



B E C A U S E T E S T I N G M A T T E R S

Teradyne 2005 Annual Report



Summary of Operating Results

	2005*	2004*
Net Sales	\$ 1,075,232,000	\$ 1,410,222,000
Income/(Loss) from continuing operations:		
Before Income Taxes	\$ (80,137,000)	\$ 154,468,000
Net Income/(Loss)	\$ (60,457,000)	\$ 132,619,000
Net Income/(Loss) from continuing operations:		
Per Common Share - Basic	\$ (0.31)	\$ 0.68
Per Common Share - Diluted	\$ (0.31)	\$ 0.67

*In November 2005, Teradyne sold its Connection Systems Division (TCS). TCS is classified as a discontinued operation, and its results are excluded from these numbers.

Teradyne, Inc.

Teradyne is a leading supplier of automatic test equipment used to test complex electronics used in the electronics, automotive, computing, telecommunications, and aerospace and defense industries. For more information, visit www.teradyne.com.

Teradyne sells and services its products primarily through a direct worldwide sales, applications, and support organization, with technical centers located throughout the United States, Asia, and Europe.

The Company was founded in 1960 and became publicly owned in 1970. Its stock is traded on the New York Stock Exchange under the symbol TER.

Teradyne: Because Testing Matters

On the cover: Teradyne's testing expertise makes a world of electronics products possible, including (top left, clockwise): portable GPS systems, modern medicine, the computing and communications power behind air traffic safety, and MP3 players.



Teradyne President and CEO Mike Bradley with some of the Company's recent college recruits.

To Our Shareholders

2005 was a year of major change at Teradyne, a year in which we created a new Teradyne focused exclusively on the business that has long been the core of our DNA: testing. At the same time we significantly improved our business model and our balance sheet, so that we enter 2006 as a company better equipped to prosper throughout the business cycle.

A milestone in the Company's reconfiguration was the sale of our Connection Systems Division (TCS) to Amphenol Corporation, and in the accompanying financial summaries TCS is classified as a discontinued operation. Thus, when reading this year's report and this letter, you should keep in mind that TCS operating results are excluded, for 2004 as well as for 2005.



Because Testing Matters

Home theater systems are becoming an important part of our lives.

By the numbers, the year was disappointing. Sales fell by 24 percent, to \$1.08 billion. On a GAAP basis, our net loss was \$60.5 million, or 31 cents a share. On a non-GAAP basis (i.e., excluding certain credits and charges that we do not consider characteristic of our ongoing operations), we lost \$33.6 million, or 17 cents per share.

Despite the year-over-year fall-off in sales and earnings, there was much good news, including a quarter-by-quarter improvement as the year unfolded, fourth-quarter jumps in sales, bookings, and earnings, fast-growing sales of our FLEX™ systems, capture of market leadership in in-circuit board testing, profitable growth in our military/aerospace and automotive test businesses, and a much stronger balance sheet. These and other achievements are described in the following line-by-line summary.

Semiconductor Test Systems

After growing 32 percent in 2003 and 56 percent in 2004, semiconductor test sales backed off by 29 percent, in part reflecting a decline in our served market. The resulting loss in this area was deep enough to account for all the red ink the Company spilled in 2005.

On the other hand, our flagship product, the FLEX system, posted record sales, quarter after quarter, and FLEX bookings for the year exceeded even our high expectations. Last year in this space I was able to boast that the FLEX installed base had grown from 34 to more than 200 systems. The total number of systems booked now exceeds 650. FLEX revenue almost tripled during 2005, and all three members of the FLEX family (FLEX, microFLEX™, and UltraFLEX™) are now on line at the plants of more than 50 customers in Asia, Europe, and North America. The end products driving FLEX demand run the gamut of today's semiconductor applications – games, cell phones, cameras, portable media players, automotive devices, set-top TV boxes, wireless devices, microcontrollers, security devices, and all the other “must-haves” of modern life. Most of these products are built around System-On-a-Chip (SOC) or System-In-Package (SIP) semiconductors, whose performance and economic viability owe much to the rapidly growing deployment of FLEX.

FLEX contributed almost half of our semiconductor product sales, with the rest coming from sales of Catalyst™, Tiger and J750 systems. These have been immensely successful products for a number of years, and today their combined installed base totals more than 4,000 systems. In 2005 their sales approached half a billion dollars, so it is clear that they are still alive and well, but, recognizing that their growth rates are bound to taper off, we wrote down some inventory related to these systems during the year.

FLEX has a major impact on our customers' profitability – and on ours. We have honed the production process for this system to the point where it takes, on average, only 54 hours to assemble and test each system. That's a staggering improvement; the comparable cycle time for our previous generation of test systems was measured in weeks, not days or hours. This means that we carry less inventory, use less labor, require less plant space, and respond faster to our customers' demands. If you delve into our financials, you will see that we turned over our inventory more than five times in 2005, our best performance in years. FLEX played a big part in that.

More than 70 percent of our 2005 semiconductor test shipments were to sites in Asia, and we continue to raise our profile in that area. The applications development center we opened in Shanghai in 2004 was joined by two additional centers, in Singapore and Taiwan, in 2005. These centers, typically staffed by scores of highly skilled applications engineers, supplement the specialists based in or near our customers' factories, so that we effectively blanket the areas where customer activity is concentrated. Also, since we manufacture certain products (e.g., our J750 testers) in Asia, and increasingly rely on Asian subcontractors, we have opened a centralized Asia purchasing center in Singapore.

These new applications and purchasing centers, combined with our network of sales offices throughout the Far East, plants in Japan and China, and a repair center in the Philippines, offer our Asian customers further evidence of our long-term commitment to them.

Circuit-Board Test Systems

Sales of in-circuit test systems increased despite a flat market in 2005, and our market share increased significantly. In fact, according to reliable market estimates, we are now the world's leading supplier of in-circuit board test systems. In addition, thanks to rigorous cost control, the operating profit of the business improved substantially in 2005.

Our growth came on the backs of products that addressed our customers' most difficult testing challenges. Our best-selling board tester, TestStation™, gives users the ability to program each pin characteristic independently, thus allowing the system to handle multiple voltage levels on the same board. Another TestStation feature enables the system to handle the low voltages that are common in many of today's portable devices, and its highly accurate drivers help protect boards under test from potentially damaging current spikes (thus the feature's trade name "SafeTest™"). In 2005 these and other competitive advantages saw the installed base of TestStation systems grow to more than 700 units at more than 300 different customer sites.

Reflecting the westward shift of electronics manufacturing, more than half the TestStation systems sold in 2005 were shipped to Asian customers, including some of the leading manufacturers in the area. Huawei, China's largest telecommunication equipment maker, named TestStation its "Platform of Choice" in 2005, and Mitac, a high-volume supplier of computer motherboards, also based in China, designated Teradyne its "Vendor of Choice," based on its successful experience with TestStation.



Because Testing Matters

The runway is short, and it's moving. The pilot's avionics must work perfectly.

Military/Aerospace Test Systems

Our position as the leading supplier of automatic test systems and VXI-based test instruments for the military/aerospace industry was reinforced in 2005, as we won virtually every major contract we sought. We have been particularly successful in serving the U.S. Defense Department and the U.K. Ministry of Defense. Both agencies have worked hard to develop standard test solutions that can be shared by all their military services, and we have played a major role in these efforts.

For most of these programs, we supply complete functional test systems for avionics, radar systems, data networks, and various other mission-critical command and control systems. We also supply digital, analog, and bus test modules that can be integrated into test mainframes or supplied separately.

For the year, sales of military/aerospace test systems grew about 10 percent, and there was a marked improvement in profitability.



Because Testing Matters

The more we rely on electronics to keep our automobiles safe, the more testing matters.

Automotive Test Systems

Our automotive test operation had another in a series of successful years. In fact, as 2005 drew to a close, this unit posted its seventeenth consecutive profitable quarter. Sales were up modestly, while bookings increased by an immodest 49 percent.

The business addresses two markets: the service bays of automobile dealerships and automobile production lines. Readers may be surprised to learn that we are the world's leading independent supplier of diagnostic instruments for automotive service bays, with more than 70,000 testers on hand at dealerships across all continents. We are also a growing presence in the automobile manufacturing plant, with our systems now performing end-of-line testing at no fewer than 125 production lines worldwide.

There were two major product launches during the year. One was a vehicle communications platform, a device that interfaces to an automobile's on-board computer to retrieve diagnostic data. This product won two design-ins, one in the service-bay sector, one on an automobile production line. We also introduced a new vehicle measurement module (VMM) for the service bay. This lightweight, versatile tool replaces an array of instruments (pressure gauge, oscilloscope, signal generator, multimeter, etc.) commonly used to diagnose engine problems. The payback in terms of capital savings, reduced warranty costs, and customer satisfaction is compelling – so compelling, in fact, that we shipped over 2,000 of these units in the fourth quarter alone.

Telecommunications Test Systems



Telecommunications (i.e., broadband) test systems sales fell 14 percent after a spike in hardware sales in 2004 (sales in 2005 were actually 30 percent above those in 2003). Profits increased as a greater share of revenues came from higher-margin software and services.

The foundation of our telecommunications test business is the number of subscriber lines – 150 million at last count – regularly tested by Teradyne systems, which carry the trade name 4TEL™. As the broadband revolution intensifies, telephone companies are under competitive pressures to upgrade their networks and their test equipment. We serve this growing market by selling broadband line diagnostic units, or LDUs, which now cover more than half the lines in our installed base. The LDUs in turn enable the telephone companies to adopt Celerity™, a Teradyne system designed to qualify and monitor broadband service. The number of accounts using Celerity doubled in 2005, and the Celerity system is now in place on more than 40% of our installed base.

Looking Ahead

The outlook is good. In semiconductor test, we expect FLEX systems to represent a growing share of our sales and thus lift over-all margins. Our other businesses are all profitable as we enter 2006. The planned consolidation of our Massachusetts operations at our North Reading campus, about 10 miles north of Boston, should boost our productivity.



Because Testing Matters

The flight was late, the rental car is gone. His cell phone will save the day.

The sale of TCS and some excess real estate, for \$385 million and \$29 million respectively, along with the creation of a new, more profitable business model, left us with a much stronger balance sheet at year end. Inventory stood at 10 percent of annualized fourth-quarter sales, compared with 19 percent a year ago, with the total amount decreasing by more than \$72 million. Net cash (cash minus debt) totaled over \$620 million, an amount that gives us the financial flexibility and the resources needed to pursue our ambitious goals.

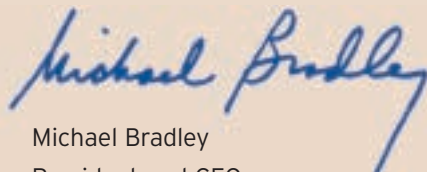
Our long-term campaign to reduce the break-even level has yielded excellent results, and today we are leaner and more focused than we have been in many years. The challenge now is to stimulate top-line growth, both by increasing our share of the served market and by extending our reach into new corners of the testing universe.

Testing Matters

Thanks to what we and other test equipment makers do, modern electronic devices are amazingly reliable. The chances are that you discard your cell phone and personal computer, not because they don't work anymore, but because you want the higher performance of a new (and equally reliable) model. The reliability doesn't come easily. It comes because at every stage of the electronics manufacturing process, someone is testing something. Testing, screening, inspecting, collecting data, tweaking the process, retesting. It will always be so, because once you learn how to make something that is virtually bulletproof, some engineer somewhere pushes the envelope, designs a more complex device, and you start all over.

Testing is not only a good business; it is an important business. Our homes, our businesses, our factories, our automobiles, schools, and hospitals are all literally filled with electronic devices we have come to depend on. Sometimes what hangs in the balance is simply the delivery of a favorite television program or the proper functioning of the latest game console. Very often, however, our safety, our health, our very lives are on the line. When you are in an ambulance, and the EMT electronically monitors your vital signs and radios them ahead to the emergency room, many thousands of semiconductors and circuit boards must operate flawlessly. If you are a pilot guiding your fighter to the carrier flight deck at night, your avionics must bring you in safely. It does not take much imagination to conjure up any number of other situations in which the perfect operation of a cell phone or a missile guidance system or an automobile's air bag is a matter of life or death.

If we do our jobs well, the devices you depend on should do their jobs well. It's as simple as that. Almost without exception, electronic devices work. But "almost" is not good enough, so we keep pushing ourselves to do better. It's a good cause. Testing matters.

A handwritten signature in blue ink that reads "Michael Bradley". The signature is fluid and cursive, with the first name "Michael" and last name "Bradley" clearly legible.

Michael Bradley
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Bradford D. Robbins

Roger S. Saylor

Daniel D. Tempesta, Treasurer

S.I. Wei

Joseph F. Wrinn

Auditors

PricewaterhouseCoopers LLP



Teradyne's North Reading Campus

Locations

Corporate Headquarters

321 Harrison Avenue
Boston, Massachusetts 02118

Broadband Test

Deerfield, Illinois
Kontich, Belgium
Bracknell, United Kingdom
Wuppertal, Germany

Circuit Board & Automotive Test

North Reading, Massachusetts
Kontich, Belgium
Detroit, Michigan
Ismaning, Germany
Shanghai, China
Stockport, United Kingdom
Tokyo, Japan

Semiconductor Test

Boston, Massachusetts
Agoura Hills, California
Austin, Texas
Cebu, Philippines
Colombes, France
Essex Junction, Vermont
Fridley, Minnesota
Hinschu, Taiwan
Kumamoto, Japan
Milan, Italy
Munich, Germany
North Reading, Massachusetts
San Jose, California
San Jose, Costa Rica
Seoul, Korea
Science Park, Singapore
Shanghai, China
Tempe, Arizona
Tualatin, Oregon
Waltham, Massachusetts
Woburn, Massachusetts

In addition to the locations listed here, the Company maintains an extensive network of sales offices and service centers throughout North America, Asia, and Europe.

Information for Shareholders

Shareholders and others may access Teradyne's latest earnings reports and other press releases at its web site, www.teradyne.com, by clicking on the "Archived News" link in the "In the News" section, or by accessing Business Wire at www.businesswire.com/ter/index.shtml.

Financial information and Teradyne's SEC filings are also available on the Internet, either through Teradyne's home page or through the SEC's EDGAR archives. The addresses are:

- Teradyne: <http://www.teradyne.com>. Click on the "Investors" link and then the SEC filings link.
- EDGAR: <http://www.sec.gov/cgi-bin/srch-edgar> (keyword response: Teradyne)

Teradyne's Ethics Policy, Corporate Governance Guidelines and Charters for its Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are available on Teradyne's website at www.teradyne.com by clicking on the "Investors" link and then the "Corporate Governance" link. Each of these documents is also available in print to any shareholder who submits a request to Teradyne's investor relations department at:

- Investor Relations: (617) 422-2425
- Investorrelations@teradyne.com

Shareholders seeking information on stock transfers, lost certificates, etc., should call or write Teradyne's Transfer Agent:

- Computershare Trust Company, N.A.
P.O. Box 43078
Providence, RI 02940-3078
- Computershare Investor Relations: (781) 575-4593
- Internet: <http://www.computershare.com/equiserv>

The attached Form 10-K does not include all Exhibits filed with the SEC. These Exhibits, along with additional copies of our Form 10-K, are available from us without charge upon request. Please contact: Thomas Newman, Vice President of Corporate Relations, Teradyne, Inc., 321 Harrison Avenue, Boston, MA 02118, or investorrelations@teradyne.com.

Important Factors Regarding Future Results

Information provided by Teradyne, including information contained in this Annual Report, may contain "forward-looking statements" as defined under Section 21E of the Securities Exchange Act of 1934, as amended, which are based on the assumptions and expectations of Teradyne's management at the time such statements are made. These statements are not promises, guarantees, or assurances that projected results will be achieved, but instead involve risks and uncertainties, both known and unknown, that could cause Teradyne's actual results to differ materially from those projected in any forward-looking statements. These forward looking statements may include, but are not limited to, statements regarding: the sale of TCS and its effect on Teradyne's future results of operations or financial condition; competition, including new product introductions from competitors and competitive pricing pressures; the current and anticipated market for electronics; risks of significant fluctuations in operating results; risks of operating internationally; failure to develop new technologies and customers' failure to accept new products; risks associated with suppliers' failure to meet Teradyne's product or delivery requirements; Teradyne's ability to address a rapid increase in customer demand; risks associated with Teradyne's significant guarantees and indemnification obligations; risks associated with any measure Teradyne has taken to ensure that it is prepared to address slowdowns in the market; the implementation of Statement of Financial Accounting Standards No. 123R and its effect on Teradyne's operating results; risks associated with obligations and potential liabilities under environmental laws and regulations; risks associated with the planned consolidation of Teradyne's Massachusetts operations; material litigation; failure to adequately protect Teradyne's intellectual property rights; risks associated with an inability to attract and retain key employees; slowdowns in economies worldwide; current geopolitical turmoil and the continuing threat of domestic and international terrorist attacks; and other events, factors and risks previously and from time to time disclosed in our filings with the SEC.

Annual Meeting

May 25, 2006, 10:00 A.M.
100 Federal Street, Boston, Massachusetts



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