations in demand for end products. If demand for these end products should decrease significantly, the producers thereof could reduce their purchases of the Company's products, which could have a material adverse effect on the Company's results of operations and financial position.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**13. Current Vulnerability Due to Certain Concentrations (continued)**

**Sources of Supply**

Although most materials incorporated in the Company's products are available from a number of sources, certain materials (particularly tantalum and palladium) are available only from a relatively limited number of suppliers.

Many of Vishay's products require the use of raw materials that are produced in only a limited number of regions around the world or are available from only a limited number of suppliers. Vishay's results of operations may be materially and adversely affected if Vishay has difficulty obtaining these raw materials, the quality of available raw materials deteriorates or there are significant price increases for these raw materials. For example, the prices for tantalum and palladium, two raw materials that Vishay uses in its capacitors, are subject to fluctuation. For periods in which the prices of these raw materials are rising, Vishay may be unable to pass on the increased cost to Vishay's customers, which would result in decreased margins for the products in which they are used. For periods in which the prices are declining, Vishay may be required to write down its inventory carrying cost of these raw materials which, depending on the extent of the difference between market price and its carrying cost, could have a material adverse effect on Vishay's net earnings.

Vishay is a major consumer of the world's annual production of tantalum. Tantalum, a metal purchased in powder or wire form, is the principal material used in the manufacture of tantalum capacitors. There are currently three major suppliers that process tantalum ore into capacitor grade tantalum powder. Due to the strong demand for its tantalum capacitors and difficulty in obtaining sufficient quantities of tantalum powder from its suppliers, Vishay stockpiled tantalum ore in 2000 and early 2001. During the year ended December 31, 2001, Vishay experienced a significant decrease in sales due to declining orders and the deferral or cancellation of existing orders. Vishay's tantalum capacitor business was particularly impacted by the slowdown in sales. Prices for tantalum ore and powder decreased during this period. As a result, Vishay recorded in costs of products sold writedowns of \$52,000,000 on tantalum inventories during the year ended December 31, 2001. If the downward pricing trend were to continue, Vishay could again be required to write down the carrying amount of its inventory of tantalum ore. In addition, during the period of shortage, the Company entered into long-term take or pay contracts to purchase specified quantities of tantalum powder and wire at fixed prices through 2005. Under the terms of these contracts, the tantalum purchase commitments are approximately \$145,000,000 for 2002 and approximately \$150,000,000 annually

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**13. Current Vulnerability Due to Certain Concentrations (continued)**

**Sources of Supply (continued)**

for 2003 through 2005. The fixed prices under these contracts may exceed the market price at various times during the term of the contracts. Also, the quantities of powder and wire committed to under the contracts may exceed the Company's production demands. In addition, Vishay may make purchases of tantalum from its other suppliers at prices that are subject to periodic adjustment. Any of these factors could have a material adverse effect on Vishay's net earnings.

Palladium, a metal used to produce multi-layer ceramic capacitors, is currently found primarily in South Africa and Russia. Palladium is a commodity product that is subject to price volatility. The price of palladium fluctuated in the range of approximately \$201 to \$1,110 per troy ounce during the three years ended December 31, 2001, and as of December 31, 2001, the price of palladium was \$446 per troy ounce. During the year ended December 31, 2001, the Company recorded in costs of products sold a writedown of \$18,000,000 on palladium inventories.

From time to time there have been short-term market shortages of raw material utilized by Vishay. While these shortages have not historically adversely affected Vishay's ability to increase production of products containing tantalum and palladium, they have historically resulted in higher raw material cost for Vishay. Vishay cannot assure that any of these market shortages in the future would not adversely affect Vishay's ability to increase production, particularly during periods of growing demand for Vishay's products.

**Geographic Concentration**

To address the increasing demand for its products and to lower its costs, the Company has expanded, and plans to continue to expand, its manufacturing operations in Israel in order to take advantage of that country's lower wage rates, highly skilled labor force, government-sponsored grants, and various tax abatement programs. Israeli incentive programs have contributed substantially to the growth and profitability of the Company. The Company might be materially and adversely affected if these incentive programs were no longer available to the Company or if events were to occur in the Middle East that materially interfered with the Company's operations in Israel.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**14. Business Segment and Geographic Area Data**

Vishay designs, manufactures, and markets electronic components that cover a wide range of products and technologies. The Company has two reportable segments: Passive Electronic Components (Passives) consisting principally of fixed resistors, solid tantalum surface mount chip capacitors, solid tantalum leaded capacitors, wet/foil tantalum capacitors, multi-layer ceramic chip capacitors, film capacitors and inductors, and Active Electronic Components (Actives) consisting principally of diodes, transistors, power MOSFETS, power conversion, motor control integrated circuits, optoelectronic components and IRDCs.

The Company evaluates performance and allocates resources based on several factors, of which the primary financial measure is business segment operating income excluding amortization of intangibles and special charges. The accounting policies of the business segments are the same as those described in the summary of significant accounting policies (see Note 1). The operating results of Actives reflect the acquisitions of General Semiconductor as of November 2, 2001 and Infineon U.S. as of July 27, 2001, and include LPSC from July 1, 1997 through its divestiture in 2000. Business segment assets are the owned or allocated assets used by each business.

The corporate component of operating income represents corporate selling, general, and administrative expenses. Corporate assets include corporate cash, property, plant, and equipment, and certain other assets.

During the year 2000, one North American distributor accounted for 14% of total net sales. During the years 2001 and 1999, no individual customer accounted for more than 10% of net sales.

Vishay Intertechnology, Inc.

Notes to Consolidated Financial Statements (continued)

14. Business Segment and Geographic Area Data (continued)

	2001	2000	1999
	<i>(In thousands)</i>		
<b>Business segment information</b>			
Net sales:			
Passives	\$ 1,010,634	\$ 1,627,860	\$ 1,008,266
Actives	644,712	837,206	751,825
	<u>\$ 1,655,346</u>	<u>\$ 2,465,066</u>	<u>\$ 1,760,091</u>
Operating income:			
Passives	\$ 60,137	\$ 547,156	\$ 104,655
Actives	65,181	204,640	119,510
Corporate	(21,970)	(43,829)	(18,061)
Restructuring expense	(61,908)	-	-
Purchased research and development	(16,000)	-	-
Amortization of goodwill	(11,190)	(11,469)	(12,360)
	<u>\$ 14,250</u>	<u>\$ 696,498</u>	<u>\$ 193,744</u>
Depreciation expense:			
Passives	\$ 83,735	\$ 73,803	\$ 75,798
Actives	61,238	52,250	49,826
Corporate	4,252	232	223
	<u>\$ 149,225</u>	<u>\$ 126,285</u>	<u>\$ 125,847</u>
Total assets:			
Passives	\$ 1,876,282	\$ 1,931,610	\$ 1,429,177
Actives	1,980,841	809,360	882,296
Corporate	94,400	42,688	12,308
	<u>\$ 3,951,523</u>	<u>\$ 2,783,658</u>	<u>\$ 2,323,781</u>
Capital expenditures:			
Passives	\$ 91,028	\$ 131,318	\$ 52,903
Actives	68,463	95,343	61,409
Corporate	3,002	3,120	5,326
	<u>\$ 162,493</u>	<u>\$ 229,781</u>	<u>\$ 119,638</u>

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**14. Business Segment and Geographic Area Data (continued)**

The amount of investment in equity method investees included in the Actives total assets above was \$0, \$0, and \$12,495,000 for 2001, 2000, and 1999, respectively.

The following geographic area data include net sales based on revenues generated by subsidiaries located within that geographic area and property, plant, and equipment based on physical location:

	<b>2001</b>	<b>2000</b>	<b>1999</b>
	<i>(In thousands)</i>		
<b>Geographic area information</b>			
Net sales:			
United States	\$ 638,326	\$ 1,034,985	\$ 706,049
Germany	452,839	678,398	574,629
Asia Pacific	315,550	279,645	273,921
France	85,046	85,686	88,975
Israel	32,646	296,704	20,290
Other	130,939	89,648	96,227
	\$ 1,655,346	\$ 2,465,066	\$ 1,760,091
Property, plant, and equipment – net:			
United States	\$ 345,602	\$ 355,291	\$ 333,594
Germany	116,435	116,910	127,727
Israel	351,375	317,840	268,916
Asia Pacific	221,819	77,337	97,060
France	33,745	24,272	25,758
Other	98,557	81,904	77,490
	\$ 1,167,533	\$ 973,554	\$ 930,545

**15. Earnings per Share**

Basic earnings per share is computed using the weighted average number of common shares outstanding during the periods presented. Diluted earnings per share is computed using the weighted average number of common shares outstanding adjusted to include the potentially dilutive effect of stock options granted under the Company's 1995, 1997, and 1998 stock option plans (see Note 10), stock appreciation rights issued in connection with the LPSC acquisition (see Note 6), and other potentially dilutive securities.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**15. Earnings per Share (continued)**

The following table sets forth the computation of basic and diluted earnings per share (*in thousands, except per share amounts*):

	Year ended December 31		
	2001	2000	1999
<b>Numerator:</b>			
Numerator for basic earnings per share – net income	\$ 513	\$ 517,864	\$ 83,237
<b>Denominator:</b>			
Denominator for basic earnings per share – weighted average shares	141,171	135,295	126,678
Effect of dilutive securities:			
Employee stock options	1,201	1,831	809
Stock appreciation rights	–	144	567
Other	142	193	179
Dilutive potential common shares	1,343	2,168	1,555
Denominator for diluted earnings per share – adjusted weighted average shares	142,514	137,463	128,233
Basic earnings per share	\$ 0.00	\$ 3.83	\$ 0.66
Diluted earnings per share	\$ 0.00	\$ 3.77	\$ 0.65

For the years ended December 31, 2001, 2000, and 1999, respectively, options to purchase 1,164,000 shares of common stock at prices ranging from \$25.13 to \$30.00 per share, 1,114,000 shares of common stock at \$25.13 per share, and 716,000 shares of common stock at \$21.94 per share were not included in the computation of diluted earnings per share because the options' exercise prices were greater than the average market price of the common shares.

Vishay Intertechnology, Inc.

Notes to Consolidated Financial Statements (continued)

16. Summary of Quarterly Financial Information (Unaudited)

Quarterly financial information for the years ended December 31, 2001 and 2000 is as follows (in thousands, except per share amounts) :

	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Total Year	
	2001	2000	2001	2000	2001 <sup>(1)</sup>	2000	2001 <sup>(1)(2)</sup>	2000	2001 <sup>(1)(2)</sup>	2000
Net sales	\$ 558,465	\$ 538,894	\$ 383,437	\$ 612,771	\$ 332,293	\$ 669,784	\$ 381,151	\$ 643,617	\$ 1,655,346	\$ 2,465,066
Gross profit	198,854	187,716	101,051	254,096	29,388	299,376	52,226	264,094	381,519	1,005,282
Net earnings (loss)	90,126	74,271	3,126	131,853	(39,152)	171,111	(53,587)	140,629	513	517,864
Basic earnings (loss) per share	\$ 0.65	\$ 0.57	\$ 0.02	\$ 0.97	\$ (0.28)	\$ 1.24	\$ (0.35)	\$ 1.02	\$ 0.00	\$ 3.83
Diluted earnings (loss) per share	\$ 0.65	\$ 0.56	\$ 0.02	\$ 0.96	\$ (0.28)	\$ 1.22	\$ (0.35)	\$ 1.01	\$ 0.00	\$ 3.77

(1) Includes the results of Infineon U.S. from July 27, 2001.

(2) Includes the results of General Semiconductor from November 2, 2001 and Mallory from November 7, 2001.

**Vishay Intertechnology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**17. Subsequent Events**

On January 31, 2002, the Company announced the acquisition of the transducer and strain gage businesses of Sensortronics, Inc. Sensortronics is a leading manufacturer of load cells and torque transducers for domestic and international customers in a wide range of industries with manufacturing facilities in Covina, California, Costa Rica, and India. The acquisition includes the wholly owned subsidiary of Sensortronics, JP Technologies, a manufacturer of strain gages, located in San Bernardino, California. In the calendar year ended December 31, 2001, the acquired businesses had sales of approximately \$16 million.

On February 13, 2002, a fire occurred at the Electro-Films, Inc. (EFI) facility located in Providence, Rhode Island causing a production stoppage of this product line. The Company is currently evaluating the extent of the damage and preparing a plan of recovery.

## CORPORATE INFORMATION



### VISHAY INTERTECHNOLOGY, INC.

#### Corporate Headquarters

Vishay Intertechnology, Inc.  
63 Lincoln Highway  
Malvern, PA 19355-2143 USA  
Phone 610-644-1300  
Fax 610-296-0657  
www.vishay.com

### CORPORATE OFFICERS

#### Dr. Felix Zandman

Chairman of the Board  
Chief Executive Officer

#### Avi D. Eden

Vice Chairman of the Board  
Executive Vice President, General Counsel

#### Dr. Gerald Paul

President  
Chief Operating Officer

#### Richard N. Grubb

Executive Vice President,  
Treasurer, Chief Financial Officer

#### Robert A. Freece

Senior Vice President

#### William J. Spires

Vice President, Secretary

### ANNUAL MEETING

May 23, 2002 at 10:30 a.m.  
Four Seasons Hotel  
South Ballroom  
Lobby Level  
One Logan Square  
Philadelphia, PA 19103

### BOARD OF DIRECTORS

#### Dr. Felix Zandman

Chairman of the Board  
Chief Executive Officer  
Vishay Intertechnology, Inc.

#### Avi D. Eden

Vice Chairman of the Board  
Executive Vice President, General Counsel  
Vishay Intertechnology, Inc.

#### Robert A. Freece

Senior Vice President  
Vishay Intertechnology, Inc.

#### Richard N. Grubb

Executive Vice President,  
Treasurer, Chief Financial Officer  
Vishay Intertechnology, Inc.

#### Eliyahu Hurvitz

President and Chief Executive Officer  
Teva Pharmaceutical Industries, Ltd.

#### Dr. Gerald Paul

President  
Chief Operating Officer  
Vishay Intertechnology, Inc.

#### Dr. Edward B. Shils

George W. Taylor Professor Emeritus of  
Entrepreneurial Studies  
The Wharton School  
University of Pennsylvania

#### Ziv Shoshani

Executive Vice President, Capacitor Group  
Vishay Intertechnology, Inc.

#### Mark I. Solomon

Founder and Chairman  
CMS Companies

#### Jean-Claude Tiné

Investor and  
Former Chairman of the Board  
Sfernice, S.A.

#### Marc Zandman

President  
Vishay Israel Ltd.

#### Ruta Zandman

Public Relations Associate  
Vishay Intertechnology, Inc.

### HONORARY CHAIRMAN OF THE BOARD

#### Alfred P. Slaner

(Deceased March 14, 1996)

### SHAREHOLDERS' INFORMATION

#### Independent Auditors

Ernst & Young LLP  
Philadelphia, PA

#### Transfer Agent and Registrar

American Stock Transfer & Trust Company  
40 Wall St., 46th Floor  
New York, NY 10055  
Phone: 800-937-5449

#### Stock Exchange Listings

New York Stock Exchange  
Symbol: VSH  
Midwest Stock Exchange  
Chicago Board of Options Exchange

#### Investor Relations Contact

Robert A. Freece  
Senior Vice President  
Vishay Intertechnology, Inc.  
Phone: 610-644-1300

### QUARTERLY REPORT MAILINGS

Shareholders owning Vishay stock indirectly (through a bank, broker, or nominee who is a registered holder) can receive our reports directly and promptly from the Company at the same time we mail to shareholders of record. To be placed on Vishay's mailing list, call 610-644-1300, extension 7483. Shareholders with access to the Internet can find quarterly reports, press releases, SEC filings, and all other financial documents at [www.vishay.com](http://www.vishay.com).

### SEC FORM 10-K

A copy of the Company's Form 10-K Annual Report for the year ended December 31, 2001, filed with the Securities and Exchange Commission, may be obtained by shareholders without charge by writing to the Investor Relations Department, Vishay Intertechnology, Inc., 63 Lincoln Highway, Malvern, PA 19355-2120 or through Vishay's website at [www.vishay.com](http://www.vishay.com).





VISHAY INTERTECHNOLOGY, INC.

**CORPORATE HEADQUARTERS**

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Malvern, PA 19355-2143  
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