VISHAY INTERTECHNOLOGY INC
Form 10-K/A
July 30, 2003

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K/A

[X] 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, 2002

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

63 Lincoln Highway
Malvern, Pennsylvania 19355-2143
(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 X No
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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. [X]

Indicate by check mark whether the registrant is an accelerated filer (as defined Exchange Act Rule 12b-2). Yes X No
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The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter, assuming conversion of all of its Class B common stock held by non-affiliates into common stock of the registrant, was $3,182,840,000.

As of March 27, 2003, registrant had 144,300,063 shares of its common stock and 15,383,296 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, 2002, 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, transducers and inductors. Active components include diodes, transistors, rectifiers, power integrated circuits (ICs), infrared transceivers, infrared (IR) sensors and optocouplers. Passive electronic components and discrete active electronic components are the primary elements of almost 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 and appliances,
- 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 the Czech Republic, Hungary, India, 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 costs and available tax and other government-sponsored incentives;

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;

5. consistency rolling out new and innovative products; and

6. strengthening our relationships with customers and strategic partners.

As a result of this strategy, we have grown from a small manufacturer of precision resistors and resistance 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, such as metal-oxide-semiconductor field-effect transistors (MOSFETs), junction field-effect transistors (JFETs), bipolar switches, signal processing ICs and power ICs 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 $372.9 million in 2002, $305.6 million in 2001, and $473.1 million in 2000.

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, optoelectronic semiconductors, infrared data transceivers (IRDCs) and light-emitting diodes (LEDs). 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 worldwide 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 Yosemite Investment, Inc. d/b/a 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 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 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 worldwide.

Sensortronics, Tedea-Huntleigh, BLH and Nobel, and Celtron. In January 2002, we acquired the transducer and strain gage business of Sensortronics, Inc. In June 2002, we acquired Tedea-Huntleigh BV, a leading manufacturer of load cells used in digital scales by the weighing industry. In July 2002, we purchased the BLH and Nobel businesses from Thermo Electron Corporation. BLH and Nobel are engaged in the production and sale of load cell based process weighing systems, weighing and batching instruments, web tension instruments, weighing scales, servo control systems, and components relating to load cells, including strain gages, foil gages and transducers. In October 2002, we acquired Celtron Technologies, another company engaged in the production and sale of load cells used in digital scales for the weighing industry. As a result of these acquisitions, the product portfolio of our Measurements Group has been expanded and we are now a world leader in stress analysis products and transducers used in the weighing industry (load cells).

BCcomponents. In December 2002, we completed the acquisition of BCcomponents Holdings B.V., a leading manufacturer of passive components with operations in Europe, India and the People's Republic of China. The product lines of BCcomponents include linear and non-linear resistors; ceramic, film and aluminum electrolytic capacitors; switches and trimming potentiometers. BCcomponents had annual sales in 2001 of approximately $320 million. We acquired the outstanding shares of BCcomponents in exchange for ten-year warrants to acquire 7,000,000 shares of Vishay common stock at an exercise price of $20.00 per share and ten-year warrants to acquire 1,823,529 shares of Vishay common stock at an exercise price of $30.30 per share. In the transaction, outstanding obligations of BCcomponents, including indebtedness, transaction fees and expenses in the amount of approximately $224 million were paid or assumed. Also, $105 million in principal amount of BCcomponents' mezzanine indebtedness and

certain other securities of BCcomponents were exchanged for $105 million principal amount of floating rate unsecured loan notes of Vishay due 2102. This major acquisition has significantly enhanced our global market position in passive components.

In addition to our acquisition activity, during 2002 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 1,400 employees; or a reduction of approximately 7%;

(iii) integrated our acquisitions within our existing management and operational infrastructure; and

(iv) 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 19355-2143. 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:

- resistors,
- tantalum capacitors,
- multi-layer and disc ceramic capacitors (MLCCs),
- aluminum and specialty ceramic capacitors,
- film capacitors,
- power MOSFETs,
- power ICs,
- signal processing ICs,
- transistors,
- voltage suppressors,
- infrared data transceivers (IRDCs),
- optocouplers,
- IR sensors,
- strain gages and load cells, and
- diodes and rectifiers

and, to a lesser extent:

- inductors,
- connectors,
- 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 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 solid tantalum surface mount chip capacitors, solid tantalum leaded capacitors, wet/foil tantalum capacitors, MLCC capacitors, disc ceramic capacitors, aluminum and specialty ceramic 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. Disc ceramic capacitors are used for high voltage applications. Aluminum capacitors are used for high capacitance applications.

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.

As a result of Vishay's acquisitions in 2002, the Measurements Group has implemented a strategy of vertical market integration, with a product range from resistance strain gages, to transducers (the metallic structures to which strain gages are cemented), to the electronic instruments and systems that measure and control output of the transducers. Vishay Measurements Group now has two operating divisions: Vishay Micro-Measurements (for strain gages, instruments and PhotoStress products) and Vishay Transducers (for load cells, weigh modules, instruments and weighing systems).

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 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 infrared components business acquired from Infineon A.G.

Discrete Devices

Diodes and 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 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 cell 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, IRDCs and LEDs.

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.

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). LEDs are light emitting diodes used as light indicators in a variety of industries.

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, as well as on both sides of the board. This is particularly desirable in applications such as hand held computers and cell phones where there is a continuing design trend towards product miniaturization. Surface mounting also facilitates automated product assembly, 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),
- wirewound chip resistors,
- power strip resistors,
- bulk metal foil chip resistors,

- molded tantalum chip capacitors,
- coated tantalum chip capacitors,
- multi-layer ceramic chip capacitors,
- thin film chip resistors,
- thin film networks,
- certain diodes and transistor products,
- current sensing chips,
- chip inductors,
- chip transformers,
- chip trimmers,
- NTC chip thermistors,
- PTC chip thermistors, and
- strain gages.

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), electronic manufacturing services (EMS) companies, which manufacture for OEMs on an outsourcing basis, 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 United States, Germany, France, the United Kingdom and more recently, Asia. 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 2002, no one customer accounted for more than 10% of our sales.

During 2002, approximately 31% of our net sales were attributable to customers in the Americas, approximately 31% were attributable to customers in Europe, and approximately 38% were attributable to customers in 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 worldwide.

Research and Development

Many of our products and manufacturing techniques, technologies and packaging methods 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 predominantly in the United States, France, Germany, Israel, the People's Republic of China, the Republic of China (Taiwan) and South Korea.

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 $37.1 million for 2002,

$30.2 million for 2001, and $37.1 million for 2000. These amounts include expenditures of our Siliconix subsidiary of $19.3 million, $17.2 million and $21.0 million in 2002, 2001 and 2000, 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.

Tantalum

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 2001 and 2002, we and our competitors experienced a significant decline in the tantalum capacitor business as well as significant decreases in the market prices for tantalum. As a result, we recorded in costs of products sold write-downs of $25,700,000 and $52,000,000, respectively, on tantalum inventories during the years ended December 31, 2002 and 2001. We also recorded a loss on future purchase commitments of $106,000,000 for the year ended December 31, 2002. If the downward pricing trend were to continue, the Company could again be required to write down the carrying value of its tantalum inventory and record additional losses on its long-term purchase commitments.

We have two agreements with Cabot Corporation for the supply of tantalum powder, a July 2000 agreement and a November 2000 agreement. Our purchase commitments with Cabot were entered into at a time when market demand for tantalum capacitors was high and tantalum powder was in short supply. With the decline in market demand and prices for tantalum, we began the process of negotiating modifications to the agreements with Cabot during 2001. Our major competitors in the tantalum capacitor business were also seeking modifications to their contracts with Cabot. In June 2002, following the prior initiation of legal proceedings by Cabot, we and Cabot agreed to make certain modifications to the supply agreements. These included price reductions, the extension of the term of one of the contracts, and the regular scheduling of our purchase commitments.

Palladium

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 $222 to $1,090 per troy ounce during the three years ended December 31, 2002, and as of December 31, 2002, the price of palladium was $236 per troy ounce. During the years ended December 31, 2002 and 2001, respectively, we recorded in costs of products sold write-downs on palladium inventories of $1,700,000 and $18,000,000.

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 $407.6 million, $337.9 million and $773.1 million, respectively, at December 31, 2002, 2001 and 2000. The backlog at December 31, 2002 includes $49.8 million of backlog attributable to the business of BCcomponents, which was acquired in December 2002. The increase in backlog at December 31, 2002, exclusive of the business of BCcomponents, as compared to the prior year, primarily reflects the increase in demand during 2002 for our active components as a result of the increase in computer notebooks and feature rich cell phones with multiple functions, especially in Asia. The passive components backlog has decreased in 2002 due to a global slowdown in the electronics industry, particularly in the general 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 major competitors include 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, main competitors include 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 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 some 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, the United Kingdom, and more recently, Asia. To maximize production efficiencies, we seek whenever practicable to establish manufacturing facilities in countries, such as the Czech Republic, Hungary,

India, 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, 2002, approximately 32% of our identifiable assets were located in the United States, approximately 36% were located in Europe, approximately 14% were located in Israel, and approximately 18% were located in Asia. In the United States, our manufacturing facilities are located in California, Connecticut, Indiana, Maine, Maryland, New York, Nebraska, North Carolina, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin. In Europe, our main manufacturing facilities are located in Germany and France. We also have manufacturing facilities in Austria, Belgium, the Czech Republic, Hungary, India, Israel, Malaysia, Mexico, the Netherlands, 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 2002, we continued 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 skilled workforces and relatively lower labor costs. As a result, we incurred restructuring costs in the year ended December 31, 2002 associated with the downsizing of manufacturing facilities in Europe and the United States. We may continue to incur such expenses in 2003.

See Note 16 to our 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, 2002, sales of products manufactured in Israel accounted for approximately 13.0% 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 in 2001. In 2002, the Israeli government initially withheld certain grant monies claiming that we had not maintained employment at the required minimum levels; however, we were able to settle our dispute in the fourth quarter and the government agreed to continue making grant payments to us. 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 32 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 such 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.

General Semiconductor has also been named as a defendant in two actions in the United States District Court for the Eastern District of New York in connection with its former operations at a facility in Hicksville, New York. The plaintiffs in these actions allege that they have suffered personal injury and property damage as a result of the facility's operations. Although we will vigorously defend these actions, we do not currently possess sufficient information to estimate reasonably the amount of or timing of liabilities that may be associated with these litigations. It is our policy to record appropriate liabilities for environmental matters when damage claim payments are probable and the costs can be reasonably estimated.

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, 2002, we concluded that the best estimate within this range is $34.4 million, which is included in other long-term liabilities on the Consolidated Balance Sheet. Of this reserve, approximately $22.4 million is due to the acquisition of General Semiconductor, excluding any liability in connection with the litigation relating to the Hicksville, New York facility described above, approximately $7.6 million is due to the acquisition of BCcomponents and approximately $4.4 million is reserved for other miscellaneous environmental liabilities, primarily at our Vitramon subsidiary in the

United States. In view of our financial positions and reserves for environmental matters of $34.4 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, 2002, we employed approximately 25,250 full time employees, of whom approximately 20,730 were located outside the United States. Some of our employees outside the United States 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."

Company Information and Website

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934 (the Exchange Act). The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at http://www.sec.gov.

In addition, our company website can be found on the Internet at www.vishay.com. The website contains information about us and our operations. Copies of each of our filings with the SEC on Form 10-K, Form 10-Q and Form 8-K, and all amendments to those reports, can be viewed and downloaded free of charge as soon as reasonably practicable after the reports and amendments are electronically filed with or furnished to the SEC. To view the reports, access www.vishay.com, click on Company Info, then Investor Relations and then SEC Filings.

Any of the above documents can also be obtained in print by any shareholder who requests them from our Investor Relations Department at the following address:

Corporate Investor Relations
Vishay Intertechnology, Inc.
63 Lincoln Highway
Malvern, PA 19355-2143

Item 2. PROPERTIES

As of December 31, 2002, we maintained approximately 74 manufacturing facilities. The principal locations of such facilities, along with available space including administrative offices, are:

Owned Locations	Approx. Available Space (Square Feet)
United States	
Columbus and Norfolk, NE*	298,000
Sanford, ME	225,000

Santa Clara, CA	220,000
Grafton and Oconto, WI*	165,000
Wendell and Statesville, NC*	159,000
Monroe, CT	91,000
Greencastle, IN	90,000
Malvern, PA	79,000

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* 2 locations

Non-U.S.	
Israel (5 locations)	1,060,000
Germany (8 locations)	781,000
France (4 locations)	414,000
Republic of China (Taiwan) (2 locations)	391,000
Czech Republic (5 locations)	368,000
Hungary (2 locations)	325,000
Portugal	301,000
Netherlands	286,000
People's Republic of China (2 locations)	211,000
Belgium (2 locations)	180,000
Austria	153,000
Philippines	149,000
India	140,000
Malaysia	115,000

We own an additional 288,000 square feet of manufacturing facilities located in Maryland, New York, Rhode Island, South Dakota, Vermont and Mexico.

Leased facilities in the United States include 217,000 square feet of space located in California, Massachusetts, New York and South Dakota. Foreign leased facilities consist of 778,000 square feet in China, 127,000 square feet in Mexico, 13,000 square feet in the United Kingdom, 196,000 square feet in Germany, 75,000 square feet in the Czech Republic, 39,000 square feet in Israel and 41,000 square feet in Sweden.

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.

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 Siliconix has 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 and as a defendant in two lawsuits in the United States District Court for the Eastern District of New York. 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. In December 2002, the Delaware Chancery Court dismissed without prejudice the Delaware litigation. Also in December 2002, the plaintiffs in the action filed in the California Superior Court filed a motion for dismissal of the action without prejudice. Defendants have consented to that motion, which is still pending.

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

None.

Item 4A. EXECUTIVE OFFICERS OF THE REGISTRANT

The following table sets forth certain information regarding our executive officers as of March 31, 2003.

Name	Age	Positions Held
Felix Zandman*	74	Chairman of the Board and Chief Executive Officer
Avi D. Eden*	55	Vice-Chairman of the Board, Executive Vice President and General Counsel

Gerald Paul*	54	Chief Operating Officer, President and Director
Marc Zandman	41	Vice-Chairman of the Board, President-Vishay Israel Ltd.
Richard N. Grubb*	56	Executive Vice President, Treasurer, Chief Financial Officer and Director
Robert A. Freece*	62	Senior Vice President and Director
William J. Spires	61	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.

Marc Zandman was appointed Vice-Chairman of the Board as of March 1, 2003. He has been a Director of the Company since May 2001, President of Vishay Israel Ltd. since April 1998, and Group Vice President of Measurements Group since August 2002. Mr. Zandman has served in various other capacities with the Company since August 1984. He is the son of Dr. Felix Zandman, the Company's Chief Executive Officer.

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 2001 and 2002 calendar years indicated. 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 6 to our Consolidated Financial Statements. Holders of record of our common stock totaled approximately 1,791 at March 27, 2003.

COMMON STOCK MARKET PRICES

	Calendar 2001		Calendar 2002	
	High	Low	High	Low
First Quarter	$22.75	$13.75	$22.50	$17.05
Second Quarter	$27.98	$17.00	$26.15	$19.31
Third Quarter	$25.25	$16.08	$22.00	$ 8.51
Fourth Quarter	$21.88	$16.86	$15.10	$ 6.70

At March 27, 2003, we had outstanding 15,383,296 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.

See Item 12 for certain equity compensation information with respect to equity compensation plans approved by security holders and equity compensation plans not approved by security holders.

Item 6. SELECTED FINANCIAL DATA

The following table sets forth selected consolidated financial information of the Company as of and for the fiscal years ended December 31, 2002, 2001, 2000, 1999 and 1998. This table should be read in conjunction with our Consolidated Financial Statements and the related notes thereto included elsewhere in this Form 10-K.

	As of and for the Year End

	2002(1)	2001 (2)	2000
Income Statement Data (in thousands, except per share amounts):			
Net sales	$ 1,822,813	$ 1,655,346	$ 2,465,066
Interest expense	28,761	16,848	25,177
(Loss) earnings before income taxes and minority interest	(100,045)	10,103	690,225
Income taxes (benefit)	(16,900)	5,695	148,186
Minority interest	9,469	3,895	24,175
Net (loss) earnings	(92,614)	513	517,864
Basic (loss) earnings per share(5)	$ (0.58)	$ 0.00	$ 3.83
Diluted (loss) earnings per share(5)	$ (0.58)	$ 0.00	$ 3.77
Weighted average shares outstanding - basic (5)	159,413	141,171	135,295
Weighted average shares outstanding - diluted (5)	159,413	142,514	137,463
Balance Sheet Data (in thousands):			
Total assets	$ 4,315,159	$ 3,951,523	$ 2,783,658
Long-term debt	706,316	605,031	140,467
Working capital	897,456	1,096,034	1,057,200
Stockholders' equity	2,358,787	2,366,545	1,833,855

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(1) Includes the results from January 1, 2002 of Infineon Malaysia, January 31, 2002 of Sensortronics, July 1, 2002 of Tedea Huntleigh, August 1, 2002 of BLH/Nobel, and October 1, 2002 of Celtron. Also includes restructuring expenses, net of taxes of $11,984,000; write-down of raw materials inventory, net of taxes of $22,533,000; accrual of loss on long-term purchase commitments, net of taxes of $91,160,000; and other expenses, net of taxes, of $10,426,000 for a total of $136,103,000 ($0.85 per share).

(2) 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).

(3) The sale of Nicolitch, S.A. and a tax rate change in Germany reduced net earnings by $14,562,000 ($0.11 per share).

(4) Includes the results from March 1, 1998 of Siliconix and Telefunken and special charges after taxes of $55,335,000 ($0.44 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 a 5% stock dividend paid on June 11, 1998.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

Market conditions in the electronics industry remained difficult in 2002. The continuing worldwide economic slowdown, general lack of investor confidence, consumer ambivalence and political instabilities were reflected in the markets we serve. With regard to particular industries in 2002, our management perceived stability in the automotive market, continuing weakness in the markets for telecom equipment and consumer products generally, and signs of modest recovery in computer laptops and game consoles. Geographically, our business in the Americas and Europe remained at depressed levels, while our Asian business faired relatively better. Our visibility of future demand is limited, and management cannot gauge with any confidence when the current cyclical downturn is likely to reverse itself.

Product Demand and Pricing

Sales volume and pricing are the top line indicators of demand for our products. Compared to the substantial drop-off in business in 2001, 2002 results remained relatively weak but without major signs of increasing deterioration. Sales rose slightly in 2002 as compared to 2001, with higher volumes offsetting the effects of still declining prices. The increased volumes were due in part to the effects of acquisition activity. Average selling prices continued their decline in 2002, but at a rate that was less than in 2001. We experienced a weighted average pricing decline in 2002 compared to 2001 of 9%, while the decline for 2001 compared to 2000 was 3%.

Backlog, which is one indication of trends in customer demand, was relatively stable in 2002 as compared to 2001, but still down substantially from 2000. In uncertain economic times, such as those we experienced in 2002 and 2001, orders are more susceptible to cancellation. Accordingly, backlog as a measure of future sales in these circumstances becomes less reliable.

Another 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 may foretell 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 fourth quarter of 2001 and through the fourth quarter of 2002. The relatively flat backlog amounts and book-to-bill ratios hovering at or slightly below one are consistent with a business environment that remains stagnant and with no clear signs of recovery.

	4th Quarter 2001	1st Quarter 2002	2nd Quarter 2002	3rd Quarte
End of Period Backlog	$ 337,883,000	$ 396,900,000	$ 421,500,000	$ 378,5
Book-to-Bill Ratio	0.89	1.14	1.02	

(1) Includes $70,360,000 of backlog attributable to the business of General Semiconductor, which was acquired November 2, 2001.

(2) Includes $49,800,000 of backlog attributable to the business of BCcomponents, which was acquired in December 2002.

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 include in this segment our Measurements Group, which manufactures and markets strain gages, load cells, transducers, instruments and weighing systems. 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 a significant part of our business. In December 2002, we completed our first major acquisition in the passive segment in over ten years with the purchase of BCcomponents Holdings B.V., a manufacturer of a broad line of resistors and capacitors. We also completed a series of smaller acquisitions in the Measurements Group in 2002, including Celtron Technologies, the BLH and Nobel businesses of Thermo Electron Corporation, Tedea-Huntleigh BV and the transducer and strain gage businesses of Sensortronics, Inc. With these acquisitions, we established ourselves as one of the world's leading manufacturers and suppliers of strain gage products.

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 1997 when Vishay purchased a 65% interest in Lite-On Power Semiconductor Corporation (LPSC), a Taiwan-based company that is a major supplier of discrete active electronic components in Asia. In March 2000, we agreed to sell our interest in LPSC to Lite-On JV Corporation (the Lite-On Group), the owner of the remaining 35% interest in LPSC, for consideration consisting of cash and the assignment or transfer to Vishay of the Lite-On Group's rights under stock appreciation rights. In 1998, we increased our entry into the active components business with the acquisition from Daimler-Benz of TEMIC Telefunken Microelectronics GmbH, a manufacturer of optoelectronic components and small signal transistors, and of an 80.4% interest in Siliconix Incorporated, 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, Inc., 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 58% in 2002, 39% in 2001 and 34% in 2000.

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 resistors, inductors and capacitors. Results in 2002 were on the whole better in the active segment than the passive segment, but results and trends varied for products

within the two segments. Our resistor and inductor business stabilized in 2002, but capacitors continued to deteriorate. As in the past, specialty products performed reasonably well despite the economic downturn, but commodity products continued to suffer from strong pricing pressures. The active side of our business evidenced improvement in 2002, mainly at Siliconix and to a lesser extent in our remaining semiconductor operations. Even in the active segment, however, backlog and book-to-bill ratios do not reflect strong near-term recovery.

The following table shows our sales and book-to-bill ratios broken out by segment for the five quarters beginning with the fourth quarter of 2001 and through the fourth quarter of 2002:

Book-to-bill	4th Quarter 2001	1st Quarter 2002	Sales ($)/ 2nd Quarter 2002	3rd Quart
Passive Components	$ 178,295,000 0.83	$184,572,000 1.02	$ 187,430,000 0.98	$ 196,
Active Components	$202,856,000 (1) 0.94	$249,568,000 1.22(2)	$ 270,447,000 1.04	$ 274,

(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.

(2) The book-to-bill ratio for the active components for the quarter ended March 31, 2002 reflected, in part, an unusual spike in orders in March 2002.

The increase in backlog in the actives segment reflects the increase in demand for computer notebooks and feature rich cell phones with multiple functions, especially in Asia. The decrease in passives backlog is due to the global slowdown in the electronics industry, particularly in the general personal computer and cell phone markets.

Cost and Inventory 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 65% at the end of 2002 as compared to 61% at the end of 2001 and 57% at the end of 2000. We expect that this trend will continue with the acquisition in December 2002 of BCcomponents, where we intend to move production to lower cost jurisdictions, primarily in Asia.

We are placing particular emphasis on cost reduction in our capacitor lines, which have been hardest hit by the current downturn and where the business continues to suffer from worldwide overcapacity. We expect to complete

the transfer of our power capacitor production from Western Europe to the Czech Republic by mid-year and to begin moving our molded tantalum capacitor business to the People's Republic of China. We also expect to consolidate our existing film capacitor line within the newly acquired business of BCcomponents.

We also focus on our inventory turns as a measure of how well we are managing our inventory. We define inventory turns for a financial reporting period as our cost of products sold for that period divided by our average inventory for the period. A higher level of inventory turns reflects more efficient use of our capital. In 2002, inventory turns improved to 2.52 from 2.26 in 2001, which we attribute to somewhat improved selling conditions and enhanced selling efficiencies implemented during the year. Exclusive of tantalum and palladium write-downs, inventory turns would have been approximately 2.41 in 2002.

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. Due to the write-down of inventories and the loss on long-term purchase commitments in 2002, the application of the Israeli tax rates rather than United States tax rates resulted in an increase in net loss of $24,769,000. In 2001 and 2000, lower tax rates in Israel, as compared to the statutory rate in the United States, resulted in an increase in net earnings of $3,009,000 and $89,745,000, respectively.

Israeli government grants are awarded to specific projects. These grants are intended to promote sales and 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. Israeli government grants, recorded as a reduction in the costs of products sold, were $17,322,000, $19,064,000 and $15,721,000 in the years 2002, 2001 and 2000, respectively. At December 31, 2002, our balance sheet reflected $42,345,000 in deferred grant income.

During the second quarter of 2002, the government of Israel informed us that since the headcount in our Israeli subsidiaries decreased significantly over the previous 18 months, the government intended to withhold a $15,000,000 grant otherwise due to us. The grant, which was made by the Israeli government under an economic stimulus program, was conditioned in part on the employment levels at certain of our Israeli facilities. The Israeli government argued that we had not maintained employment at the required minimum levels. During the fourth quarter of 2002, we settled our dispute with the government of Israel, and the government agreed to continue making grant payments to us. Under the terms of the settlement with the Israeli government, Vishay is required to employ at least 1,500 employees in Israel over the next three years in order to preserve its eligibility for the government grant. We expect to comply with these requirements. We therefore recorded a catch up adjustment of approximately $1,070,000 of grant income for the fourth quarter of 2002 and reversed the allowances against the grant and deferred income reflected on the September 30, 2002 balance sheet.

If we were no longer able to maintain the required level of employment in the future, we could be required to return some 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.

Write-Downs of Inventory and Purchase Commitments

Tantalum is the principal material used in the manufacture of tantalum capacitors. We generally purchase this metal in powder or wire form, although in 2000 and early 2001, when we perceived possible supply shortages, we also stockpiled quantities of tantalum ore. In July and November of 2000, we entered into purchase contracts with Cabot Corporation for tantalum powder and wire that committed us to minimum purchases of these materials at fixed prices through 2005. We regularly utilize tantalum powder and wire in the production of tantalum capacitors but have not used our stockpile of tantalum ore since 2000. Palladium is a precious metal used in the production of multi-layer ceramic capacitors that we purchase under short-term contracts.

In 2001, as a result of the general downturn in the electronics business, we experienced a significant decrease in capacitor sales. Prices of tantalum ore, powder and wire and of palladium also experienced significant declines. Accordingly, we recorded write-downs of our raw material inventories of these metals including $38,000,000 for tantalum ore, $14,000,000 for tantalum wire and powder and $18,000,000 for palladium.

In June 2002, following initiation of a lawsuit by Cabot regarding its tantalum supply contracts with Vishay, we agreed with Cabot to modify the contracts, including reducing prices, providing for purchases at regular intervals and extending one of the contracts through 2006. In the fourth quarter of 2002, our management concluded that the depressed prices for tantalum were not attributable to temporary imbalances in distributor inventories for tantalum capacitors and that the prices for tantalum were likely to remain at their currently depressed levels for the foreseeable future. Also during the fourth quarter, one of our competitors settled its dispute with Cabot regarding long-term tantalum purchase commitments at prices that we understand are in the same range as the prices under our June 2002 settlement with Cabot. Our management therefore concluded that it was unlikely to obtain further price concessions from Cabot. Accordingly, we determined that it was appropriate to accrue a loss of our purchase commitments under our supply contracts with Cabot to reflect the difference between the prices that we are required to pay under the contracts and current market prices for tantalum. For the same reasons, we also determined to further write down our raw material inventories of tantalum ore, powder and wire. These charges amounted to approximately $106,000,000 for the purchase commitments and $25,700,000 for inventory. In 2002, we also recorded a write-down of $1,700,000 on palladium inventories.

Gross margins are impacted by tantalum and palladium writedowns in the period in which the writedowns occur and in subsequent periods. Due to the large number of products containing tantalum and palladium and the lack of systems to track individual products containing written down inventory, which may be in inventory at a number of different locations, we cannot determine the impact of inventory writedowns on our gross margins in any individual reporting period.

We anticipate, based on current and foreseeable demand for tantalum capacitors, that our minimum purchase commitments under the contracts with Cabot will substantially exceed our requirements over the terms of the contracts. See "Contractual Commitments" below. Also, we do not anticipate utilizing our stockpile of tantalum ore at any time in the foreseeable future. Tantalum ore, powder and wire have an indefinite shelf life; therefore, we believe that we will eventually utilize all of the material in our inventory or purchased under the contracts. Based on usage currently expected in 2003, our purchase commitments represent approximately 7.5 years of usage. We have little

visibility of the demand for our tantalum capacitor products beyond twelve months. It is almost certain that our actual requirements of tantalum will differ from those projected, and likely that the difference will be material.

Foreign Currency

In 2002, we realized approximately 69% of our revenues from customers outside the United States. Any third party sales not using the U.S. dollar as the functional currency must be reported in the 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 that 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.

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 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 2002.

Estimates of Restructuring Expense and Purchase Related Restructuring Costs

In 2002, we recorded restructuring costs of approximately $48,000,000 related to our acquisitions and $30,970,000 related to our existing businesses. Our acquisition-related restructuring costs included, among other things, costs related to our acquisition of BCcomponents in December 2002. Our restructuring activities related to our existing business were designed to reduce both our fixed and variable costs, particularly in response to the reduced demand for our products occasioned by the continuing electronics industry downturn in 2002. These included the disposition of fixed assets 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.

Raw Material Write-downs

As indicated, in the fourth quarter of 2002 we took charges of approximately $106,000,000 against contractual commitments to purchase tantalum powder and wire through 2006 and wrote-off approximately $25,700,000 of our existing inventory of tantalum ore, powder and wire. We did this because the current market prices of tantalum are substantially below the prices at which we are committed to purchase tantalum in the future under long-term contracts and the prices at which we were carrying our tantalum raw materials inventory. These actions involved significant judgments on our part, including decisions of whether to take these charges and write-downs, their timing and their amount.

We made the decision to take the charges and write-downs after our management concluded that the substantial fall-off in the demand for tantalum capacitors was likely to continue for the foreseeable future. Combining this assessment with the worldwide over-capacity in tantalum production, we could not foresee when tantalum prices might recover from their currently depressed levels. We made this determination in the fourth quarter of 2002 after it was apparent that the inventory levels of our customers had dropped without any effect on the demand or pricing for tantalum capacitors and after the settlement of our competitor's tantalum pricing litigation, described above. Although we believe that both the charges and write-downs as well as their timing were appropriate under the circumstances, our visibility for future demand and pricing is limited and the judgments made by our management necessarily involved subjective assessments.

The write-down of our current tantalum inventory and the charges with respect to our future tantalum commitments were calculated based on current market prices for tantalum. There is no established market on which tantalum raw materials are regularly traded and quoted. We based our determination of current market price on quotations from two suppliers of these materials. We cannot say that the prices at which we could currently enter into contracts for the purchase of tantalum would be the same as these quoted prices. Also, in

quantifying the charges that we took against our future purchase commitments, we assumed for lack of any other benchmark that current market prices would continue through 2006, when our purchase commitments end. Had we made other assumptions on current and future prices for tantalum, the amount of the inventory write-downs and the charges against our purchase commitments would have been different.

If tantalum prices were to recover in the future, we would not reverse the write-downs that we have taken on our raw materials inventory or the charges that we have recorded against our purchase commitments, so that our cost of materials will continue to reflect these write-downs and charges regardless of future price increases in tantalum. This could have the effect of increasing the earnings that we realize in future periods from what they would have been had we not taken these actions until future raw material prices were known with certainty. We could also be required to take further write-downs and charges if tantalum prices experience further declines.

Goodwill

Goodwill represents the excess of the cost of businesses acquired over the fair value of the related net assets at the date of acquisition. In accordance with Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets, we no longer amortize goodwill, but test for impairment of goodwill using a market multiple approach.

Long-Lived Assets

We assess the impairment of our long-lived assets, other than goodwill and trademarks, including property, plant and equipment, and identifiable intangible assets subject to amortization whenever events or changes in circumstances indicate the carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include significant changes in the manner of our use of the acquired asset, changes in historical or projected operating performance and significant negative economic trends.

Results of Operations

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

	Year Ended December 31		
	2002	2001	2000
Costs of products sold	85.6%	77.0%	59.2%
Gross profit	14.4	23.0	40.8
Selling, general and administrative expenses	17.1	16.8	12.1
Operating (loss) income	(4.4)	0.9	28.3
(Loss) earnings before income taxes (benefit) and minority interest	(5.5)	0.6	28.0
Net (loss) earnings	(5.1)	0.0	21.0
Effective tax rate	(16.9)	56.4	21.5

Net Sales, Gross Profits and Margins

Sales for the year ended December 31, 2002 increased by $167,467,000 or 10.1% over the prior year. This combines a substantial increase in sales in the active segment, attributable in large measure to 2001 acquisitions reflected only partially in 2001 but fully in 2002, and a continuing drop in sales in the passive segment in 2002. The weakening of the U.S. dollar against foreign currencies for the year ended December 31, 2002, in comparison to the prior year, resulted in increases in reported sales of $18,000,000.

Costs of products sold as a percentage of net sales were 85.6% for the year ended December 31, 2002 as compared to 77.0% for the prior year. Costs of products sold, exclusive of the loss on long-term purchase commitments, would have been 79.8% for the year ended December 31, 2002. Gross profit, as a percentage of net sales, for the year ended December 31, 2002 was 14.4% (20.2% exclusive of the loss on long-term purchase commitments) as compared to 23.0% for the prior year. The erosion in overall profit margins reflects the continuing weakness in the passive segment, offset in substantial part by improvements in the active segment. Both volume reduction and further declines in average selling prices contributed to the declining profit margins in the passive segment. Profit margins in the active segment benefited from higher volumes, even as average selling prices continued to decline in various product lines. For the year ended December 31, 2002, costs of products sold included $27,400,000 for the write-down of tantalum and palladium inventories as compared to $70,000,000 for the write-down of tantalum and palladium inventories in 2001.

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, reflected 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.

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

	Year Ended December 31		
	2002	2001	2000

Net Sales	$767,246,000	$1,010,634,000	$1,627,860,000
Gross Profit Margin	(4.9%)	20.6%	41.7%

Net sales of passive components for the year ended December 31, 2002 decreased by $243,388,000 or 24.1% from comparable sales of the prior year. The decrease in net sales was attributable to a combination of lower volume and a continuing slide in prices. While our resistor and inductor business has stabilized and even showed signs of improvement in the second half of the year over the prior year's depressed results, the capacitor business continues to be extremely problematic. This business is suffering from the poor environment for electronics generally, and worldwide overcapacity for capacitor production and supply in particular. However, with a slowing of the erosion in average selling prices for capacitors in the fourth quarter of 2002, it is possible that the capacitor business may also be stabilizing, albeit at a low level. Additionally, a loss on long-term purchase commitments of tantalum of $106,000,000 and write-downs of $27,400,000 on tantalum and palladium inventories were taken during the year ended December 31, 2002, negatively impacting gross profit. Gross profit margin for the segment in 2002 combined a positive profit margin of 19% for resistors and inductors and a negative 6% for capacitors (exclusive of the loss on long-term purchase commitments).

The passive segment includes our Measurements Group, which experienced significant acquisition activity in 2002. See "Overview-Segments" above. Excluding these acquisitions, sales in the passive segment decreased by $288,939,000 or 29% from the prior year. The acquisition of BCcomponents, a worldwide manufacturer of resistors and capacitors, in December 2002 had no effect on the 2002 results for the passive segment.

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, in particular, for 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.

Active Components

	Year Ended December 31		
	2002	2001	2000
Net Sales	$1,055,567,000	$644,712,000	$837,206,000
Gross Profit Margin	28.4%	26.9%	39.0%

Net sales of the active components business for the year ended December 31, 2002 increased by $410,855,000 or 63.7% from comparable sales of the prior year. The increase was in substantial measure due to the acquisitions of General Semiconductor and the Infineon infrared business in 2001, which were included in our results for all of 2002 but for only portions of 2001. However, it also reflects sales recovery at our existing semiconductor operations. The increased volume that we experienced in 2002 was offset to some extent by modest declines in average selling prices in various product lines. The improvement in gross profit margins to 28.4% from 26.9% is attributable primarily to improvements at our 80.4% owned Siliconix subsidiary and to a lesser extent at our other semiconductor operations. Siliconix's net sales for 2002 were $372,944,000 as compared to $305,566,000 in 2001, a 22.1% increase, and its gross profit margins

rose from 24.6% for the year ended December 31, 2001 to 30.9% for the year ended December 31, 2002.

Revenues in the active segment for 2002 included revenues of $350,885,000 from the Infineon infrared business and General Semiconductor, compared to revenues of $82,655,000 from these businesses in 2001. Excluding the contribution of these acquisitions, net sales in 2002 would have increased by 25.4% as compared to 2001 and gross profit margin would have been 29.5%.

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. 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 cell phone handset markets, which resulted in reduced demand for our 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 Infineon infrared business acquired in July 2001 and General Semiconductor acquired 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%.

Selling, General and Administrative Expenses

Selling, general, and administrative expenses for the year ended December 31, 2002 were 17.1% of net sales as compared to 16.8% of net sales for the prior year. The amount of these expenses increased by $33,080,000 for the year ended December 31, 2002 as compared to the prior year. The higher percentage and amount in 2002 was due primarily to acquisition activity. We continue to implement cost reduction initiatives company-wide, with particular emphasis on reducing headcount in high labor cost countries.

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.

Restructuring Expense

Our restructuring activities have been designed to cut both fixed and variable costs, particularly in response to the reduced demand for products occasioned by the electronics industry downturn beginning in 2001. These activities included the closing of facilities and the termination of employees. Restructuring costs are expensed during the period in which we determine that we will incur those costs and all applicable requirements of accrual accounting for recognizing such expenses are satisfied. Because costs are recorded based upon estimates, actual expenditures for the restructuring activities may differ from the initially recorded costs. If the initial estimates were too low or too high, we could be required either to record additional expenses in future periods or to reverse previously recorded expenses. We anticipate that we will realize the benefits of the restructuring through lower labor costs and other operating expenses in future periods, although it is not possible to quantify the expected savings.

We recorded restructuring expense for the year ended December 31, 2002 of

$30,970,000, $18,607,000 of which was workforce reduction expense and $12,363,000 of which was fixed asset impairment. The workforce reduction expense was comprised of termination costs for 1,438 employees in Europe, Israel and the United States. Through the end of 2002, we paid $6,420,000 of these workforce reduction costs, corresponding to the termination of 783 employees. The balance of workforce reduction expense remaining at December 31, 2002 is expected to be paid out by the end of 2003. The fixed asset impairment related to facility closure. As a result of restructuring related to workforce reduction, we expect an annual increase in gross profit of approximately $13,100,000 and reduction in selling, general and administrative expenses of $300,000. As a result of restructuring related to fixed asset impairment, we expect an annual decrease in depreciation expenses of approximately $1,064,000, which will also increase gross profit.

We recorded $61,908,000 in restructuring expense in 2001, $40,934,000 of which was workforce reduction expense and $20,974,000 of which was fixed asset impairment. The workforce reduction expense was comprised of termination costs for 5,663 employees in Europe, Israel and Asia. A balance of $1,564,000 of workforce reduction expense remaining at December 31, 2002 is expected to be paid out by the end of 2003. The fixed asset impairment related to facility closure. As a result of restructuring related to workforce reduction, we expect an annual increase in gross profit of approximately $22,300,000 and reduction in selling, general and administrative expenses of $700,000. As a result of restructuring related to fixed asset impairment, we expect an annual decrease in depreciation expenses of approximately $1,679,000, which will also increase gross profit. For additional detail on restructuring expense in 2001 and 2002, see Note 4 to our Consolidated Financial Statements.

Restructuring expense is separate from plant closure, employee termination and similar integration costs we incur in connection with our acquisition activities. These amounts are included in the costs of our acquisitions and do not affect earnings or losses on our statement of operations. For a discussion of these costs in 2001 and 2002, see Note 2 to our Consolidated Financial Statements.

Interest Expense

Interest expense for the year ended December 31, 2002 increased by $11,913,000 compared to the prior year. This increase was a result of higher average outstanding bank borrowings attributable to our acquisition activity, offset in part by somewhat lower interest rates.

Interest expense for the year ended December 31, 2001 decreased by $8,329,000 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.

Other Income

Other income for the year ended December 31, 2002 was $8,664,000 as compared to $12,701,000 for the comparable prior year period. 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 in both 2002 and 2001 consisted primarily of interest income, as well as gains on disposal of property and

equipment, and foreign exchange gains. For additional information, see Note 8 to our Consolidated Financial Statements.

Minority Interest

Minority interest increased by $5,574,000 for the year ended December 31, 2002 as compared to the prior year, primarily due to the increase in net earnings of Siliconix, of which we own 80.4%. 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.

Income Taxes

The effective tax rate for the year ended December 31, 2002 was 16.9%, reflecting an income tax benefit, compared to 56.4% for the prior year, reflecting income tax expense. The low effective rate in 2002 is primarily a consequence of the losses before income taxes in low tax jurisdictions. While we continue to benefit from low tax rates in Israel, we recognized a large taxable loss in Israel in 2002, with the effect of reducing our overall tax benefit on our losses. The more favorable Israeli tax rates are applied to specific approved projects and are normally available for a period of ten or fifteen years (see the discussion of our Israeli tax benefits in "Overview-Israeli Government Incentives" above). Comparatively, in 2001, the high effective tax rate was due to low net earnings and the non-tax deductibility of purchased research and development expense related to the General Semiconductor acquisition.

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 reflected 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 low tax rates in Israel applicable to us, 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.

Financial Condition and Liquidity

Cash flows from operations were $366,871,000 for the year ended December 31, 2002 compared to $161,418,000 for the prior year. The increase in cash generated from operations reflects improved working capital management, including reductions in inventory and accounts receivable. The inventory reduction reflects production adjustments we implemented in response to the business slowdown in order to control inventory levels. Net purchases of property and equipment for the year ended December 31, 2002 were $110,074,000 compared to $162,493,000 in the prior year. The decrease reflects an effort to rationalize our capital spending to the realities of the current economic environment, while making prudent investments in our capital infrastructure in order to remain competitive and efficient. We also used $278,735,000 in cash for acquisitions in 2002, primarily for our acquisitions of BCcomponents in December 2002 and other smaller acquisitions in our Measurements Group during the year. The acquisitions were funded in part by our cash balances and in part from borrowings. See Note 2 to our Consolidated Financial Statements for discussion of these acquisitions.

We made net payments of $14,000,000 on our revolving credit lines during 2002, funded from cash flow from operations. See Notes 2 and 4 to our Consolidated Financial Statements for discussion of acquisition related

restructuring costs paid during 2002 and expected to be paid in the future. Other accrued expenses include $95,470,000 of acquisition-related costs and other restructuring costs expected to be paid in cash subsequent to 2002.

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 $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 6 to our 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 our 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.

In connection with our acquisition of BCcomponents in December 2002, we issued $105,000,000 principal amount of our floating rate unsecured loan notes due 2102. The notes bear interest at LIBOR plus 1.5% through December 31, 2006 and at LIBOR thereafter. The interest payable on the notes could be further reduced to 50% of LIBOR after December 31, 2010 if the price of our common stock trades above a specified target price, as provided in the notes. The notes are subject to a put and call agreement under which the holders may at any time put the notes to us in exchange for 6,176,471 shares of our common stock in the aggregate, and we may call the notes in exchange for cash or for shares of our common stock after 15 years from the date of issuance.

Also in December 2002, we amended our long-term revolving credit and swing line facility to, among other things, reduce the aggregate bank commitments under this facility from $660,000,000 to $500,000,000. This amount may be increased in the future under certain circumstances. As of December 31, 2002, we had $111,000,000 outstanding under this facility. Letters of credit totaling $30,633,000 were outstanding at December 31, 2002. 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. The facility expires on June 1, 2005, although we may request year-to-year renewals. See Note 6 to our Consolidated Financial Statements for additional information.

At December 31, 2002, we had a current ratio (current assets to current liabilities) of 2.6 to 1, compared with a ratio of 3.3 to 1 at December 31, 2001. The decrease in 2002 is attributable to cash spent on acquisitions, lower inventories resulting from our inventory management efforts and lower accounts receivable. Our ratio of long-term debt, less current portion, to stockholders' equity was 0.30 to 1 at December 31, 2002 compared to 0.26 to 1 at December 31,

2001. The increase in long-term debt ratio reflects the issuance of the floating rate notes in connection with the BCcomponents acquisition and the net loss for 2002.

Contractual Commitments

As of December 31, 2002 the Company had contractual obligations in the form of non-cancelable operating leases (see Note 13 to our Consolidated Financial Statements) and long-term contracts for the purchase of tantalum powder and wire (see Note 15 to our Consolidated Financial Statements), as follows:

(in thousands)

		Payments Due by Period			
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Operating Leases	$ 76,974	$ 21,978	$ 28,094	$ 22,163	$ 4,739
Tantalum purchases	380,800	100,300	220,400	60,100	--
Total	$454,774	$122,278	$248,494	$ 82,263	$ 4,739

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.

Economic Environment, Competition, Backlog

- We and others in the electronic and semiconductor component industry have for the past several years 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.

- 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, Military Qualifications
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- 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.

- Any drop in demand or increase in supply of our products due to the overcapacity of our competitors could cause a dramatic drop in average sales prices causing a decrease in gross margins.

- We have qualified certain of our products under various military specifications. 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 classification level is reduced for a product with military application, net sales and earnings attributable to that product may be adversely affected.

Foreign Operations and Sales

- We have operations in 17 countries around the world outside the United States, and approximately 69% of our revenues during 2002 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. In particular, current tensions in the Middle East could adversely affect our business operations in Israel and elsewhere.

- 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 historically had the effect of increasing our net earnings, although that was not the effect in 2002. 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 our Consolidated Financial Statements 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, including the Czech Republic, Hungary, India, Israel, Malaysia, Mexico, the People's Republic of China, the Philippines, 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 lower 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 higher 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 fluctuations 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, Dr. Zandman, our Chairman and CEO, owns or has voting power over substantially all of our Class B common stock and accordingly controls approximately 49.0% 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

In April 2002, the FASB issued SFAS No. 145, Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections. In addition to other technical provisions, this Statement rescinds SFAS No. 4, which required all gains and losses from extinguishment of debt to be aggregated and, if material, classified as an extraordinary item, net of tax. The provisions of SFAS 145 were adopted by the Company on January 1, 2003.

In July 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities. This statement nullifies EITF Issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring). SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred rather than at the date of an entity's commitment to an exit plan. The provisions of SFAS 146 will be adopted by the Company for exit or disposal activities initiated after December 31, 2002.

In November 2002, the FASB issued Interpretation No. 45, Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others, an Interpretation of FASB Statements No. 5, 57, and 107 and Rescission of FASB Interpretation No. 34 (FIN No. 45). The interpretation requires that upon issuance of a guarantee, the entity must recognize a liability for the fair value of the obligation it assumes under that obligation. This interpretation is intended to improve the comparability of financial reporting by requiring identical accounting for guarantees issued with separately identified consideration and guarantees issued without separately identified consideration. The recognition and measurement provisions of FIN No. 45 are applicable to guarantees issued or modified after December 31, 2002. The future impact will depend upon whether Vishay enters into or modifies any material guarantee arrangements. The disclosure requirements are applicable for periods ended after December 15, 2002. See disclosures regarding guarantees in Note 13.

In December 2002, the FASB issued SFAS No. 148, Accounting for Stock-Based Compensation - Transition and Disclosure. SFAS 148 amends SFAS No. 123, Accounting for Stock-Based Compensation, to provide alternative methods of transition to SFAS 123's fair value method of accounting for stock-based employee compensation. The Company is evaluating the potential impact of adopting the fair value method of accounting for its stock-based employee compensation.

In January 2003, the FASB issued Interpretation No. 46, Consolidation of Variable Interest Entities (FIN No. 46). This interpretation clarifies the application of Accounting Research Bulletin No. 51, Consolidated Financial Statements, to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient

equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. Vishay is currently evaluating what impact, if any, adoption of FIN No. 46 will have on its consolidated financial position, consolidated results of operations, or liquidity.

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, 2002, the outstanding balance under this facility was $111,000,000. 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, 2002, 2001 and 2000 was not significant. See Notes 6 and 14 to our 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, 2002, five of these six agreements had been terminated. The remaining agreement, which expires in August 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 2002, 2001, and 2000, we paid a weighted average fixed rate of 5.77% and received a weighted average variable rate of 1.40%, 1.93%, and 6.66%, respectively. The fair value of our interest rate swap agreements, based on current market rates, approximated a net payable of $3,309,000 at December 31, 2002 and a net payable of $4,686,000 at December 31, 2001. 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 8 to our 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 Asia. In most locations, we have introduced a "netting" policy where subsidiaries pay all intercompany balances within thirty days. As of December 31, 2002, 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 15 of this report:

Report of Independent Auditors.

Consolidated Balance Sheets -- December 31, 2002 and 2001.

Consolidated Statements of Operations -- for the years ended December 31, 2002, 2001 and 2000.

Consolidated Statements of Cash Flows -- for the years ended December 31, 2002, 2001 and 2000.

Consolidated Statements of Stockholders' Equity -- for the years ended December 31, 2002, 2001 and 2000.

Notes to Consolidated Financial Statements -- December 31, 2002.

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

None.

PART III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information required under this Item is contained in our definitive proxy statement, which was filed on April 22, 2003, and is incorporated herein by reference.

Information required under this Item with respect to our Executive Officers is set forth in Part I, Item 4A hereof under the caption, "Executive Officers of the Registrant."

Item 11. EXECUTIVE COMPENSATION

Information required under this Item is contained in our definitive proxy statement, which was filed on April 22, 2003, and is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required under this Item is contained in our definitive proxy statement, which was filed on April 22, 2003, and is incorporated herein by reference.

Equity Compensation Plan Information

The following table sets forth certain equity compensation plan information with respect to both equity compensation plans approved by security holders and equity compensation plans not approved by security holders.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)
Equity compensation plans approved by security holders:		
1997 Stock Option Program(1)	2,159,000	$ 12.51
1998 Stock Option Program(1)	3,027,000	$ 15.62
General Semiconductor Stock Plan(2)	4,045,000	$ 18.31
Subtotal	9,231,000	$ 16.07
Equity compensation plans not approved by security holders:		
None	--	--
Subtotal	9,231,000	$ 16.07
Total	9,231,000	$ 16.07

(1) See Note 12 to our Consolidated Financial Statements for further description of these plans.

(2) The General Semiconductor Stock Plan was assumed in the Company's acquisition of General Semiconductor Inc. on November 2, 2001. See Note 12 to our Consolidated Financial Statements for further description of this plan.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Information required under this Item is contained in our definitive proxy statement, which was filed on April 22, 2003, and is incorporated herein by reference. As disclosed there, Steven Klausner, King Owyang, Ziv Shoshani, and Marc Zandman returned shares of Vishay stock in exchange for cancellation of loans obtained under the Company's stock purchase program. The benefit realized by each named individual, being the differential between the outstanding loan balance plus accrued interest and the value of the surrendered stock, together with a tax gross-up, was approximately $135,000.

Item 14. DISCLOSURE CONTROLS AND PROCEDURES

An evaluation was performed as of a date within 90 days prior to the filing date of this report, under the supervision and with the participation of our management, including the CEO and CFO, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, our management, including the CEO and CFO, concluded that our disclosure controls and procedures are effective in ensuring that all material information required to be filed in this report has been made known to them in a timely fashion.

There have been no significant changes in our internal controls or in other factors that could significantly affect internal controls subsequent to the date management completed their evaluation.

PART IV

Item 15. 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, 2002 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) Report on Form 8-K, dated December 23, 2002, reporting Item 2 (Acquisition or Disposition of Assets), Item 5 (Other Events), and Item 7 (Financial Statements and Exhibits). Financial Statements of Business Acquired and Pro Forma Financial Information were filed by amendment to the Form 8-K, dated February 26, 2003.

(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.

2.2 Share Sale and Purchase Agreement between Phoenix Acquisition Company S.ar.l; Other Investors (as defined); Mezzanine Lenders (as defined); Vishay Intertechnology, Inc.; Vishay Europe Gmbh; and BCcomponents International B.V., dated as of November 10, 2002. Incorporated by reference to Exhibit 2.1 to Form 8-K File filed December 23, 2002.

2.3 Amendment to the Share Sale and Purchase Agreement between Phoenix Acquisition Company S.ar.l; Other Investors (as defined); Mezzanine

Lenders (as defined); Vishay Intertechnology, Inc.; Vishay Europe Gmbh; and BCcomponents International B.V., dated as of December 4, 2002. Incorporated by reference to Exhibit 2.2 to Form 8-K File filed December 23, 2002.

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 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. Incorporated by reference to Exhibit 4.3 to the Company's annual report on Form 10-K for the year ended December 31, 2001.

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. Incorporated by reference to Exhibit 4.4 to the Company's annual report on Form 10-K for the year ended December 31, 2001.

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 Second Amendment to Amended and Restated Vishay Intertechnology, Inc. Long Term Revolving Credit Agreement and Consent, made as of December 13, 2002, by and among Vishay Intertechnology, Inc. the Permitted Borrowers (as defined), Comerica Bank and the Lenders signatory thereto and Comerica Bank as administrative agent. Incorporated by reference to Exhibit 4.6 to Form 8-K filed on December 13, 2002.

10.5 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).

10.6 Vishay Intertechnology, Inc. 1995 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14ADR filed April 7, 1995.

10.7 Vishay Intertechnology, Inc. 1997 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14A filed April 16, 1998.

10.8 Vishay Intertechnology, Inc. 1998 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14A filed April 16, 1998.

10.9 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).

10.10 Agreement Amending Supply Agreements among Cabot Corporation through its Cabot Performance Materials Division, Vishay Sprague, Inc. and Vishay Intertechnology, Inc. dated as of June 6, 2002.

21. Subsidiaries of the Registrant.

23. Consent of Independent Auditors.

99.1 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 - Dr. Felix Zandman, Chief Executive Officer.

99.2 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 - Richard N. Grubb, Chief Financial Officer.

SIGNATURES

Pursuant to the requirement of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this amended report to be signed on its behalf by the undersigned, thereunto duly authorized.

VISHAY INTERTECHNOLOGY, INC.

July 29, 2003 /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 amended report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated below.

July 29, 2003 /s/ Felix Zandman
Felix Zandman, Chairman of the Board and Chief Executive Officer (Principal Executive Officer)

July 29, 2003 /s/ Avi D. Eden
Avi D. Eden, Vice-Chairman of the Board, Executive Vice President and General Counsel

July 29, 2003 /s/ Gerald Paul
Gerald Paul, Director, President and Chief Operating Officer

July 29, 2003 /s/ Marc Zandman
Marc Zandman, Vice-Chairman of the Board, President-Vishay Israel Ltd.

July 29, 2003 /s/ Richard N. Grubb
Richard N. Grubb, Director, Executive Vice President, Treasurer and Chief Financial Officer (Principal Financial and Accounting Officer)

July 29, 2003 /s/ Robert A. Freece
Robert A. Freece, Director, Senior Vice President

July 29, 2003 /s/ Phillipe Gazeau
Phillipe Gazeau, Director

July 29, 2003	/s/ Eli Hurvitz --- Eli Hurvitz, Director
July 29, 2003	/s/ Abraham Ludomirski --- Abraham Ludomirski, Director
July 29, 2003	/s/ Edward B. Shils --- Edward B. Shils, Director
July 29, 2003	/s/ Ziv Shoshani --- Ziv Shoshani, Director
July 29, 2003	/s/ Mark I. Solomon --- Mark I. Solomon, Director
July 29, 2003	/s/ Jean-Claude Tine --- Jean-Claude Tine, Director
July 29, 2003	/s/ Ruta Zandman --- Ruta Zandman, Director

CERTIFICATIONS

I, Dr. Felix Zandman, certify that:

1. I have reviewed this annual report on Form 10-K of Vishay Intertechnology, Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and

have:

a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: July 29, 2003

/s/ Dr. Felix Zandman

Dr. Felix Zandman
Chief Executive Officer

I, Richard N. Grubb, certify that:

1. I have reviewed this annual report on Form 10-K of Vishay Intertechnology, Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:

   a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

   c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: July 29, 2003

/s/ Richard N. Grubb,

Richard N. Grubb,
Chief Financial Officer

Consolidated Financial Statements

Years ended December 31, 2002, 2001, and 2000

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-9

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, 2002 and 2001, and the related consolidated statements of operations, cash flows, and stockholders' equity for each of the three years in the period ended December 31, 2002. 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, 2002 and 2001, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2002, in conformity with accounting principles generally accepted in the United States.

As discussed in Note 1 to the consolidated financial statements, in 2002 the Company changed its method of accounting for goodwill .

Philadelphia, PA
February 6, 2003 /s/ Ernst & Young, LLP

Vishay Intertechnology, Inc.

Consolidated Balance Sheets

(In thousands, except per share and share amounts)

	December 31	
	2002	2001
Assets		
Current assets:		
Cash and cash equivalents	$ 339,938	$ 367,115
Accounts receivable, less allowances of $18,172 and $17,126	343,511	382,358
Inventories:		
Finished goods	219,769	260,161
Work in process	142,846	136,842
Raw materials	191,451	204,454
Deferred income taxes	47,297	63,084
Prepaid expenses and other current assets	188,881	160,613
Total current assets	1,473,693	1,574,627
Property and equipment - at cost:		
Land	118,000	92,311
Buildings and improvements	339,869	289,672
Machinery and equipment	1,609,931	1,397,262
Construction in progress	61,830	82,269
	2,129,630	1,861,514
Less allowances for depreciation	(854,780)	(693,981)
	1,274,850	1,167,533
Goodwill	1,356,293	1,077,790
Other intangible assets, net of amortization of $8,187 and $1,017	122,417	83,337
Other assets	87,906	48,236
Total assets	$ 4,315,159	$ 3,951,523

	December 31 2002	December 31 2001
Liabilities and stockholders' equity		
Current liabilities:		
Notes payable to banks	$ 18,161	$ 11,241
Trade accounts payable	123,999	89,467
Payroll and related expenses	103,184	71,841
Other accrued expenses	303,609	292,596
Income taxes	8,734	13,081
Current portion of long-term debt	18,550	367
Total current liabilities	576,237	478,593
Long-term debt - less current portion	706,316	605,031
Deferred income taxes	52,935	90,340
Deferred income	42,345	57,208
Minority interest	75,985	66,516
Other liabilities	279,462	139,273
Accrued pension costs	223,092	148,017
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; 144,297,101 and 143,795,355 shares outstanding after deducting 332,850 shares in treasury	14,429	14,380
Class B convertible Common Stock, par value $.10 per share: authorized - 40,000,000 shares; 15,383,581 and 15,496,634 shares outstanding after deducting 279,453 shares in treasury	1,538	1,550
Capital in excess of par value	1,910,994	1,865,979
Retained earnings	523,354	615,968
Unearned compensation	(413)	(921)
Accumulated other comprehensive loss	(91,115)	(130,411)
Total stockholders' equity	2,358,787	2,366,545
Total liabilities and stockholders' equity	$ 4,315,159	$ 3,951,523

See accompanying notes.

Vishay Intertechnology, Inc.

Consolidated Statements of Operations

(In thousands, except per share and share amounts)

	Year ended December 31 2002	Year ended December 31 2001

Net sales	$ 1,822,813	$ 1,655,346	$
Costs of products sold	1,454,540	1,273,827	
Loss on long-term purchase commitments	106,000	-	
Gross profit	262,273	381,519	
Selling, general, and administrative expenses	311,251	278,171	
Amortization of goodwill	-	11,190	
Restructuring expense	30,970	61,908	
Purchased research and development	-	16,000	
	(79,948)	14,250	
Other income (expense):			
Interest expense	(28,761)	(16,848)	
Other	8,664	12,701	
	(20,097)	(4,147)	
(Loss) earnings before income taxes (benefit) and minority interest	(100,045)	10,103	
Income taxes (benefit)	(16,900)	5,695	
Minority interest	9,469	3,895	
Net (loss) earnings	$ (92,614)	$ 513	$
Basic (loss) earnings per share	$ (0.58)	$ 0.00	$
Diluted (loss) earnings per share	$ (0.58)	$ 0.00	$
Weighted average shares outstanding:			
Basic	159,413,000	141,171,000	
Diluted	159,413,000	142,514,000	

See accompanying notes.

Vishay Intertechnology, Inc.

Consolidated Statements of Cash Flows

(In thousands)

	Year ended December	
	2002	2001

Operating activities		
Net (loss) earnings	$ (92,614)	$ 513
Adjustments to reconcile net (loss) earnings to net cash provided by operating activities:		
Depreciation and amortization	180,748	163,387
Gain on sale of subsidiaries	-	-
Loss (gain) on disposal of property and equipment	296	(1,472)
Minority interest in net earnings of consolidated subsidiaries	9,469	3,895
Equity in earnings of affiliate	-	-
Purchased research and development	-	16,000
Noncash charge for change in fair value of interest rate swap	115	3,668
Accretion of interest on convertible debentures	9,325	5,313
Writedowns of property and equipment included in restructuring expense	12,363	20,975
Loss on long-term purchase commitments	106,000	-
Changes in operating assets and liabilities, net of effects of businesses acquired or sold:		
Accounts receivable	102,322	120,095
Inventories	106,818	6,038
Prepaid expenses and other current assets	6,257	(7,321)
Accounts payable	455	(71,761)
Other current liabilities	(29,766)	(105,685)
Other	(44,917)	7,773
Net cash provided by operating activities	366,871	161,418
Investing activities		
Purchases of property and equipment	(110,074)	(162,493)
Proceeds from sale of property and equipment	20,621	9,911
Purchases of businesses, net of cash acquired	(278,735)	(172,468)
Net cash proceeds from divestitures	-	-
Net cash used in investing activities	(368,188)	(325,050)

(Continues on following page.)

Vishay Intertechnology, Inc.

Consolidated Statements of Cash Flows (continued)

(In thousands)

	Year ended December 31		
	2002	2001	2000
Financing activities			
Net payments on revolving credit lines	$ (14,000)	$(100,047)	$(506,686)
Proceeds from long-term borrowings	201	415	-

Principal payments on long-term debt	(17,217)	(444)	(385)
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	3,161	854	39,873
Net changes in short-term borrowings	(10,452)	3,274	39
Net cash (used in) provided by financing activities	(38,307)	197,298	(77,475)
Effect of exchange rate changes on cash	12,447	(3,764)	(1,088)
(Decrease) increase in cash and cash equivalents	(27,177)	29,902	232,020
Cash and cash equivalents at beginning of year	367,115	337,213	105,193
Cash and cash equivalents at end of year	$ 339,938	$ 367,115	$ 337,213

See accompanying notes.

Vishay Intertechnology, Inc.

Consolidated Statements of Stockholders' Equity

(In thousands, except share amounts)

	Common Stock	Class B Convertible Common Stock	Capital Excess Par Val
Balance at January 1, 2000	$ 11,147	$ 1,556	$ 985,
Net earnings	-	-	
Foreign currency translation adjustment	-	-	
Pension liability adjustment	-	-	
Comprehensive income			
Stock issued (53,716 shares)	5	-	1,
Stock options exercised (2,656,171 shares)	266	-	39,
Conversions from Class B to common (36,347 shares)	4	(4)	
Common stock repurchase (200,000 shares)	(20)	-	(5,
Sale of common stock (8,392,500 shares)	839	-	394,
Termination of Lite-On stock appreciation rights	-	-	(108,
Tax effects relating to stock plan	-	-	12,
Amortization of unearned compensation	-	-	
Balance at December 31, 2000	12,241	1,552	1,319,
Net earnings	-	-	
Foreign currency translation adjustment	-	-	
Pension liability adjustment	-	-	
Cumulative effect of adoption of SFAS No. 133	-	-	
Loss on derivative financial instruments, net of taxes of $374	-	-	

Comprehensive loss			
Stock issued (22,573 shares)	2	-	
Stock options exercised (85,877 shares)	9	-	
Conversions from Class B to common (21,917 shares)	2	(2)	
Common stock repurchase (48,500 shares)	(5)	-	(
Tax effects relating to stock plan	-	-	
Amortization of unearned compensation	-	-	
Stock issued - General Semiconductor acquisition (21,305,127 shares)	2,131	-	497,
Stock options issued - General Semiconductor acquisition	-	-	48,
Balance at December 31, 2001	14,380	1,550	1,865,
Net loss	-	-	
Foreign currency translation adjustment	-	-	
Pension liability adjustment	-	-	
Loss on derivative financial instruments, net of taxes of $474	-	-	
Comprehensive loss			
Stock issued (127,270 shares)	11	-	2,
Stock options exercised (260,720 shares)	26	-	3,
Conversions from Class B to common (113,053 shares)	12	(12)	
Warrants issued - BCcomponents acquisition	-	-	39,
Tax effects relating to stock plan	-	-	
Amortization of unearned compensation	-	-	
Balance at December 31, 2002	$ 14,429	$ 1,538	$ 1,910,

	Accumulated Other Comprehensive (Loss)	Income Total Stockholders' Equity
Balance at January 1, 2000	$ (81,009)	$ 1,013,592
Net earnings	-	517,864
Foreign currency translation adjustment	(32,468)	(32,468)
Pension liability adjustment	(94)	(94)
Comprehensive income		485,302
Stock issued (53,716 shares)	-	-
Stock options exercised (2,656,171 shares)	-	39,873
Conversions from Class B to common (36,347 shares)	-	-
Common stock repurchase (200,000 shares)	-	(5,765)
Sale of common stock (8,392,500 shares)	-	395,449
Termination of Lite-On stock appreciation rights	-	(108,495)
Tax effects relating to stock plan	-	12,357
Amortization of unearned compensation	-	1,542
Balance at December 31, 2000	(113,571)	1,833,855
Net earnings	-	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		(16,327)
Stock issued (22,573 shares)	-	(1)
Stock options exercised (85,877 shares)	-	854
Conversions from Class B to common (21,917 shares)	-	-
Common stock repurchase (48,500 shares)	-	(851)
Tax effects relating to stock plan	-	423
Amortization of unearned compensation	-	773
Stock issued - General Semiconductor acquisition (21,305,127 shares)	-	499,819
Stock options issued - General Semiconductor acquisitio	-	48,000
Balance at December 31, 2001	(130,411)	2,366,545
Net loss	-	(92,614)
Foreign currency translation adjustment	64,343	64,343
Pension liability adjustment	(23,230)	(23,230)
Loss on derivative financial instruments, net of taxes of $474	(1,817)	(1,817)
Comprehensive loss		(53,318)
Stock issued (127,270 shares)	-	2,000
Stock options exercised (260,720 shares)	-	3,161
Conversions from Class B to common (113,053 shares)	-	-
Warrants issued - BCcomponents acquisition	-	39,462
Tax effects relating to stock plan	-	294
Amortization of unearned compensation	-	643
Balance at December 31, 2002	$ (91,115)	$ 2,358,787

See accompanying notes.

Vishay Intertechnology, Inc.

Notes to Consolidated Financial Statements

December 31, 2002

Vishay Intertechnology, Inc. is an international manufacturer and supplier of passive and active electronic components, including resistors, capacitors, inductors, strain gages, load cells, force measurement sensors, displacement sensors, photoelastic sensors, 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. Allowances for product returns and allowances are estimated based on historical experience and provisions are recorded at the time of shipment. Reserves for price reductions initiated by the Company are recognized at the time that such price reductions are initiated.

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)

Allowance for Doubtful Accounts

The Company maintains an allowance for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. The allowance is determined through an analysis of the aging of accounts receivable and assessments of risk that are based on historical trends and an evaluation of the impact of current and projected economic conditions. The Company evaluates the past-due status of its trade receivables based on contractual terms of sale.

If the financial condition of the Company's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. Bad debt expense was $6,672,000, $7,112,000 and $3,020,000 for the years ended December 31, 2002, 2001, and 2000, respectively.

Depreciation

Depreciation is computed principally by the straight-line method based upon the estimated useful lives of the assets. Machinery and equipment are being depreciated over useful lives of seven to ten years. Buildings and building improvements are being depreciated over useful lives of twenty to forty years. Depreciation of capital lease assets is included in total depreciation expense. Depreciation expense was $172,174,000, $149,225,000, and $126,285,000, for the years ended December 31, 2002, 2001, and 2000, respectively.

Construction in Progress

The estimated cost to complete construction in progress at December 31, 2002 was $21,838,000.

Goodwill and Other Intangible Assets

The Company adopted Statements of Financial Accounting Standards ("SFAS") No. 141, Business Combinations, and No. 142, Goodwill and Other Intangible Assets, effective January 1, 2002.

The most significant changes made by SFAS 142 were: (1) goodwill and indefinite lived intangible assets will no longer be amortized, (2) goodwill will be tested for impairment at least annually at the reporting unit level, (3) intangible assets deemed to have an indefinite life will be tested for impairment at least annually, and (4) the amortization period of intangible assets with finite lives will no longer be limited to forty years. SFAS 142 prescribes a two-step method for determining goodwill impairment. In the first step, we determine the fair value of the reporting unit using a comparable companies market multiple approach. If the net book value of the reporting unit exceeds the fair value, we would then perform the second step of the impairment test which requires allocation of the reporting unit's fair value to all of its assets and liabilities in a manner similar to a purchase price allocation, with any residual fair value being allocated to goodwill. The fair value of the goodwill is then compared to its carrying amount to determine impairment. An impairment charge will be recognized only when the implied fair value of a reporting unit's goodwill is less than its carrying amount. SFAS 142 requires the Company to perform transitional impairment tests of its trademarks and goodwill as of January 1, 2002, as well as perform impairment tests on an annual basis and whenever events or circumstances occur indicating that the trademarks or goodwill may be impaired.

1. Summary of Significant Accounting Policies (continued)

Goodwill and Other Intangible Assets (continued)

The Company has identified the following reporting units and associated goodwill (in thousands):

	Actives	Passives	Measurements
Goodwill Balance at December 31, 2002	$ 861,201	$ 462,251	$ 32,841

The Company has assigned an indefinite useful life to its trademarks ($56,000,000) and discontinued the amortization of both its goodwill and trademarks. Completed technology ($67,000,000) is being amortized over useful lives of seven to ten years. Noncompete agreements ($7,604,000) are being amortized over a period of one to five years. Amortization expense was $7,171,000, $1,017,000, and $0 for the years ended December 31, 2002, 2001, and 2000, respectively. Estimated annual amortization expense for each of the next five years is as follows: 2003 - $11,248,000; 2004 - $8,414,000; 2005 - $7,993,000; 2006 - $7,593,000; and 2007 - $7,593,000.

The Company completed the transitional impairment test of its trademarks as of January 1, 2002. The fair value of the trademarks, as determined by an independent appraiser, was measured as the discounted cash flow savings realized from owning such trademarks and not having to pay a royalty for their use. No impairment of the trademarks was determined to exist at January 1, 2002. An annual impairment test of trademarks was completed as of October 1, 2002, with no impairment recognized.

The Company completed a transitional goodwill impairment test as of January 1, 2002. Fair value of reporting units was determined using comparable company market multiples. The Company determined that there was no goodwill impairment as of January 1, 2002.

The Company performed an additional goodwill impairment test, as required under SFAS 142, with particular attention to the Company's market capitalization as compared with the Company's net asset value at September 30, 2002. The Company determined that there was no goodwill impairment. The Company's required annual impairment test will be performed on October 1st of each subsequent year.

The interim impairment test of goodwill was performed in accordance with the provisions of SFAS 142, which states that, if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount, an impairment test is required. During the nine months ended September 30, 2002, events and circumstances indicated that approximately $204 million of goodwill of the passives reporting unit might be impaired. The Company regarded the decline in the market capitalization of the Company below book value to be an indicator of adverse business conditions and possible impairment. The Company also believed that the global slowdown in electronics and its effect on its sales and earnings was the primary contributor to the decline in the Company's market capitalization. However, the Company's estimate of fair value of the passives reporting unit using a comparable companies market multiple approach indicated that the fair value of the reporting unit exceeded its net book value. Nonetheless, it is reasonably possible that the fair value of the passives reporting unit may decrease in the near term resulting in the need to write down that goodwill to fair value.

1. Summary of Significant Accounting Policies (continued)

Long-Lived Assets

The Company evaluates impairment of its intangible assets subject to amortization and other long-lived assets, other than goodwill and intangible assets not subject to amortization, in accordance with SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, which has been adopted by the Company as of January 1, 2002. SFAS 144 requires an impairment loss to be recognized only if the carrying amounts of long-lived assets to be held and used are not recoverable from their expected undiscounted cash flows. Adoption of SFAS 144 had no effect on the Company's financial position or its results of operations.

Cash Equivalents

Cash and cash equivalents includes demand deposits and 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 $37,095,000, $30,176,000, and $37,103,000 for the years ended December 31, 2002, 2001, and 2000, 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 $17,322,000, $19,064,000, and $15,721,000 for the years ended December 31, 2002, 2001, and 2000, respectively. Grants receivable of $16,374,000 and $14,858,000 are included in other current assets at December 31, 2002 and 2001, respectively. Deferred grant income was $42,345,000 and $57,208,000 at December 31, 2002 and 2001, 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.

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 APB Opinion No. 25, Accounting for Stock Issued to Employees. The Company accounts for stock-based compensation in

accordance with APB 25 and related interpretations. The following is provided to comply with the disclosure requirements of SFAS 123 as amended. If compensation cost for the Company's stock option programs had been determined using the fair-value method prescribed by SFAS 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		
	2002	2001	2000
Net (loss) income, as reported	$ (92,614)	$ 513	$ 517,
Deduct: Total stock-based employee compensation expense determined under fair value-based method for all awards, net of related tax effects	(2,430)	(3,742)	(2,
Pro forma net (loss) income	$ (95,044)	$ (3,229)	$ 515,
Earnings (loss) per share:			
Basic--as reported	$ (0.58)	$ 0.00	$ 3
Basic--pro forma	$ (0.60)	$ (0.02)	$ 3
Diluted--as reported	$ (0.58)	$ 0.00	$ 3
Diluted--pro forma	$ (0.60)	$ (0.02)	$ 3

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 2002 had a weighted average fair value of $8.62 and an exercise price equal to the market value. All options granted in 2000 had a weighted average fair value of $11.64 and a weighted average exercise price of $25.34.

	2002 Grants	2000 Grants
Expected dividend yield	-	-
Risk-free interest rate	3.5%	5.8%
Expected volatility	63.2%	58.2%
Expected life (in years)	4.5	4.7

1. Summary of Significant Accounting Policies (continued)

Derivative Financial Instruments

Effective January 1, 2001, the Company adopted SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. 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. 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 (loss).

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.

Accounting Pronouncements Pending Adoption

In April 2002, the FASB issued SFAS No. 145, Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections. In addition to other technical provisions, this Statement rescinds SFAS No. 4, which required all gains and losses from extinguishment of debt to be aggregated and, if material, classified as an extraordinary item, net of tax. The provisions of SFAS 145 are being adopted by the Company as of January 1, 2003.

In July 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities. This Statement nullifies EITF Issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring). SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred rather than at the date of an entity's commitment to an exit plan. The provisions of SFAS 146 are being adopted by the Company for exit or disposal activities initiated after December 31, 2002.

In November 2002, the FASB issued Interpretation No. 45, Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others, an Interpretation of FASB Statements No. 5, 57, and 107 and Rescission of FASB Interpretation No. 34 (FIN No. 45). The interpretation requires that upon issuance of a guarantee, the entity must recognize a liability for the fair value of the obligation it assumes under that obligation. This interpretation is intended to improve the comparability of financial reporting by requiring identical accounting for guarantees issued with separately identified consideration and guarantees issued without separately identified consideration. The recognition and measurement provisions of FIN No. 45 are applicable to guarantees issued or modified after December 31, 2002. The future impact will depend upon whether the Company enters into or modifies any material guarantee arrangements. The disclosure requirements are applicable for periods ended after December 15, 2002. See disclosures regarding guarantees in Note 13.

1. Summary of Significant Accounting Policies (continued)

Accounting Pronouncements Pending Adoption (continued)

In December 2002, the FASB issued SFAS No. 148, Accounting for Stock-Based Compensation - Transition and Disclosure. SFAS 148 amends SFAS No. 123, Accounting for Stock-Based Compensation, to provide alternative methods of transition to SFAS 123's fair value method of accounting for stock-based employee compensation. The Company is evaluating the potential impact of adopting the fair value method of accounting for its stock-based employee compensation.

In January 2003, the FASB issued Interpretation No. 46, Consolidation of Variable Interest Entities (FIN No. 46). This interpretation clarifies the application of Accounting Research Bulletin No. 51, Consolidated Financial Statements, to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. The Company is currently evaluating what impact, if any, adoption of FIN No. 46 will have on its consolidated financial position, consolidated results of operations, or liquidity.

Reclassifications

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

2. Acquisitions and Divestitures

As part of its growth strategy, the Company seeks to expand 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 the Company has substantial marketing and technical expertise. In the past two years, the Company has taken advantage of the downturn in the electronics industry and the strength of its own balance sheet to acquire businesses for consideration that it believes was lower than what it would have been required to pay in other economic environments. In pricing an acquisition, the Company focuses primarily on the target's revenues and customer base, the strategic fit of its product line with its existing product offerings, opportunities for cost cutting and integration with its existing operations and production and other post-acquisition synergies rather than on the target's assets, such as its property, equipment and inventory. As a result, the fair value of the acquired assets may correspond to a relatively smaller portion of the acquisition price, with the Company recording a substantial amount of goodwill related to the acquisition.

2. Acquisitions and Divestitures (continued)

These principles apply in particular to acquisitions in the passives segment. The passives electronics business is a mature industry that, in general, has a slow organic growth rate linked to macro-economic trends. The Company's business strategy for growth in the passives segment relies primarily upon the acquisition of other electronic components manufacturers whose operations

satisfy its acquisition criteria. Rather than focusing on the assets of the acquired company, the Company seeks to capture its sales and customers, which it expects to service in substantial measure with its own long term assets and personnel. In this regard, the Company anticipates that, following the acquisition, it will be able to maintain sales levels on the strength of its relationships with original equipment manufacturers (OEM's), distributors and electronic manufacturers' supply (EMS) companies. The Company also anticipates that it will be able to achieve fairly rapid cost reductions by eliminating or combining redundant sales offices, sales personnel, commission representatives, administrative staff; eliminating or consolidating manufacturing facilities; and transferring manufacturing operations from high labor countries to low labor jurisdiction. These savings and synergies are made possible in the current environment of depressed activity in the electronics industry by low utilization of manufacturing and distribution capacity in the passives segment. The plant, property and equipment of the acquired company are expected to be eliminated or substantially reduced and are valued accordingly. The result for acquisitions in the passives segment is recognition of a substantial amount of goodwill.

Year ended December 31, 2002

In January 2002, the Company acquired 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, under a joint venture arrangement, India. The acquisition included the wholly owned subsidiary of Sensortronics, JP Technologies, a manufacturer of strain gages, located in San Bernardino, California. The purchase price was $10 million in cash. The purchase price has been allocated, with resulting goodwill of $3,027,000. The results of operations of Sensortronics are included in the results of the passives segment from January 31, 2002.

In June 2002, the Company acquired Tedea-Huntleigh BV, a subsidiary of Tedea Technological Development and Automation Ltd. Tedea-Huntleigh BV is engaged in the production and sale of load cells used in digital scales by the weighing industry. The purchase price was approximately $21 million in cash. Additionally, Vishay will pay Tedea a $1 million consulting fee over a three-year period and repaid a $9 million loan of Tedea to Tedea-Huntleigh. Tedea-Huntleigh operates two plants in Israel, in Netanya and Carmiel, where it employs approximately 350 people, as well as a number of facilities outside Israel. Tedea-Huntleigh also has load cell operations in the Peoples Republic of China. The purchase price has been allocated, with resulting goodwill of $13,841,000. Results of operations are included in the passives segment beginning July 1, 2002.

On July 31, 2002, the Company acquired the BLH and Nobel businesses of Thermo Electron Corporation. BLH and Nobel are engaged in the production and sale of load cell-based process weighing systems, weighing and batching instruments, web tension instruments, weighing scales, servo control systems, and components relating to load cells including strain gages, foil gages, and transducers. The purchase price was $18.5 million in cash. The purchase price has been allocated, with resulting goodwill of $11,262,000. The results of operations are included in the passives segment beginning August 1, 2002.

2. Acquisitions and Divestitures (continued)

In October 2002, the Company acquired Celtron Technologies. Celtron is engaged in the production and sale of load cells used in digital scales for the weighing

industry, with manufacturing facilities and offices in Taiwan, the Peoples Republic of China, and California. The purchase price of $13.5 million in cash has been allocated with resulting goodwill of $4,711,000.

On December 13, 2002, the Company acquired BCcomponents Holdings B.V., a leading manufacturer of passive components with operations in Europe, India and the Far East. The product lines of BCcomponents include linear and non-linear resistors; ceramic, film and aluminum electrolytic capacitors; and switches and trimming potentiometers. The acquisition of BCcomponents, and the recognition of substantial goodwill in the acquisition, are consistent with the general principles described above that guide the Company's acquisition activity and their application in particular to acquisitions in the passive component segment.

Vishay acquired the outstanding shares of BCcomponents in exchange for ten-year warrants to acquire 7,000,000 shares of Vishay common stock at an exercise price of $20.00 per share and ten-year warrants to acquire 1,823,529 shares of Vishay common stock at an exercise price of $30.30 per share.

In the transaction, outstanding obligations of BCcomponents, including indebtedness and transaction fees and expenses, in the amount of approximately $224 million were paid ($191,000,000) or assumed ($33,000,000). Also, $105 million in principal amount of BCcomponents' mezzanine indebtedness and certain other securities of BCcomponents were exchanged for $105 million principal amount of floating rate unsecured loan notes of Vishay due 2102. The Vishay notes bear interest at LIBOR plus 1.5% through December 31, 2006 and at LIBOR thereafter. The interest note could be further reduced to 50% of LIBOR after December 31, 2010 if the price of Vishay common stock trades above a specified target price, as provided in the notes. The notes are subject to a put and call agreement under which the holders may at any time put the notes to Vishay in exchange for 6,176,471 shares of Vishay common stock in the aggregate, and Vishay may call the notes in exchange for cash or for shares of its common stock after 15 years from the date of issuance. The purchase price was as follows:

Cash consideration	$ 191,000,000
Warrants issued	39,462,000
Acquisition costs	3,000,000
Total purchase price	$ 233,462,000

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 BCcomponents' 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. However, Vishay does not expect the impact of any adjustments to be material. The purchase price has been preliminarily allocated, pending finalization of appraisals for property, plant, and equipment, debt, intangible assets and warrants, to the acquired assets and liabilities based on fair values as follows:

Current assets	$ 96,071,000
Property, plant, and equipment	127,626,000
Other assets	4,805,000
Trademarks	21,000,000
Completed technology	22,000,000
Current liabilities	(118,238,000)
Long-term debt	(126,328,000)
Other noncurrent liabilities	(29,527,000)
Goodwill	236,053,000
Total purchase price	$ 233,462,000

In connection with the BCcomponents acquisition, the Company recorded restructuring liabilities of $48,000,000 in connection with an exit plan that management began to formulate prior to the acquisition date. Approximately $46,000,000 of these liabilities relate to employee termination costs covering approximately 780 technical, production, administrative and support employees located in the United States, Europe, and the Pacific Rim. The liability is recorded in other accrued expenses and is expected to be paid out by December 31, 2003. The exit plan is not yet finalized. Future adjustments to increase or decrease the restructuring liabilities would increase or decrease goodwill.

Year ended December 31, 2001

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.

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 to acquire a manufacturing facility in Malaysia. 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

2. Acquisitions and Divestitures (continued)

actives segment from July 27, 2001. The results of operations of the Malaysia facility are included from December 31, 2001, its acquisition date. The purchase price was allocated to the acquired assets and liabilities based on fair values as follows:

Current assets	$ 28,121,000
Property, plant, and equipment	27,575,000
Completed technology	8,000,000
Other assets	226,000

Current liabilities	(14,200,000)
Goodwill	66,351,000
Total purchase price	$ 116,073,000

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, for $554.8 million, including acquisition expenses of $7.0 million. Stockholders of General Semiconductor received 0.563 shares of Vishay Common Stock for each General Semiconductor share in a tax-free exchange. The Company used an average closing price of its common stock for the period beginning three trading days immediately prior to the date the acquisition was announced (August 1, 2001) and ending the three trading days immediately thereafter, or an average of $23.46 per share. The aggregate fair value was determined by multiplying the total number of shares of Vishay Common Stock issued (21,305,127) by $23.46 per share (determined as described above), or approximately $499,818,000. The Company assumed General Semiconductor options that became exercisable for 4.3 million shares of Vishay Common Stock, with a fair value of $48 million. The fair value of the options issued was determined using the Black-Scholes method. The significant assumptions used included an expected dividend yield of 0.0%, a risk-free interest rate of 3%, an expected volatility of 66%, and an expected life of five years. General Semiconductor also had outstanding $172.5 million principal amount of 5.75% convertible notes, of which $1.5 million principal amount was repurchased by the Company in January 2002. As a result of the acquisition, the notes that remain outstanding are convertible into approximately 6.2 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.

2. Acquisitions and Divestitures (continued)

The final purchase allocation is as follows:

Current assets	$ 153,115,000
Property, plant, and equipment	184,524,000
Other assets	7,896,000
Noncompete agreements	5,604,000
Trademarks	35,000,000
Completed technology	37,000,000
Purchased in-process technology	16,000,000
Current liabilities	(188,410,000)
Long-term debt	(255,502,000)
Other noncurrent liabilities	(111,290,000)
Goodwill	670,909,000
Total purchase price	$ 554,846,000

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. The exit plan includes downsizing certain European and Taiwan facilities and moving production to low labor cost areas such as Israel, Czech Republic, and China. The exit plan should be completed by the second quarter of 2003. The plan also includes reducing selling, general and administrative expenses through the integration or elimination of redundant sales offices and administrative functions at General Semiconductor. The goal of the Company is achieving significant production cost savings through the transfer and expansion of manufacturing operations to regions such as Israel, the Czech Republic, and the People's Republic of China, where the Company can take advantage of lower labor costs and available tax and other government-sponsored incentives. Approximately $88,242,000 of these restructuring liabilities related 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 related to provisions for lease cancellations and other costs. The liability is included in other accrued expenses on the consolidated balance sheet and the workforce reduction costs are expected to be paid out by the second quarter of 2003. The other costs are expected to be paid out by 2005. Any changes in estimates to the restructuring liability have changed the purchase allocation. A rollforward of the activity in these restructuring liabilities is as follows (in thousands, except number of employees):

	Workforce Reduction	Other	Number of Employees Terminated	Tot
Balance at January 1, 2002	$ 88,242	$ 6,401	1,460	$ 94
Cash paid	(52,118)	(1,249)	(426)	(53
Changes in estimate	(7,900)	-	(147)	(7
Balance at December 31, 2002	$28,224	$ 5,152	887	$3

The change in the estimate of restructuring liabilities for the acquisition of General Semiconductor resulted from a decision not to downsize one of General Semiconductor's European facilities. At the time that the Company formulated its exit plan, it did not anticipate the robust demand for the active components

manufactured in that facility experienced in 2002. Accordingly, the Company did not terminate the 147 employees whose positions it had originally expected to eliminate. The Company reduced restructuring liabilities (and goodwill) by $7,900,000, the amount of the anticipated termination costs for these employees that had been included in the purchase allocation.

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. With manufacturing facilities in Greencastle, Indiana and Glasgow, Kentucky, Mallory is a leading manufacturer of wet tantalum electrolytic capacitors, among other businesses. Subsequently, in February 2002, Vishay sold the audible signal business of Mallory for $4,925,000, consisting of $3,925,000 in cash and a $1,000,000 promissory note and recognized no gain or loss. On

April 1, 2002, the Company sold the resale business of Mallory for $8.8 million, consisting of $7.6 million in cash and a $1.2 million subordinated promissory note and recognized no gain or loss. The purchase price was allocated to the acquired assets and liabilities based on fair values 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	$ 44,652,000

The BLH, Tansitor, Celtron, Nobel, Tedea-Huntleigh, Sensortronics, Mallory and Infineon acquisitions were funded with cash on hand and borrowings under Vishay's revolving credit facility.

Had all of the above 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):

	Year ended December 31	
	2002	2001
Net sales	$ 2,095,657	$ 2,415,651
Net loss	(132,000))	(86,788))
Basic and diluted loss per share	(0.83)	(0.55)

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 intangible assets and related tax effects. Pro forma net loss for the year ended December 31,2001 includes pre-tax restructuring charges of $88,846,000 recorded by General Semiconductor and BC components prior to acquisition. 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.

2. Acquisitions and Divestitures (continued)

Year ended December 31, 2000

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. The pro forma effect of these acquisitions was not material for 2000.

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 7) 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).

3. Goodwill

As discussed in Note 1, the Company adopted SFAS 142 on January 1, 2002. The Company's net income and earnings per share adjusted to exclude goodwill amortization were as follows:

	Year ended December 31		
	2002	2001	2000
	(In thousands)		
Reported net (loss) income	$ (92,614)	$ 513	$ 517,864
Add back: Goodwill amortization, net of tax	-	10,414	10,692
Adjusted net (loss) income	(92,614)	10,927	528,556
Basic earnings per share:			
Reported net (loss) income	$ (0.58)	$ 0.00	$ 3.83
Goodwill amortization, net of tax	-	0.08	0.08
Adjusted net (loss) income	(0.58)	0.08	3.91
Diluted earnings per share:			
Reported net (loss) income	$ (0.58)	$ 0.00	$ 3.77
Goodwill amortization, net of tax	-	0.08	0.08
Adjusted net (loss) income	(0.58)	0.08	3.85

3. Goodwill (continued)

The changes in the carrying amounts of goodwill by segment for the year ended December 31, 2002 were as follows:

	Actives	Passives	Total

	(In thousands)		
Balance at January 1, 2002	$ 864,375	$ 213,415	$ 1,077,790
Goodwill acquired during the year	-	276,606	276,606
Purchase price adjustments	(8,332)	830	(7,502)
Currency translation adjustments	5,158	4,241	9,399
Balance at December 31, 2002	$ 861,201	$ 495,092	$ 1,356,293

4. Restructuring Expense

Restructuring expense reflects the cost reduction programs currently being implemented by the Company. These include the closing of facilities and the termination of employees. Restructuring costs are expensed during the period in which we determine that we will incur those costs and all of the requirements of 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. We could be required either to record additional expenses in future periods, if the initial estimates were too low, or to reverse part of the charges that we recorded initially.

Year ended December 31, 2002

Restructuring expense was $30,970,000 for the year ended December 31, 2002. Restructuring of European and Israeli operations included $10,698,000 of employee termination costs covering approximately 778 technical, production, administrative and support employees located in Czech Republic, France, Hungary, Israel, Portugal, and Austria. In the United States, $7,909,000 of restructuring expense related to termination costs for approximately 660 technical, production, administrative and support employees. The remaining $12,363,000 of restructuring expense relates to the noncash writedown of building and equipment that are no longer in use. The restructuring expense was incurred as part of the cost reduction programs currently being implemented by the Company. The restructuring activities related to existing business were designed to reduce both fixed and variable costs, particularly in response to the reduced demand for our products occasioned by the electronics industry downturn which began in 2001. Activity related to these costs is as follows (in thousands, except number of employees):

	Workforce Reduction	Asset Impairment	Number of Emplo Terminated
Restructuring expense	$ 18,607	$ 12,363	1,438
Utilized	(6,420)	(12,363)	(783)
Balance at December 31, 2002	$ 12,187	$ -	655

The remaining $12,187,000 of severance costs, currently shown in other accrued expenses, should be paid by December 31, 2003.

4. Restructuring Expense (continued)

Year ended December 31, 2001

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.

Activity related to these costs is as follows (in thousands, except number of employees):

	Workforce Reduction	Asset Impairment	Number of Employees Terminated	Total
Restructuring expense	$ 40,934	$ 20,974	5,663	$ 61,9
Utilized	(18,114)	(20,974)	(4,913)	(39,
Balance at December 31, 2001	22,820	-	750	22,
Cash paid	(19,865)	-	(612)	(19,
Changes in estimate	(1,391)	-	-	(1,
Balance at December 31, 2002	$ 1,564	$ -	138	$ 1,

The remaining $1,564,000 of severance costs, currently shown in other accrued expenses, is expected to be paid by December 31, 2003.

5. Income Taxes

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

	Year ended December 31		
	2002	2001	2000
	(In thousands)		
Domestic	$ (59,882)	$ (55,598)	$ 177,852
Foreign	(40,163)	65,701	512,373
	$(100,045)	$ 10,103	$ 690,225

5. Income Taxes (continued)

Significant components of income taxes are as follows:

	Year ended December 31		
	2002	2001	2000
	(In thousands)		
Current:			
U.S	$ (41,991)	$ 6,194	$ 51,965
Foreign	6,111	9,197	11,936
State	776	641	4,744
	(35,104)	16,032	68,645
Deferred:			
U.S	30,590	(12,392)	62,156
Foreign	(16,152)	4,031	17,540
State	3,766	(1,976)	(155)
	18,204	(10,337)	79,541
	$ (16,900)	$ 5,695	$ 148,186

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:

	December 31	
	2002	2001
	(In thousands)	
Deferred tax assets:		
Pension and other retiree obligations	$ 47,710	$ 41,500
Net operating loss carryforwards	112,770	38,869
Tax credit carryforwards	11,766	13,080
Restructuring reserves	13,093	23,678
Other accruals and reserves	55,699	51,348
Total deferred tax assets	241,038	168,475
Less valuation allowance	(63,192)	(10,256)
	177,846	158,219
Deferred tax liabilities:		
Tax over book depreciation	87,483	88,377
Non-amortizable intangible assets	24,454	26,412
Other - net	30,359	16,284
Total deferred tax liabilities	142,296	131,073
Net deferred tax assets	$ 35,550	$ 27,146

5. Income Taxes (continued)

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

	Year ended December 31		
	2002	2001	2000
	(In thousands)		
Tax at statutory rate	$ (35,016)	$ 3,536	$ 241,579
State income taxes, net of U.S. federal tax benefit	2,540	(382)	3,064
Effect of foreign operations	11,090	(4,894)	(99,520)
Purchased research and development	-	5,600	-
Other	4,486	1,835	3,063
	$ (16,900)	$ 5,695	$ 148,186

At December 31, 2002, the Company had the following significant net operating loss carryforwards for tax purposes (in thousands):

		Expires
Czech Republic	$ 608	2005 - 2007
France	8,720	2005 - 2007
Germany	50,560	No expiration
Israel	153,442	No expiration
Portugal	3,550	2005 - 2007
United States	58,236	2021

Approximately $25,280,000 of the carryforward in Germany resulted from the Company's acquisition of Roederstein, GmbH in 1993. Valuation allowances of $6,208,000 and $7,324,000 have been recorded at December 31, 2002 and 2001, respectively, for deferred tax assets related to foreign net operating loss carryforwards. In 2002 and 2001, respectively, tax benefits recognized through reductions of the valuation allowance had the effect of reducing goodwill of acquired companies by $491,000 and $4,901,000. If additional tax benefits are recognized in the future through further reduction of the valuation allowance, $2,523,000 of such benefits will reduce goodwill.

5. Income Taxes (continued)

In addition, as part of the BCcomponents acquisition, the Company has the following estimated pre-acquisition NOL carryforwards for tax purposes (in thousands):

		Expires
Austria	$ 4,329	No expiration
Belgium	60,504	No expiration
Netherlands	74,688	No expiration

The Company has recorded valuation allowances against the deferred tax assets arising from these net operating loss carryforwards. If the Company recognizes future tax benefits through the use of these pre-acquisition losses, the benefit of such utilization will be recorded as a reduction to goodwill.

At December 31, 2002, the Company had the following tax credit carryforwards available (in thousands):

		Expires
Federal Alternative Minimum Tax	$ 5,802	No expiration
California Investment Credit	5,644	2003 - 2009
California Research Credit	3,402	No expiration

At December 31, 2002, no provision had been made for U.S. federal and state income taxes on approximately $897,550,000 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 $2,910,000, $72,953,000, and $45,703,000 for the years ended December 31, 2002, 2001, and 2000, respectively.

6. Long-Term Debt

Long-term debt consists of the following:

	December 31 2002	2001
	(In thousands)	
Multicurrency revolving credit loans	$111,000	$125,000
Convertible subordinated notes, LYONs, due 2021	317,830	308,506
Other debt and capital lease obligations	21,689	1,390
Convertible unsecured notes, BCcomponents, due 2102	105,000	-
Convertible subordinated notes, GSI, due 2006	169,347	170,502
	724,866	605,398
Less current portion	18,550	367

$706,316	$605,031

On December 13, 2002, the Company entered into an amendment to its long-term revolving credit and swing line facility. The aggregate commitment under this facility was reduced from $660,000,000 to $500,000,000, subject to increase under certain circumstances, and certain changes were made to other terms of the facility. This facility, which matures on June 1, 2005, is 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, 2002, the Company had $111,000,000 outstanding under the long-term revolving credit facility (interest rate of 3.03%; 5.77% after giving effect to interest rate swaps). Letters of credit totaling $30,633,000 were issued under the revolving credit facility at December 31, 2002. $358,367,000 was available under the credit and swing line facility at December 31, 2002.

The Company's borrowings under the credit facility are secured by pledges of stock and guarantees by certain significant subsidiaries. The subsidiaries would be required to perform under the guarantees in the event that the Company failed to make principal or interest payments under the $500,000,000 revolving credit facility. The Company's borrowings under the credit facility were $111,000,000 at December 31, 2002. If any subsidiary were to borrow under the credit facility, the Company would provide a similar guarantee with respect to the subsidiary's borrowings.

On December 13, 2002, the Company completed the acquisition of BCcomponents Holdings B.V. In connection with this acquisition, $105,000,000 in principal amount of BCcomponents' mezzanine indebtedness and certain other securities of BCcomponents were exchanged for $105,000,000 principal amount of floating rate unsecured loan notes of the Company, due 2102. The notes bear interest at LIBOR plus 1.5% through December 31, 2006 and at LIBOR thereafter. The interest rate could be further reduced to 50% of LIBOR after December 31, 2010 if the price of the Company's common stock trades above a specified target price, as provided in the notes. The notes are subject to a put and call agreement under which the holders may at any time put the notes to the Company in exchange for 6,176,471 shares of the Company's common stock in the aggregate, and the Company may call the notes in exchange for cash or for shares of its common stock after 15 years from the date of issuance.

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.

6. Long-Term Debt (continued)

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.

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, had 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 6.2 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: 2003 - $18,550,000; 2004 - $318,869,000; 2005 - $111,533,000; 2006 - $169,373,000; 2007 - $11,000; and thereafter - $106,530,000.

At December 31, 2002, the Company had committed and uncommitted short-term credit lines with various U.S. and foreign banks aggregating $77,803,000, of which $59,642,000 was unused. The weighted average interest rate on short-term borrowings outstanding as of December 31, 2002 and 2001 was 2.80% and 2.53%, respectively.

Interest paid was $17,977,000, $15,685,000, and $29,930,000, for the years ended December 31, 2002, 2001, and 2000, respectively.

7. 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, 2002, 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, 2002, 305,126 shares were available for issuance under stock plans.

At December 31, 2002, the Company has reserved shares of Common Stock for future issuance as follows:

Employee stock plan	305,126
Common stock options outstanding	9,231,000
Common stock options available to grant	1,036,000
Common stock warrants	8,823,529
Convertible unsecured notes, BCcomponents	6,176,471
Convertible subordinated notes, LYONs	9,717,730
Class B common stock	15,383,581
Convertible subordinated notes, General Semiconductor	6,191,166
	56,864,603

8. Other Income (Expense)

Other income (expense) consists of the following:

	Year ended December 31		
	2002	2001	2000
	(In thousands)		
Foreign exchange (losses) gains	$ (777)	$ 611	$ (7,305)
Loss on ineffective interest rate swap	(115)	(3,668)	-
Interest income	7,952	15,092	9,652
Dividend income	100	-	-
Equity in net income of affiliates	-	-	2,577
Gain on termination of interest rate swap agreements	-	-	8,919
Gains on sale of subsidiaries	-	-	5,851
(Losses) gains on disposal of property and equipment	(296)	1,472	(2,320)
Other	1,800	(806)	1,530
	$ 8,664	$ 12,701	$ 18,904

In connection with repayments of debt in 2000, the Company terminated $200,000,000 notional amount of interest rate swap agreements (see Note 14) 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 (see Note 2).

9. Other Accrued Expenses

Other accrued expenses consists of the following (in thousands):

	2002	2001
Restructuring	$ 95,127	$143,033
Returns and allowances	39,803	32,140
Loss on tantalum purchase commitment - current portion	25,334	-
Other	143,345	117,423
	$303,609	$292,596

10. Other Comprehensive Income (Loss)

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

	Beginning Balance	Before-Tax Amount	Tax Benefit (Expense)	Net-of-Tax Amount	E Ba
			(In thousands)		
December 31, 2002					
Pension liability adjustment	$ (13,694)	$ (35,562)	$ 12,332	$ (23,230)	$
Currency translation adjustment	(116,072)	64,343	-	64,343	
Loss on derivative financial instruments	(645)	(2,291)	474	(1,817)	
	$(130,411)	$ 26,490	$ 12,806	$ 39,296	$
December 31, 2001					
Pension liability adjustment	$ (5,137)	$ (13,281)	$ 4,724	$ (8,557)	$
Currency translation adjustment	(108,434)	(7,638)	-	(7,638)	(
Loss on derivative financial instruments	-	(1,019)	374	(645)	
	$(113,571)	$ (21,938)	$ 5,098	$ (16,840)	$(
December 31, 2000					
Pension liability adjustment	$ (5,043)	$ 1,258	$ (1,352)	$ (94)	$
Currency translation adjustment	(75,966)	(32,468)	-	(32,468)	(
	$ (81,009)	$ (31,210)	$ (1,352)	$ (32,562)	$(

11. 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 beginning on November 2, 2001. The following table sets forth a reconciliation of the benefit obligation, plan assets, and accrued benefit cost related to these plans:

	Pension Benefits		Other Benefits	
	2002	2001	2002	2001
	(In thousands)			
Change in benefit obligation:				
Benefit obligation at beginning of year	$ 193,273	$ 116,008	$ 20,286	$ 7,964
Service cost	3,433	3,092	279	240
Interest cost	13,598	9,023	1,465	678
Employee contributions	1,680	2,019	-	-
Actuarial losses (gains)	(1,158)	(169)	1,400	325
Plan amendments	-	-	(410)	-
Benefits paid	(16,090)	(7,565)	(1,530)	(523)

Assumption change(1)	12,299	-	509	-
Acquisition of General Semiconductor	-	70,865	-	11,602
Benefit obligation at end of year	$ 207,035	$ 193,273	$ 21,999	$ 20,286
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 165,186	$ 102,918		
Actual return on plan assets	(11,224)	(1,078)		
Company contributions	4,226	5,113		
Plan participants' contributions	1,680	2,019		
Benefits paid	(16,090)	(7,565)		
Acquisition of General Semiconductor	-	63,779		
Fair value of plan assets at end of year	$ 143,778	$ 165,186		
Funded status	$ (63,257)	$ (28,087)	$ (21,999)	$ (20,286)
Unrecognized net actuarial loss (gain)	60,957	26,812	1,237	(671)
Unrecognized transition obligation (asset)	(101)	(302)	1,934	2,128
Unamortized prior service cost	-	-	182	639
Additional minimum liability	(48,682)	(13,638)	-	-
Net amount recognized	$ (51,083)	$ (15,215)	$ (18,646)	$ (18,190)

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1 This change in assumption relates to the change in the weighted-average assumed discount rate of 6.75% as of December 31, 2002 as compared to 7.25% as of December 31, 2001.

11. Pensions and Other Postretirement Benefits (continued)

	Pension Benefits		
	2002	2001	20
		(In thousands)	
Amounts recognized in the consolidated balance sheets consist of:			
Accrued benefit liability	$ (82,726)	$ (24,079)	$ (
Accumulated other comprehensive loss	31,643	8,864	
Net amount recognized	$ (51,083)	$ (15,215)	$ (
Weighted-average assumptions as of December 31:			
Discount rate	6.75%	7.25%	
Expected return on plan assets	8.50%-8.75%	8.50%-9.50%	

Rate of compensation increase	4.50%-6.50%	4.50%-6.50%

	Pension Benefits			Other Benef	
	2002	2001	2000	2002	2001
					(In thousan
Components of net periodic benefit cost:					
Annual service cost	$ 5,424	$ 5,388	$ 4,595	$ 279	$ 24
Less expected employee contributions	1,991	2,296	2,067	-	
Net service cost	3,433	3,092	2,528	279	24
Interest cost	13,598	9,023	7,858	1,466	67
Expected return on plan assets	(14,227)	(10,048)	(8,703)	-	
Amortization of prior service cost	-	6	67	47	9
Amortization of transition obligation	(201)	311	110	194	19
Amortization of (gains) losses	1,474	514	556	-	
Net periodic benefit cost	$ 4,077	$ 2,898	$ 2,416	$ 1,986	$ 1,20

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the pension plans with accumulated and projected benefit obligations in excess of plan assets were $207,035,000, $194,760,000, and $143,778,000, respectively, as of December 31, 2002 and $121,472,000, $107,553,000, and $99,210,000, respectively, as of December 31, 2001.

The Company maintains two unfunded nonpension postretirement plans funded as costs are incurred. One plan 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.

11. Pensions and Other Postretirement Benefits (continued)

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 $2,990,000, $3,182,000, and $3,161,000 for the years ended December 31, 2002, 2001, and 2000, respectively.

The Company provides pension and similar benefits to employees of certain foreign subsidiaries consistent with local practices. Certain foreign subsidiaries of the Company have defined benefit pension plans. The foreign

pension plans of General Semiconductor are included as of November 2, 2001. The foreign pension plans of BCcomponents are included as of December 13, 2002. The following table sets forth a reconciliation of the benefit obligation, plan assets, and accrued benefit cost related to the foreign defined benefit plans:

	2002	2001
	(In thousands)	
Change in benefit obligation:		
Benefit obligation at beginning of year	$ 93,397	$ 90,548
Service cost	525	391
Interest cost	5,630	5,301
Actuarial gains	(1,572)	(26)
Benefits paid	(4,869)	(4,845)
Foreign currency translation	13,055	(3,845)
Curtailment gains	(1,336)	-
Acquisitions	14,343	5,873
Benefit obligation at end of year	$ 119,173	$ 93,397
Change in plan assets:		
Fair value of plan assets at beginning of year	$ 13,137	$ 13,417
Actual return on plan assets	(894)	1,019
Company contributions	2,449	1,947
Benefits paid	(2,454)	(2,440)
Foreign currency translation	2,407	(806)
Fair value of plan assets at end of year	$ 14,645	$ 13,137
Funded status	$(104,528)	$ (80,260)
Unrecognized net actuarial (gains) losses	(636)	1,560
Unrecognized transition asset	21	18
Unamortized prior service cost	(3)	(6)
Net amount recognized	$(105,146)	$ (78,688)

11. Pensions and Other Postretirement Benefits (continued)

	2002	2001
	(In thousands)	
Amounts recognized in the consolidated balance sheets consist of:		
Accrued benefit liability	$(110,427)	$ (85,518)
Accumulated other comprehensive loss	5,281	4,830
Net amount recognized	$(105,146)	$ (78,688)

Weighted-average assumptions as of December 31:		
Discount rate	6.00% - 6.25%	6.50%
Rate of compensation increase	2.60% - 3.00%	3.00%

	2002	2001	20
	(In thousands)		
Components of net periodic benefit cost:			
Service cost	$ 525	$ 391	$ 4
Interest cost	5,630	5,301	5,7
Expected return on plan assets	(489)	(444)	(4
Amortization of prior service cost	-	36	
Amortization of transition asset	(3)	(3)	
Curtailment gains	(1,336)	-	
Amortization of (gains) losses	(94)	97	1
Net periodic benefit cost	$ 4,233	$ 5,378	$ 5,9

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the foreign pension plans with accumulated benefit obligations and projected benefit obligations in excess of plan assets were $119,173,000, $118,646,000, and $14,645,000, respectively, as of December 31, 2002 and $81,463,000, $81,646,000, and $13,137,000, respectively, as of December 31, 2001.

12. 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, 2002, options to purchase 528,000 shares have been exercised under this plan.

12. Stock Options (continued)

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

Date of Grant	# of Options	Exercise Price	Vesting
October 6, 1998	1,598,000	$ 5.60	Evenly over 6 years
October 8, 1999	1,334,000	15.33	Evenly over 6 years
August 4, 2000	50,000	30.00	Evenly over 5 years, beginning August 4, 2003
October 12, 2000	1,114,000	25.13	Evenly over 6 years
October 1, 2001 through August 5, 2002	15,000	$14.40 - $25.07	Evenly over 6 years

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, 2002, options to purchase 362,000 shares have been exercised under this plan.

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. As of December 31, 2002, options to purchase 190,000 shares have been exercised under this plan.

12. Stock Options (continued)

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

	2002		2001	
	Number of Options	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Pri
Outstanding at beginning of year	9,569	$ 15.97	5,646	$ 14.29
Granted	15	17.75	-	-
Exercised	(261)	12.12	(86)	9.99
Canceled	(92)	17.14	(273)	17.82

Acquisition of General Semiconductor	-	-	4,282	18.10
Outstanding at end of year	9,231	16.07	9,569	15.97
Exercisable at end of year	7,626	15.79	7,358	15.74
Available for future grants	1,036		958	

The following table summarizes information concerning stock options outstanding and exercisable at December 31, 2002 (options in thousands):

	Options Outstanding			Opt
		Weighted Average		
Range of Exercise Prices	Number of Options	Remaining Contractual Life	Weighted Average Exercise Price	Numbe of Optio
$2.64	3	1.57	$ 2.64	3
$5.60	962	5.74	5.60	584
$10.89 - $12.53	1,289	5.39	11.76	1,289
$12.54 - $13.61	1,283	5.35	13.28	1,283
$14.32 - $14.99	62	2.48	14.46	55
$15.33	1,033	6.74	15.33	510
$15.43 - $16.41	1,369	7.59	15.97	1,369
$16.52 - $20.86	1,366	5.88	18.95	1,361
$21.43 - $25.07	595	3.23	22.44	592
$25.13 - $34.52	1,269	7.48	25.93	580
Total	9,231		$ 16.07	7,626

13. Commitments and Contingencies

Total rental expense under operating leases was $27,652,000, $22,994,000, and $21,431,000 for the years ended December 31, 2002, 2001, and 2000, respectively.

Future minimum lease payments for operating leases with initial or remaining noncancelable lease terms in excess of one year are as follows: 2003 - $21,978,000; 2004 - $15,419,000; 2005 - $12,675,000; 2006 - $11,390,000; 2007 - $10,773,000 and thereafter - $4,739,000.

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. As part of the acquisition of BCcomponents on December 13, 2002, the Company has recorded environmental liabilities of $7,600,000.

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 of $22,405,000 recorded at December 31, 2002 for environmental matters relating to General Semiconductor. This reserve does not include potential liability in connection with litigation relating to a former facility of General Semiconductor in Hicksville, New York, as to which the Company does not believe it is currently able to estimate the amount or timing of such liability. The Company has also recorded $4,400,000 in reserves at December 31, 2002 for other environmental matters, primarily at its Vitramon subsidiary in the United States.

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.

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 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

13. Commitments and Contingencies (continued)

Litigation (continued)

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. In June 2001, 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. Subsequently, the Company and Siliconix filed motions to dismiss the actions in Delaware and for summary judgment. The actions in California were stayed. In the fourth quarter of 2002, based largely on the June 2001 Delaware Court of Chancery ruling, the parties agreed to dismiss the case without prejudice.

The Company is a party to various claims and lawsuits arising in the normal course of business . 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.

14. 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, 2002 and 2001, the Company had no significant concentrations of credit risk.

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 year 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, 2002, the Company had outstanding one interest rate swap agreement with a notional amount of $100,000,000. At December 31, 2002, 2001, and 2000, the Company paid a weighted average fixed rate of 5.77%, respectively, and received a weighted average variable rate of 1.40%, 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 $3,309,000 and $4,686,000 at December 31, 2002 and 2001, respectively. For the years ended December 31, 2002 and 2001, the Company recorded a pretax loss of $115,000 and $3,668,000, respectively, relating to an ineffective hedge for a portion of time relating to an interest rate swap agreement (see Note 8).

14. Financial Instruments (continued)

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

The carrying amounts of cash and cash equivalents reported in the consolidated balance sheets approximate their fair values. The fair value of the long-term debt is $723,429,000 as compared to its carrying value of $724,866,000. The fair value of long-term debt was estimated based on trading prices and market prices of debt with similar terms and features.

15. 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 continue to decrease , 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.

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 2001, Vishay and its competitors experienced a significant decline in the tantalum capacitor business. Vishay's usage of tantalum declined from 602,585 pounds in 2000 to 248,640 pounds in 2001 and 119,900 pounds in 2002. The market prices for tantalum also decreased significantly during 2002. As a result, Vishay recorded, in costs of products sold, writedowns of $25,700,000 and $52,000,000, respectively, on tantalum inventories during the years ended December 31, 2002 and 2001, respectively. The net book value of tantalum inventories is $49,609,000 and $49,337,000 at December 31, 2002 and 2001, respectively. The Company also recorded a loss on future purchase commitments of $106,000,000 for the year ended December 31, 2002. Vishay's purchase commitments were entered into at a time when market demand for tantalum

15. Current Vulnerability Due to Certain Concentrations (continued)

Sources of Supply (continued)

capacitors was high and tantalum powder was in short supply. If the downward pricing trend were to continue, the Company could again be required to write down the carrying value of its tantalum inventory and record additional losses on its long-term purchase commitments.

Under the terms of these future purchase commitments, the Company's purchase commitments are approximately $100,300,000 for 2003, $103,800,000 for 2004, $116,600,000 for 2005, and $60,100,000 for 2006. If certain conditions of the contract are not met, the commitment could increase to $145,900,000 for 2003, $147,600,000 for 2004, $149,300,000 for 2005, and $81,300,000 for 2006. The Company purchased $53,280,000, $23,395,000, and $15,495,000 under these contracts for the years ended December 31, 2002, 2001, and 2000, respectively. As long as Vishay is in compliance with its purchase obligations under the Cabot contracts, its minimum purchase commitments will not increase. If Vishay were to default under its commitments, then the minimum requirements would revert to the quantities specified in the contracts prior to their modification in July 2002. Vishay believes that the likelihood that it would default on its obligations under the contracts is remote.

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 $222 to $1,090 per troy ounce during the three years ended December 31, 2002, and as of December 31, 2002, the price of palladium was $236 per troy ounce. During the years ended December 31, 2002 and 2001, respectively, the Company recorded in costs of products sold writedowns of $1,700,000 and $18,000,000, respectively, on palladium inventories. The net book value of palladium inventories is $5,644,000 and $12,260,000 at December 31, 2002 and 2001, respectively.

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.

16. 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 business segment performance on operating income, exclusive of restructuring charges, amortization of goodwill and unusual and non-recurring items.

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 Passives reflect the acquisitions of Celtron as of October 1, 2002, BLH/Nobel as of August 1, 2002, Tedea-Huntleigh BV as of June 1, 2002, and Sensortronics as of January 31, 2002. The operating results of Actives reflect the acquisitions of Infineon Malaysia as of December 31, 2001, 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 2002 and 2001, no individual customer accounted for more than 10% of net sales.

16. Business Segment and Geographic Area Data (continued)

	2002	2001	2000
	(In thousands)		
Business segment information			
Net sales:			
Passives	$ 767,246	$ 1,010,634	$ 1,627,860
Actives	1,055,567	644,712	837,206
	$ 1,822,813	$ 1,655,346	$ 2,465,066
Operating income (loss):			
Passives	$ (61,317)	$ 60,137	$ 547,156
Actives	139,140	65,181	204,640
Corporate	(20,801)	(21,970)	(43,829)
Restructuring expense	(30,970)	(61,908)	-

Purchased research and development	-	(16,000)	-
Loss on long-term purchase commitments	(106,000)	-	-
Amortization of goodwill	-	(11,190)	(11,469)
	$ (79,948)	$ 14,250	$ 696,498
Restructuring expense:			
Passives	$ 30,049	$ 57,498	$ -
Actives	921	4,410	-
	$ 30,970	$ 61,908	$ -
Depreciation expense:			
Passives	$ 80,084	$ 83,735	$ 73,803
Actives	87,609	61,238	52,250
Corporate	4,481	4,252	232
	$ 172,174	$ 149,225	$ 126,285

16. Business Segment and Geographic Area Data (continued)

	2002	2001	2000
	(In thousands)		
Interest expense:			
Passives	$ 963	$ 680	$ 60
Actives	10,545	1,988	1,389
Corporate	17,253	14,180	23,728
	$ 28,761	$ 16,848	$ 25,177
Income tax expense (benefit):			
Passives	$ (33,674)	$ (2,912)	$ 106,353
Actives	21,286	11,862	51,469
Corporate	(4,512)	(3,255)	(9,636)
	$ (16,900)	$ 5,695	$ 148,186
Total assets:			
Passives	$ 2,125,443	$ 1,876,282	$ 1,931,610
Actives	2,046,944	1,980,841	809,360
Corporate	142,772	94,400	42,688
	$ 4,315,159	$ 3,951,523	$ 2,783,658
Capital expenditures:			
Passives	$ 45,105	$ 91,028	$ 131,318
Actives	62,933	68,463	95,343
Corporate	2,036	3,002	3,120

$ 110,074	$ 162,493	$ 229,781

16. Business Segment and Geographic Area Data (continued)

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:

	2002	2001	2000
	(In thousands)		
Geographic area information			
Net sales:			
United States	$ 482,154	$ 638,326	$1,034,985
Germany	382,932	452,839	678,398
Asia Pacific	542,859	315,550	279,645
France	69,635	85,046	85,686
Israel	75,238	32,646	296,704
Other	269,995	130,939	89,648
	$1,822,813	$1,655,346	$2,465,066
Property, plant, and equipment - net:			
United States	$ 307,783	$ 345,602	$ 355,291
Germany	154,288	116,435	116,910
Israel	328,315	351,375	317,840
Asia Pacific	253,937	221,819	77,337
France	37,687	33,745	24,272
Other	192,840	98,557	81,904
	$1,274,850	$1,167,533	$ 973,554

17. Earnings (Loss) per Share

Basic (loss) earnings per share is computed using the weighted average number of common shares outstanding during the periods presented. Diluted (loss) 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 12), stock appreciation rights issued in connection with the LPSC acquisition (see Note 2), and other potentially dilutive securities.

17. Earnings (Loss) per Share (continued)

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

	Year ended December 3		
	2002	2001	
Numerator			
Numerator for basic (loss) earnings per share - net (loss) income	$ (92,614)	$ 513	$
Denominator			
Denominator for basic (loss) earnings per share - weighted average shares	159,413	141,171	
Effect of dilutive securities:			
Employee stock options	-	1,201	
Stock appreciation rights	-	-	
Other	-	142	
Dilutive potential common shares	-	1,343	
Denominator for diluted earnings per share - adjusted weighted average shares	159,413	142,514	
Basic (loss) earnings per share	$ (0.58)	$ 0.00	$
Diluted (loss) earnings per share	$ (0.58)	$ 0.00	$

17. Earnings (Loss) per Share (continued)

For the year ended December 31, 2002, options to purchase 9,231,000 shares of common stock at prices ranging from $2.64 to $34.52, for the year ended December 31, 2001, options to purchase 1,164,000 shares of common stock at prices ranging from $25.13 to $30.00 per share, and for the year ended December 31, 2000, options to purchase 1,114,000 shares of common stock at $25.13 per share were not included in the computation of diluted earnings per share because their inclusion would have been anti-dilutive. For the year ended December 31, 2002, warrants to purchase 8,823,529 shares were not included in the computation of diluted earnings per share because the warrants' strike prices were greater than the average market price on the common shares. Additionally, for the years ended December 31, 2002 and 2001, convertible notes, convertible into approximately 22,085,000 and 15,908,896 shares, respectively, have not been included in the calculation of diluted earnings per share because their effect would be antidilutive.

18. Related Party Transactions

On December 12, 2002, the Company's Board of Directors passed resolutions to

terminate the stock purchase programs for corporate officers and key employees (together the "Plan") and to offer to all Plan participants the opportunity to surrender to the Company the shares of Vishay common stock purchased with their Plan loans in satisfaction of such loans and all accrued interest thereon. Under the resolutions, the Company agreed that it would compensate the Plan participants for any income tax that the participants are required to recognize as a result of the surrender. Two directors of the Company are among the participants in the Plan. For all Plan participants, the current market value of the Vishay common stock purchased with Plan loans is significantly below the outstanding balances of the loans. The Company recorded a writedown for the loans and accrued interest, and an accrual for compensation expense attributable to taxes owing by Plan participants on surrender, totaling $2,591,000 as of December 31, 2002. This amount is recorded in selling, general, and administrative expense.

19. Summary of Quarterly Financial Information (Unaudited)

Quarterly financial information for the years ended December 31, 2002 and 2001 is as follows (in thousands, except per share amounts):

	First Quarter		Second Quarter		
	2002(3) (11)	2001(6)	2002(3) (12)	2001(7)	2002
Net sales	$ 434,140	$ 558,465	$ 457,877	$ 383,437	$ 4
Gross profit	86,937	198,854	107,565	101,051	1
Net earnings (loss)	2,420	90,126	15,617	3,126	
Basic earnings (loss) per share	$ 0.02	$ 0.65	$ 0.10	$ 0.02	$
Diluted earnings (loss) per share	$ 0.02	$ 0.65	$ 0.10	$ 0.02	$

	Fourth Quarter		Total Year	
	2002(3)(4)(5)(14)	2001(1)(2)(9)	2002(3)(4)(5)(15)	2001(1)
Net sales	$ 459,377	$ 381,151	$ 1,822,813	$ 1,655
Gross profit	(39,456)	52,226	262,273	381
Net earnings (loss)	(123,765)	(53,587)	(92,614)	
Basic earnings (loss) per share	$ (0.78)	$ (0.35)	$ (0.58)	$
Diluted earnings (loss) per share	$ (0.78)	$ (0.35)	$ (0.58)	$

(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.

(3) Includes the results of Sensortronics from January 31, 2002.

(4) Includes the results of Tedea-Huntleigh from July 1, 2002 and BLH and Nobel from August 1, 2002.

(5) Includes the results of Celtron from October 1, 2002.

(6) Includes restructuring charges of $5,971,000 and writedown of tantalum inventory of $10,000,000.

(7) Includes restructuring charges of $29,305,000 and writedown of tantalum inventory of $10,000,000.

(8) Includes restructuring charges of $11,802,000, and writedowns of tantalum and palladium inventories of $17,000,000 and $18,000,000, respectively.

(9) Includes restructuring charges of $14,830,000, writedown of tantalum inventory of $15,000,000, and purchased research and development costs of $16,000,000.

(10) Includes restructuring charges of $61,908,000, writedowns of tantalum and palladium inventories of $52,000,000 and $18,000,000, respectively, and purchased research and development costs of $16,000,000.

(11) Includes restructuring charges of $3,024,000.

(12) Includes restructuring charges of $1,907,000.

(13) Includes restructuring charges of $2,567,000 and write-down of palladium inventory of $600,000.

(14) Includes restructuring charges of $23,472,000, losses of future purchase commitments of $106,000,000 and write-downs of tantalum and palladium inventories of $25,700,000 and $1,100,000, respectively.

(15) Includes restructuring charges of $30,970,000, losses of future purchase commitments of $106,000,000 and write-downs of tantalum and palladium inventories of $25,700,000 and $1,700,000, respectively.

EXHIBIT INDEX

Exhibit No.	Description
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.

2.2 Share Sale and Purchase Agreement between Phoenix Acquisition Company S.ar.l; Other Investors (as defined); Mezzanine Lenders (as defined); Vishay Intertechnology, Inc.; Vishay Europe Gmbh; and BCcomponents International B.V., dated as of November 10, 2002. Incorporated by reference to Exhibit 2.1 to Form 8-K File filed December 23, 2002.

2.3 Amendment to the Share Sale and Purchase Agreement between Phoenix Acquisition Company S.ar.l; Other Investors (as defined); Mezzanine Lenders (as defined); Vishay Intertechnology, Inc.; Vishay Europe Gmbh; and BCcomponents International B.V., dated as of December 4, 2002. Incorporated by reference to Exhibit 2.2 to Form 8-K File filed December 23, 2002.

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 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 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. Incorporated by reference to Exhibit 4.3 to the Company's annual report on Form 10-K for the year ended December 31, 2001.

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. Incorporated by reference to Exhibit 4.3 to the Company's

annual report on Form 10-K for the year ended December 31, 2001.

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 Vishay and the Permitted Lenders (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 Second Amendment to Amended and Restated Vishay Intertechnology, Inc. Long Term Revolving Credit Agreement and Consent, made as of December 13, 2002, by and among Vishay Intertechnology, Inc. the Permitted Borrowers (as defined), Comerica Bank and the Lenders signatory thereto and Comerica Bank as administrative agent. Incorporated by reference to Exhibit 4.6 to Form 8-K filed on December 13, 2002.

10.5 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).

10.6 Vishay Intertechnology 1995 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14ADR filed April 7, 1995.

10.7 Vishay Intertechnology 1997 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14A filed April 16, 1998.

10.8 Vishay Intertechnology 1998 Stock Option Program. Incorporated by reference to the Company's Definitive Proxy Statement on Schedule 14A filed April 16, 1998.

10.9 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).

10.10 Agreement Amending Supply Agreements among Cabot Corporation through its Cabot Performance Materials Division, Vishay Sprague, Inc. and Vishay Intertechnology, Inc. dated as of June 6, 2002.

21. Subsidiaries of the Registrant. 23. Consent of Independent Auditors.

99.1 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 - Dr. Felix Zandman, Chief Executive Officer.

99.2 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 - Richard N. Grubb, Chief Financial Officer.