ADVANTEST CORP
Form 20-F
June 24, 2011
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As filed with the Securities and Exchange Commission on June 24, 2011

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

¨ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended March 31, 2011

OR

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

¨ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report

For the transition period from to

Commission file number: 1-15236

KABUSHIKI KAISHA ADVANTEST

(Exact name of registrant as specified in its charter)

ADVANTEST CORPORATION

(Translation of registrant s name into English)

Japan

(Jurisdiction of incorporation or organization)

Shin-Marunouchi Center Building

1-6-2, Marunouchi

Chiyoda-ku

Tokyo 100-0005

Japan

(Address of principal executive offices)

Yuichi Kurita, (81-3) 3214-7500, (81-3) 3214-7711,

Shin-Marunouchi Center Building

1-6-2, Marunouchi

Chiyoda-ku

Tokyo 100-0005

Japan

(Name, telephone, facsimile number and address of company contact person)

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

Title of each class:	Name of each exchange on which registered:
American Depositary Shares*	The New York Stock Exchange
Common Stock**	

* American Depositary Receipts evidence American Depositary Shares, each American Depositary Share representing one share of the registrant s Common Stock.

** No par value. Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

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

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report:

Title of class:	Outstanding as of March 31, 2011:
Common Stock	173,271,951
American Depositary Shares	
each representing one share of Common Stock	1,882,043

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

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. 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 whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).: Yes x No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x Accelerated filer ¨ Non-accelerated filer ¨

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP x International Financial Reporting Standards as issued By the International Accounting Standards Board ¨ Other ¨

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ¨ Item 18 ¨

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

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As used in this annual report, the term fiscal preceding a year means the twelve-month period ended March 31 of the year subsequent to the year referred to. For example, fiscal 2010 refers to the twelve-month period ended March 31, 2011. All other references to years refer to the applicable calendar year.

In parts of this annual report, certain amounts reported in Japanese yen have been translated into U.S. dollars for the convenience of readers. Unless otherwise noted, the rate used for this translation was $1.00 = ¥83.15. This was the approximate exchange rate in Japan on March 31, 2011.

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Unless otherwise noted, all references and discussions of the financial position of Advantest Corporation (the Company) and its consolidated subsidiaries (collectively, Advantest), results of operations and cash flow in this annual report are made with reference to Advantest s consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP. The segment sales figures included in this annual report are presented before eliminating intercompany transactions.

See Information on the Company Business Overview Glossary for a description of certain technical terms used in this annual report.

Cautionary Statement with Respect to Forward-Looking Statements

This annual report contains forward-looking statements that are based on Advantest s current expectations, estimates and projections. These statements include, among other things, the discussion of Advantest s business strategy, outlook and expectations as to market and business developments, production and capacity plans. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as anticipate, believe, estimate, expect, intend, project, should and similar expressions. Forward-looking statements a to known and unknown risks, uncertainties and other factors that may cause Advantest s actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements, including:

- changes in demand for the products and services produced and offered by Advantest s customers, including semiconductors, communications services and electronic goods;
- the environment in which Advantest purchases materials, components and supplies for the production of its products, including the availability of necessary materials, components and supplies during a significant expansion in the market in which Advantest operates;
- circumstances relating to Advantest s investment in technology, including its ability to timely develop products that meet the changing needs of semiconductor manufacturers and communications network equipment and components makers and service providers; and
- changes in economic conditions, competitive environment, currency exchange rates or political stability in the major markets where Advantest produces, distributes or sells its products.

These risks, uncertainties and other factors also include those identified in Operating and Financial Review and Prospects, Key Information Risk Factors and Information on the Company set forth elsewhere in this annual report.

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PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

3.A. SELECTED FINANCIAL DATA

You should read the U.S. GAAP selected consolidated financial information presented below together with Operating and Financial Review and Prospects and Advantest s consolidated financial statements together with the notes included in this annual report.

U.S. GAAP Selected Consolidated Financial Data

The following selected financial data have been derived from Advantest s audited consolidated financial statements. These consolidated financial statements were prepared under U.S. GAAP. Advantest s U.S. GAAP audited consolidated financial statements for fiscal 2008, fiscal 2009 and fiscal 2010 were included in its Japanese Securities Reports filed with the Director General of the Kanto Local Finance Bureau.

	Year ended March 31,					
	2007	2008	2009	2010	2011	2011
	(in millions, except per share and share data)					(thousands, except per share and share data)
Consolidated Statement of Income Data:[4]						
Net sales	¥ 235,012	¥ 182,767	¥ 76,652	¥ 53,225	¥ 99,634	$ 1,198,244
Operating income (loss)	56,792	22,716	(49,457)	(11,639)	6,111	73,494
Income (loss) before income taxes and equity in earnings (loss) of affiliated company	61,090	23,533	(52,761)	(9,926)	5,551	66,759
Net income (loss)	35,556	16,550	(74,902)	(11,454)	3,163	38,040

Net income (loss) per share						
Basic[(1)]	190.01	90.72	(419.09)	(64.09)	18.03	0.22
Diluted[(1)]	188.85	90.57	(419.09)	(64.09)	18.03	0.22
Basic weighted average shares outstanding[(1)]	187,128,842	182,418,821	178,724,884	178,722,505	175,481,854	
Diluted weighted average shares outstanding[(1)]	188,270,688	182,723,982	178,724,884	178,722,505	175,495,458	

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	As of March 31,					
	2007	2008	2009	2010	2011	2011
			(in millions)			(in thousands)
Consolidated Balance Sheet Data:						
Total assets	¥ 366,374	¥ 298,684	¥ 202,059	¥ 188,663	¥ 180,312	$ 2,168,515
Current portion of long-term debt	10					
Long-term debt, less current portion						
Common stock	32,363	32,363	32,363	32,363	32,363	389,212
Stockholders equity	294,797	254,184	163,616	150,242	138,132	1,661,239

	As of March 31,					
	2007	2008	2009	2010	2011	2011
			(in millions, except per share data)			(in thousands)
Other Data:						
Capital expenditures	¥ 8,336	¥ 14,083	¥ 4,608	¥ 3,425	¥ 3,793	$ 45,616
Research and development expenses	29,509	30,507	23,713	17,896	21,197	254,925
Net cash provided by (used in) operating activities	48,951	24,166	2,357	(17,746)	(693)	(8,334)
Net cash provided by (used in) investing activities	(8,013)	(16,322)	(32,507)	10,824	(5,828)	(70,090)
Net cash used in financing activities	(3,662)	(46,770)	(8,930)	(1,803)	(12,028)	(144,654)
Operating margin[2] [4]	24.17%	12.43%	(64.52%)	(21.87%)	6.13%	
Net income margin[3] [4]	15.13%	9.06%	(97.72%)	(21.52%)	3.17%	

(1) On October 1, 2006, the Company conducted a two for one stock split of shares of its common stock. Net income per share and average number of shares outstanding for each period affected have been restated to reflect the effects of the stock split.
(2) Operating income as a percentage of net sales.
(3) Net income as a percentage of net sales.
(4) On April 1, 2007, the Company and its domestic subsidiaries elected to change the declining-balance method of depreciating machinery and equipment as well as tools, furniture and fixtures from the fixed-percentage-on-declining base application to the 250% declining balance application.

Dividends

The Company normally pays cash dividends semi annually, at mid-year and at year-end. Pursuant to its articles of incorporation, the Company can make dividend payments pursuant to a resolution of its Board of Directors, but the articles do not preclude the Company from making dividend payments pursuant to a shareholders resolution. The year-end dividend is paid to shareholders of record as of March 31 pursuant to the resolution of either the Board of Directors or the ordinary general shareholders meeting held usually in June every year. The interim dividend is paid to shareholders of record as of September 30, pursuant to a resolution of the Board of Directors, usually in December.

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The following table sets forth the dividends paid by the Company for each of the periods shown, which are the six months ended on that date. The U.S. dollar equivalent for the dividends shown are based on the exchange rate in Japan on each record date shown. On October 1, 2006, the Company conducted a two for one stock split of shares of its common stock. Dividend per share information has been restated to reflect the effects of the stock split.

	Dividend per Share	
Six months ended/Record date	**Yen**	**Dollars**
September 30, 2006	17.5	0.17
March 31, 2007	32.5	0.32
September 30, 2007	25.0	0.25
March 31, 2008	25.0	0.25
September 30, 2008	25.0	0.24
March 31, 2009	5.0	0.05
September 30, 2009	5.0	0.06
March 31, 2010	5.0	0.05
September 30, 2010	5.0	0.06
March 31, 2011	5.0	0.06

The payment and the amount of any future dividends are subject to the level of Advantest s future earnings, its financial condition and other factors, including statutory restrictions on the payment of dividends.

Exchange Rates

In parts of this annual report, certain Japanese yen amounts have been translated into U.S. dollars for the convenience of investors. Unless otherwise noted, the rate used for the translation was $1.00 = ¥83.15. This was the approximate exchange rate in Japan on March 31, 2011.

The following table sets forth, for the periods and dates indicated, information concerning the noon buying rate for Japanese yen announced by the Federal Reserve Bank of New York, expressed in Japanese yen per $1.00. The noon buying rate as of June 10, 2011 was $1.00 = 80.26. The Company does not intend to imply that the Japanese yen or U.S. dollar amounts referred to in this annual report could have been or could be converted into U.S. dollars or Japanese yen, as the case may be, at any particular rate, or at all.

Fiscal year ended/ending March 31,	**At end of period**	**Average (of month-end rates)**	**High**	**Low**
		(¥ per $1.00)		
2007	117.56	116.55	121.81	110.07
2008	99.85	113.61	124.09	96.88
2009	99.15	100.85	110.48	87.80
2010	93.40	92.49	100.71	86.12
2011	82.76	85.00	94.68	78.74

Month ended	**High**	**Low**
	(¥ per $1.00)	
December 31, 2010	¥ 84.23	¥ 81.67
January 31, 2011	83.36	81.56
February 28, 2011	83.79	81.48
March 31, 2011	82.98	78.74

April 30, 2011	85.26	81.31
May 31, 2011	82.12	80.12

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3.B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

3.C. REASONS FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

3.D. RISK FACTORS

Risks Related to Advantest s Business

Advantest s business and results of operations are subject to significant demand volatility in the semiconductor industry

Advantest s business depends largely upon the capital expenditures of semiconductor manufacturers, foundries and test houses. These companies, in turn, determine their capital expenditure and investment levels largely based on current and anticipated market demand for semiconductors and products incorporating semiconductors. Such demand is influenced significantly by the overall condition of the global economy. Historically, the percentage reduction in capital expenditures by semiconductor manufacturers during downturns in the semiconductor industry, including investment in semiconductor test systems, has typically been much greater than the percentage reduction in worldwide sales of semiconductors. The semiconductor industry has been highly cyclical with recurring periods of excess inventory, which often have had a severe effect on the semiconductor industry s demand for semiconductor test systems, including those of Advantest. In particular, the market for memory semiconductors shows higher demand volatility as compared to non memory semiconductors. In fiscal 2008, the economic downturn and the slowdown in the semiconductor market both became more pronounced, and Advantest s net sales of test systems for memory semiconductors decreased by ¥75,252 million (81.0%) from fiscal 2007 to ¥17,644 million, and in fiscal 2009 decreased by ¥5,200 million (29.5%) from fiscal 2008 to ¥12,444 million. However, in fiscal 2010, due to an increase in demand for mobile DRAM test systems which are used for mobile devices net sales increased by ¥17,572 million (141.2%) from fiscal 2009 to ¥30,016 million. Reflecting the foregoing Advantest s overall net sales in fiscal 2008 decreased by ¥106,115 million (58.1%) from fiscal 2007 to ¥76,652 million, and in fiscal 2009 net sales decreased by ¥23,427 million (30.6%) from fiscal 2008 to ¥53,225 million, however, in fiscal 2010 net sales increased by ¥46,409 million (87.2%) from fiscal 2009 to ¥99,634 million. Any downturn in the memory semiconductor market will therefore likely continue to adversely affect Advantest s business.

The worldwide semiconductor market grew by 8.9% and 3.2% in 2006 and 2007, respectively. In 2008 and 2009, the semiconductor market contracted by 2.8% and 9.0%, respectively, compared to the previous year, reflecting the global economic downturn that stemmed from the financial crisis. After the previous year s negative growth, the market has significantly recovered in 2010, and has grown by 31.8% compared to the previous year, primarily due to a surge in demand for electronic equipment in developing nations. Worldwide sales of memory semiconductors increased by 20.5% in 2006, on a year-to-year basis, primarily due to the increase in demand for flash memory semiconductors used in digital consumer products and for DRAM semiconductors used in personal computers. Worldwide sales of memory semiconductors, however, declined by 1.1% and 19.9% in 2007 and 2008, respectively, mainly due to a substantial reduction in capital expenditure by semiconductor manufacturers reflecting a substantial decline in the price of DRAM semiconductors and NAND-type flash memory semiconductors. Although the markets for personal computers and cellular phones including smart phones remained steady in 2009, worldwide sales of memory semiconductors in 2009 declined by 3.3% compared to 2008 reflecting the global economic downturn, resulting in negative growth for three consecutive years. In 2010, primarily due to a steady demand for mobile DRAM test systems for mobile devices, worldwide sales increased by 55.4% compared to 2009.

Worldwide sales of non memory semiconductors increased in 2006 and 2007, since demand in the consumer market and automobile market stabilized and the data processing market were strong. Worldwide sales of non memory semiconductors in 2008 increased by 2.3% from 2007, primarily due to steady demand for mobile

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PCs despite the deterioration in the overall condition of the global economy. In 2009, worldwide sales of non memory semiconductors decreased by 10.3% compared to 2008, primarily as a result of the impact of the global economic downturn stemming from the financial crisis that started in 2008. In 2010, worldwide sales of non memory semiconductors increased by 26.0% compared to 2009, primarily due to robust demand for smartphones, tablet PCs, and other consumer electronics.

The significant demand volatility of the market for semiconductors is affected by various factors such as:

- the overall state of the global economy;
- demand in personal computer and server industries;
- consumer demand for digital consumer products such as flat-panel TVs, DVD/Blu-ray disc recorders, portable audio players and electronic books;
- levels of investment in communications infrastructure and trends in the mobile device industry;
- demand in the automobile industry; and
- trends in the semiconductor industry.

Advantest s net sales in fiscal 2006 declined mainly as a result of a decrease in the price of semiconductors and, as a result, net sales for fiscal 2006 were ¥235,012 million, representing a 7.4% decrease compared to fiscal 2005, and net income decreased by 14.1% as compared to fiscal 2005 to ¥35,556 million. The substantial decline in the price of semiconductors continued through fiscal 2007 and many semiconductor manufacturers froze or postponed their capital expenditures. Primarily reflecting the foregoing, net sales in fiscal 2007 decreased by 22.2%, as compared to fiscal 2006, to ¥182,767 million, and net income decreased by 53.5%, as compared to fiscal 2006, to ¥16,550 million. Furthermore, in fiscal 2008, the global economic downturn that stemmed from the financial crisis led semiconductor manufacturers to maintain their prudent position, with many implementing inventory adjustments and freezing or postponing their capital expenditures. Primarily reflecting the foregoing, Advantest s net sales decreased by 58.1% as compared with fiscal 2007 to ¥76,652 million in fiscal 2008. In fiscal 2009, the semiconductor manufactures gradually resumed capital expenditures as semiconductor prices rose and equipment utilization rates climbed. Despite the gradual recovery in fiscal 2009, Advantest s net sales in fiscal 2009 decreased by 30.6%, as compared to fiscal 2008, to ¥53,225 million, and Advantest recorded a net loss of ¥11,454 million in fiscal 2009 primarily due to the drop in orders seen in late fiscal 2008. In fiscal 2010, despite a difficult business environment with factors such as continuing appreciation of the Japanese yen and intensified price competition, Advantest seized the positive growth opportunity in the semiconductor market and strived to expand orders and revenues. As a result of the above, Advantest s net sales in fiscal 2010 increased by 87.2%, as compared to fiscal 2009, to ¥99,634 million, and Advantest recorded a net income of ¥3,163 million in fiscal 2010.

Advantest believes that its results are significantly impacted by the significant demand volatility of the semiconductor industry. While Advantest is unable to predict future trends in the semiconductor industry, if there is a significant downturn in the semiconductor industry, Advantest s financial condition and results of operations will be adversely affected. Prices of semiconductors, which have continued to decrease significantly in recent years, may not return to their original levels if, for example, the over-supply of semiconductors persists. Should semiconductor prices remain at low levels, semiconductor manufacturers earnings could deteriorate, resulting in their further restraint towards capital expenditures, and Advantest s results of operations could be adversely affected.

Failure by Advantest to meet demand for its products upon a sudden expansion of the markets for semiconductor and component test systems and mechatronics systems may adversely affect its future market share and financial results

Since the global economic downturn following the financial crisis, suppliers have typically adjusted their production capacity through the reduction of production line and personnel. If the market for semiconductor and

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component test systems and mechatronics systems were to suddenly expand, Advantest would require significant increases in production capabilities including personnel, as well as materials, components and supplies from suppliers, in order to fully capitalize on such expansion. The failure of Advantest to adjust to such unanticipated increases in demand for its products during the period of recovery in demand could result in Advantest losing one or more of its existing large-volume customers or losing the opportunity to establish a strong relationship with potential large-volume customers with which it currently does little or no business. Such failure may adversely affect Advantest s future market share and its financial results.

If Advantest does not introduce new products meeting its customers technical requirements in a timely manner and at competitive prices, its products may become obsolete and its financial condition and results of operations may suffer

Advantest sells its products to several industries that are characterized by rapid technological changes, frequent introduction of new products and services, varying and unpredictable product lifecycles and evolving industry standards. Advantest anticipates that future demand for its products will be driven, in large part, by technological innovation in semiconductor technology, which create new testing requirements that are not adequately addressed by currently installed semiconductor test systems. Customer needs in response to these technological innovations, and their need for greater cost-effectiveness and efficiency to respond to the market environment, include:

- investment by memory semiconductor manufacturers in facilities that are used to produce memory semiconductors, such as flash memory, DDR3-SDRAM, the next generation DDR4-SDRAM, GDDR and LPDDR;
- the introduction of non memory semiconductors that incorporate more advanced memory semiconductors, logic and analog circuits;
- investment by semiconductor manufacturers in mechatronics related products which transport devices faster, more accurately and more stably;
- the utilization of testing technologies that employ self-test circuit designs incorporated into semiconductor chips;
- the utilization of testing technologies that employ test circuit designs for Device Under Test (DUT);
- introduction of mechatronics products that respond to reduced testing time resulting from advances in customers back-end testing;
- prompt response and quick repair in the event of failure;
- total solutions that allow customers to reduce their testing costs; and
- test solutions of power semiconductors that control small and large motor drives.

Advantest also believes demand for its products, including semiconductor and component test systems, are affected by the level of demand for personal computers, high-speed wireless and wireline data services and digital consumer products. It is likely that advances in technologies used in those products and services will require new testing systems. Without the timely introduction of semiconductor test systems capable of effectively testing and measuring equipment that use new technologies, Advantest s products and services may become technologically obsolete

over time.

A failure by Advantest to meet its customers technical requirements at competitive prices or to deliver conforming equipment in a timely manner may result in its products being replaced by those of a competitor or an alternative technology solution. Furthermore, Advantest s inability to provide a product that meets requested performance criteria at an acceptable price when required by its customers would severely damage its reputation with such customers and may adversely affect future sales efforts with respect to such customers.

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The business combination with Verigy Ltd. (Verigy) may not be completed as planned, or even if the proposed transaction is completed, Advantest may not realize the anticipated benefits of the business combination

Advantest believes that the business combination, if completed, would enable Advantest to better satisfy customer needs through the development and sale of a wider variety of high quality products, and to better address customer needs through technological innovation that is supported by a stable financial base, leading to continued growth amidst a rapidly changing and challenging semiconductor market.

However, if certain conditions, including approval of the Singapore High Court are not met, the proposed transaction with Verigy will not be completed. If the proposed transaction is not completed, Advantest will have received little or no benefit from the management resources it has invested. In addition, if Advantest does not fulfill the conditions to closing in the implementation agreement, it may be required to pay Verigy a break-up fee of $7.5 million. In the event the proposed transaction is terminated by Advantest or Verigy in circumstances including when either party s board of directors withdraws its recommendation for the proposed transaction, the financial markets, its customers, suppliers and employees may react negatively. Each of these factors may adversely affect the price of Advantest s common stock and its financial results and operations.

Even if the conditions to the proposed transaction are met and the business combination is completed, the business integration of two companies will be time-consuming and complex, and the business combination may not realize the anticipated benefits. The difficulties in integrating the two companies may arise during various stages of combining the operations, including the following:

- consolidation of the two companies differing research and development, manufacturing and sales processes;
- the elimination of inefficiencies that may arise out of overlapping departments and processes between the two companies;
- the retention of Verigy s valuable and key management and employees; and
- the integration of two companies with differing corporate cultures and languages.

If difficulties arise in connection with the proposed transaction, including those mentioned above, Advantest s future financial results may be adversely affected.

Also, if Advantest merges with Verigy, and grants stock options to Verigy s employees, Advantest s pre-business combination voting rights, total assets per share and share price may suffer from dilution.

Advantest s dependence on certain subcontractors and its dependence on a sole source or a limited number of suppliers for its components and parts may prevent it from delivering products that meet specifications on a timely basis

Advantest relies on subcontractors to perform some of the assembly requirements for its products. In addition, many of the components used in Advantest s semiconductor and component test systems and mechatronics systems are produced by suppliers based on Advantest s specifications. Advantest s reliance on these subcontractors and suppliers gives it less control over the manufacturing process and exposes it to significant risks, especially inadequate manufacturing capacity, late delivery, substandard quality, lack of labor availability and high costs. In addition, Advantest depends on a sole source or a limited number of suppliers for a portion of its components and parts. Advantest does not maintain long-term supply agreements with most of its suppliers, and it purchases most of its components and parts through individual purchase orders. If suppliers become unable to provide components or parts in the volumes needed and at acceptable prices, Advantest would

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have to identify and procure acceptable replacements. Furthermore, the markets for semiconductors and other specialized components have, in the past, experienced periods of inadequate supply to meet demand. Moreover, there may be a shortage of components if a large scale natural disaster or electricity shortage occurs. The process of selecting subcontractors or suppliers and of identifying suitable replacement components and parts is lengthy and may result in Advantest being unable to deliver products meeting customer requirements in a timely manner. Advantest has, in the past, been unable to deliver its products according to production schedules primarily due to the inability of suppliers to supply components and parts based on Advantest s specifications and by other shortages in components and parts. Moreover, a deterioration in the financial position of Advantest s subcontractors or suppliers reflecting the decline in the economic environment may result in certain subcontractors and suppliers being unable to meet Advantest s requirements.

Advantest faces substantial competition in its businesses and, if Advantest does not maintain or expand its market share, its business may be harmed

Advantest faces substantial competition throughout the world. Advantest s primary competitors in the semiconductor and component test system market include, among others, Teradyne, Inc., Verigy, LTX-Credence Corporation, Yokogawa Electronic Corporation, FROM30 CO., LTD., EXICON Ltd. and UniTest Inc. In the mechatronics system related market, Advantest also competes with Delta Design, Inc., Seiko Epson Corporation, Mirae Corporation and TechWing, Inc. in test handler devices, and with TSE Co., Ltd. and Secron Co., Ltd. in device interfaces. Some of Advantest s competitors have greater financial and other resources than Advantest.

Advantest faces many challenges in its businesses, including increased pressure from customers to produce semiconductor and component test systems and mechatronics systems that reduce testing costs. To compete effectively and maintain and expand its market share, Advantest must continue to enhance its business processes to lower the cost of its products, as well as introduce enhancements that lower overall testing costs. Advantest also expects its competitors to continue to introduce new products with improvements in price and performance, as well as to increase their customer service and support offerings, and Advantest expects new market participants to launch low-price testers. Significant increases in competition may erode Advantest s profit margin and weaken its earnings.

Advantest s business may be harmed by the effects resulting from the Great East Japan Earthquake

If as a result of the aftershocks of the Great East Japan Earthquake on March 11, 2011, Advantest s suppliers facilities are damaged or if scheduled blackouts resulting from the impact of the earthquake are carried out at suppliers facilities, Advantest may not be able to procure necessary components, and may be unable to meet market demand for the supply of its products. Also, market trends for the semiconductor industry, and for finished products which are closely related to semiconductors such as household electric appliances, various computer equipments and automobiles, may remain uncertain for the near future. Advantest s business may be adversely affected as a result of these factors.

In the event that a large quantity of radioactive materials is released due to further deterioration of radiation leakage at the Fukushima No. 1 Nuclear Reactor or substantial damages to nuclear power plants caused by aftershocks or tsunamis, as a result of which radioactive materials on Advantest s products exceed the radiation standards set by importing countries, or the radiation levels where Advantest s major production facility is located in Gunma Prefecture exceed national radiation standards and becomes a quarantine zone, or electricity supply becomes unstable due to long-term suspension of operations at nuclear plants, Advantest may be unable to meet market demand for the supply of its products or the competitiveness of its products may be impaired, and Advantest s business may be adversely affected.

Advantest s product lines are facing significant price pressure

Price pressure on Advantest s businesses is adversely affecting Advantest s operating margins. Irrespective of the trend in the demand for semiconductors, there is ongoing price pressure on semiconductors, which puts

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continuous pressure on the market price for products in the Semiconductor and Component Test System Segment and Mechatronics System Segment. Especially with the ongoing slowdown in the semiconductor industry, price pressure is salient. During these periods, semiconductor manufacturers and test houses, which are Advantest s customers, seek to increase their production capacities while minimizing their capital expenditures. In addition, increased competition in the market for digital consumer products and personal computers has driven down prices of these goods, subsequently creating significant price pressure on Advantest s product lines. If prices of semiconductors continue to decline, customers may postpone capital expenditures on new equipment by remodeling or adapting the usage of existing equipment. If price pressure further increases in the future, Advantest s financial condition and results of operations may be adversely affected.

Advantest may not recoup costs incurred in the development of new products

Enhancements to existing products and the development of new generations of products are, in most cases, costly processes. Furthermore, because the decision to purchase semiconductor and component test systems products and mechatronics systems generally involves a significant commitment of capital, the sale of this equipment typically involves a lengthy sales period and requires Advantest to expend substantial funds and sales efforts to secure the sale. Advantest s enhancements or new generations of products may not generate net sales in excess of development and sales costs if, for example, these new enhancements or products are quickly rendered obsolete by changing customer preferences, the introduction by Advantest s competitors of products embodying new technologies or features, the introduction by Advantest s customers of new products that require different testing functions or the failure of the market for Advantest s customer s products to grow at the rate, or to the levels, anticipated by Advantest. This risk is believed to be particularly acute with respect to test systems for non memory semiconductors because, in general, new non memory semiconductor product lines are introduced to market more frequently than new memory semiconductor product lines. In some cases, Advantest must anticipate industry trends and develop products in advance of the commercialization of its customers products. This requires Advantest to make significant investments in product development well before it determines the commercial viability of these innovations. If Advantest s customers fail to introduce their devices in a timely manner or the market rejects their devices, Advantest may not recover its investments in product development through sales in significant volume.

The market for Advantest s major products is highly concentrated, and Advantest may not be able to increase sales of its products because of limited opportunities

The market for test systems for memory semiconductors in the Semiconductor and Component Test System Segment is highly concentrated, with a small number of large semiconductor manufacturers, foundries and test houses accounting for a large portion of total sales in the semiconductor and component test system industry. Advantest believes that this market concentration could become even more severe in the future as larger semiconductor device manufacturers, foundries and test houses acquire smaller semiconductor market participants, and as corporate restructuring, such as elimination and consolidation of businesses, progresses. Advantest s ability to increase sales will depend in large part upon its ability to obtain or increase orders from large-volume customers. Furthermore, in the event there is an over-supply of semiconductor and component test system products on the second-hand market reflecting, among others, restructuring within the industry, Advantest faces an additional risk of losing its sales opportunities.

Advantest s largest customers currently account for a significant part of its net sales and, in addition to the risk of Advantest s business being harmed by the loss of one or more of these customers or changes in their capital expenditures, Advantest may not be able to recover its accounts receivables if its largest customers experience a deterioration in their financial position

Advantest s success depends on its continued ability to develop and manage relationships with its major customers, a small number of which currently account for a significant portion of its net sales. Sales to Advantest s largest customer as a percentage of its total sales were approximately 24% in fiscal 2008,

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approximately 20% in fiscal 2009 and approximately 20% in fiscal 2010. Sales to Advantest s five largest customers accounted for approximately 51% in fiscal 2008, approximately 43% in fiscal 2009 and approximately 49% in fiscal 2010. The loss of one or more of these major customers or changes in their capital expenditures could materially harm Advantest s business. Furthermore, if Advantest s major customers experience a deterioration in their financial position and are unable to fulfill their payment obligations to Advantest in accordance with the applicable terms, Advantest s business, results of operations and financial position may be adversely affected.

Fluctuations in exchange rates could reduce Advantest s profitability

The majority of Advantest s net sales derive from products sold to customers located outside of Japan. Of Advantest s fiscal 2010 net sales, 77.5% were from products sold to overseas customers. Most of Advantest s products are manufactured in Japan, but approximately 37% of Advantest s net sales in fiscal 2010 were derived from currencies other than the Japanese yen, predominantly the U.S. dollar. If the Japanese yen remains strong, or further strengthens relative to foreign currencies (mostly U.S. dollar and, to a much lesser extent, other currencies), it would increase the prices of Advantest products as stated in U.S. dollars and in those other currencies, which could hurt sales in those countries. In addition, significant fluctuations in the exchange rate between the Japanese yen and foreign currencies, especially the U.S. dollar, could require Advantest to lower its prices with respect to foreign sales of its products that are priced in Japanese yen, and reduce the Japanese yen equivalent amounts of its foreign sales for products that are based in U.S. dollars or other foreign currencies, and overall reducing its profitability. These fluctuations could also cause prospective customers to push out or delay orders because of the increased relative cost of Advantest s products. In the past, there have been significant fluctuations in the exchange rate between the Japanese yen and the foreign countries in which Advantest s sales are denominated.

If Advantest s main facilities for research and development, production or information technology systems for all of its businesses, or the facilities of its subcontractors and suppliers, were to experience catastrophic loss, its results of operations would be seriously harmed

Advantest s main facilities for research and development for its Semiconductor and Component Test Systems and Mechatronics System Segments production, as well as many of Advantest s service bases, are located in Japan and particularly concentrated in Gunma Prefecture and Saitama Prefecture. In addition, the main system server and the network hub are maintained in system centers approved by the Information System Management System, or ISMS, and local network servers are located in certain operations offices in Japan. As most recently evidenced by the Great East Japan Earthquake, Japan is a region that is susceptible to frequent earthquakes.

If Advantest s facilities, particularly its semiconductor and component test system manufacturing factories, were to experience a catastrophic loss, it would materially disrupt Advantest s operations, delay production, shipments and revenue, and result in large expenses to repair or replace the facilities. Advantest has insurance to cover most potential losses at its manufacturing facilities, other than those that result from earthquakes. However, this insurance may not be adequate to cover all possible losses. Similar disruptions to Advantest s business may occur if the facilities of Advantest s subcontractors and suppliers or if the facilities of Advantest s information system network were to experience a catastrophic loss.

Advantest has prepared itself for crises such as large-scale natural disasters, and each department of Advantest has documented its own disaster procedures and manuals. Furthermore, in order to prevent any disruption of its core businesses, or in case of suspension, to re-start the suspended businesses, including the recovery of important facilities, in the shortest possible time, Advantest has formulated and is in the process of implementing a Business Continuity Plan. However, if Advantest cannot implement such Business Continuity Plan, or if upon implementation such Business Continuity Plan is not effective, Advantest s core businesses could be disrupted at a time of crisis, such as large-scale natural disasters, and could take a substantial amount of time to recover.

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Advantest s business is subject to economic, political and other risks associated with international operations and sales

Advantest s business is subject to risks associated with conducting business internationally because it sells its products, and purchases parts and components from around the world. In fiscal 2010, 65.9% of Advantest s total net sales came from Asia (excluding Japan), a majority of which consisted of sales in Taiwan, the People s Republic of China and Korea, 9.3% from the Americas and 2.3% from Europe. Advantest anticipates that net sales from international operations will continue to represent a substantial portion of its total net sales. In addition, some of Advantest s distribution and support subsidiaries are located in the Americas, Europe, and Asian countries including Singapore, Taiwan, the People s Republic of China and Korea and some of Advantest s suppliers are also located overseas. Accordingly, Advantest s future results could be harmed by a variety of factors, including:

- political and economic instability, natural calamities, epidemics or other risks related to countries where Advantest procures its components and parts or sells its products;
- trade protection measures and import or export licensing requirements;
- potentially negative consequences from changes in tax laws;
- risks with respect to international taxation, including transfer pricing regulations;
- difficulty in staffing and managing widespread operations;
- differing protection of intellectual property;
- difficulties in collecting accounts receivable because of distance and different legal rules; and
- risks with respect to social and political crises resulting from terrorism and war, among others.

Advantest s business may be negatively affected by factors relating to its marketing and sales capabilities and its branding

Advantest s business may be negatively affected by factors relating to its marketing and sales capabilities and its branding, including:

- the long selling process involved in the sale of semiconductor and component test systems;
- the relatively small number of total units sold in the semiconductor and component test system market;
- order cancellations or postponement of capital expenditures by customers;

delays in collection of, or increases in provisions for, accounts receivable reflecting the financial condition of customers;

increases in required provisions for product warranty costs and write-downs of inventory; and

any real or perceived decrease in performance and reliability of Advantest products, which could lead to a decline in Advantest s reputation.

Chemicals used by Advantest may become subject to more stringent regulations, and Advantest may be required to incur significant costs in adapting to new requirements

Advantest uses chemicals in the manufacturing of its products, the manufacture, processing and distribution of which are subject to environmental related laws, regulations and rules of Japanese governmental agencies, as well as by various industry organizations and other regulatory bodies in other countries. These regulatory bodies may strengthen existing regulations governing chemicals used by Advantest and may also begin to regulate other chemicals used by Advantest. While Advantest is taking measures to eliminate toxic substances included in parts used to manufacture its products, Advantest uses solder which contains lead for mounting electronic parts and components for its products in order to ensure the reliability of its products as a matter of priority. Further, as a

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method to cool some of its semiconductor and component test systems, Advantest uses a type of perfluorocarbon, or PFC, that is not currently regulated by laws related to global warming. Advantest believes that it is in compliance with regulations with respect to the use of chemicals by promoting environmental policies for its products with the focus on ensuring the safety and the reliability of its products; however, Advantest must be prepared to adapt to regulatory requirements in all relevant countries as requirements change. Advantest may be required to incur significant cost in adapting to new requirements. Any failure by Advantest to comply with applicable government or industry regulations could result in restrictions on its ability to carry on or expand its operations, including being unable to sell its products.

Advantest could suffer significant liabilities, litigation costs or licensing expenses or be prevented from selling its products if it is infringing the intellectual property of third parties

Advantest may be unknowingly infringing the intellectual property rights of third parties and may be held responsible for that infringement. To date, Advantest has not been the subject of a material intellectual property claim. However, any future litigation regarding patents or other intellectual property infringement could be costly and time consuming and divert management and key personnel from Advantest s business operations. If Advantest loses a claim, it might be forced to pay significant damages, pay license fees, modify its products or processes, stop making products or stop using processes. A license could be very expensive to obtain or may not be available at all. Changing Advantest s products or processes to avoid infringing the rights of third parties may be costly or impractical.

Advantest may be unable to protect its proprietary rights due to the difficulty of Advantest gaining access to, and investigating, the products believed to infringe Advantest s intellectual property rights

Advantest relies on patents, utility model rights, design rights, trademarks and copyrights obtained in various countries to actively protect its proprietary rights. For instance, with respect to the device interface market, Advantest has taken legal action based on its patent and utility model rights against manufacturers that sell replicas of Advantest s products and, in some instances, has obtained injunctions against sales of such replicas. However, in general, it is difficult for Advantest to gain access to, and investigate, the products believed to infringe its intellectual property rights. Therefore, Advantest cannot ensure that its intellectual property rights will provide meaningful protection of its proprietary rights. Nevertheless, Advantest is focused on protecting its intellectual property rights from third party infringement and will continue to monitor and enforce its rights.

The technology labor market is very competitive, and Advantest s business may suffer if Advantest is unable to hire and retain engineers and other key personnel

Advantest s future success depends partly on its ability to attract and retain highly qualified engineers for its research and development and customer service and support divisions. If Advantest fails to hire and retain a sufficient number of these personnel, it may not be able to maintain and expand its business. Advantest may need to revise its compensation and other personnel related policies to retain its existing officers and employees and attract and retain the additional personnel that it expects to require.

Confidential information could be inadvertently disclosed through unauthorized access or use, which could lead to substantial costs or harm Advantest s reputation

Advantest uses both paper documents and electronic data in managing confidential information. Although Advantest has established the Information Security Committee and Security Control Office and is taking measures to keep information confidential through procedures designed to prevent accidental release of information through unauthorized access or use, such information may be inadvertently disclosed without Advantest s knowledge. If this occurs, Advantest s reputation could be harmed and Advantest could incur substantial costs to remedy the situation. Accordingly, inadvertent disclosure of confidential information could have a material adverse effect upon Advantest s business results and financial condition.

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Product defects and any damages stemming from Advantest s product liability could harm Advantest s reputation among existing and potential customers and could have a material adverse effect upon Advantest s business results and financial condition

Advantest manufactures its products in accordance with internationally accepted quality control standards such as ISO 9000. However, Advantest cannot guarantee that there are no defects in its products. Advantest maintains product liability insurance, but cannot guarantee that such insurance will sufficiently cover the ultimate amount of damages with respect to Advantest s liabilities. Large scale accidents or any discovery of defects in its products could harm Advantest s reputation for not adequately addressing defects, could cause Advantest to incur higher costs and could have a material adverse effect upon Advantest s business results and financial condition if Advantest is liable for claims for damages.

Risks Related to Ownership of American Depositary Shares (ADSs) or Common Stock

Japanese yen-dollar fluctuations could cause the market price of the ADSs to decline and reduce dividend amounts payable to ADS holders as expressed in U.S. dollars

Fluctuations in the exchange rate between the Japanese yen and the U.S. dollar may affect the U.S. dollar equivalent of the Japanese yen price of the shares on the Tokyo Stock Exchange and, primarily reflecting the foregoing, are likely to affect the market price of the ADSs. The Company has historically paid dividends on its shares twice a year. If the Company declares cash dividends, dividends on the shares represented by the ADSs will be paid to the depositary in Japanese yen and then converted by the depositary into U.S. dollars. Therefore, exchange rate fluctuations could also affect the dividend amounts payable to ADS holders following conversion into U.S. dollars of dividends paid in Japanese yen on the shares represented by the ADSs.

As a holder of ADSs, you will have fewer rights than a shareholder has, and you must act through the depositary to exercise those rights

The rights of shareholders under Japanese law to take actions, including voting their shares, receiving dividends and distributions, bringing derivative actions, examining Advantest s accounting books and records and exercising appraisal rights, are available only to holders of record on the Company s register of shareholders. Because the depositary, through its custodian agents, is the registered holder of the shares underlying the ADSs, only the depositary can exercise those rights in connection with the deposited shares. The depositary will make efforts to vote the shares underlying a holder s ADSs as instructed by the holder and will pay to the holder the dividends and distributions collected from Advantest. However, in the holder s capacity as an ADS holder, that holder will not be able to bring a derivative action, examine Advantest s accounting books and records or exercise appraisal rights through the depositary.

There are restrictions on the withdrawal of shares from the Company s depositary receipt facility

Under the Company s ADS program, each ADS represents the right to receive one share. To withdraw any shares, a holder of ADSs has to surrender for cancellation American Depositary Receipts, or ADRs, evidencing 100 ADSs or any integral multiple thereof. Each ADR bears a legend to that effect. As a result, holders of ADSs are unable to withdraw fractions of shares or units or receive any cash settlement from the depositary in lieu of withdrawal of fractions of shares or units. Holders of shares representing less than one unit, or 100 shares, may require the Company to repurchase those shares, whereas holders of ADSs representing less than one unit of shares are unable to exercise this right because the holders of these ADSs are unable to withdraw the underlying shares. Under the Company s ADS program, an ADS holder cannot cause the

depositary to require the Company to repurchase fractions of shares or units on its behalf. For a further discussion of the ADSs and the ADS program, see Description of American Depositary Receipts set forth in the Company s registration statement on Form F-1 filed with the Securities and Exchange Commission on July 22, 2002. For a further discussion of the Japanese unit share system, see Additional Information Memorandum and Articles of Association The Unit Share System.

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Enforcement of Civil Liabilities

The Company is a limited liability, joint-stock corporation incorporated under the laws of Japan. Almost all of the Company s directors, executive officers and corporate auditors reside in Japan. Substantially all of the Company s assets and the assets of these persons are located in Japan. It may not be possible, therefore, for investors to effect service of process within the U.S. upon the Company or these persons or to enforce against the Company or these persons judgments obtained in U.S. courts predicated upon the civil liability provisions of the federal securities laws of the U.S. The Company s Japanese counsel, Nagashima Ohno & Tsunematsu, has advised the Company that there is doubt as to the enforceability in Japan, in original actions or in actions for enforcement of judgments of U.S. courts, of liabilities predicated solely upon the federal securities laws of the U.S.

ITEM 4. INFORMATION ON THE COMPANY

4.A. HISTORY AND DEVELOPMENT OF THE COMPANY

The Company commenced operations in July 1954, and was incorporated in December 1954 under the name Takeda Riken Industry Co., Ltd. as a limited liability, joint-stock company in Japan under the Commercial Code of Japan. At the time of incorporation, Takeda Riken s primary business was the design, manufacture and sale of measuring instruments for Japanese electronics manufacturers. Takeda Riken started focusing on semiconductor test equipment for the semiconductor industry in 1968 and was the first to domestically produce semiconductor test equipment in 1972. In 1971, Takeda Riken entered into its first distribution agreement with a foreign distributor and, in 1973, established its first representative office in the U.S. to gather information on technology and distribution and to establish dealer relationships. These two milestones launched the Company s long-term goal of becoming a global manufacturer of testing and measuring products. Takeda Riken has been listed on the Tokyo Stock Exchange since February 1983. Takeda Riken changed its registered name to Kabushiki Kaisha Advantest in October 1985.

Advantest applies its capital expenditures chiefly to the streamlining of development, production of new products, energy saving initiatives and the expansion of production capacity. Advantest s capital expenditures were ¥4.6 billion, ¥3.4 billion and ¥3.8 billion in fiscal 2008, 2009 and 2010, respectively.

On March 28, 2011, Advantest agreed to acquire all of the outstanding shares of common stock of Verigy at US$ 15.00 per share, pursuant to which Verigy will become a wholly-owned subsidiary of Advantest. The total purchase price is expected to be approximately US$ 1.1 billion.

The proposed transaction is expected to be structured as a scheme of arrangement under Singapore law. A scheme of arrangement is a common acquisition method under Singapore law and is implemented based on the approval of Verigy s board of directors, and subject to the approvals of Verigy s shareholders and the Singapore Court.

The Company s principal executive offices are located at Shin-Marunouchi Center Building, 1-6-2, Marunouchi, Chiyoda-ku, Tokyo 100-0005 Japan. The Company s telephone number in Japan is (81-3) 3214-7500.

The Company s agent in the United States is Advantest America Corporation (Holding Co.), located at 3201 Scott Boulevard, Santa Clara, California 95054, U.S.A.

4.B. BUSINESS OVERVIEW

Overview

As of June 24, 2011, Advantest is comprised of the Company and its 28 consolidated subsidiaries and one investee which is accounted for by the equity method. Advantest conducts its business in the following segments:

Semiconductor and Component Test System Segment;

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Mechatronics System Segment, focusing on peripheral devices including test handlers and device interfaces; and

Services, Support and Others Segment.

Semiconductor and Component Test System Segment

The Semiconductor and Component Test System Segment provides customers with test system products for the semiconductor industry and the electronic component industry. The products in this segment include test systems for memory semiconductors and test systems for non memory semiconductors. The test systems for non memory semiconductors are divided into test systems for SoC semiconductors, LCD driver integrated circuits and semiconductors used in car electronics.

Mechatronics System Segment

The Mechatronics System Segment focuses on peripheral devices to the semiconductor and component test systems. This business includes test handlers applying mechatronics technologies, which handle semiconductor devices and automate testing, device interfaces with measured devices, and operations related to nano-technology.

Services, Support and Others Segment

The Services, Support and Others Segment consists of comprehensive customer solutions provided in connection with the Semiconductor and Component Test System and Mechatronics System Segments, support services and an equipment lease business.

Sales by Segment

The following table illustrates net sales by each segment for the last three fiscal years.

	Fiscal 2008		Fiscal 2009		Fiscal 2010	
Segment	Sales (in millions)	%	Sales (in millions)	%	Sales (in millions)	%
Semiconductor and Component Test System Segment	¥ 49,216	64.2	¥ 32,572	61.2	¥ 69,333	69.6
Mechatronics System Segment	14,388	18.8	11,237	21.1	18,515	18.6
Services, Support and Others Segment	15,815	20.6	11,838	22.2	14,166	14.2
Intercompany transactions elimination	(2,767)	(3.6)	(2,422)	(4.5)	(2,380)	(2.4)
Total Net Sales	¥ 76,652	100.0%	¥ 53,225	100.0%	¥ 99,634	100.0%

Industry Overview

Advantest offers products in semiconductor and component test systems, mechatronics systems, and services, support and others. Advantest s main customers are semiconductor manufacturers, foundries and test houses. Advantest believes that the following factors promote growth of the business carried out by its main customers.

- the move to lower-cost, smaller, faster and more powerful and energy efficient semiconductors and electronic components;
- the increase in demand for higher performance servers and personal computers;
- the increase in demand for digital consumer products such as flat-panel TVs, DVD/Blu-ray disc recorders, portable audio players and electronic books;
- the increasing levels of wireless high-speed data transmission worldwide reflecting the expansion of the mobile device industry in developing countries;

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- the development of higher speed and high capacity communications infrastructure;
- the increasing demand for electronic devices that incorporate semiconductor and communications technologies; and
- the increase in demand for electronic components including semiconductors and sensors, in response to technological advancement of automobiles such as electric vehicles (EV) and hybrid electric vehicles (HEV).

Advantest believes that these factors will continue to provide long-term growth opportunities for Advantest because they lead to additional capital expenditures by its customers, resulting in an expansion of businesses for Advantest. However, the capital expenditures of Advantest s customers may be adversely affected by the following factors:

- the level of demand for semiconductors and electronic components;
- advancements in semiconductor and electronic component technology; and
- changes in semiconductor and electronic component manufacturing processes.

Demand for Semiconductors and Electronic Components

Demand for semiconductor and component test systems and mechatronics systems is closely related to the volume of semiconductors and electronic components produced and the resulting capital expenditure of semiconductor manufacturers and others.

Semiconductors are generally classified as either memory semiconductors or non memory semiconductors. Memory semiconductors are used in electronic systems to store data and programs. Non memory semiconductors include various semiconductors that incorporate non memory circuits, which include logic and analog circuits. Logic circuits process digital data to control the operations of electronic systems. Analog circuits process analog signals translated from real world phenomena such as sound, light, heat and motion. SoC semiconductors are a subset of non memory semiconductors that combine digital circuits with analog, memory and RF circuits, among others, on a single semiconductor chip. SoC semiconductors are used in a variety of sophisticated products, including wireless communications, fiber optic equipments and digital consumer products.

Semiconductor sales have increased significantly over the long-term. However, semiconductors, particularly memory semiconductors, have experienced significant cyclical variations in growth rates. According to World Semiconductor Trade Statistics (WSTS), worldwide semiconductor sales in 2006 increased by approximately $20.2 billion or 8.9% to approximately $247.7 billion, and sales in 2007 increased by approximately $7.9 billion or 3.2% to approximately $255.6 billion. However, sales in 2008 decreased by approximately $7.0 billion or 2.8% compared to the previous year to approximately $248.6 billion, mainly due to the substantial decline in the price of memory semiconductors. Sales in 2009 also decreased compared to the previous year, by approximately $22.3 billion or 9.0% to approximately $226.3 billion, mainly due to the slow economy persisting since the previous year. Sales in 2010 increased compared to the previous year, by approximately $72.0 billion or 31.8% to approximately $298.3 billion, mainly due to increased demand for electronic components in developing nations. The following table sets forth the size of the market for memory semiconductors, non memory semiconductors and all semiconductors between 2006 and 2010 and the projected market size between 2011 and 2013 as compiled and estimated by WSTS as of June 2011.

	Actual Year ended December 31,					Projections for Years ending December 31,		
	2006	2007	2008	2009	2010	2011	2012	2013
	(in millions)							
Memory	$ 58,473	$ 57,854	$ 46,348	$ 44,797	$ 69,614	$ 67,708	$ 68,310	$ 71,416
Non memory	189,243	197,791	202,255	181,516	228,701	246,702	270,065	285,197
Total	$ 247,716	$ 255,645	$ 248,603	$ 226,313	$ 298,315	$ 314,410	$ 338,375	$ 356,613

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The non memory semiconductor market is not as volatile as the memory semiconductor market because non memory semiconductors are used in a larger variety of consumer products and equipment. In periods of rapid decline in the semiconductor market, the capital expenditures of semiconductor manufacturers, including their purchases of semiconductor test systems, generally decline at a faster pace than the decline in semiconductor sales. In addition, following a downturn in the semiconductor market or a decline in the price of semiconductors, investment is generally restrained until semiconductor manufacturers determine that the market for semiconductors is experiencing a substantive recovery and accordingly, sales of semiconductor test systems generally do not experience significant increase. Advantest believes these trends will continue in the future.

The semiconductor market remained steady in 2006 and 2007. However, the semiconductor market experienced negative growth in 2008 for the first time in seven years primarily due to the global economic crisis and further declined in 2009 reflecting the conditions continuing from the previous year. The market significantly recovered in 2010 and grew by 31.8% compared to the previous year, due to a surge in demand for electronic equipment in developing nations. According to data published by WSTS, the market for memory semiconductors is expected to decrease slightly by 2.7% in 2011 as compared with 2010, after which it is expected to grow by approximately 1% in 2012 and by approximately 5% in 2013. WSTS expects that the market for memory semiconductors will grow to approximately $71.4 billion in 2013. Advantest believes that demand for memory semiconductors will be generated in the foreseeable future by the prevalence of DDR3-SDRAM, the next generation DDR4-SDRAM, flash memory and other high-end semiconductors. WSTS estimates that the non memory semiconductor market will steadily grow by approximately 8% in 2011, by approximately 10% in 2012, and by approximately 6% in 2013. WSTS expects that the market for non memory semiconductors will grow to approximately $285.2 billion in 2013. Advantest believes that the demand for non memory semiconductors will generally grow in the foreseeable future, led by the further prevalence of, and new developments in, digital consumer products and personal computers.

Advancements in Semiconductor and Electronic Component Technology

Advantest believes that demand for semiconductor and component test systems and mechatronics systems is also affected by the rate of change and development in semiconductor and electronic component technology. Current changes in the semiconductor and electronic component industry relate to the innovation of digital consumer products and communications technologies. Demand for faster semiconductors and electronic components that are smaller in size, incorporate more functions and require less power to operate is being driven by:

- growing demand for, and continuous improvements in, personal computers and digital consumer products, such as flat-panel TVs, DVD/Blu-ray disc recorders, digital cameras, electronic books and mobile phone handsets; and

- requirements of communications network equipment, such as network routers, switches and base stations, as well as wireless handsets and other Internet access devices, to enable advances in Internet hardware and software applications, increases in infrastructure performance and simplification and miniaturization of Internet access devices.

Demand for personal computers and servers with higher performance and capabilities is also driving changes in the memory semiconductor sector. This demand is causing manufacturers to shift from the production of the DDR2-SDRAM high-speed data transfer memory semiconductor to the high-speed DDR3-SDRAM, and to further expand production of large capacity and nonvolatile and high-speed read or writable flash memory semiconductors. Advantest believes that this shift is creating demand for test systems for memory semiconductors capable of handling these new types of memory semiconductors, as well as contributing to a reduction in testing costs. In addition, Advantest believes that additional demand for mechatronics systems, including test handlers and device interfaces connecting semiconductor devices and semiconductor test systems, will be created and will grow in line with advances in semiconductor technologies.

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The development of SoC semiconductors with smaller size, higher performance and lower power consumption has created demand for sophisticated semiconductor and component test systems that can simultaneously test SoC semiconductors logic, analog and memory circuits. Further innovations in non memory semiconductor technologies including SoC semiconductor technology are expected, and Advantest believes these innovations will create demand for new, high-performance semiconductor and component test systems optimized for use with these advanced semiconductors.

Advantest believes that the integration of non memory semiconductors into a range of digital consumer products will drive demand for test systems for non memory semiconductors which contribute to the reduction of testing costs. Non memory semiconductors are often customized for applications in specific products, which results in a large variety of non memory semiconductors that are often produced in relatively smaller volumes.

Changes in Semiconductor and Electronic Component Manufacturing Processes

Semiconductor and electronic component manufacturers are promoting production outsourcing, technological innovation in manufacturing processes and testing technology to improve productivity.

Production Outsourcing

In recent years, semiconductor manufacturing and testing processes have become more complex and capital intensive. Primarily reflecting the foregoing, an increasing portion of the manufacturing and testing functions are being subcontracted out, not only by fabless companies, but also by industrial, design and manufacturing companies which had previously designed and manufactured semiconductors, in order to reduce capital expenditures. This trend has resulted in an increase in the number of test houses that accept test process outsourcing and foundries that accept manufacturing process outsourcing. Foundries either perform testing in-house or outsource their testing needs to test houses. This trend towards production outsourcing, particularly to test houses, has increased the number of potential customers for semiconductor test system manufacturers, although it has not significantly affected the total demand for Advantest s products. In addition, Advantest believes that it is most appropriate to use semiconductor and component test systems which have been designed using module structure, which enables the formation of semiconductor test systems that can meet the multiple needs of the customers of test houses and foundries. Outsourcing has also been utilized for electronic component manufacturing.

Technological Innovation in Manufacturing Processes

One of the innovations in semiconductor manufacturing processes is the use of 300 millimeter wafers. Wafers are circular flat pieces of silicon from which multiple semiconductor chips are made using photo-etching and other manufacturing processes. The use of 300 millimeter wafers allows manufacturers to increase semiconductor production per wafer twofold or more when compared to production using the conventional 200 millimeter wafers. From 2007, investment has remained at low levels mainly due to factors such as excess supply and increased price competition. However from the latter half of 2010, as a result of a rapid expansion of the mobile device market which resulted in an increase in the manufacture of low power memory, capital expenditures related to 300mm wafers have increased, and demand for new semiconductor and component test systems and test handlers has been increasing.

New Testing Technologies

Semiconductor designers and manufacturers are striving to further reduce costs in connection with manufacturing semiconductors, especially the cost of testing semiconductors. Thus, there is a stronger demand for semiconductor test systems that can simultaneously test more semiconductors and accommodate a larger number of pins at higher speeds and with high throughput capabilities. On the other hand, there is an increasing pressure on semiconductor test systems to be energy efficient, smaller in size and less expensive. In order to

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respond to this demand, semiconductor test system manufacturers are taking measures to reduce semiconductor test system costs by making the development and manufacturing process of semiconductor test systems more efficient, strengthening peripheral devices such as test handlers and device interfaces and improving service and support systems. Furthermore, although certain semiconductors are now tested in a simplified manner in which self-test technologies are designed into circuits, or are tested in a manner that is close to actual operation by using firmware used to operate final products or even sold without being tested, Advantest believes that it has become increasingly important for semiconductor test systems to ensure the reliability of semiconductors since semiconductors are expected to become more complex and advanced going forward.

Advantest believes that semiconductor and electronic component manufacturing processes will continue to evolve. The introduction of new manufacturing processes will likely result in test costs constituting a higher percentage of the total cost of manufacturing and, therefore, increase price pressure on the semiconductor test system industry. Furthermore, advances in the semiconductor and electronic component industry will require semiconductor test systems with new and more sophisticated testing functions. Advantest believes that these trends provide it with an opportunity to distinguish itself from its competitors through the delivery of new products that are priced and designed to meet the specific needs of its customers.

Business Strategy

Advantest is currently facing a challenging business environment primarily due to the recent downturn in the global economy and weakened demand for semiconductors. In order to create a stable foundation amidst the fast-changing and challenging semiconductor market, Advantest and Verigy entered into a definitive agreement that requires the fulfillment of certain conditions such as approval of the Singapore High Court. Advantest expects the effective date of the scheme of arrangement to be in early July. Furthermore Advantest has established the following core business goals to achieve mid- to long-term growth:

- focusing on the development of semiconductor test systems which can respond to changes in capabilities of memory and non memory semiconductors;
- increasing its market share for test systems for non memory semiconductors and maintaining its large market share for test systems for memory semiconductors;
- increasing its market share for test handlers for memory and non memory semiconductors;
- developing, designing and supplying high quality device interfaces in a shorter period of time;
- reducing product cost of goods to withstand price pressures on products
- enhancing its operating efficiency to improve profitability, through promotion of production innovations;
- strengthening its ability to provide comprehensive solutions to satisfy customer needs; and

promoting the development and establishment of new businesses in the measuring instruments field outside of its semiconductor-related business.

To achieve these goals, Advantest plans to:

Continue to address industry trends, identify customer needs and deliver new products ahead of its competitors

Advantest will continue to work closely with major semiconductor manufacturers beginning in the product design stage of semiconductor and component test systems to understand customer needs relating to emerging technologies and applications. Based on this knowledge and its technological expertise, Advantest seeks to develop more advanced semiconductor and component test systems, test handlers, device interfaces and comprehensive solutions ahead of its competitors. For example, Advantest is pursuing the following strategies:

developing semiconductor and component test systems with increased test speeds and throughput capabilities and test handlers in line with the technological development of memory semiconductors and non memory semiconductors;

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proactively developing products to address the recent shift in emphasis in the semiconductor industry toward front-end testing of dies;

actively applying high-frequency analog technology developed for measuring instruments for the wireless communications market to test systems for non memory semiconductors including test systems for SoC semiconductors;

offering semiconductor and component test systems and device interfaces with high throughput in order to test recent devices incorporating interfaces with data rates of several gigabits per second; and

developing device interfaces that can optimize the performance of semiconductor and component test systems and test handlers in responding to semiconductors with higher speed and large pin counts.

Strengthen the test system business for non memory semiconductors

Advantest believes that in 2010 the market for test systems for non memory semiconductors was approximately four times the size of the market for test systems for memory semiconductors. Advantest has therefore devoted its resources to develop test systems and modules for non memory semiconductors to meet the demands of a large number of manufacturers for the testing of a wide variety of non memory semiconductors.

Advantest is utilizing the test module structure in test systems for non memory semiconductors. Advantest believes the primary benefits of these test module structures are reduced testing costs. In addition, Advantest hopes that the reduction in testing costs, and thus the lowering of overall manufacturing costs of non memory semiconductors, will help foster further demand for non memory semiconductors to be used in digital consumer products and other products.

Focus sales and support efforts on key customer accounts

Advantest believes that a small number of large semiconductor manufacturers, foundries and test houses account for a large portion of total sales in the semiconductor and component test system industry. Advantest sells semiconductor and component test systems and mechatronics systems to many of these customers and supports them on a regular basis. Advantest is seeking to expand its business with these key customers and develop new relationships with the remaining potential major customers. Many of Advantest s sales and support offices are located near the corporate headquarters or main research and development and manufacturing facilities of these key customers. These offices facilitate Advantest s efforts to continue conducting collaborative development activities with leading semiconductor manufacturers.

Advantest and Verigy entered into a definitive agreement and agreed that Verigy will become a wholly-owned subsidiary of Advantest.

On March 28, 2011, Advantest agreed to acquire all of the outstanding shares of common stock of Verigy, a leading manufacturer of semiconductor test systems, which will become a wholly-owned subsidiary of Advantest. Approval of the Singapore High Court is pending, which is required as a closing condition to the proposed transaction. Advantest expects the effective date of the scheme of arrangement to be in early July. The purpose of this business combination is mainly threefold as set out below.

(1) Highly Complementary Technology and Products

Building on Advantest s strength in memory semiconductor test systems and mass production lines and Verigy s strength in non-memory semiconductor test systems and research and development, Advantest expects to drive technological innovation in the more comprehensive field of automatic semiconductor test equipment. Advantest will also work to enhance growth and profitability by reallocating resources currently devoted to areas of duplicative research and development, with a goal of accelerating Advantest s combined technical capabilities and developing new business.

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(2) Customer Relationships

Advantest will have a wide and comprehensive range of products, which will enable it to provide customers with the most advanced collection of test solutions, such as improved test efficiency and reduced cost. Expanding Advantest s scale of operations is also expected to enhance Advantest s ability to provide long-term and consistent service to Advantest s customers.

(3) Global Business Development

Through the combination of Advantest, which has developed its business primarily in Japan and Asia, and Verigy, which has a significant presence in the United States and Europe, Advantest will expand its global customer base. Advantest expects to accelerate its globalization efforts at the operation level by acquiring excellent human resources on a global scale.

Products

As of fiscal 2010, Advantest s main products are products developed, manufactured and sold in the Semiconductor and Component Test System Segment and Mechatronics System Segment. They are as follows:

Semiconductor and Component Test Systems Segment

Semiconductor and component test systems are used during the semiconductor and electronic component manufacturing process to confirm that a semiconductor functions properly. Semiconductor and component test systems consist of test systems for memory semiconductors and test systems for non memory semiconductors.

The following table sets forth the amount of net sales of Advantest s semiconductor and component test systems, for memory and non memory semiconductors for the periods presented.

Category	Fiscal 2008	Fiscal 2009	Fiscal 2010
		(in millions)	
Test systems for memory semiconductors	¥ 17,644	¥ 12,444	¥ 30,016
Test systems for non memory semiconductors	31,572	20,128	39,317
Total	¥ 49,216	¥ 32,572	¥ 69,333

Test Systems for Memory Semiconductors

Advantest s test systems for memory semiconductors are test systems designed to test high-speed/high performance DRAM semiconductors used in equipment such as personal computers and servers, as well as flash memory semiconductors used in digital consumer products.

Test systems for memory semiconductors consist of a mainframe and one or more test heads. During testing, a device interface is attached to the test head. During the front-end testing process, wafers are loaded by a prober and are connected to the test system for memory semiconductors through the device interface. Electric signals between the die and the test systems for memory semiconductors are transmitted through probe pins located in the device interface and tested. After front-end testing is completed, the wafer is diced into separate dies and properly functioning dies are packaged. During back-end testing, test handlers are used to load these packaged devices onto the test heads, and electric signals are transmitted between the devices and the test heads via the device interface and tested. The test results are analyzed by the test systems for memory semiconductors hardware circuits and software programs. Customized software programs for each semiconductor are required to analyze the semiconductor tests and test data.

Characteristics of the performance and other characteristics of test systems for memory semiconductors that are important to customers include:

Throughput. Throughput is measured by the number of semiconductors that can be tested by test systems for memory semiconductors during a specified time.

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Test Speed. Test speed is the speed at which the test systems for memory semiconductors test semiconductors during testing. Test speed is measured in terms of hertz (Hz), or Bits Per Second (bps).

Timing Accuracy. Timing accuracy is the test system for memory semiconductors accuracy of control over the timing of testing signals generated.

Maximum Pin Count. Maximum pin count is the number of channels for test signals (at the maximum) used by test systems for memory semiconductors.

Size. Smaller machines reduce the amount of floor space occupied and electricity consumed by the test systems for memory semiconductors.

Temperature. Semiconductor manufacturers perform tests on semiconductors at varying temperatures to ensure proper operation under extreme conditions.

Compatibility. Test systems for memory semiconductors that are compatible with predecessor systems cut down on the time required to develop new test programs and otherwise allow for effective utilization by customers of existing resources.

Quality. Quality is determined by the reliability of test results produced and whether the equipment can maintain stable operation under different testing environments.

Advantest estimates that its market share in test systems for memory semiconductors was approximately 51% and 37% in fiscal 2008 and 2009, respectively, as a result of restrained capital expenditure in test systems for DRAM semiconductors on the part of Advantest s customers, but recovered to approximately 62% in 2010. Advantest has a substantially larger market share in test systems for DRAM memory semiconductors than in test systems for flash memory semiconductors. Advantest is currently seeking to increase its market share in test systems for flash memory semiconductors.

Advantest s main product lines of test systems for memory semiconductors are the T5500 series, the T5300 series and the T5700 series.

T5500 Series. The T5593 is a test system targeted at the market for high speed memory semiconductors such as DDR2-SDRAM and SGRAM. SGRAM is a memory semiconductor for use in graphical processor units. The T5588, makes possible simultaneous measurement of up to 512 DDR2-SDRAM devices, twice that of the T5593, and is a test system for mass production. Advantest can also accommodate a greater variety of memory semiconductors by using testing functions for flash memory which are already long used in connection with the T5370 series and its newly developed throughput enhancement functions. The top-of-the-line device in the T5500 series is the T5503, a memory semiconductor test system most suitable for testing and production of ultra high-speed memory semiconductors such as DDR3-SDRAM. This model allows twice as much of the spectrum band to be covered in terms of testing speed as the T5501 and thus enhances the measurement accuracy.

T5300 Series. The T5383 is a multi-functional test system for memory semiconductors that reduces testing costs for semiconductor manufacturers. The T5383 is used for the front-end testing of DRAM semiconductors and for back-end testing of flash memory semiconductors. The T5383, which is capable of simultaneously testing up to 384 devices, is a test system with a maximum testing rate of 286 MHz/572 Mbps, which is twice the testing rate of Advantest s previous model. This allows for DRAM wafer testing at speed testing, or testing for KGD, and package testing for flash memory semiconductors, at high-speed and with high-throughputs capabilities. The T5385, which is capable of simultaneously testing up to 768 devices with a maximum testing rate of 266 MHz/533 Mbps, succeeds the T5383. The T5300 series is Advantest s best selling test systems for memory semiconductors product line for front-end testing of DRAM semiconductors and for back-end testing of flash memory semiconductors.

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T5700 Series. Because variations in cell characteristics must be kept within a defined range, front-end testing for flash memory semiconductors require more types of testing than is required in front-end testing for DRAM semiconductors. Accordingly, front-end testing for flash memory semiconductors contributes to higher testing costs. Furthermore, although the volume of production with respect to NAND-type flash memory semiconductors is rapidly growing, prices have fallen substantially and there is a demand for higher efficiency for test systems. In response, Advantest introduced the T5781ES memory test system, which is capable of testing Multiple Chip Package (MCP)-type memories which combine multiple memory types, such as NAND-type flash memories, which are used in mobile phones, NOR-type flash memories and SDRAM, at speeds of up to 266 MHz. Because the T5781ES has diverse memory semiconductor testing capabilities and can test single-handedly many different types of memory semiconductors which are incorporated into MCPs, higher testing efficiency can be achieved. The T5700 series will provide effective solutions that will enable everything from design to mass production of flash memories and MCPs.

Test Systems for Non Memory Semiconductors

Advantest s main line of test systems for non memory semiconductors relates to test systems for SoC semiconductors, test systems for LCD driver integrated circuits and test systems for semiconductors used in car electronics. Test systems for SoC semiconductors test SoC semiconductors that combine circuits such as digital, analog, memory and RF circuits on a single semiconductor chip. Test systems for LCD driver integrated circuits test semiconductors with specific functions, such as LCD driver integrated circuits that display images on LCD panels. The factors that are important to customers in the performance and other characteristics of test systems for memory semiconductors described above also apply to test systems for non memory semiconductors. Advantest s market share in test systems for non memory semiconductors remained at a similar level of approximately 18% in fiscal 2010, compared with approximately 21% in fiscal 2009.

T2000. In 2003, Advantest introduced to the market the T2000 test systems for non memory semiconductors which used the test module structure. Advantest believes that the development of modules for the T2000 compatible semiconductor test systems for non memory semiconductors and the increase in product lineup will increase Advantest s market share in test systems for non memory semiconductors. Main compatible component modules for the T2000 include modules designed for digital testing, power supply testing, analog testing, power device testing, image sensor testing and RF testing. Furthermore, mainframes for the T2000 may be chosen to meet customers needs.

T6500 Series. The T6577 test systems for SoC semiconductors in the T6500 series were primarily developed to test MCU and SoC semiconductors that control digital consumer products at the production lines. The T6500 series is approximately one-third in size and uses approximately 50% less power than Advantest s predecessor product line.

T6300 Series. The T6300 series are test systems for LCD driver integrated circuits used with high-definition LCD displays. A maximum of 1,536 LCD testing pins may be used with the T6362 and T6372 systems and a maximum of 3,072 LCD testing pins may be used with the T6373 system. Each of these systems can simultaneously test multiple LCD driver integrated circuits.

T7720 Series. The T7721, T7722 and T7723 are test systems for non memory semiconductors for mixed signal integrated circuits. The T7723 targets highly complex semiconductors used in car electronics and is the result of the development of Advantest s constituent technology that measures analog signals. Also, the T7723 uses a direct current signal generator with a range of 150V to 64V and floating power supply of 60V/10A or 30V/30A (pulse), utilizes up to a maximum of 256 pins, and has the capacity to simultaneously measure multiple devices.

Mechatronics System Segment

The main products in the Mechatronics System Segment are test handlers which handle semiconductor devices and automate the testing, and device interfaces which are the interfaces with devices being tested.

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Test Handlers

Test handlers are used with semiconductor and component test systems to handle, condition temperature, contact and sort semiconductors and other electronic components during the back-end testing of the semiconductor manufacturing process.

Advantest s test handlers are sold primarily in conjunction with the sale of its semiconductor and component test systems. A majority of Advantest s test handlers for memory semiconductors, measured in units, are sold to customers of Advantest s semiconductor and component test systems. Advantest s test handlers are compatible with the semiconductor and component test systems of its competitors.

Test handlers are designed with different characteristics for memory and non memory semiconductors. Memory semiconductors require relatively long test times. Advantest s test handlers for memory semiconductors handle up to 512 semiconductors per test head at a time. Non memory semiconductors, including SoC semiconductors, require relatively short test times. Advantest s test handlers for non memory semiconductors require short time and handle up to 16 semiconductors at a time.

Test Handlers for Memory Semiconductors. The M6242 test handler for test systems for memory semiconductors, including DDR-3SDRAM, can handle up to 512 semiconductors at a time. The M6242 s maximum throughput is 42,200 semiconductors per hour through the use of a new high-speed handling technology that shortens the time between tests to approximately half of the time associated with Advantest s ordinary model. In addition, the M6242 has a built-in temperature control device which can minimize the temperature fluctuation within a 1.5°C range for temperatures between -10°C and 100°C. Advantest also has other test handler product line for test systems for memory semiconductors that meet varying cost and functional needs of its customers.

Test Handlers for Non Memory Semiconductors. Advantest s test handlers for non memory semiconductors, including SoC semiconductors, are the M4841, the M4741A and the M4742A, among others. With a rate of 16 semiconductors at a time, the M4841 can handle approximately twice as many semiconductors at a time as Advantest s previous model. The M4841 s maximum throughput of up to 18,500 semiconductors per hour is triple the maximum throughput of the previous model. Furthermore, the M4841 is also capable of testing in a wide range of temperatures, from as low as -55°C or as high as 125°C.

The M4741A employs the vision alignment system which enables high-accuracy positioning of contact sockets for smallsized/narrow-pitched integrated circuits used in cellular phones and other products. Through the adoption of the vision alignment system, various types of measurement device can be operated under certain conditions without switching the change kit. M4742A realizes a reduction in contact pitch exchange time in handling of various products, visualization of operation screen, visibility check of internal devices, and improvement of operability, hence contributing to the reduction of test costs.

In addition, as a common feature in Advantest s test handlers for memory/non memory semiconductors, numerous functions to improve operating rate are installed.

Device Interfaces

Device interfaces are components which transmit test signals between the device being tested and the semiconductor and component test system. These components are divided into motherboards, socket boards, performance boards and sockets all of which transmit signals to compatible components of a device under test; components compatible with a test handler device; and device interfaces and change kits with a device handling mechanisms and contact mechanisms, and probe card for front-end testing.

Advantest develops and manufactures device interfaces for semiconductor and component test systems and supplies device interfaces such as high performance and high density connectors, socket boards and sockets to

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meet the demands of next- generation semiconductors that are becoming more high-speed and more diversified. Advantest believes that the rate at which new semiconductor designs are introduced to market will continue to increase in the long term, and customers requests to accelerate development of main parts of device interfaces that are compatible with such new semiconductor designs will increase accordingly.

Motherboards: For test systems for memory semiconductors, Advantest provides motherboards capable of handling a maximum of 512 semiconductors at a time. For test systems for non memory semiconductors, Advantest provides motherboards that are compatible with a maximum of 3,072 signals. Advantest also provides motherboards designed for use in front-end testing.

Socket Boards and Performance Boards: Advantest provides custom manufacturing of socket boards and performance boards for each device under test in accordance with customers specifications.

Sockets: Advantest provides sockets for test systems for memory semiconductors. Advantest provides low-inductance (0.4nH) sockets and fine pitch (0.4mm) sockets for semiconductors that are becoming more high-speed and more compact in size.

Change Kits: Advantest provides carrying and contacting mechanism components compatible with each device under test for test handlers for memory semiconductors and test handlers for non memory semiconductors.

Probe Card: Advantest provides probe card used for the front-end testing for memory semiconductors.

Advantest competes with numerous small and independent electronics manufacturers in providing device interfaces for its semiconductor and component test systems. However, Advantest believes that as the complexity of the testing requirements of next-generation semiconductors increases, Advantest will enjoy competitive advantages by applying its technical knowledge, such as high speed signal transmission, derived from designing and manufacturing semiconductor and component test systems to device interfaces.

Customers

Advantest s semiconductor and component test systems and mechatronics systems are shipped and delivered to world s leading semiconductor manufacturers, as well as some foundries and test houses. Sales to INTEL Corporation and Samsung Corporation in fiscal 2008, INTEL Corporation in fiscal 2009 and INTEL Corporation and Hynix Semiconductor Inc. in fiscal 2010 each accounted for greater than 10% of Advantest s net sales in each of those respective years. Advantest s five largest customers, all of which are semiconductor and component test system customers, accounted for approximately 51% of net sales in fiscal 2008, approximately 43% in fiscal 2009 and approximately 49% in fiscal 2010.

Geographic Sales

Of Advantest s fiscal 2010 net sales, 77.5% were derived from products sold to customers located outside Japan. The following table sets forth Advantest s net sales by geographic area, as well as net sales by geographic area as a percentage of total net sales, for Advantest s last three fiscal years. Net sales are classified into geographic areas based on the location to which the products are shipped.

Fiscal 2008