INTEST CORP
Form 10-K
March 31, 2008

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

# FORM 10-K

(Mark One)

**[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2007 or

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

For the transition period from _____ to _____

Commission File Number 0-22529

# inTEST Corporation

(Exact name of registrant as specified in its charter)

| DELAWARE | 22-2370659 |
|---|---|
| (State or Other Jurisdiction of Incorporation or Organization) | (I.R.S. Employer Identification Number) |
| 7 ESTERBROOK LANE<br>CHERRY HILL, NEW JERSEY | 08003 |
| (Address of Principal Executive Offices) | (Zip Code) |

Registrant's telephone number, including area code: (856) 424-6886

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

| Title of Each Class | Name of Each Exchange on Which Registered |
|---|---|
| Common Stock, par value $0.01 per share | NASDAQ |

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes / / No /X/

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the

Act. Yes / / No /X/

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 / /

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 a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check One):

| | |
|---|---|
| Large accelerated filer / / | Accelerated filer / / |
| Non-accelerated filer (Do not check if a smaller reporting company)/ / | Smaller reporting company /X/ |

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes / / No /X/

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 on June 30, 2007 (the last business day of the Registrant's most recently completed second quarter), was: $32,651,339.

The number of shares outstanding of the Registrant's Common Stock, as of March 14, 2008, was 9,527,206.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement of the Registrant for the Registrant's 2008 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Report, are incorporated by reference into Part III of this Report.

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PART I

Item 1.

**BUSINESS**

## Cautionary Statement Regarding Forward-Looking Statements

From time to time, we make written or oral "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements contained in our filings with the Securities and Exchange Commission, or SEC, (including this Report on Form 10-K), our annual report to stockholders and in other communications. These statements do not convey historical information, but relate to predicted or potential future events, such as statements of our plans, strategies and intentions, or our future performance or goals. Our forward-looking statements can often be identified by the use of forward-looking terminology such as "believes," "expects," "intends," "may," "will," "should" or "anticipates" or similar terminology, and include, but are not limited to, statements made in this Report regarding:

- the indicators of a change in the industry cycles in the integrated circuit, or IC, and automatic test equipment, or ATE, industries;
- developments and trends in the IC and ATE industries;
- the possibility of future acquisitions;
- our cost-containment initiatives;
- the implementation of current and future restructuring initiatives;
- costs associated with compliance with the Sarbanes-Oxley Act of 2002 and new SEC regulations;
- the development of new products and technologies by us or our competitors;
- the availability of materials used to manufacture our products;
- the availability of qualified personnel;
- general economic conditions;
- net revenues generated by foreign subsidiaries;
- exchange rate fluctuations;
- the increasing use of front-end testing by semiconductor manufacturers;
- variable product warranty costs;
- pressure on prices from OEM customer supply line managers;
- stock price fluctuations;
- the anticipated market for our products;
- the sufficiency of cash balances, lines of credit and net cash from operations; and
- other projections of net revenues, taxable income (loss), net earnings (loss), net earnings (loss) per share, capital expenditures and other financial items.

Investors and prospective investors are cautioned that such forward-looking statements are only projections based on current estimations. These statements involve risks and uncertainties and are based upon various assumptions. We discuss many of these risks and uncertainties under Item 1A "Risk Factors," below, and elsewhere in this Report. These risks and uncertainties, among others, could cause our actual future results to differ materially from those described in our forward-looking statements or from our prior results. We are not obligated to update these forward-looking statements, even though our situation may change in the future.

## INTRODUCTION

We are an independent designer, manufacturer and marketer of manipulator and docking hardware, temperature management and tester interface products that are used by semiconductor manufacturers in conjunction with automatic test equipment, or ATE, in the testing of integrated circuits, or ICs. Our high performance products are designed to enable semiconductor manufacturers to improve the efficiency of their IC test processes and, consequently, their profitability. We supply our products worldwide to major semiconductor manufacturers and semiconductor test subcontractors directly and through leading ATE manufacturers. Our largest customers include Analog Devices, Inc., Avago Technologies, Cascade Microtech, Inc., Freescale Semiconductor, Inc., Finisar Corporation, Hakuto Co. Ltd., LTX Corporation, STMicroelectronics N.V., Teradyne, Inc. and Texas Instruments Incorporated.

The consolidated entity is comprised of inTEST Corporation (parent) and our wholly-owned subsidiaries. inTEST Corporation was incorporated in New Jersey in 1981 and reincorporated in Delaware in April 1997. We manage our business as three product segments as more fully discussed under "Our Segments" below. Our Manipulator and Docking Hardware Product segment consists of our manufacturing operation in Cherry Hill, New Jersey as well as our subsidiaries in Singapore (inTEST Pte), Japan (inTEST KK) and Germany (Intestlogic GmbH). Our Temperature Management Product segment consists of our subsidiaries in Sharon, Massachusetts (Temptronic Corporation) and Germany (Temptronic GmbH). Our Tester Interface Product segment consists of our subsidiary in San Jose, California (inTEST Silicon Valley Corporation).

## INDUSTRY

### *Overview*

The semiconductor market has been characterized by rapid technological change, wide fluctuations in demand and shortening product life cycles. Designers and manufacturers of a variety of electronic and industrial products, such as cell phones, telecom and datacom systems, Internet access devices, computers, transportation and consumer electronics, require increasingly complex ICs to provide improved end-product performance demanded by their customers.

Semiconductor manufacturers generally compete based on product performance and price. We believe that testing costs represent a significant portion of the total cost of manufacturing ICs. Semiconductor manufacturers are under more pressure to maximize production yields and reduce testing costs. At the same time, the growing complexity of ICs has increased the difficulty of maximizing test yields. In order to address these market trends, semiconductor manufacturers strive for more effective utilization of ATE, smaller test areas and increased wafer level testing.

Demand for new ATE and related equipment depends upon several factors, including the demand for products that incorporate ICs, the increasing complexity of ICs and the emergence of new IC design, production and packaging technologies. Some of the evolutionary changes in IC technologies include the shift to 300 mm wafers in production, system-on-a-chip, or SOC, where digital, analog and memory functions are combined on a single IC, and chip scale packaging. As a result of these and other advances, semiconductor manufacturers may require additional ATE not only to handle increases in production but also to handle the more sophisticated testing requirements of ICs.

### *IC Test Process*

Semiconductor manufacturers typically produce ICs in multiples of several hundred on a silicon wafer which is later separated or "diced" into individual ICs. Extended leads are then attached to the individual ICs, for later connection to other electrical components. In most cases, the ICs are then encapsulated in a plastic, ceramic or other protective housing. These process steps are called "packaging."

Wafers are tested before being diced and packaged, to ensure that only properly functioning ICs are packaged. This testing step has several names, including "front-end test," "wafer test," "wafer probe" or "wafer sort." In front-end test, an electronic handling device known as a wafer prober automatically positions the wafer under a probe card which is electronically connected to a "test head," which connects electrically to a test system. During front-end testing there is a growing trend of thermally conditioning the wafer during test, especially in the memory and automotive markets. Once the good ICs have been identified, they are packaged.

The packaged ICs also require testing, called "back-end test" or "final test," to determine if they meet design and performance specifications. Packaged ICs are tested after loading into another type of electronic handling device called a "package handler" or "handler," which then transfers the packaged ICs into a test socket which

is attached to the test head. These handlers may be temperature controlled for testing. "Wafer probers" and "handlers" are sometimes referred to in this Report collectively as "electronic device handlers."

Testers range in price from approximately $100,000 to over $3.0 million each, depending primarily on the complexity of the IC to be tested and the number of test heads (typically one or two) with which each tester is configured. Probers and handlers range in price from approximately $50,000 to $500,000. A typical test floor of a large semiconductor manufacturer may have 100 test heads and 100 probers or 250 handlers supplied by various vendors for use at any one time.

Test head manipulators, also referred to as positioners, facilitate the movement of the test head to the electronic device handler. Docking hardware mechanically connects the test head to the wafer prober or handler. Tester interface products provide the electrical connection between the test head and the wafer or packaged IC. Traditionally, temperature management products are used in back-end test to allow a manufacturer to test packaged ICs under the extreme temperature conditions in which the IC may be required to operate. However, we believe that temperature-controlled testing will be an increasingly important part of front-end wafer testing as more parameters traditionally tested for in back end-test are moved to front-end test.



Trends in IC Testing

ATE is used to identify unacceptable packaged ICs and bad die on wafers. ATE assists IC manufacturers in controlling test costs by performing IC testing in an efficient and cost-effective manner. In order to provide testing equipment that can help IC manufacturers meet these goals, we believe the ATE industry must address the following issues:

*Change in Technology*. Currently, most semiconductor manufacturers use 200 mm and 300 mm wafer technology, with 300 mm technology gradually replacing 200 mm technology in order to increase throughput and lower manufacturing costs. In addition, end-user applications are demanding ICs with increasingly higher performance, greater speeds, and smaller sizes. ICs that meet these higher standards are more complex and dense. SOC designs are likely to be more in demand in the future. These technology trends have significant implications for the IC testing process, including:

- the need for test heads of higher complexity;
- higher signal densities;
- increasing test speeds; and
- a new generation of testers for SOC and other technologies.

Need for Plug-Compatibility and Integration

. Semiconductor manufacturers need test methodologies that will perform increasingly complex tests while lowering the overall cost of testing. This can require combining ATE manufactured by various companies into optimally performing systems. Semiconductor manufacturers have to work closely with various test hardware, software, interface and component vendors to resolve design and compatibility issues in order to make these vendors' products plug-compatible with test equipment manufactured by other vendors.

*Testing Under Extreme Conditions*. ICs will have to perform across a wider spectrum of temperature and environmental conditions than ever before because of the growing complexity of products in which they are deployed. Temperature testing will likely find an increasing role in front-end, wafer level testing. Creating a uniform thermal profile over much larger wafer areas represents a significant engineering and design challenge for ATE manufacturers.

*Demand for Higher Levels of Technical Support*. As IC testing becomes more complex, semiconductor manufacturers are demanding higher levels of technical support on a routine basis. ATE manufacturers must commit greater resources to technical support in order to develop close working relationships with their customers. This level of support also requires close proximity of service and support centers to customers' facilities.

*Cost Reduction Through Increased Front-End Testing*. As the cost of testing ICs increases, semiconductor manufacturers will continue to look for ways to streamline the testing process to make it more cost-effective, such as the recent trend to use massive parallel test, in which semiconductor manufacturers test multiple ICs on the wafer simultaneously. We believe that this factor will lead to more front-end, wafer-level testing.

OUR SOLUTIONS

We focus our development efforts on designing and producing high quality products that provide superior performance and cost-effectiveness. We seek to address each manufacturer's individual needs through innovative and customized designs, use of the best materials available, quality manufacturing practices and personalized service. We design solutions to overcome the evolving challenges facing the ATE industry which we believe provide the following advantages:

*Scalable, Universal, High Performance Interface Technology*. Our universal test head manipulators provide a high degree of positioning flexibility with a minimum amount of effort. As a result, our products can be used in virtually any test setting. Our manipulator products are designed to accommodate the increased size of test heads. Our docking hardware offers precise control over the connection to test sockets, probing assemblies and interface boards, reducing downtime and minimizing costly damage to fragile components. Our tester interface products optimize the integrity of the signals transmitted between the test head and the device under test by being virtually transparent to the test signals. This results in increased accuracy of the test data and may thus enable improved test yields. We believe that these characteristics will gain even more significance as testing becomes even more demanding.

*Compatibility and Integration*. A hallmark of our products has been, and continues to be, compatibility with a wide variety of ATE. Our manipulators and docking hardware are all designed to be used with otherwise incompatible ATE. We believe this integrated approach to ATE facilitates smooth changeover from one tester to another, longer lives for interface components, better test results, increased ATE utilization and lower overall test costs.



*Temperature-Controlled Testing*. Our Thermostream (R) products are used by manufacturers in a number of industries to stress test a variety of semiconductor and electronic components, PC boards and sub-assemblies. Our Thermochuck (R) products are used by semiconductor manufacturers for front-end temperature stress screening at the wafer level. Factors motivating manufacturers to use temperature testing include design characterization, failure analysis and quality control as well as determining performance under extreme operating temperatures, all of which contribute to manufacturing cost savings.

*Worldwide Customer Service and Support*. We have long recognized the need to maintain a physical presence near our customers' facilities. We have domestic manufacturing facilities in New Jersey, Massachusetts and California, as well as overseas facilities in Europe and Asia. We provide service to our customers from sales and service offices in the U.S., Europe and Asia. Our engineers are easily accessible to, and can work directly with, most of our customers from the time we begin developing our initial proposal, through the delivery, installation and use of the product by our customer. In this way, we are able to develop and maintain close relationships with our customers.

OUR STRATEGIES

We remain committed to our goals of being recognized in our markets as the designer and manufacturer of the highest quality and most cost effective products and becoming the key supplier of all of our customers' ATE needs, other than probers, handlers and testers. Our strategies to achieve these goals include the following:

*Providing Technologically Advanced Solutions*. We are committed to designing and producing only the highest quality products which incorporate innovative designs to achieve optimal cost-effectiveness and functionality for each customer's particular situation. Our engineering and design staff is continually engaged

in developing new and improved products and manufacturing processes.

*Leveraging Our Strong Customer Relationships*. Our technical personnel work closely with ATE manufacturers to design tester interface and docking hardware that are compatible with their ATE. As a result, we are often privy to proprietary technical data and information about these manufacturers' products. We believe that because we do not compete with ATE manufacturers in the prober, handler and tester markets, we have been able to establish strong collaborative relationships with these manufacturers that enable us to develop ancillary ATE products on an accelerated basis.

*Maintaining Our International Presence*. Our existing and potential customers are concentrated in certain regions throughout the world. We believe that we must maintain a presence in the markets in which our customers operate. We currently have offices in the U.S., Europe and Asia.

*Pursuing Synergistic Acquisitions*. A key element of our growth strategy is to acquire businesses, technologies or products that are complementary to our current product offerings. Our TestDesign (now inTEST Silicon Valley), Temptronic and Intestlogic acquisitions have expanded our line of product offerings and have given us the opportunity to market a broader range of products to our customer base and, in the case of the Temptronic acquisition, provided access to markets that are less sensitive to cyclicality than the ATE market. We seek to make acquisitions that will further expand our product lines, enabling us to become a key supplier to the test floor for a complete selection of equipment compatible with testers, probers and handlers of all manufacturers.

*Pursuing Revenue Growth Opportunities Outside the Semiconductor ATE Market.* Another element of our growth strategy is to pursue revenue growth opportunities in markets we have not traditionally served, such as the aerospace, automotive, communications, consumer electronics, defense and medical industries. We believe that we may be able to reduce some of the cyclicality that we have historically experienced by further diversifying our revenue streams outside the semiconductor ATE market. We see the most potential for this within our Temperature Management Product segment. For the years ended December 31, 2007, 2006 and 2005 approximately $7.0 million or 15%, $6.1 million or 10% and $6.3 million or 12%, respectively, of our consolidated net revenues were derived from markets outside semiconductor test. These revenues were all generated by our Temperature Management Product segment. We cannot determine at this time whether we will continue to be successful in building our sales in these non-traditional markets or what the growth rate of our sales in these markets will be in future periods.

*Controlling costs.* At the same time as we are pursuing growth opportunities, we will seek ways to more aggressively streamline our cost structure, so that we are positioned to offer products at prices that provide the margin for a reasonable profit as well as the resources for continual product development.



OUR SEGMENTS

Our business is managed as three segments, which are also our reporting units: Manipulator and Docking Hardware Products, Temperature Management Products and Tester Interface Products. Semiconductor manufacturers use our manipulators and docking hardware products during testing of wafers and specialized packaged ICs. They use our temperature management and tester interface products in both front-end and back-end testing of ICs. These ICs include microprocessors, digital signal processing chips, mixed signal devices, MEMS

(Micro-Electro-Mechanical Systems), application specific ICs and specialized memory ICs, and are used primarily in the automotive, aerospace, computer, consumer products and telecommunications industries. We custom design most of our products for each customer's particular combination of ATE.

*Manipulator and Docking Hardware Products*

*Manipulator Products.* We offer four lines of manipulator products: the in2(R), the M Series, the Aero Series and the recently introduced IU Series. These free-standing universal manipulators can hold a variety of test heads and enable an operator to reposition a test head for alternate use with any one of several probers or handlers on a test floor. Certain members of the Aero family are also available as a lower-cost solution for dedicated prober-only or handler-only test cell applications.

The in2(R) and IU Series of manipulator products incorporate our balanced floating-head design. This design permits a test head weighing up to 3,000 pounds to be held in an effectively weightless state, so it can be moved manually or with optional powered assistance, up or down, right or left, forward or backward and rotated around each axis (known as six degrees of motion freedom) by an operator using a modest amount of force. The same design features enable the operator to dock the test head without causing inadvertent damage to the fragile electrical contacts. As a result, after testing a particular production lot of ICs, the operator can quickly and easily disconnect a test head that is held in an in2(R) manipulator and equipped with our docking hardware and dock it to another electronic device handler for testing either a subsequent lot of the same packaged ICs or to test different ICs. The in2(R) and IU Series manipulators range in price from approximately $12,000 to $159,000.

The M Series line of manipulator products consists of the M400 and M500 manipulators. These compact universal manipulators are designed to handle test heads weighing less than 550 pounds. The up and down movement is counter-balanced by an air-pressure-based floating state technology. The M Series manipulators range in price from approximately $12,000 to $32,000.

The Aero Series of manipulator products consists of the Aero 650, Aero 450H and Aero 150P manipulators. These manipulators are designed to handle test heads weighing less than 1,500 pounds. The up and down movement is supported by an air-pressure-based floating state technology. The Aero Series manipulators range in price from $10,000 to $50,000.

*Docking Hardware Products*. Our docking hardware products protect the delicate interface contacts and ensure proper repeatable and precise alignment between the test head's interface board and the prober's probing assembly or the handler's test socket as they are brought together, or "docked." A simple cam action docks and locks the test head to the prober or handler, thus eliminating motion of the test head relative to the prober or handler. This minimizes deterioration of the interface boards, test sockets and probing assemblies which is caused by constant vibration during testing. Our docking hardware products are used primarily with floating-head universal manipulators when maximum mobility and inter-changeability of handlers and probers between test heads is required. By using our docking hardware products, semiconductor manufacturers can achieve cost savings through improved ATE utilization, improved accuracy and integrity of test results, and reduced repairs and replacements of expensive ATE interface products.

We believe our docking hardware products offer our customers the ability to make various competing brands of test heads compatible with various brands of probers and handlers by only changing interface boards. This is called "plug-compatibility." Plug-compatibility enables increased flexibility and utilization of test heads, probers and handlers purchased from various manufacturers. We believe that because we do not compete with ATE manufacturers in the sale of probers, handlers or testers, ATE manufacturers are willing to provide us with the information that is integral to the design of plug-compatible products. Our docking hardware products range in price from approximately $2,000 to $25,000.

*Temperature Management Products*

Our temperature management products are sold into a wide variety of industries including the aerospace, automotive, communications, consumer electronics, defense, medical and semiconductor industries. Our temperature management systems enable a manufacturer to test a semiconductor wafer, IC or electronic, or in some instances, a mechanical sub-assembly over the extreme and variable temperature conditions that can occur in the actual use of the device.



*ThermoChuck(R) Products*: Our ThermoChuck(R) precision vacuum platform assemblies quickly change and stabilize the temperature of semiconductor wafers accurately and uniformly during testing without removing the wafer from its testing environment. Such temperatures can range from as low as -65 degrees Celsius to as high as +400 degrees Celsius. ThermoChucks(R) are incorporated into wafer prober equipment for laboratory analysis and for in-line production testing of semiconductor wafers. ThermoChuck(R) products range in price

from approximately $16,000 to $90,000.

*ThermoStream(R) Products*: Our ThermoStream(R) stand-alone temperature management systems use a temperature-controlled air stream to rapidly change and stabilize the temperature of packaged ICs, electronic sub-assemblies and printed circuit boards. ThermoStream(R) products provide a source of heated and cooled air which can be directed over the component or device under test. These systems are capable of controlling temperatures to within +/- 0.1 degree Celsius over a range of -90 degrees Celsius to as high as +225 degrees Celsius within 1.0 degree Celsius of accuracy. Traditionally, our customers used ThermoStream(R) products primarily in engineering, quality assurance and small-run manufacturing environments. However, increasingly, our customers use ThermoStream(R) products in longer-run production applications. ThermoStream(R) products range in price from approximately $6,000 to $40,000.

*Other Temperature Management Products*:

Our recently introduced MobileTemp(TM) Series combines our ThermoStream(R) products with a family of exclusive, high-speed ThermoChambers(TM) to offer environmental test systems with fast, uniform temperature control in a compact package enabling temperature testing at the test location. MobileTemp(TM) Systems are designed specifically for applications beyond the semiconductor market and have found application in the automotive, electronic, fiber optic, medical and oil field service industries. We also manufacture ancillary temperature management products, including temperature-controlled contact probes and precision temperature platforms. Other temperature management products range in price from $4,500 to $20,000.

*Tester Interface Products*

Tester interface products provide the electrical connections between the tester and the wafer prober or IC handler to carry the electrical signals between the tester and the probe card on the prober or the test socket on the handler. Our designs optimize the integrity of the transmitted signal which increases the accuracy of the test data. Therefore, our tester interface products can be used with high speed, high frequency, digital or mixed signal interfaces used in testing more complex ICs. Because our tester interface products enable the tester to provide more reliable yield data, our interfaces may also reduce IC production costs. We design standard and modular interface products to address most possible tester/prober combinations on the market today. In addition, we provide a custom design service that will allow any of our customers to use virtually any tester, prober or handler combination with any type of device, such as analog, digital, mixed signal and radio frequency. For example, our Centaur(TM) modular interface is designed to provide flexibility and scalability through the use of replaceable signal modules which can be easily changed on the test floor as our customers' testing requirements change. In addition to the Centaur(TM) modular interface, we also offer over 200 different types of tester interface models that we custom designed for our customers' specific applications. These products range in price from approximately $1,000 to $100,000.

*Financial Information About Product Segments and Geographic Areas*

Please see Note 16 of our consolidated financial statements included in Item 8 of this Report on Form 10-K for additional data regarding net revenues, profit or loss and total assets of each of our segments and revenues attributable to foreign countries.

MARKETING, SALES AND CUSTOMER SUPPORT

We market and sell our products primarily in markets where semiconductors are manufactured. North American and European semiconductor manufacturers have located most of their back-end factories in Southeast Asia. The front-end wafer fabrication plants of U.S. semiconductor manufacturers are primarily in the U.S. Likewise, European, Taiwanese, South Korean and Japanese semiconductor manufacturers generally have located their wafer fabrication plants in their respective countries.

*Manipulator, Docking Hardware and Tester Interface Products*: In North America, we sell to semiconductor manufacturers principally through the use of independent, commissioned sales representatives. North American sales representatives also coordinate product installation and support with our technical staff and participate in trade shows.

Our regional and account managers handle sales to ATE manufacturers and are responsible for a portfolio of customer accounts and for managing certain independent sales representatives. In addition, our account managers are responsible for pricing, quotations, proposals and transaction negotiations, and they assist with applications engineering and custom product design. Technical support is provided to North American customers and independent sales representatives by employees based in New Jersey, Minnesota, California, Texas and Arizona.

In Europe and Japan, we sell to semiconductor and ATE manufacturers through our account managers and through the use of independent sales representatives. In China, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand, we sell through the use of independent sales representatives who are supervised by our direct sales staff in those regions. International sales representatives are responsible for sales, installation, support and trade show participation in their geographic market areas.

*Temperature Management Products*: Sales to ATE manufacturers are handled directly by our own sales force. Sales to semiconductor manufacturers and customers in other industries in the U.S. are handled through independent sales representative organizations. In Singapore and Malaysia, our sales and service are handled through our own sales and service personnel. In the rest of Asia, our sales are handled through distributors. In Europe, sales managers at our office in Germany, as well as regional distributors and independent sales representatives, sell to semiconductor manufacturers and customers in other industries. We visit our distributors regularly and have trained them to sell and service all of our temperature management products.

CUSTOMERS

We market all of our products to end users, which include semiconductor manufacturers and third-party foundries, test and assembly houses as well as original equipment manufacturers ("OEMs"), which include ATE manufacturers and their third-party outsource manufacturing partners. In the case of temperature management products, we also market our products to independent testers of semiconductors, manufacturers of electronic, automotive and aeronautical products, and semiconductor research facilities. Our customers use our products principally in production testing, although our ThermoStream(R) products traditionally have been used largely in engineering development and quality assurance. We believe that we sell to most of the major semiconductor manufacturers in the world.

Texas Instruments Incorporated accounted for 20%, 19% and 16% of our consolidated net revenues in 2007, 2006 and 2005, respectively. While all three of our operating segments sold to these customers, these revenues were primarily generated by our Manipulator and Docking Hardware and Tester Interface Product segments. Our ten largest customers accounted for approximately 54%, 59% and 56% of our net revenues in 2007, 2006 and 2005, respectively. The loss of any one or more of our largest customers, or a reduction in orders by a major customer, could materially reduce our net revenues or otherwise materially affect our business, financial condition, or results of operations.

Our largest customers include:

| Semiconductor Manufacturers | ATE Manufacturers | Other |
|---|---|---|
| Analog Devices, Inc. | Cascade Microtech, Inc. | Finisar Corporation |
| Freescale Semiconductor, Inc. | LTX Corporation | Hakuto Co. Ltd. |
| STMicroelectronics N.V. | Teradyne, Inc. | Avago Technologies |
| Texas Instruments Incorporated | | |

MANUFACTURING AND SUPPLY

Our principal manufacturing operations consist of assembly and testing at our facilities in New Jersey, Massachusetts, California, Germany and Singapore. By maintaining manufacturing facilities and technical support in geographic markets where most of our customers are located, we believe that we are able to respond more quickly and effectively to our customers' needs. In March 2005, we announced the closing of our manufacturing operation located in the U.K. as part of our effort to better position ourselves to more effectively meet the needs and expectations of the fluid ATE market. We ceased manufacturing at this facility in June 2005 and dissolved this entity in December 2006. We do not believe this closure has adversely impacted our ability to effectively meet our customers' needs. Most of this operation's customers were located outside the U.K. and we expect to be able to continue to provide appropriate customer support from our other operations in Europe and elsewhere.

We assemble most of our products from a combination of standard components and custom parts that have been fabricated to our specifications by either third party manufacturers or our own fabrication operation in New Jersey. Our practice is to use the highest quality raw materials and components in our products. The primary raw materials used in fabricated parts are all widely available. We purchase substantially all of our components from multiple suppliers. Although we purchase certain raw materials and components from single suppliers, we believe that all materials and components are available in adequate amounts from other sources.



We conduct inspections of incoming raw materials, fabricated parts and components using sophisticated measurement equipment. This includes testing with coordinate measuring machines in all but one of our manufacturing facilities to ensure that products with critical dimensions meet our specifications. We have designed our inspection standards to comply with applicable MIL specifications and ANSI standards.

In 2001, we obtained ISO 9001:1994 certification at our New Jersey facility. During 2003, we made the determination to upgrade to ISO 9001:2000 at our Cherry Hill facility, which was completed in 2007. In May 2003, our California facility obtained ISO 9001:2000 certification and in November 2004, our Massachusetts facility completed ISO 9001:2000 certification. Finally, our Singapore and German facilities have not yet begun the ISO certification process.

ENGINEERING AND PRODUCT DEVELOPMENT

Our success depends on our ability to provide our customers with products and solutions that are well engineered, and to design those products and solutions before, or at least no later than, our competitors. As of December 31, 2007, we employed a total of 43 engineers, who were engaged full time in engineering and product development. In addition, when the demands of engineering and product development projects exceed the capacity or knowledge of our in-house staff, we retain temporary third-party engineering and product development consultants to assist us. Our practice in many cases is to assign engineers to work with specific customers, thereby enabling us to develop the relationships and exchange of information that is most conducive to successful product development and enhancement. In addition, some of our engineers are assigned to new product research and development and have worked on such projects as the development of new types of universal manipulators, the redesign and development of new temperature management products and the development of high performance interfaces.

Since most of our products are customized, we consider substantially all of our engineering activities to be

engineering and product development. We spent approximately $5.5 million in 2007, $5.9 million in 2006 and $6.4 million in 2005 on engineering and product development, respectively.

PATENTS AND OTHER PROPRIETARY RIGHTS

Our policy is to protect our technology by filing patent applications for the technologies that we consider important to our business. We also rely on trade secrets, copyrights and unpatentable know-how to protect our proprietary rights. It is our practice to require that all of our employees and third-party product development consultants assign to us all rights to inventions or other discoveries relating to our business that were made while working for us. In addition, all employees and third-party product development consultants agree not to disclose any private or confidential information relating to our technology, trade secrets or intellectual property.

As of December 31, 2007, we held 52 active U.S. patents and had 26 pending U.S. patent applications covering various aspects of our technology. Our U.S. patents expire at various times beginning in 2008 and extending through 2025. During 2007, we had no U.S. patents expire and 9 U.S. patents were issued. We also hold foreign patents and file foreign patent applications, in selected cases corresponding to our U.S. patents and patent applications, to the extent management deems appropriate.

While we believe that our patents and other proprietary rights are important to our business, we also believe that, due to the rapid pace of technological change in the semiconductor equipment industry, the successful manufacture and sale of our products also depends upon our engineering, manufacturing, marketing and servicing skills. In the absence of patent protection, we would be vulnerable to competitors who attempt to copy or imitate our products or processes. We believe our intellectual property has value, and we have taken in the past, and will take in the future, actions we deem appropriate to protect such property from misappropriation. There can be no assurance, however, that such actions will provide meaningful protection from competition. For additional information regarding risks related to our intellectual property, see "Risk Factors".

COMPETITION

As described earlier, we operate in an increasingly competitive environment within each of our product segments. Some of our competitors have greater financial resources and more extensive design and production capabilities than we do. Certain markets in which we operate have recently become more fragmented, with smaller companies entering the market. These new smaller entrants typically have much lower levels of fixed operating overhead than we do, which enables them to be profitable with lower priced products. In order to remain competitive with these and other companies, we must be able to continue to commit a significant portion of our personnel, financial resources, research and development and customer support to developing new products and maintaining customer relationships worldwide.



Our competitors include independent manufacturers, ATE manufacturers and, to a lesser extent, semiconductor manufacturers' in-house ATE interface groups. Competitive factors in our market include price, functionality, timely product delivery, customer service, applications support, product performance and reliability. We believe that our long-term relationships with the industry's leading semiconductor manufacturers and other customers, and our commitment to, and reputation for, providing high quality products, are important elements in our ability to compete effectively in all of our markets.

Our principal competitors for manipulator products are Esmo AG, Microhandling GmbH, Reid-Ashman Manufacturing and Advantest Corporation. Our principal competitors for docking hardware products include Esmo AG, Knight Automation, Estra Technologies, Reid-Ashman Manufacturing and Microhandling GmbH. We also compete with the ATE manufacturer Teradyne (who is also our customer) on the sale of docking hardware.

Our principal competitors for Thermostream products are Thermonics and FTS Systems. Our principal competitors for Thermochuck products include ERS Electronik GmbH, Advances Temperature Systems GmbH and Espec Corp. In addition, we compete with most manufacturers of environmental chambers in the sales of our other temperature management products.

Our principal competitors for Tester Interface products are Xandex, Inc., Reid-Ashman Manufacturing, Esmo AG, Synergetix (a division of Interconnect Devices, Inc.), and Integrated Test Corporation.

BACKLOG

At December 31, 2007, our backlog of unfilled orders for all products was approximately $4.2 million compared with approximately $4.8 million at December 31, 2006. Our backlog includes customer orders which we have accepted, substantially all of which we expect to deliver in 2008. While backlog is calculated on the basis of firm purchase orders, a customer may cancel an order or accelerate or postpone currently scheduled delivery dates. Our backlog may be affected by the tendency of customers to rely on shorter lead times available from suppliers, including us, in periods of depressed demand. In periods of increased demand, there is a tendency towards longer lead times that has the effect of increasing backlog. As a result of these factors, our backlog at a particular date is not necessarily indicative of sales for any future period.

EMPLOYEES

At December 31, 2007, we had 209 full time employees, including 93 in manufacturing operations, 80 in customer support/operations and 36 in administration. Substantially all of our key employees are highly skilled and trained technical personnel. None of our employees are represented by a labor union, and we have never experienced a work stoppage. We believe that our relationship with our employees is very good. From time to time we retain third-party consultants to assist us in engineering and product development projects and to assist us with our compliance efforts resulting from the Sarbanes-Oxley Act.

ADDITIONAL INFORMATION

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments to these reports that are filed with the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, are available free of charge through our website (www.intest.com) as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC.

Item 1A. RISK FACTORS

The following are some of the factors that could materially and adversely affect our future performance or could cause actual results to differ materially from those expressed or implied in our forward-looking statements. The risks and uncertainties described below are not the only ones facing us and we cannot predict every event and circumstance that may adversely affect our business. However, these risks and uncertainties are the most significant factors that we have identified at this time. If one or more of these risks actually occurs, our business, results of operations, and financial condition would likely suffer, and the price of our stock would be negatively affected.

**Our sales are affected by the cyclicality of the semiconductor industry, which causes our operating results to**

**fluctuate significantly.**

Our business depends in significant part upon the capital expenditures of semiconductor manufacturers. Capital expenditures by these companies depend upon, among other things, the current and anticipated market demand for semiconductors and the products that utilize them. Typically, semiconductor manufacturers curtail capital expenditures during periods of economic downtown. Conversely, semiconductor manufacturers increase capital expenditures when market demand requires the addition



of new or expanded production capabilities or the reconfiguration of existing fabrication facilities to accommodate new products. These market changes have contributed in the past, and will likely continue to contribute in the future, to fluctuations in our operating results.

**Changes in the buying patterns of our customers have affected, and may continue to affect, demand for our products and our gross and net operating margins. Such changes in patterns are difficult to predict and may not be immediately apparent.**

In addition to the cyclicality of the semiconductor market, demand for our products and our gross and net operating margins have also been affected by changes in the buying patterns of our customers. We now believe that in recent years there have been a variety of emerging changes within the ATE market, including, for example, changing product requirements, longer time periods between new product offerings by OEMs and changes in customer buying patterns. In particular, demand for our Manipulator, Docking Hardware and Tester Interface products, which are sold exclusively within the ATE industry, and our operating margins in these product segments have been affected by shifts in the competitive landscape, including (i) customers placing heightened emphasis on shorter lead times (which places increased demands on our available engineering and production capacity increasing unit costs) and ordering in smaller quantities (which prevents us from acquiring component materials in larger volumes at lower cost and increasing unit costs), (ii) the increasing practice of OEM manufacturers to specify other suppliers as primary vendors, with less frequent opportunities to compete for such designations, (iii) customers requiring products with a greater range of use at the lowest cost, and (iv) customer supply line management groups demanding lower prices and spreading purchases across multiple vendors. These recently emerging shifts in market practices have had, and may continue to have, varying degrees of impact on our net revenues and our gross and net operating margins. Such shifts are difficult to predict and may not be immediately apparent, and the impact of these practices is difficult to quantify from period to period. There can be no assurance that we will be successful in implementing effective strategies to counter these shifts.

**If we are not able to reduce our operating expenses during periods of weak demand, or if we utilize significant amounts of cash to implement our acquisition strategy, we will erode our cash resources and may not have sufficient cash to operate our businesses.**

In recent years, we have implemented cost controls and restructured our operations with the goal of significantly reducing our fixed operating costs to position ourselves to more effectively meet the needs of the fluid ATE market. We are presently assessing additional ways to lower our cost structure and increase revenues. If we are not successful in controlling our operating expenses, or if we utilize significant amounts of cash to implement our acquisition strategy, the level of our cash may be eroded and may not be sufficient to operate our businesses. As of December 31, 2007 we had cash and cash equivalents of $12.2 million. While we believe our cash balances will be sufficient to satisfy our cash requirements for the foreseeable future, we cannot determine with certainty that, if needed, we would be able to raise additional funding through either equity or debt financing under these circumstances or on what terms such financing would be available.

**Our operating results often change significantly from quarter to quarter and may cause fluctuations in our stock price.**

During the last several years, our operating results have fluctuated significantly from quarter to quarter. We believe that these fluctuations occur primarily due to the cycles of demand in the semiconductor manufacturing industry. In addition to the changing cycles of demand in the semiconductor manufacturing industry, other factors that have caused our quarterly operating results to fluctuate in the past, and that may cause fluctuations and losses in the future, include:

- changes in the buying patterns of our customers;
- changes in our market share;
- the technological obsolescence of our inventories;
- quantities of our inventories greater than is reasonably likely to be utilized in future periods;
- significant product warranty charges;
- the recording of valuation allowances against deferred tax assets;
- competitive pricing pressures;
- the impairment of our assets due to reduced future demand for our products;
- excess manufacturing capacity;
- our ability to control operating costs;
- costs associated with implementing our restructuring initiatives;
- delays in shipments of our products;
- the mix of our products sold;
- the mix of customers and geographic regions where we sell our products;



- changes in the level of our fixed costs;
- costs associated with the development of our proprietary technology;
- costs and timing of integration of our acquisitions and plant relocations and expansions;
- our ability to obtain raw materials or fabricated parts when needed;
- increases in costs of raw materials;
- cancellation or rescheduling of orders by our customers; and
- political or economic instability.

Because the market price of our common stock has tended to vary based on, and in relation to, changes in our operating results, fluctuations in the market price of our stock are likely to continue as variations in our quarterly results continue.

**Our customers' purchasing patterns can vary significantly from month to month and cannot be easily predicted, thus resulting in fluctuations in our backlog and quarterly results.**

Our backlog at December 31, 2007 was $4.2 million compared to $4.8 million at December 31, 2006. Our backlog at the beginning of a quarter typically does not include all orders necessary to achieve our sales objectives for that quarter. Orders in our backlog are subject to cancellation, delay or rescheduling by our customers with limited or no penalties or ability to collect bill back amounts. Throughout recent years, we have experienced customer-requested shipment delays and order cancellations, and we believe it is probable that orders will be cancelled and/or delayed in the future. In addition, during a downturn, some of our customers may rely on short lead times generally available from suppliers, including us, whereas in periods of stronger demand, and longer lead times, customers need to book orders earlier.

**We have experienced varying levels of product warranty costs in recent periods and cannot predict the**

**level of such costs that we may incur in future periods.**

We accrue product warranty charges quarterly, based upon our historical claims experience. In addition, from time to time, we accrue additional amounts based upon known product warranty issues, such as product retrofits. For the years ended December 31, 2007, 2006 and 2005, our product warranty charges (recoveries) were $(198,000), $378,000 and $549,000, or (0.4)%, 0.6% and 1.0% of net revenues, respectively. The level of our product warranty charges both in absolute dollars and as a percentage of net revenues is affected by a number of factors including the cyclicality of demand in the ATE industry, the prototype nature of much of our business, the complex nature of many of our products, the introduction of new product "families" which typically have higher levels of warranty claims than existing product families and, at our discretion, providing warranty repairs or replacements to customers after the contractual warranty period has expired in order to promote strong customer relations. If our products have reliability, quality or other problems, or the market perceives our products to be deficient, we may suffer reduced orders, higher manufacturing costs, delays in collecting accounts receivable and higher service, support and warranty expenses.

**Changes in securities laws and regulations have increased, and may continue to increase, our costs of compliance with such laws and regulations.**

Changes in securities laws and regulations have increased our legal compliance and financial reporting costs. Additional recent changes and future changes in securities regulations are expected to continue to affect our costs. In order to comply with certain requirements of the Sabanes-Oxley Act, such as the internal control system requirements of Section 404 of the Act, we have incurred, and expect to incur significant additional expenses in future periods to comply with these new requirements, including the requirement for future reviews of our internal control system by our independent accounting firm. We are continuing to evaluate and monitor regulatory developments and cannot estimate the timing or magnitude of additional costs we may incur as a result.

**The inability to maintain effective internal control over financial reporting may result in a loss of investor confidence in the accuracy and completeness of our financial reporting.**

Section 404 of the Sarbanes-Oxley Act of 2002 and the accompanying rules and regulations promulgated by the SEC to implement that law require us to include in our Form 10-K for the year ending December 31, 2007, an annual report by our management regarding the effectiveness of our internal control over financial reporting. In the future, we will be required to include in our Annual Reports on Form 10-K attestation reports by our independent registered public accounting firm (our IRPAF), reporting as to whether it believes we maintained, in all material respects, effective internal control over financial reporting as of the end of the relevant year. During our assessment process, if our management identifies one or more material weaknesses in our internal controls over financial reporting that cannot be remediated in a timely manner, we may be unable to assert that our internal control is effective. While our assessment (as reported in Item 9A(T) of this Report) is that our internal control over financial reporting was effective as of December 31, 2007, the effectiveness



of our internal control in future periods cannot be assured, and the effectiveness of our internal control over financial reporting may deteriorate. If we are unable to assert that our internal control over financial reporting is effective as of any future date, or if our IRPAF does not attest to the effectiveness of our internal control, we could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our stock price.

**We seek to acquire additional businesses. If we are unable to do so, our future rate of growth may be reduced or limited.**

A key element of our growth strategy is to acquire businesses, technologies or products that expand and complement our current businesses. We may not be able to execute our acquisition strategy if:

- we are unable to identify suitable businesses or technologies to acquire;
- we do not have the cash or access to required capital at the necessary time; or
- we are unwilling or unable to outbid larger, more resourceful companies.

Our acquisition strategy involves financial and management risks which may adversely affect our results in the future.

If we acquire additional businesses, technologies or products, we will face the following additional risks:

- future acquisitions could divert management's attention from daily operations or otherwise require additional management, operational and financial resources;
- we might not be able to integrate future acquisitions into our business successfully or operate acquired businesses profitably;
- we may realize substantial acquisition related expenses which would reduce our net earnings in future years; and
- our investigation of potential acquisition candidates may not reveal problems and liabilities of the companies that we acquire.

If any of the events described above occur, our earnings could be reduced. If we issue shares of our stock or other rights to purchase our stock in connection with any future acquisitions, we would dilute our existing stockholders' interests and our earnings per share may decrease. If we issue debt in connection with any future acquisitions, lenders may impose covenants on us which could, among other things, restrict our ability to increase capital expenditures or to acquire additional businesses.

**Our industry is subject to rapid technological change, and our business prospects would be negatively affected if we are unable to quickly and effectively respond to innovation in the semiconductor industry.**

Semiconductor technology continues to become more complex as manufacturers incorporate ICs into an increasing variety of products. This trend, and the changes needed in automatic testing systems to respond to developments in the semiconductor industry, are likely to continue. We cannot be certain that we will be successful or timely in developing, manufacturing or selling products that will satisfy customer needs or that will attain market acceptance. Our failure to provide products that effectively and timely meet customer needs or gain market acceptance will negatively affect our business prospects.

**If we are not able to obtain patents on or otherwise preserve and protect our proprietary technologies, our business may suffer.**

We have obtained domestic and foreign patents covering some of our products which expire between the years 2008 and 2025, and we have applications pending for additional patents. Some of our products utilize proprietary technology that is not covered by a patent or similar protection, and, in many cases, cannot be protected. We cannot be certain that:

- any additional patents will be issued on our applications;

- any patents we own now or in the future will protect our business against competitors that develop similar technology or products;
- our patents will be held valid if they are challenged or subjected to reexamination or reissue;
- others will not claim rights to our patented or other proprietary technologies; or
- others will not develop technologies which are similar to, or can compete with, our unpatented proprietary technologies.

If we cannot obtain patent or other protection for our proprietary technologies, our ability to compete in our markets could be impaired.



Claims of intellectual property infringement by or against us could seriously harm our businesses.

From time to time, we may be forced to respond to or prosecute intellectual property infringement claims to defend or protect our rights or a customer's rights. These claims, regardless of merit, may consume valuable management time, result in costly litigation or cause product shipment delays. Any of these factors could seriously harm our business and operating results. We may have to enter into royalty or licensing agreements with third parties who claim infringement. These royalty or licensing agreements, if available, may be costly to us. If we are unable to enter into royalty or licensing agreements with satisfactory terms, our business could suffer. In instances where we have had reason to believe that we may be infringing the patent rights of others, or that someone may be infringing our patent rights, we have asked our patent counsel to evaluate the validity of the patents in question, as well as the potentially infringing conduct. If we become involved in a dispute, neither the third parties nor the courts are bound by our counsel's conclusions.

**Our business will suffer if we cannot compete successfully with manufacturers whose products are similar to ours.**

We compete with numerous manufacturers, many of whom have greater financial resources and more extensive design and production capabilities than we do. Some of our principal competitors in the sale of manipulator, docking and tester interface products are Reid-Ashman Manufacturing Inc., Microhandling GmbH, Esmo AG, Credence Systems Corp., LTX Corporation, Teradyne Inc. and Xandex Inc. Some of our principal competitors in the sale of temperature management products are Thermonics Inc., ERS Elektronik GmbH and Advances Temperature Test Systems GmbH. In order to remain competitive with these and other companies, we must be able to continue to commit a significant portion of our personnel, financial resources, research and development and customer support to developing new products and maintaining customer satisfaction worldwide. If we are not able to compete successfully, our business will suffer.

**We generate a large portion of our sales from a small number of customers. If we were to lose one or more of our large customers, operating results could suffer dramatically.**

Texas Instruments Inc. accounted for 20%, 19% and 16% of our consolidated net revenues in 2007, 2006 and 2005, respectively. While all three of our operating segments sold to these customers, these revenues were primarily generated by our Manipulator and Docking Hardware and Tester Interface Product segments. Our ten largest customers accounted for approximately 54%, 59% and 56% of our net revenues in 2007, 2006 and 2005, respectively. The loss of any one or more of our largest customers, or a reduction in orders by a major customer, could materially reduce our net revenues or otherwise materially affect our business, financial condition or results of operations.

**Significant fluctuations in our net revenues and operating results strain our management, employees and other**

**resources.**

Over the last several years, we have experienced significant fluctuations in our net revenues and operating results. As a result of these sometimes sudden and significant changes in our market, we have implemented cost controls, including salary and benefit reductions, and restructured our operations. We are presently considering new initiatives to more closely align our cost structure with current market demands. Such fluctuations in our net revenues and operating results, compensation changes and restructuring place strain on our management, employees and other resources.

**If we do not continue to retain the services of key personnel, relationships with, and sales to, some of our customers could suffer, which could have a negative impact on our business.**

The loss of key personnel could adversely affect our ability to manage our business effectively. Our future success will depend largely upon the continued services of our senior management and certain other key employees. We do not have employment agreements with any of our executive officers or other key employees. Our future success will depend, in part, upon our ability to retain our managers, engineers and other key employees. Our business could suffer if we were unable to retain one or more of our senior officers or other key employees.

**A substantial portion of our operations exists outside the U.S., which exposes us to foreign political and economic risks.**

We have operated internationally for many years and expect to expand our international operations as necessary to continue expansion of our sales and service to our non-U.S. customers. Our foreign subsidiaries generated 26% and 32% of consolidated net revenues in 2007 and 2006, respectively. Export sales from our U.S. manufacturing facilities totaled $17.2 million, or 35% of consolidated net revenues, in 2007 and $16.8 million, or 27% of consolidated net revenues, in 2006. The portion of our consolidated net revenues that were derived from sales by our subsidiaries in the Asia-Pacific region was 12% in 2007 and 23% in 2006. We expect our international revenues will continue to represent a significant portion of total net revenues. However, in addition to the risks generally associated with sales and operations in the U.S., sales to customers outside the U.S. and operations in foreign countries are subject to additional risks, which may, in the future, affect our operations. These risks include:



- ♦ political and economic instability in foreign countries;
- ♦ the imposition of financial and operational controls and regulatory restrictions by foreign governments;
- ♦ the need to comply with a wide variety of U.S. and foreign import and export laws;
- ♦ trade restrictions;
- ♦ changes in tariffs and taxes;
- ♦ longer payment cycles;
- ♦ fluctuations in currency exchange rates; and
- ♦ the greater difficulty of administering business abroad.

We conduct business in foreign currencies, and fluctuations in the values of those currencies could result in foreign exchange losses.

In 2007, approximately 3% of our net revenues were denominated in Japanese yen and approximately 14% were denominated in Euros. During 2007, we recorded foreign exchange currency transaction losses of $187,000. Future fluctuations in the value of the Japanese Yen or the Euro could result in foreign exchange gains or losses. Any

strengthening of the U.S. dollar in relation to the currencies of our competitors or customers, or strengthening or weakening of the Japanese yen or Euro in relation to other currencies in which our customers or competitors do business, could adversely affect our competitiveness. Moreover, a strengthening of the U.S. dollar or other competitive factors could put pressure on us to denominate a greater portion of our sales in foreign currencies, thereby increasing our exposure to fluctuations in exchange rates. Any devaluation of these currencies would hurt our business. We do not undertake hedging activities against the majority of our exchange rate risk. Fluctuations in exchange rates may adversely affect our competitive position or result in foreign exchange losses, either of which could cause our business to suffer.

Item 1B.

**UNRESOLVED STAFF COMMENTS**

None.

Item 2.

**PROPERTIES**

At December 31, 2007, we leased 9 facilities worldwide. The following chart provides information regarding each of our principal facilities which we occupied at December 31, 2007.

| Location | Lease Expiration | Approx. Square Footage | Principal Uses |
|---|---|---|---|
| Cherry Hill, NJ | 9/10 | 80,000 | Corporate headquarters and design, manufacturing, service and sales -- manipulator and docking hardware products. |
| Sharon, MA | 2/11 | 62,400 | Design, manufacturing, service and sales -- temperature management products. |
| San Jose, CA | 4/12 | 25,088 | Design, manufacturing, service and sales - tester interface products |

We currently have adequate space to meet our current and foreseeable future needs. During 2007, we determined that we had excess capacity in our Cherry Hill facility and sub-leased a portion of that facility. We are presently evaluating alternatives to better align our cost structure with current market demands. As a result of this review, we may reduce the amount of square footage leased or close certain facilities where we determine we have excess capacity for our foreseeable future needs.

Item 3.

**LEGAL PROCEEDINGS**

From time to time we may be a party to legal proceedings occurring in the ordinary course of business. We are not currently involved in any material legal proceedings.

Item 4.

**SUBMISSIONS OF MATTERS TO A VOTE OF SECURITY HOLDERS**

No matters were submitted to our stockholders for a vote during the fourth quarter of 2007.



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PART II

Item 5.

**MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock is traded on NASDAQ under the symbol "INTT." The following table sets forth the high and low sale prices of our common stock, as reported on the NASDAQ Global Market, for the periods indicated. Sale prices have been rounded to the nearest full cent.

| | Sales Price | |
|---|---|---|
| | High | Low |
| 2007 | | |
| First Quarter | $ 4.86 | $ 4.01 |
| Second Quarter | 4.93 | 4.07 |
| Third Quarter | 4.86 | 3.00 |
| Fourth Quarter | 3.39 | 2.05 |
| | | |
| 2006 | | |
| First Quarter | 4.65 | 3.20 |
| Second Quarter | 4.52 | 3.47 |
| Third Quarter | 6.50 | 3.92 |
| Fourth Quarter | 6.97 | 3.15 |

On March 14, 2008, the closing price for our common stock as reported on the NASDAQ Global Market was $1.95. As of March 14, 2008, we had 9,527,206 shares outstanding that were held of record by approximately

1,200 shareholders.

We have not paid dividends on our common stock since our initial public offering 1997, and we do not plan to pay cash dividends in the foreseeable future. Our current policy is to retain any future earnings for reinvestment in the operation and expansion of our business, including possible acquisitions of other businesses, technologies or products. Payment of any future dividends will be at the discretion of our board of directors. In addition, our current credit agreement prohibits us from paying cash dividends without the lender's prior consent.

Item 6.

**SELECTED FINANCIAL DATA**

The following table contains certain selected consolidated financial data of inTEST and is qualified by the more detailed Consolidated Financial Statements and Notes thereto included elsewhere in this Annual Report on Form 10-K and should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the other financial information included in this Annual Report on Form 10-K.

| | Years Ended December 31, | | | | |
|---|---|---|---|---|---|
| | 2007 | 2006 | 2005 | 2004 | 2003 |
| | (in thousands, except per share data) | | | | |
| **Condensed Consolidated Statement of Operations Data:** | | | | | |
| Net revenues | $48,705 | $62,346 | $53,359 | $71,211 | $48,028 |
| Gross margin | 18,781 | 26,394 | 19,780 | 28,869 | 18,892 |
| Operating income (loss) | (6,853) | 3,520 | (3,508) | 1,745 | (3,791) |
| Net earnings (loss) | (6,739) | 2,871 | (3,620) | 1,270 | (5,451) |
| Net earnings (loss) per common share: | | | | | |
| Basic | $(0.73) | $0.32 | $(0.41) | $0.15 | $(0.65) |
| Diluted | $(0.73) | $0.31 | $(0.41) | $0.14 | $(0.65) |
| Weighted average common shares outstanding: | | | | | |
| Basic | 9,215 | 9,047 | 8,807 | 8,480 | 8,332 |
| Diluted | 9,215 | 9,188 | 8,807 | 8,804 | 8,332 |

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Item 6.

**SELECTED FINANCIAL DATA** (Continued)

| | As of December 31, | | | | |
|---|---|---|---|---|---|
| | 2007 | 2006 | 2005 | 2004 | 2003 |
| | (in thousands) | | | | |
| **Condensed Consolidated Balance Sheet Data:** | | | | | |
| Cash and cash equivalents | $12,215 | $13,174 | $ 7,295 | $ 7,686 | $ 5,116 |
| Working capital | 18,649 | 20,393 | 16,195 | 18,428 | 15,670 |
| Total assets | 27,723 | 35,759 | 30,869 | 33,167 | 29,977 |
| Long-term debt, net of current portion | 8 | 16 | 23 | 47 | 117 |
| Total stockholders' equity | 21,507 | 26,822 | 22,806 | 26,118 | 22,591 |

Item 7.

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

Overview

Our business and results of operations are substantially dependent upon the demand for ATE by semiconductor manufacturers and companies that specialize in the testing of ICs. Demand for ATE is driven by semiconductor manufacturers that are opening new, or expanding existing, semiconductor fabrication facilities or upgrading existing equipment, which in turn is dependent upon the current and anticipated market demand for semiconductors and products incorporating semiconductors. In the past, the semiconductor industry has been highly cyclical with recurring periods of oversupply, which often have a severe impact on the semiconductor industry's demand for ATE, including the products we manufacture. This can cause wide fluctuations in both our orders and net revenues and, depending on our ability to react quickly to these shifts in demand, can significantly impact our results of operations. These industry cycles are difficult to predict and in recent years have become more volatile and shorter in duration. Because the industry cycles are generally characterized by sequential periods of growth or declines in orders and net revenues during each cycle, year over year comparisons of operating results may not always be as meaningful as comparisons of periods at similar points in either up or down cycles. In addition, during both downward and upward cycles in our industry, in any given quarter, the trend in both our orders and net revenues can be erratic. This can occur, for example, when orders are canceled or currently scheduled delivery dates are accelerated or postponed by a significant customer or when customer forecasts and general business conditions fluctuate during a quarter.

We believe that purchases of most of our products are typically made from semiconductor manufacturers' capital

expenditure budgets. Certain portions of our business, however, are generally less dependent upon the capital expenditure budgets of the end users. For example, purchases of certain related ATE interface products, such as sockets and interface boards, which must be replaced periodically, are typically made from the end users' operating budgets. In addition, purchases of certain of our products, such as docking hardware, for the purpose of upgrading or improving the utilization, performance and efficiency of existing ATE, tend to be counter cyclical to sales of new ATE. Moreover, we believe a portion of our sales of temperature management products results from the increasing need for temperature testing of circuit boards and specialized components that do not have the design or quantity to be tested in an electronic device handler. In addition, in recent years we have begun to market our Thermostream temperature management systems in industries outside semiconductor test, such as the automotive, aerospace, medical and telecommunications industries. We believe that these industries usually are less cyclical than the ATE industry.

While the majority of our orders and net revenues are derived from the ATE market, our operating results do not always follow the overall trend in the ATE market in any given period. We now believe that these anomalies may be driven by a variety of emerging changes within the ATE market, including, for example, changing product requirements, longer time periods between new product offerings by OEMs and changes in customer buying patterns. In particular, demand for our manipulator, docking hardware and tester interface products, which are sold exclusively within the ATE industry, and our operating margins in these product segments have been affected by recent shifts in the competitive landscape, including (i) customers placing heightened emphasis on shorter lead times (which places increased demands on our available engineering and production capacity increasing unit costs) and ordering in smaller quantities (which prevents us from acquiring component materials in larger volumes at lower cost and increasing unit costs), (ii) the increasing practice of OEM manufacturers to specify other suppliers as primary vendors, with less frequent opportunities to compete for such designations, (iii) the increased role of third-party test and assembly houses in the ATE market and their requirement of products with a greater range of use at the lowest cost, and (iv) customer supply line management groups demanding lower prices and spreading purchases across multiple vendors. These recently emerging shifts in market practices have had, and may continue to have, varying levels of impact on





**Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS** (Continued)

our operating results, but it is difficult to quantify the impact of these practices from period to period. Management has taken, and will continue to take, such actions it deems appropriate to adjust our strategies, products and operations to counter such shifts in market practices as they become evident.

*Net Revenues and Orders*

The following table sets forth, for the periods indicated, a breakdown of the net revenues from unaffiliated customers both by product segment and geographic area (based on the location of the selling entity).

| | Years Ended December 31, | | |
|---|---|---|---|
| Net revenues from unaffiliated customers: | 2007 | 2006 | 2005 |
| | $22,070 | $35,244 | $28,838 |

| | | | |
|---|---|---|---|
| Manipulator and Docking Hardware | | | |
| Temperature Management | 22,064 | 22,794 | 19,967 |
| Tester Interface | 6,673 | 7,328 | 6,778 |
| Intersegment sales | (2,102) | (3,020) | (2,224) |
| | $48,705 | $62,346 | $53,359 |
| Intersegment sales: | | | |
| Manipulator and Docking Hardware | $ 8 | $ 4 | $ 1 |
| Temperature Management | 1,746 | 2,475 | 1,863 |
| Tester Interface | 348 | 541 | 360 |
| | $2,102 | $3,020 | $2,224 |
| Net revenues from unaffiliated customers (net of intersegment sales): | | | |
| Manipulator and Docking Hardware | $22,062 | $35,240 | $28,837 |
| Temperature Management | 20,318 | 20,319 | 18,104 |
| Tester Interface | 6,325 | 6,787 | 6,418 |
| | $48,705 | $62,346 | $53,359 |
| Net revenues from unaffiliated customers: | | | |
| U.S. | $36,377 | $42,559 | $36,894 |
| Europe | 6,637 | 5,742 | 6,050 |
| Asia-Pacific | 5,691 | 14,045 | 10,415 |

Condensed Consolidated Balance Sheet Data:

$48,705 $62,346 $53,359

Our consolidated net revenues for the year ended December 31, 2007 decreased $13.6 million or 22% as compared to 2006. During 2006, we experienced higher levels of demand than were present in 2007, with our peak demand occurring during the second quarter of 2006. Throughout 2007, we experienced reduced levels of demand, particularly in our Manipulator and Docking Hardware Product segment, where our net revenues (net of intersegment sales) declined $13.2 million or 37%. In our Tester Interface Product segment, net revenues also declined $462,000 or 7% in 2007 as compared to 2006. The net revenues of our Temperature Management Product segment remained relatively unchanged in 2007 as compared to 2006.

During 2007, our net revenues from customers in the U.S. and Asia decreased 15% and 59%, respectively, while our net revenues from customers in Europe increased 16% over the comparable period in 2006. Adjusted to eliminate the impact of changes in foreign currency exchange rates, the decrease in net revenues from customers in Asia would have been 61% and the increase from customers in Europe would have been 5%. The higher percentage decrease for our customers in Asia primarily reflects the decline in sales of third-party products by our Japanese subsidiary. The increase for our European customers primarily reflects higher net revenues for our operation in northern Germany which sells our temperature management products to customers in Europe.





**Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS** (Continued)

Total orders for the year ended December 31, 2007 decreased to $48.1 million on a consolidated basis as compared to $61.2 million for 2006. For our Manipulator and Docking Hardware, Temperature Management and Tester Interface Product segments, total orders for 2007 were $21.4 million, $20.1 million and $6.6 million, respectively compared to $33.9 million, $20.7 million and $6.6 million, respectively, for 2006.

We believe that the decline in our net revenues and orders in 2007 reflects many of the factors discussed in the Overview. Both our Manipulator and Docking Hardware and Tester Interface Product segments continue to be significantly affected by the aforementioned shifts in the competitive landscape within the ATE market, while our Temperature Management Product segment has been less impacted by these changes in demand as a result of our ability to successfully market our Thermostream products outside the semiconductor industry. In 2007, 32% of our Temperature Management Product segment's net revenues were attributable to customers in markets outside of semiconductor test. The reduction in net revenues in our Manipulator and Docking Hardware Product segment during 2007 was compounded by the reduction in revenues from sales of certain third-party manufactured products distributed by our Japanese subsidiary, which were $963,000 in 2007 compared to $6.3 million in 2006. In early 2007, we were notified that the contract under which we sold these products would be ending, and, after the second quarter of 2007, we had no additional sales of these products.

*Backlog*

At December 31, 2007, our backlog of unfilled orders for all products was approximately $4.2 million compared with approximately $4.8 million at December 31, 2006. Our backlog includes customer orders which we have accepted, substantially all of which we expect to deliver in 2008. While backlog is calculated on the basis of firm purchase orders, a customer may cancel an order or accelerate or postpone currently scheduled delivery dates. Our backlog may be affected by the tendency of customers to rely on short lead times available from suppliers, including us, in periods of depressed demand. In periods of increased demand, there is a tendency towards longer lead times that has the effect of increasing backlog. As a result, our backlog at a particular date is not necessarily indicative of sales for any future period.

*Business Restructuring Initiatives*

In response to the cyclical nature of the ATE market in which we operate, we have taken various actions to restructure our operations in recent years. The goal of these actions was to significantly reduce our fixed operating costs and position ourselves to more effectively meet the needs and expectations of the cyclical ATE market. In the past, these restructuring actions have included workforce reductions and facility closures which allowed us to eliminate excess manufacturing capacity at certain of our locations. Additional information regarding the various restructuring plans implemented in recent years, including the costs incurred, is set forth in Note 10 to the consolidated financial statements.

In early 2008, we commenced a review of our operations to more aggressively streamline our cost structure in line with the current business environment. As part of this process, we will also focus on methods to increase our profitability worldwide, including pursuing other types of revenue streams and additional growth opportunities. As a result of this process, we will likely incur restructuring charges in future periods, however, we cannot predict the amount of such charges at this time.

*Impairment Charges*

Generally accepted accounting principles require us to perform at least an annual assessment for impairment of good will and other indefinite life intangible assets and to monitor events and changes in circumstances that could indicate carrying amounts of long-lived asset may not be recoverable. Due to the significant operating losses experienced by our Manipulator and Docking Hardware Product segment during 2007, combined with our forecasts that indicated potential future losses for this segment, we determined that our goodwill for this segment (which had resulted from prior acquisitions of our foreign subsidiaries in this segment) was fully impaired, resulting in a charge of $2.8 million, and that a charge of $535,000 for the impairment of certain property and equipment at our manufacturing facility in Cherry Hill was appropriate. Please refer to Note 2 of the footnotes to our consolidated financial statements for further discussion of this charge.



**Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS** (Continued)

Excess and Obsolete Inventory Charges

On a quarterly basis, we review our inventories and record charges for excess and obsolete inventory based upon our established objective excess and obsolete inventory criteria. These criteria identify material that has not been used in a work order during the prior twelve months and the quantity of material on hand that is greater than the average annual usage of that material over the prior three years. In certain cases, additional excess and obsolete inventory charges are recorded based upon current industry conditions, anticipated product life cycles, new product introductions and expected future use of the inventory. The excess and obsolete inventory charges we record establish a new cost basis for the related inventory. See also the section entitled "Critical Accounting Policies."

We incurred charges for excess and obsolete inventory of $830,000, $431,000 and $1.0 million for the years ended December 31, 2007, 2006 and 2005, respectively. The level of these charges was based upon a variety of factors, including changes in demand for our products and new product designs. The increase in excess and obsolete inventory charges in 2007 reflects the reduced demand for certain of our products, primarily in our Manipulator and Docking Hardware and Tester Interface Product segments. See also the section entitled "Critical Accounting Policies."

During the years ended December 31, 2007, 2006 and 2005 we utilized $155,000, $335,000 and $239,000, respectively, of material in production that had been written off as obsolete in prior periods. When previously written off inventory material is used in production, it has a zero cost basis and as a result, has the impact of improving our gross margin in the period used. For the years ended December 31, 2007, 2006 and 2005, the use of previously obsoleted inventory materials did not materially change our gross margin.

*Product Warranty Charges*

We accrue product warranty charges quarterly, based upon our historical claims experience. In addition, from time to time, we accrue additional amounts based upon known product warranty issues, such as product retrofits. For the years ended December 31, 2007, 2006 and 2005, our product warranty charges (recoveries) were $(198,000), $378,000 and $549,000, or (0.4)%, 0.6% and 1.0% of net revenues, respectively. The downward trend in our product warranty charges has been driven by a number of factors including recent improvements in product quality. In addition, warranty claims are typically highest when new products are introduced, and during these years there were no significant sales of newly introduced product families in our Manipulator and Docking Hardware Product segment.

The level of our product warranty charges both in absolute dollars and as a percentage of net revenues is affected by a number of factors including the cyclicality of demand in the ATE industry, the prototype nature of much of our business, the complex nature of many of our products, the introduction of new product families which typically have higher levels of warranty claims than existing product families, and, at our discretion, providing warranty repairs or replacements to customers after the contracted warranty period has expired in order to promote strong customer relations. See also "Critical Accounting Policies."

*Product/Customer Mix*

Our three product segments each have multiple products that we design, manufacture and sell to our customers. The gross margin on each product we offer is impacted by a number of factors including the amount of intellectual property (such as patents) utilized in the product, the number of units ordered by the customer at one time, or the amount of inTEST designed and fabricated material included in our product compared with the amount of third-party designed and fabricated material included in our product. The weight of each of these factors, as well as the current market conditions, determines the ultimate sales price we can

obtain for our products and the resulting gross margin.

The mix of products we sell in any period is ultimately determined by our customers' needs. Therefore, the mix of products sold in any given period can change significantly from the prior period. As a result, our consolidated gross margin can be significantly impacted in any given period by a change in the mix of products sold in that period.





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

6.
Shared Voting Power

0
7.
Sole Dispositive Power

0
8.
Shared Dispositive Power

0
9.
Aggregate Amount Beneficially Owned by Each Reporting Person

0
10.
Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11.
Percent of Class Represented by Amount in Row (9)

0.0%
12.
Type of Reporting Person (See Instructions)

(IN)

_____

Condensed Consolidated Balance Sheet Data: 31

CUSIP No. 50212V100

| | | |
|---|---|---|
| 1. | Names of Reporting Persons<br>Ronak R. Gandhi | |
| 2. | Check the Appropriate Box if a Member of a Group (See Instructions)<br>(a) (b) | |
| 3. | SEC Use Only | |
| 4. | Citizenship or Place of Organization<br>USA | |
| Number of Shares Beneficially Owned by Each Reporting Person With: | 5. Sole Voting Power<br>120 | |
| | 6. Shared Voting Power<br>0 | |
| | 7. Sole Dispositive Power<br>120 | |
| | 8. Shared Dispositive Power<br>0 | |
| 9. | Aggregate Amount Beneficially Owned by Each Reporting Person<br>120 | |
| 10. | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | |
| 11. | Percent of Class Represented by Amount in Row (9)<br>**0.1% | |
| 12. | | |

Type of Reporting Person (See Instructions)

(IN)

_____

**Denotes less than.

This Amendment No. 4 (the "Amendment") amends the Schedule 13G (the "Original 13G") filed with the Securities and Exchange Commission ("SEC") on December 22, 2014 and amended on February 16, 2016, February 14, 2017 and February 14, 2018. Terms used herein and not defined herein shall have the meanings ascribed thereto in the Original 13G, as amended. This is the final amendment to the Original 13G and an exit filing with respect to each of the Reporting Persons listed in
Item 2(a).

Item 1. (a) Name of Issuer

LPL Financial Holdings Inc.

(b) Address of Issuer's Principal Executive Offices

75 State Street,
Boston, Massachusetts 02109

Item 2. (a) Name of Person Filing

SPO Partners II, L.P., a Delaware limited partnership ("SPO"), SPO Advisory Partners, L.P., a Delaware limited partnership ("SPO Advisory Partners"), San Francisco Partners, L.P., a California limited partnership ("SFP"), SF Advisory Partners, L.P., a Delaware limited partnership ("SF Advisory Partners"), SPO Advisory Corp., a Delaware corporation ("SPO Advisory Corp."), John H. Scully ("JHS"), Phoebe Snow Foundation, Inc., a California corporation ("PSF"), Eli J. Weinberg ("EJW") and Ronak R. Gandhi ("RRG") are sometimes hereinafter referred to as the "Reporting Persons."

The Reporting Persons are making this single, joint filing because they may be deemed to constitute a "group" within the meaning of Section 13(d)(3) of the Securities Exchange Act of 1934, as amended (the "Act"), although neither the fact of this filing nor anything contained herein shall be deemed to be an admission by the Reporting Persons that a group exists.

(b), (c) Address of Principal Business Office or, if None, Residence; Citizenship of Reporting Persons

The principal business address of SPO is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. SPO is a Delaware limited partnership.

The principal business address of SPO Advisory Partners is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. SPO Advisory Partners is a Delaware limited partnership.

The principal business address of SFP is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. SFP is a California limited partnership.

The principal business address of SF Advisory Partners is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. SF Advisory Partners is a Delaware limited partnership.

The principal business address of SPO Advisory Corp. is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. SPO Advisory Corp. is a Delaware corporation.

The principal business address of JHS is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. JHS is a citizen of the United States of America.

The principal business address of PSF is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. PSF is a California corporation.

The principal business address of EJW is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. EJW is a citizen of the United States of America.

The principal business address of RRG is 591 Redwood Highway, Suite 3215, Mill Valley, California 94941. RRG is a citizen of the United States of America.

(d) Title of Class of Securities

Common Stock, par value $0.001 per share

(e) CUSIP Number:

50212V100

Item 3. Statement filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c):

Not Applicable.

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

| | (b) | (a) | (c)(i) | (c)(ii) | (c)(iii) | (c)(iv) |
|---|---|---|---|---|---|---|
| | | | Common Shares | | | |
| | | | Voting Power | | Disposition Power | |
| Reporting Persons | Percent of Class | Beneficially Owned | Sole | Shared | Sole | Shared |
| SPO Partners II, L.P. | 0.0% | 0 | 0 | 0 | 0 | 0 |
| SPO Advisory Partners, L.P. | 0.0% | 0 | 0 | 0 | 0 | 0 |
| San Francisco Partners, L.P. | 0.0% | 0 | 0 | 0 | 0 | 0 |
| SF Advisory Partners, L.P. | 0.0% | 0 | 0 | 0 | 0 | 0 |
| SPO Advisory Corp. | 0.0% | 0 | 0 | 0 | 0 | 0 |
| John H. Scully | 0.0% | 0 | 0 | 0 | 0 | 0 |
| Phoebe Snow Foundation, Inc. | 0.0% | 0 | 0 | 0 | 0 | 0 |
| Eli J. Weinberg | 0.0% | 0 | 0 | 0 | 0 | 0 |
| Ronak R. Gandhi | **0.1% | 120 | 120 | 0 | 120 | 0 |

_____

** Denotes less than

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

No other persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from, or other proceeds from the sale of, the common shares held by the Reporting Persons.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable.

Item 8. Identification and Classification of Members of the Group.

Not Applicable.

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

December 14, 2018
Date

/s/ Kim M. Silva
Signature

Kim M. Silva
Attorney-in-fact for:

SPO Partners II, L.P. (1)
SPO Advisory Partners, L.P. (1)
San Francisco Partners, L.P. (1)
SF Advisory Partners, L.P. (1)
SPO Advisory Corp. (1)
John H. Scully (1)
Phoebe Snow Foundation, Inc. (1)
Eli J. Weinberg (1)
Ronak R. Gandhi (2)

(1) A Power of Attorney authorizing Kim M. Silva to act on behalf of this person or entity has been previously filed with the Securities and Exchange Commission on December 22, 2014.

(2) A Power of Attorney authorizing Kim M. Silva to act on behalf of this person or entity has been previously filed with the Securities and Exchange Commission on February 14, 2017.

EXHIBIT INDEX

| Exhibit | Document Description |
| --- | --- |
| A | Agreement Pursuant to Rule 13d-1(k) |
| B | Power of Attorney (previously filed on December 22, 2014) |
| C | Power of Attorney (previously filed on February 14, 2017) |