

# ADVANTEST in our Lives



You live it. We measure it. Life, tested by Advantest.



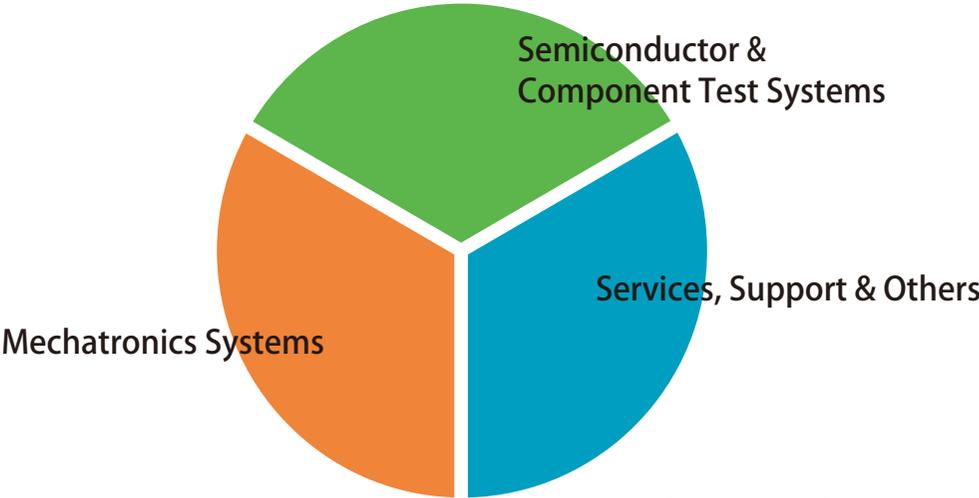
# Business Segments

## Technology Support on the Leading Edge

Since 1954, Advantest's measurement technologies have contributed to the safety and security of end users around the globe. To provide the advanced solutions and services that meet the needs of our customers, we strive continuously to improve. Our commitment to ongoing innovation keeps us on the leading edge of technological progress.

## Semiconductor and Component Test Systems

Our flagship product line of semiconductor test systems deliver high productivity and coverage for diverse device types, supporting our customers' evolving needs, and sustaining our leading global market share in this market.



## Mechatronics Systems

Advantest's mechatronics products support our customers in the semiconductor industry across a broad range of needs. Our test handlers and device interfaces are essential to efficient test processes, while our nanotechnology products, including wafer / mask measurement tools and lithography systems, contribute to leading-edge device development.

## Services, Support & Others

From installation and maintenance to high-added-value solutions, such as applications that maximize utilization rates, Advantest's global service and support network helps our customers to get the most out of our products. In our New Business Segments, our measurement technologies are finding new applications, and opening up new markets with ground-breaking products.

# Semiconductor & Component Test Systems

## ■ Semiconductor Test Systems

Semiconductor test systems are used to verify that a particular device works as it was designed to, or to quickly find its faults before the part has a chance to be used in a final consumer product. Since different types of devices have different functions, they must be tested separately, using test systems that support their particular performance specifications.

[LINK](#)

## Non-Memory Test Systems

These test systems employ modular configurations so that their performance boards can easily be exchanged to flexibly support the requirements of testing diverse non-memory devices, such as micro-processors, applications processors, communications ICs, power management ICs, and others.

Advantest also supplies test systems for display driver ICs, which control the displays of smartphones, flat-screen televisions, and other products. With a worldwide installed base of more than 1,500 units, our display driver IC test systems are the global standard in this market.



V93000



T2000



T6391

## Memory Test Systems

Our memory test systems contribute to customer productivity by testing DRAM, NAND, and other memory devices with high-quality, high-speed, highly parallel capabilities unmatched in the sector.



T5503HS



T5830

## ■ EVA

Advantest's groundbreaking new Evolutionary Value Added Measurement System (EVA) provides all-in-one support for analog IC, sensor, mixed signal IC, and other semiconductor devices, from R&D through to volume production. EVA's superior measurement precision and system scalability, and an intuitive user interface that does not require the use of programming languages, make it a measurement system that combines the benefits of a semiconductor test system and an electronic measurement instrument.



EVA100

## ■ Electronic Measurement Instruments [LINK](#)

Our lineup of RF measurement instruments includes cross domain analyzers, which can simultaneously measurement the phases of two signals with a single instrument; spectrum analyzers; board and network analyzers, and more. Offering electromagnetic wave characteristics evaluation and electromagnetic interference (EMI) solutions, among other functions, they are used by customers in a wide range of industries.



U3800 Series

## ■ Burn-In Systems

Burn-in systems apply thermal and electrical stress to semiconductors, screening out faulty devices at an early stage in the manufacturing process.



B6700

# Mechatronics Systems

## Test handlers

Handlers deliver packaged devices to test systems at high speed, and automatically sort them into pass / fail trays based on test results. Advantest's handlers also provide precision placement control and manage the temperature requirements of devices under test at high speed and with great precision, which enables the handling of extremely small devices with stringent requirements for contact placement and temperature management.



M6245 [LINK](#)

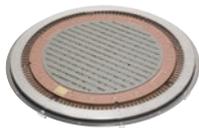


M4871 [LINK](#)

## Device Interfaces

Semiconductors differ in size, shape and specification, requiring specialized device interfaces when being tested. Advantest's DI products connect devices to test systems electronically and mechanically, with industry-leading precision. Expert teams around the world can provide support for a diverse range of devices, contributing to swift customer device production ramps.

[LINK](#)



Probe Card [LINK](#)



Change Kit [LINK](#)

## MVM-SEM®

[LINK](#)

Utilizing electron beams, Advantest's scanning electron microscopes measure circuit patterns on wafers and photomasks, providing real-time data on width, height, and side-wall measurement. Based on proprietary technology, these MVM-SEM (Multi Vision Metrology Scanning Electron Microscope) tools are steadily increasing their market following, thanks to their unique level of support for extremely small and 3D devices.



E3310 [LINK](#)



E3640 [LINK](#)

\*MVM-SEM® = Multi Vision Metrology Scanning Electron Microscope

※ MVM-SEM is either a registered trademark or a trademark of Advantest Corporation in Japan, the United States and other countries.

## EB Lithography Systems

[LINK](#)

Advantest's EB lithography tools also utilize electron beams to etch circuit patterns directly on substrates such as wafers with the nanoscale precision required at the 1Xnm node. Amid growing challenges for traditional nanoscale lithography methods, EB lithography is gaining attention for its ability to support the most advanced nanoscale processes.



F7000 [LINK](#)

## Test Cells

Advantest has long been the industry's only ATE provider to design and manufacture its own fully integrated suite of production test-cell solutions comprised of testers, handlers, device interfaces, and software. These components assure the industry's highest levels of test quality and sufficiency, and have been widely adopted by global customers.

Test Handler

Device interface

Test head



Test system mainframe

# Services, Support & Others

## New Businesses

Targeting a new level of sustainable growth, Advantest is incubating a range of new businesses. These groundbreaking enterprises build seamlessly on our amassed measurement technology, offering innovative solutions for measurement scenarios that have not been addressable with existing technology.

### LINK Terahertz Spectroscopy and Imaging Analysis Systems

Utilizing terahertz waves, Advantest's terahertz systems enable non-destructive analysis of samples that cannot be analyzed with existing technologies such as ultrasound and infrared. They offer a new evaluation solution for diverse applications, including pharmaceutical coating thickness and tablet density measurement, and analysis of failures in electronic circuits.

TAS7500 Series 



### Mobile System Level Test

W2BI, Inc. is a member of the Advantest Group offering wireless device test automation products for the world's top mobile operators and suppliers. Our system level test solutions ensure interoperability across regions and carriers, assisting customers worldwide to significantly improve their device quality and time-to-market.

Click to view a video introducing W2BI.



### Hadatomo™ Photoacoustic Microscope

Combining the benefits of optical and ultrasound measurement, this new photoacoustic microscope non-destructively images blood vessels within the dermis to a depth of 3mm—without the use of contrast agents—a feat impossible with existing technologies. It offers new insights to researchers and practitioners in dermatology and regenerative medicine.

Hadatomo™ WEL5100 



**2010** Launched sales of 3D analysis systems utilizing terahertz technology

Launched Cloud Testing Service, Inc. **2012**

**2013** Entered the mobile system level test business

Launched sales of SSD test system **2014**

**2015** Launched sales of the Hadatomo™

Launched sales of the AirLogger™

### CloudTesting™ Service\*

This on-demand test service, offered by Advantest subsidiary Cloud Testing Service, Inc., gives customers the ability to download test software from the cloud and run it on our compact test terminals (available for lease). CTS's unique monthly fee structure brings world-class test IP within easy reach, making the service optimal for educators and researchers.



CloudTesting™ Station 

### SSD Test Systems

The expansion of data traffic worldwide is driving increased demand for high-end data servers, which utilize solid state drives (SSDs). Our solid state drive test systems are poised to support projected growth in SSD production volumes.



MPT3000 

### AirLogger™

This unique data logger measures temperatures at multiple points and transmits measurements wirelessly, massively improving efficiency by doing away with cabling. It also enables easy measurement of temperatures in small, enclosed spaces and rotating objects such as wheels.



AirLogger™ temperature measurement unit. 



Measurement of temperature of a rotating object.