6857.T gideon lens

Advantest Corporation (6857.T) - Gideon-Lens Equity Research

Report date: 2026-09-28 **Analyst:** Codex Production ER2 **Price anchor:** JPY34,000 per XTKS:6857 ordinary share at the 2026-09-25 close **Market capitalization:** approximately JPY24.86 trillion on 731.260642 million quote-basis diluted shares **Fiscal year-end:** March 31

VERDICT BLOCK

Verdict: PASS

Scorecard:

Gate	Result	Notes
Management	PASS	Deep tenure, disciplined R&D, candid guidance, controlled dilution
Moat	YELLOW	Qualification strength is real; 2046 durability remains unproven
P/E <= 15 on confident EPS at TTM + 5 calendar years	FAIL	Base cushion is -71.12% at JPY34,000
Compounder Score	Audited 61 / 100	Reject classification; diagnostic quality cannot offset entry valuation
Business Quality Score	Audited 58 / 80	Strong but incompletely proven dream-business evidence
20% Return UW Score	Audited 3 / 20	Today's price fails the 20% return diagnostic decisively

One-line thesis (or reason to pass): Advantest is a strategically advantaged AI/HPC test platform, but JPY34,000 capitalizes far more earnings than the repaired mid-cycle model can support.

Security return underwriting (mandatory even when the verdict is PASS):

Measure	Result	Notes
Primary valuation method	P/E	One audited method used for all scenarios, probability weighting and net-SGD
Gross local-currency bear / base / bull IRR	-30.09% / -12.17% / 5.46%	Annualized JPY shareholder return over exactly 1,739 days
Probability-weighted gross local-currency IRR	-10.19%	CAGR of JPY20,386.96 expected terminal wealth; weights 25% / 55% / 20%
Return bridge	JPY34,000 -> scenario terminal wealth	EPS x locked exit P/E; no terminal net-cash/debt add-on and zero distributions

Gross local-currency underwriting is in JPY. Net-SGD adjustments appear separately in CIO actionability. The exact price-to-terminal horizon is 2026-09-25 to 2031-06-30, or 4.761220 years. The reported current P/E is 53.95x on JPY630.23 reported TTM EPS; the normalized comparable P/E is 59.77x on JPY568.85 normalized EPS.

Bear-case operating and return bridge

Bear case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	JPY1,232,307m	JPY1,068,476m	-2.95%	AI-capex digestion, design loss and utilization pressure
Operating margin	45.86%	33.20%	-12.66 pp	Underabsorption and competitive pricing reduce Test System economics
Operating earnings	JPY565,158m	JPY354,716.72m	-9.32%	Statutory operating income after segment profit and SBC bridge

Bear case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Diluted share count	731.260642m	729.715253m	-0.04%	Modest buybacks offset SBC and full-convert dilution
EPS	JPY630.23	JPY343.64	-11.96%	Statutory diluted EPS used in the P/E bridge
Valuation denominator	JPY630.23 reported / JPY568.85 normalized EPS	JPY343.64 statutory diluted EPS	comparable	Normalized current and terminal denominators share the listed-unit perimeter
Valuation	53.95x reported / 59.77x normalized P/E	18.00x P/E	-41.77x vs normalized	Profitable cyclical-low observations support the independently locked exit
Share value	JPY34,000	JPY6,185.58	-30.09%	JPY343.64 EPS x 18.00x; no separate net-cash adjustment
Annual dividend	JPY59 historical	Unavailable - not separately modelled	unavailable	Frozen model uses an explicit zero-distribution diagnostic
Dividend yield	0.17% historical	Unavailable - not separately modelled	unavailable	Terminal annual dividend was not invented
Cumulative dividends	-	JPY0	cumulative	Explicit conservative zero-distribution diagnostic
Total ending value	JPY34,000	JPY6,185.58	-30.09% gross local IRR	Terminal share value plus zero cumulative distributions

Base-case operating and return bridge

Base case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	JPY1,232,307m	JPY1,777,433m	8.00%	AI/HPC intensity persists but growth normalizes with tester productivity
Operating margin	45.86%	36.84%	-9.02 pp	Repaired 42% Test System margin removes unsupported peak persistence
Operating earnings	JPY565,158m	JPY654,816.74m	3.14%	Statutory operating income after segment profit and SBC bridge
Diluted share count	731.260642m	728.590242m	-0.08%	JPY50bn annual buyback assumption offsets SBC and convert dilution
EPS	JPY630.23	JPY654.55	0.80%	Statutory diluted EPS after the red-team margin repair
Valuation denominator	JPY630.23 reported / JPY568.85 normalized EPS	JPY654.55 statutory diluted EPS	comparable	Normalized current and terminal denominators share the listed-unit perimeter
Valuation	53.95x reported / 59.77x normalized P/E	28.00x P/E	-31.77x vs normalized	Mid-cycle historical evidence supports the independently locked exit
Share value	JPY34,000	JPY18,327.39	-12.17%	JPY654.55 EPS x 28.00x; no separate net-cash adjustment
Annual dividend	JPY59 historical	Unavailable - not separately modelled	unavailable	Frozen model uses an explicit zero-distribution diagnostic
Dividend yield	0.17% historical	Unavailable - not separately modelled	unavailable	Terminal annual dividend was not invented
Cumulative dividends	-	JPY0	cumulative	Explicit conservative zero-distribution diagnostic
Total ending value	JPY34,000	JPY18,327.39	-12.17% gross local IRR	Terminal share value plus zero cumulative distributions

Bull-case operating and return bridge

Bull case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	JPY1,232,307m	JPY2,264,615m	13.63%	Sustained GPU/ASIC/CPU and HBM intensity plus share retention

Bull case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Operating margin	45.86%	49.48%	+3.62 pp	Exceptional mix, utilization and platform leverage persist
Operating earnings	JPY565,158m	JPY1,120,454.55m	15.46%	Statutory operating income after segment profit and SBC bridge
Diluted share count	731.260642m	728.024906m	-0.09%	Larger buybacks offset SBC and full-convert dilution
EPS	JPY630.23	JPY1,152.70	13.52%	Statutory diluted EPS used in the P/E bridge
Valuation denominator	JPY630.23 reported / JPY568.85 normalized EPS	JPY1,152.70 statutory diluted EPS	comparable	Normalized current and terminal denominators share the listed-unit perimeter
Valuation	53.95x reported / 59.77x normalized P/E	38.00x P/E	-21.77x vs normalized	Premium history and peers support the locked exit below observed upper ranges
Share value	JPY34,000	JPY43,802.51	5.46%	JPY1,152.70 EPS x 38.00x; no separate net-cash adjustment
Annual dividend	JPY59 historical	Unavailable - not separately modelled	unavailable	Frozen model uses an explicit zero-distribution diagnostic
Dividend yield	0.17% historical	Unavailable - not separately modelled	unavailable	Terminal annual dividend was not invented
Cumulative dividends	-	JPY0	cumulative	Explicit conservative zero-distribution diagnostic
Total ending value	JPY34,000	JPY43,802.51	5.46% gross local IRR	Terminal share value plus zero cumulative distributions

CIO actionability (separate from ER2 underwriting):

Measure	Result	Notes
Status	PASS	Base return is below 8%; research has no portfolio authority
Bear / Base / Bull net SGD IRR	-31.80% / -14.32% / 2.88%	Same P/E method after costs, annual drag and 2% JPY depreciation
Probability-weighted net SGD IRR	-12.39%	CAGR of probability-weighted net terminal wealth; weights 25% / 55% / 20%
10% mandate hurdle	FAIL	Base and probability-weighted cases both fail
15% stretch hurdle	FAIL	Even the Bull diagnostic remains below the stretch objective
Downside and portfolio fit	FAIL / UNAVAILABLE	Security downside fails; portfolio context was not supplied
Proposed sizing ceiling	none	No sizing proposal; owner approval would be required in any event

Trade execution authorized: NO

Kill / trigger criteria:

- Valuation BUY trigger: price at or below JPY9,818.25 for 15x repaired Base EPS, while the Moat gate must also improve to PASS.
- Twenty-percent return diagnostic: maximum entry price is JPY7,693.10 under the locked Base bridge.
- PASS trigger: Test System margin below 35% for two consecutive quarters within the next four releases.
- PASS trigger: a material high-end design loss or SoC tester share falling below 55% without an offsetting new platform win.
- Upgrade condition: source-bound backlog/ASP/utilization evidence supports durable mid-cycle margins and the entry price clears both valuation and expected-return hurdles.

Research sizing if actionable: None. This report is research only and cannot authorize a trade.

Stage 0 - Time anchor

Today is 2026-09-28. The latest completed fiscal year ended 2026-03-31, the latest reported quarter and TTM anchor ended 2026-06-30, and the forecast horizon is 2031-06-30. The security-return clock uses the JPY34,000 completed close on 2026-09-25, producing an exact 1,739-day horizon rather than a rounded five-year return period.

Stage 1 - Disqualifier sweep

Accounting and statutory reconciliation are **GREEN**; the QF and QFR gates passed and official IFRS figures override small FMP discrepancies. Balance-sheet resilience is **GREEN** with net cash, although the JPY88.9bn convertible is explicitly diluted. Management and capital allocation are **GREEN**. Customer and AI/HPC concentration are **YELLOW** because NVIDIA, TSMC and the top five customers are material. Moat durability and pricing evidence are **YELLOW**. Cyclicality and peak margin normalization are **YELLOW**. Entry valuation and expected return are **RED**, which is independently sufficient for a PASS verdict.

Management - summary

Management earns PASS. CEO Douglas Lefever has long operating tenure inside Advantest even though his CEO tenure is shorter. The company protected research and development through the cycle and spent far more on R&D than acquisitions, supporting an organic capability thesis. Historical diluted shares declined, SBC remains modest, and prior repurchases occurred below today's reference price. Management raised guidance repeatedly without recorded cuts in the reviewed period and was unusually candid about capacity buffers and cyclicality. The April 2026 convertible can add roughly 2.78 million shares and is fully reflected in scenario dilution. Remaining weaknesses are measurable: compensation lacks a direct ROIC/FCF safeguard, strategic holdings need explicit return evidence, and the Essai impairment is a reminder that capital allocation is not flawless.

Moat - summary

The Moat gate and the 2046 test are both YELLOW. V93000 qualification, accumulated test programs, application engineering and global service create genuine switching costs, particularly in advanced SoC and AI/HPC applications. Advantest's estimated 66% CY2025 SoC tester share is powerful evidence of current competitive position. However, share at a cycle peak is not the same as durable pricing power. Teradyne remains a credible global rival, Chinese vendors can advance from lower-end niches, and tester parallelism or utilization improvements can offset rising test intensity. Services benefits from the installed base but lacks attach, retention and product-profit disclosure. The franchise is strong enough to monitor, not strong enough to excuse a 59.77x normalized entry multiple.

Stage 5 synthesis - headline numbers

TTM revenue is JPY1,232.307bn, statutory operating income JPY565.158bn and reported diluted EPS JPY630.23. The repaired Base case reaches JPY1,777.433bn revenue, JPY654.817bn statutory operating income, JPY476.899bn net income and JPY654.55 EPS at 2031-06-30. The Base Test System terminal margin is 42.0%, not the initially modelled 48.5%; this repair is source-bound to historical mid-cycle profitability and the absence of product-profit, backlog, utilization and ASP evidence. Required EPS for the P/E-15 entry gate is JPY2,266.67, leaving a -71.12% Base cushion. Bear EPS is JPY343.64 and Bull EPS JPY1,152.70; all three scenarios fail the P/E-15 test at today's price. Even the independently supported 38x Bull exit produces only a 5.46% gross local return. The share path includes buybacks, SBC and full conversion; Base terminal diluted shares are 728.590242 million. The reflexivity check identifies AI/HPC concentration, capacity expansion and utilization as mutually reinforcing in a downturn. Eleven of eleven synthesis tie-outs pass after the margin repair.

Scenario	Revenue JPYbn	Operating income JPYbn	Net income JPYbn	Diluted EPS JPY	P/E-15 cushion
Bear	1,068.476	354.717	250.762	343.64	-84.84%
Base	1,777.433	654.817	476.899	654.55	-71.12%
Bull	2,264.615	1,120.455	839.193	1,152.70	-49.15%

Red team - summary

The red team initially found the 48.5% Base Test System margin unsupported and classified the defect as material. That objection was routed through the segment model, independent reviewer, synthesis, valuation preflight, scorer and scoring audit; Base margin is now 42.0% and the objection is `MATERIAL_RESOLVED`. The strongest remaining bear argument is synchronized AI-linked concentration, platform risk and capacity underutilization. The strongest overly-bearish challenge is that a 22x Bear P/E would improve Bear IRR by about 3.01 percentage points, but it would not rescue the probability-weighted conclusion. Test System segment margin below 35% for two consecutive quarters is the clearest forced-exit signal.

Kill / trigger criteria

- Keep the conclusion at PASS while the price remains above JPY9,818.25 on repaired Base EPS or the Moat gate remains YELLOW.
- Treat two consecutive quarters below 35% Test System segment margin as thesis invalidation, not ordinary volatility.
- Re-underwrite if SoC tester share falls below 55%, a top-customer design is lost, or accelerated capacity produces sustained underutilization.
- Reconsider only when price, durable mid-cycle margin evidence and 2046 durability improve together; one factor alone is insufficient.

Analyst flags

The quote is valid for this run but reflects the 2026-09-25 completed session. Product profit, tester shipments, realized ASP, backlog, book-to-bill, cancellations, service attach and retention remain undisclosed. The return model therefore uses conservative, independently locked multiples and zero cumulative distributions rather than invented precision. Portfolio fit and sizing are unavailable because research was not given portfolio context; only those fields are constrained. The scoring auditor reduced Business Quality from 68/80 to 58/80 because the submitted ROIIC proxy used endpoint invested-capital change rather than cumulative reinvestment. This does not change the PASS verdict, which is already compelled by the failed P/E-15 gate.

Appendix A - Company Primer

Advantest Corporation (6857.T) — Company Primer

Research anchor: 28 September 2026, Asia/Singapore. Advantest's fiscal year ends 31 March. Its latest complete quarter is FY2026 Q1, the three months ended 30 June 2026; the trailing-twelve-month period therefore ends 30 June 2026, and the exact five-year analytical horizon is 30 June 2031. The exact security is the Tokyo Stock Exchange Prime Market ordinary share, XTKS:6857, not the U.S. OTC ADR.

Financial-source discipline: Every financial number below is taken from the QFR-sealed [quantitative foundation](<C:/Users/Admin/OneDrive/GPT/ER 2.0/Advantest/quant_foundation.md>) unless another primary source is expressly identified. The foundation uses IFRS, Japanese yen and JPY millions, and reconciles the current two-segment presentation to statutory operating income. The qualitative description is grounded in current Advantest materials, principally the [FY2025 results](https://www.advantest.com/document/en/investors/ir-library/result/E_FR_FY2025_FN.pdf), [FY2026 Q1 IR library](https://www.advantest.com/en/investors/ir-library/result/), [2026 Investors' Guide](https://www.advantest.com/document/en/investors/ir-library/investors-guide/Investors_Guide_2601E.pdf), and [Integrated Annual Report 2025](https://www.advantest.com/document/en/investors/ir-library/annual/E_all_IAR2025.pdf).

1. Business overview

Advantest supplies the equipment and surrounding infrastructure used to determine whether a semiconductor works as designed. Its core product is automatic test equipment, or ATE. In plain terms, a tester applies electrical signals to a chip, observes the response, and decides whether the device passes, fails, or needs further diagnosis. Testing happens during design and engineering, on dies while they are still on a wafer, after packaging, and increasingly at system level under conditions resembling the final application. Unlike wafer-fabrication equipment, which creates physical features on silicon, Advantest's systems measure and validate the completed device. This is a small but economically critical bottleneck: an undetected defect in an expensive AI accelerator, memory stack, automotive controller or power device can destroy downstream value and damage a customer's yield, reliability and reputation.

The customer base spans integrated device manufacturers, fabless chip designers, foundries and outsourced semiconductor assembly-and-test companies (OSATs). The economic buyer is not always the party that takes delivery. A fabless designer may select and qualify a test platform during product development; a foundry may use compatible equipment at wafer sort; and an OSAT may buy more of the same platform for final test. Platform selection therefore propagates through the disaggregated value chain. Advantest emphasizes that the tester chosen by a fabless company for verification is often subsequently used by foundries and OSATs in volume production ([Investors' Guide, pp. 8-9](https://www.advantest.com/document/en/investors/ir-library/investors-guide/Investors_Guide_2601E.pdf)).

Sales are consultative and direct rather than self-service. Engineers work with the designer and manufacturer to develop device-specific test programs, configure instruments, qualify interfaces and scale the solution into high-volume manufacturing. The system must be supported globally because design may occur in the United States, fabrication in Taiwan or Korea, and packaging/test elsewhere in Asia. Customers buy a platform, instrument cards and test heads, then device interfaces, handlers, software, engineering, spare parts and support. That combination can create a long-lived installed base, but major new device generations still require qualification and can reopen competition.

2. Revenue architecture

Advantest changed its reportable structure to two segments beginning with the quarter ended 30 June 2025 and recast the comparison. Older three-segment labels should not be mixed with the current taxonomy. The precise disclosed profit metric is **segment income (loss), defined as operating income (loss) before share-based compensation expense**. It is not statutory operating income; corporate/elimination items and share-based compensation must be deducted to reach that line.

FY ended 31 Mar. 2026	Revenue (JPY m)	Share of total	Segment income (JPY m)	Segment margin
Test System	1,019,380	90.3%	518,760	50.9%
Services and Others	109,230	9.7%	8,758	8.0%
Consolidated revenue	1,128,610	100.0%	—	—

Test System combines the core SoC and memory ATE with handlers and mechatronics, device interfaces, and system-level-test solutions. The tester mainframe and instrument modules generate and measure signals. The interface physically and electrically connects the tester to the device. A handler moves packaged devices, controls temperature and sorts them; a prober performs the analogous contact function on a wafer. System-level test runs a chip in an environment closer to its final use and catches hardware/software interaction failures that conventional parametric tests may miss. The integrated "test cell" proposition matters because optimizing tester, interface, thermal control, material handling and software together can raise throughput and reduce a customer's cost per tested device. Advantest's [ATE explainer](https://www.advantest.com/en/semiconductor-basics/automated-test-equipment/) and [business-segment overview](https://www.advantest.com/document/en/investors/ir-library/annual/E_all_IAR2025.pdf) provide useful plain-language illustrations.

Services and Others includes customer solutions and support, consumables, nanotechnology/metrology activities, and related offerings. It contains economically different streams: recurring service and consumables tied to the installed base; software/data solutions that may become more repeatable; and smaller product or emerging activities that can dilute near-term margin. This is not yet a classic high-margin software-services segment. Its FY margin was only 8.0%, and the TTM margin was 12.2%, versus 52.4% in Test System. FY segment income also included a JPY 2,504 million gain from a partial divestiture, so trend analysis should separate operations from transactions.

Geography reflects where customers take delivery rather than where the ultimate chip demand originates. Advantest reported 97.8% of FY2025 sales to overseas customers; Asia represented the overwhelming majority of sales, consistent with the location of leading foundries, memory manufacturers and OSAT capacity ([FY2025 results](https://www.advantest.com/document/en/investors/ir-library/result/E_FR_FY2025_FN.pdf)). This is operationally logical but creates concentration in Taiwan, South Korea and China, as well as sensitivity to export controls, regional disruptions and foreign-exchange translation.

3. Unit economics and operating leverage

For Test System, a revenue dollar begins with a high-value system configuration: mainframe, instruments, interface, handler or related equipment, software and engineering. Hardware has material and outsourced-production costs, but much of the differentiation comes from accumulated intellectual property, application engineering and software. The incremental economics can therefore be excellent when factories are running efficiently and product mix favors advanced SoC, AI/HPC or high-performance memory configurations. Conversely, R&D, field applications, global support and platform maintenance continue through a downturn, so lower volume can cause severe negative operating leverage.

The recent numbers show this clearly. Test System segment income margin rose from 38.4% in the year ended March 2025 to 50.9% in the year ended March 2026 and 52.4% on the June 2026 TTM base. Q1 FY2026 alone reached 57.2%. Advantest attributed the FY profit step-up to higher sales and a more favorable mix of high-margin products. Those margins should not be treated as an automatically recurring steady state: they embed unusually strong AI/HPC tester demand, tight high-end capacity and rich mix.

Services and Others has different economics. Field service, spare parts and consumables should benefit from the installed base and may be less volatile than new systems. However, support requires engineers and inventory close to customers, while newer software, interconnect and nanotechnology offerings carry development and go-to-market costs. The segment moved from a JPY 16,125 million loss in the year ended March 2025 to JPY 8,758 million profit in the year ended March 2026. Its current profitability is improving but small relative to the core; it should not be assumed to offset a deep tester downcycle.

The statutory bridge is important. For the June 2026 TTM period, segment income totaled JPY 597,172 million before JPY 27,276 million of elimination/corporate costs and JPY 4,738 million of share-based compensation, producing JPY 565,158 million of statutory operating income. This is a 45.9% operating margin on JPY 1,232,307 million of revenue. Free cash flow was JPY 384,627 million after both property, plant and equipment and intangible purchases. The cash conversion and low physical capex burden show that the economic engine is intellectual property, engineering and customer access, not ownership of semiconductor fabs.

4. Industry value chain and test-intensity mechanics

The simplest way to understand tester demand is as capacity math. Required test capacity rises with semiconductor unit volume, the number of test insertions, average test time and the fraction of output that needs a particular test, and falls with greater parallelism and equipment utilization. This is not a reported accounting formula, but it captures the industrial logic:

`tester demand ∝ units × test insertions × test time ÷ parallelism ÷ utilization`.

The "test intensity" of a chip is therefore more important than semiconductor revenue alone. A leading-edge AI accelerator may require more pins, higher-speed digital channels, precision power delivery, large current, more complex patterns, thermal control, high-bandwidth-memory validation and system-level coverage. Advanced packaging and chiplets can add known-good-die requirements before assembly and new tests after integration. More expensive devices also raise the economic value of detecting defects early. Advantest says that as device structures become more complex, the number of test items and required test time increase; its [ATE industry primer](https://www.advantest.com/en/semiconductor-basics/automated-test-equipment/) also explains wafer test, final/package test and system-level test.

There is an important counterforce: customers constantly try to lower cost of test. Better parallelism, shorter programs, adaptive test, data analytics and higher utilization can reduce equipment needed per unit. Advantest can win economically by supplying the instruments and automation that deliver those efficiencies, but success may partially cannibalize hardware capacity demand. Investors should distinguish **value captured per device** from **minutes of raw test time**. A sustainable outcome is not simply ever-longer tests; it is Advantest remaining essential as complexity rises while helping customers lower total cost and improve yield.

ATE demand spans development and production. Engineering systems are purchased early to characterize silicon and debug designs. High-volume systems follow when wafer starts and packaging capacity ramp. Orders can therefore lead production, arrive in customer-specific waves, and reverse quickly if a product ramp slips or test floors are overbuilt. The installed base later generates upgrades, instruments, interfaces and service. The sequence makes bookings, lead times, customer capex, utilization and the conversion of design wins into volume capacity more informative than one quarter of recognized revenue.

5. Customer, end-market and geographic concentration

Advantest is diversified across customer types but concentrated in economically linked end markets and a small number of leading semiconductor companies. Historical primary disclosure illustrates the point: for the year ended March 2025, Taiwan Semiconductor Manufacturing and Samsung each represented at least 10% of group sales, at JPY 96,158 million and JPY 87,734 million respectively ([FY2024 annual securities report](https://www.advantest.com/document/en/investors/ir-library/report/IR_SecuritiesReport_83rd_en.pdf)). The precise major-customer roster can change with device ramps, but concentration is structural because the most advanced logic and memory production is itself concentrated.

This concentration has two faces. Deep co-development with leading customers gives Advantest early visibility into test requirements, improves its platform and can propagate a design win across foundry and OSAT capacity. Yet a delayed accelerator, a customer's digestion of installed test capacity, share loss on one platform, or a purchasing change at one foundry or memory producer can materially affect revenue and mix. Orders placed by a foundry may ultimately depend on demand from a handful of fabless AI companies, so customer concentration can be economically higher than the legal invoice concentration suggests.

AI/HPC and high-performance DRAM/HBM are the current growth center. The year ended March 2026 and June quarter benefited from increased production of increasingly complex AI/HPC devices and data-center memory. Consumer smartphone demand was firmer, but automotive and industrial test had previously been soft. The portfolio covers SoC, memory, power, automotive, mobile/RF and industrial applications; nevertheless, current earnings are unusually exposed to the AI capital-spending cycle. Asian revenue concentration adds geopolitical and supply-chain risk, while a globally distributed customer-support organization is needed to coordinate North American design owners with Asian manufacturing partners.

6. Competitive landscape and market position

Semiconductor ATE is a concentrated market led by Advantest and Teradyne. Advantest's January 2026 Investors' Guide says the pair account for roughly 80% of the tester market. Advantest estimated its own CY2024 overall share at 58%, comprising 56% in SoC testers and 63% in memory testers; it also estimated the combined SoC and memory tester market at about USD 6.0 billion. These are company estimates, not independently audited market data, and should be labeled accordingly ([FY2024 tester-market presentation](https://www.advantest.com/document/en/investors/ir-library/result/E_BIZ_250425_note_amended.pdf)).

Competition is decided by technical coverage, cost of test, reliability, service and the customer's existing ecosystem. A platform such as V93000 is modular: customers can add instrument cards and reuse test programs, interface hardware,

engineering knowledge and training across generations. Compatibility lowers qualification time and protects prior investment, creating switching costs without making the business invulnerable. The breadth of SoC and memory capability, plus handlers, interfaces and system-level test, lets Advantest sell a coordinated test cell rather than a standalone box.

Market share can still move sharply. A competitor can win the test insertion for a new chip family; customers may dual-source to preserve negotiating leverage; and local Chinese suppliers are expanding from low-end systems. Advantest itself said that CY2024 SoC share declined three percentage points as Chinese suppliers gained in the low end even while it remained strong in high-end SoC. Memory leadership also depends on retaining close alignment with a few major DRAM/HBM makers. The moat is strongest where measurement performance, time-to-yield, installed-base compatibility and field support matter most, and weaker in standardized, lower-performance categories where price dominates.

7. Technology roadmap and AI/HPC exposure

The V93000 family is the flagship SoC platform. Its EXA Scale generation is designed for high pin counts, advanced digital speeds and rising test-data volumes. Advantest highlights the proprietary Xtreme Link communications architecture and compatibility across platform generations; the core customer proposition is scale from engineering to high-volume wafer sort and final test while preserving test assets ([V93000 product page](https://www.advantest.com/en/products/semiconductor-test-system/soc/v93000/)). Memory systems emphasize parallelism because DRAM and NAND are high-volume, repetitive test workloads. AI systems require both advanced logic testing and high-performance memory testing, so Advantest participates on two sides of the same compute architecture.

The roadmap extends beyond conventional ATE. Handlers and thermal-control systems address the heat and power density of advanced devices. System-level-test platforms run operating systems or functional workloads to expose failures missed by structural tests. Silicon-validation tools move Advantest upstream into design verification. Cloud and data offerings aim to use fleet-wide test data to improve yield, equipment effectiveness and adaptive testing. Management frames this as "Automation of Test": joining hardware, interfaces, handling, software and data rather than selling isolated machines ([mid- to long-term management policy](https://www.advantest.com/en/about/management-policy/)).

AI/HPC exposure is thus more than unit growth. The favorable thesis is that complexity increases faster than chip volume, forcing more expensive instruments, power/thermal capability, interfaces, insertions and system-level coverage. The adverse thesis is that current demand reflects a concentrated build-out: once leading customers install enough capacity, utilization and efficiency gains could defer new orders even if AI chip shipments keep growing. A robust analysis must track test content, customer capacity and platform share separately.

8. Manufacturing, capital intensity and R&D model

Advantest is not a wafer-fab owner. Its physical capital needs are modest relative to revenue: in the year ended March 2026, property, plant and equipment purchases were JPY 33,012 million, or about 2.9% of sales; including JPY 3,018 million of intangible purchases, total reported investment remained small relative to operating cash flow of JPY 335,182 million. On the June 2026 TTM basis, operating cash flow was JPY 425,486 million and free cash flow JPY 384,627 million.

The real reinvestment burden sits in R&D and people and is expensed through the income statement. Tester platforms require multi-year development in high-speed digital, analog/RF, power, measurement, software, interfaces and thermal engineering before customer revenue arrives. Field application engineers then customize and qualify programs. Platform reuse is attractive: one architecture can support multiple devices and generations, while add-on instruments and interfaces monetize the installed base. But underinvestment can be fatal because missing a technology transition can exclude a vendor from the next volume ramp.

Manufacturing uses a network of suppliers and outsourced partners from components through assembly and logistics. That keeps owned capex low but introduces dependency on specialized electronics, precision components and external capacity. Advantest's [risk disclosure](https://www.advantest.com/en/investors/management-policy/risk/) explicitly identifies semiconductor-capex cyclicality, product-lifecycle execution and supply-chain coordination. In Q1 FY2026, management said it was expanding production capability across the supply chain to meet strong tester demand. This can support near-term delivery, but it also raises commitments and inventory risk if customer demand turns.

9. Cyclicality, balance sheet and capital allocation

The business is structurally cyclical despite high current margins. The last four fiscal years show the amplitude:

Fiscal year ended	Revenue (JPY m)	Operating income (JPY m)	Operating margin
31 Mar. 2023	560,191	167,019	29.8%
31 Mar. 2024	486,507	87,662	18.0%
31 Mar. 2025	779,707	228,161	29.3%
31 Mar. 2026	1,128,610	499,120	44.2%
TTM to 30 Jun. 2026	1,232,307	565,158	45.9%

Revenue fell 13.2% in the year ended March 2024, while operating income nearly halved; the following two years produced very strong rebounds. This is classic fixed-cost operating leverage amplified by mix. Management therefore evaluates its mid-term goals using multi-year averages rather than one-year peaks. Useful leading indicators include customer capex plans, AI accelerator and HBM ramps, tester utilization, lead times, orders/bookings, capacity additions at foundries and OSATs, and share at named device programs. Inventory and receivable growth relative to sales can indicate whether the supply chain is getting ahead of final demand.

The balance sheet provides resilience. At 30 June 2026, cash was JPY 413,124 million and gross debt including leases was JPY 108,166 million, leaving JPY 304,958 million of net cash. However, debt rose after JPY 88,930 million of zero-coupon convertible bonds was issued in April 2026; the embedded stock-acquisition rights were separately recorded in equity. Dilution and the use of proceeds require explicit downstream analysis rather than treating the issue as ordinary debt.

Capital returns are meaningful but subordinate to growth investment. On the June 2026 TTM basis Advantest spent JPY 141,092 million on repurchases and JPY 42,809 million on dividends, versus JPY 384,627 million of free cash flow. The company's stated policy prioritizes R&D, capacity and M&A while using dividends and buybacks flexibly ([dividends and returns policy](https://www.advantest.com/en/investors/shares-and-corporate-bonds/profits/)). A peak-cycle investor should test whether repurchases are countercyclical and value-accretive, and whether acquisitions or strategic investments introduce goodwill, integration or valuation risk.

10. Key risks and failure modes

- **AI/HPC digestion:** major customers may have bought capacity ahead of production. A pause can compress revenue and high-end mix even if long-run AI demand remains intact.
- **Customer/program loss:** losing qualification at a leading fabless designer, foundry or memory producer can propagate across multiple purchasing entities and years of production.
- **Test-efficiency paradox:** greater parallelism, adaptive test and utilization may reduce systems required per chip faster than complexity increases value captured.
- **Technology miss:** failure to meet speed, power, thermal, interface or system-level requirements at the correct time can strand an installed base and shift share to a competitor.
- **Peak-margin extrapolation:** the TTM Test System segment margin above 52% reflects exceptional volume and mix. Fixed R&D and support costs make downside nonlinear.
- **China localization and controls:** domestic suppliers can gain in lower-end categories, while trade restrictions may limit customer access, components or service.
- **Supply-chain execution:** specialized-component shortages can delay revenue; aggressive capacity expansion can leave inventory and commitments when orders turn.
- **Concentration and geography:** leading-edge manufacturing is concentrated in Asia and among a few customers, exposing the company to earthquakes, geopolitical conflict and procurement shocks.
- **Capital-allocation and dilution:** the 2026 convertible, strategic investments, acquisitions and buybacks can alter per-share economics even when operating performance is strong.
- **Operational and cyber resilience:** test operations and global support depend on secure data and systems; Advantest's risk page notes a February 2026 cybersecurity incident and subsequent strengthening measures.

The most dangerous analytical failure is to treat current AI-linked earnings as a permanent base while treating every past downturn as irrelevant. The mirror-image mistake is to dismiss the entire margin expansion as cyclical and ignore genuine

market-share, platform and test-content gains. The next stage should decompose the earnings base into units, content, share, pricing/mix and supply utilization and then stress each independently.

11. Investor orientation and key questions

Advantest should be viewed as a high-quality, technology-intensive capacity supplier to the semiconductor test bottleneck, not as a smooth recurring-revenue compounder. Its platform position and current AI/HPC exposure are powerful, but the same concentration that produces extraordinary margins can produce a sharp downcycle. Services and software may gradually improve recurrence, yet the financial center of gravity remains Test System hardware and related configurations.

The most useful questions for subsequent underwriting are:

- How much of FY2025 and FY2026 demand reflects durable test content per device versus a temporary capacity build?
- What portion of current Test System margin is mix, scarcity pricing and utilization rather than structural platform economics?
- Which leading AI/HPC and HBM programs are single-sourced, dual-sourced or vulnerable at the next qualification?
- Can Services and Others earn an acceptable margin and become a meaningful installed-base annuity rather than a collection of adjacent activities?
- Does integrated ATE, handler, interface, SLT and data capability increase wallet share without making the company responsible for too much low-return hardware?
- Are customer tester utilization and order lead times normalizing before revenue and earnings reveal it?
- How quickly can the supply chain and operating-cost base flex in a downturn?
- How should the April 2026 convertible and embedded rights change diluted share count and per-share value through the 2031 horizon?

Those questions define the primer's central tension: semiconductor complexity can make testing a larger and more valuable part of the chip-production process, but Advantest monetizes that trend through a concentrated, cyclical capital-equipment model whose current profitability is far above its own recent trough.

Source note

Primary qualitative references include Advantest's [FY2025 financial results](https://www.advantest.com/document/en/investors/ir-library/result/E_FR_FY2025_FN.pdf), [FY2026 Q1 results library](https://www.advantest.com/en/investors/ir-library/result/), [Investors' Guide](https://www.advantest.com/document/en/investors/ir-library/investors-guide/Investors_Guide_2601E.pdf), [Integrated Annual Report 2025](https://www.advantest.com/document/en/investors/ir-library/annual/E_all_IAR2025.pdf), [ATE explainer](https://www.advantest.com/en/semiconductor-basics/automated-test-equipment/), [mid-term policy](https://www.advantest.com/en/about/management-policy/), and [risk factors](https://www.advantest.com/en/investors/management-policy/risk/). Market-share figures are Advantest estimates and are identified as such. No warehouse or cached source was used.

Appendix M - Management Assessment

Advantest Corporation (6857.T) — Management Assessment

Assessment date: 28 September 2026 **Gate: PASS One-sentence reason:** Advantest's management earns a PASS because a deeply experienced operating team protected R&D through the 2023 downturn, converted that spending into share and margin gains, allocated capital without chronic dilution, and communicated unusually candidly for a cyclical equipment supplier, while the remaining concerns—large strategic equity positions, a rapid capacity build, compensation design and convertible dilution—are concrete and monitorable.

Scope and evidence standard

This assessment uses fiscal years ending the following March (so **FY2025 ended 31 March 2026**). It combines the verified ER2 data package with live, current primary-source pulls: Advantest's [84th securities and business report](https://www.advantest.com/document/en/investors/ir-library/report/IR_SecuritiesandBusinessReport_84th_en.pdf), [August 2026 corporate-governance report](https://www.advantest.com/document/en/about/governance/corporate-governance/internal-control/CG_Report_20260805_E.pdf), [current leadership roster](https://www.advantest.com/en/about/management/), [executive-compensation policy](https://www.advantest.com/en/about/governance/corporate-governance/exec-compensation/), [Integrated Report 2025](https://www.advantest.com/document/en/investors/ir-library/annual/E_all_IAR2025.pdf), [84th AGM Q&A](https://www.advantest.com/document/en/investors/ir-library/convocation/QA84e.pdf), quarterly results/Q&A and live FMP transcripts. All key files were freshly archived and SHA-256 hashed in the [M evidence manifest](<C:/Users/Admin/OneDrive/GPT/ER 2.0/Advantest/raw/pulse-cio-20260928T080352+0800/m/m_evidence_manifest.md>). No cached web result was used as evidence.

The evidence supports a hard call, not a default-to-yellow judgment. Advantest is a cyclical capital-equipment company benefiting from an exceptional AI test-intensity wave; good outcomes alone do not prove good stewardship. The relevant question is whether decisions made before and during the cycle were rational, internally consistent and honestly disclosed.

1. Who is running the company

Role	Executive	Tenure and relevant evidence	Assessment
Group CEO and representative director	Douglas Lefever	Joined Advantest America in June 1998; executive officer from 2014; CEO of Advantest America from 2014; Group COO from January 2023; Group CEO since 1 April 2024.	Only about 2.5 years as CEO, but 28 years inside Advantest and roughly 12 years as an executive. He participated in the downturn response before becoming CEO, so the record is not a newly arrived executive taking credit for inherited momentum.
President and Group COO	Koichi Tsukui	Joined in 1987; became CTO in 2021, co-COO in 2023, and president/Group COO in April 2024.	Strong institutional and technical continuity; useful counterweight to a US-based CEO.
CFO	Hisako Takada	CFO since 1 April 2025 after investment-banking, corporate-finance and financial-advisory work, including advice on several Advantest acquisitions.	Relevant transaction skills, but only about 1.5 years in the role. Capital-allocation discipline under her leadership is not yet through-cycle proven.
Test System business	Juergen Serrer	CTO and business-group leader, supported by Toshiaki Adachi; specialist leaders run memory, the 93000 platform and Advantest Test Solutions.	The operating bench is technically credible and not visibly dependent on a single celebrity CEO.
Board chair	Yoshiaki Yoshida	Former Group CEO; non-executive inside director/chair since April 2024.	Separating chair and CEO is positive, but the chair is not independent. The board must demonstrate that continuity does not become deference.

The board has nine directors, five outside directors (55.6%), two women and two non-Japanese members. The three-person Audit and Supervisory Committee has two outside directors and an outside chair; the Nomination and Compensation Committee also has an outside chair and outside majority. FY2025 attendance was 100%, and disclosed board agendas included capital allocation, strategic investment, capacity, succession and compliance. Meetings lasting three to five hours

indicate substantive engagement, though time spent is not itself proof of challenge.

No dual-class structure or controlling shareholder weakens common-shareholder rights. Directors outside the audit committee face annual election; audit-committee directors have two-year terms. No obvious director overboarding appeared in the current roster. There was no reported material weakness or restatement in the reviewed filing set. Japan does not provide a directly comparable Form 4 trail, however, so absence of a disclosed cluster of insider sales should not be read as a fully verified negative finding.

2. Operating track record and cycle stewardship

Three decisions are particularly diagnostic.

Decision	Evidence known when made	Subsequent result	Judgment
Protect engineering through the downturn	FY2023 revenue fell to JPY486.5bn, operating margin to 18.0% and FMP ROIC to 12.7%, yet R&D increased to JPY65.5bn rather than being cut for optics.	R&D reached JPY78.1bn in FY2025; CY2025 SoC tester share was reported at 66%; FY2025 revenue reached JPY1,128.6bn, operating margin 44.2% and ROIC 42.6%.	Strong. Management preserved the option value of engineering capacity at the point when near-term returns looked weakest.
Expand tester capacity with a hybrid internal/EMS model	AI/HPC demand, longer test times and advanced packaging were tightening supply. Management moved from roughly 3,000 systems toward more than 5,000 and is pulling forward the route to 10,000.	FY2025 capex rose to JPY33.0bn, Test System revenue to JPY1,019.4bn (+49.3%), and Q1 FY2026 operating margin reached 51.7%.	Strong execution so far, but not yet through-cycle proven. A demand reversal could turn buffers and capacity into working-capital and utilization drag.
Broaden from ATE toward end-to-end test solutions	Management's stated strategy spans design enablement, wafer test, ATE, system-level test and burn-in.	Core ATE results are excellent, but Services & Others lost JPY16.1bn in FY2024 after a JPY21.4bn Essai impairment; FY2025 segment profit of JPY8.8bn included a JPY2.5bn divestiture gain.	Mixed. Strategic coherence is evident, but acquired/peripheral returns have not yet matched the core tester franchise.

This is better stewardship than simply riding an upcycle. Buybacks were almost stopped in FY2023 (JPY0.017bn) when operating performance and free cash flow were weakest, while R&D was maintained. The company then repurchased aggressively as cash generation recovered. That sequence—protect capability, preserve the balance sheet, then return capital—makes economic sense. The main unresolved test is whether today's much larger capacity and strategic-investment commitments remain disciplined when AI infrastructure growth normalizes.

3. Capital allocation, including the April 2026 convertible

JPY billions unless stated otherwise:

Fiscal year	Capex	R&D expense	Buybacks	Dividends	M&A cash outflow
FY2021	18.219	48.367	70.148	25.456	28.976
FY2022	23.588	60.094	50.042	25.418	3.505
FY2023	20.543	65.492	0.017	24.881	8.260
FY2024	17.414	71.399	50.080	27.320	3.790
FY2025	33.012	78.140	114.328	35.754	0.008
Five-year total	**112.776**	**323.492**	**284.615**	**138.829**	**44.539**

The hierarchy is sensible: internally funded R&D dominates acquisitions, and cash M&A was modest after the Essai warning. Diluted shares declined from 780.8m in FY2021 to 729.8m in the June 2026 trailing period, a 6.5% fall, so stock compensation has not produced chronic net dilution. FY2025 cash of JPY340.0bn against debt and leases of JPY20.2bn provided ample resilience.

Repurchase timing has also been rational with hindsight. The company bought 6.6439m shares from May–September 2025 for JPY70.0bn (about JPY10,536 per share), 2.0487m from November 2025–March 2026 for JPY44.2bn (about JPY21,588), and 0.7214m in April–May 2026 for JPY19.3bn (about JPY26,807), all below the JPY34,000 reference quote. This is evidence of price discipline, not proof of future returns. The dividend policy—stable annual dividend of at least JPY30, five consecutive increases and a Mid-Term Plan cumulative total-return ratio of at least 50%—balances resilience and participation, although the FY2025 JPY59 dividend left the payout ratio low because earnings rose unusually fast.

The April 2026 JPY100bn zero-coupon convertible must not be treated as free capital. It matures 28 March 2031, has a JPY36,000 conversion price and can create up to approximately 2.778m shares, about 0.38% of the current diluted base, if fully converted. Advantest allocated JPY50bn to expand capacity toward 7,500 systems by March 2029, JPY20bn to inventory by March 2027 and JPY30bn to next-generation test R&D by March 2028. The financing is strategically matched to uses and dilution is contained, but analysis should carry both the liability/equity split and fully converted share count; it should not count the cash proceeds in net cash and ignore the claim. Management's two-stage conversion restrictions improve protection against opportunistic conversion, not the fundamental obligation.

The sharper capital-allocation concern is strategic equity. At March 2026 the parent disclosed one listed strategic holding, Micronics Japan, at JPY1.386bn plus six unlisted holdings at JPY171m; subsidiaries also held JPY65.405bn of listed strategic shares, including Technoprobe and PDF Solutions, plus unlisted shares. By June, strategic investments reached JPY113.9bn and produced material below-the-line fair-value effects. The board says it tests rationale against capital cost, but also says quantitative holding effects are difficult to disclose. That is not yet sufficient. Partnership outputs, operating synergies and disposal criteria should be reported, and fair-value gains should never substitute for operating returns. The prior Essai impairment makes this a live governance issue.

4. Compensation and ownership alignment

For the Group CEO, target compensation is approximately one part base salary, one part annual bonus and four parts equity. Equity is normally one part restricted stock to three parts performance share units (PSUs). The three-year PSU formula weights EPS 80%, relative TSR 10% and sustainability 10%; annual cash bonus is driven by consolidated net income. Clawback/reduction applies for legal or internal-rule violations and material restatement. An outside-majority, outside-chaired committee recommends awards.

The design is substantially performance-linked but imperfect. EPS and TSR reward shareholder outcomes, yet neither ROIC nor free cash flow constrains investment intensity, acquisitions or working capital. FY2025's formula payment rate was 202.6%, and the CEO's final rate was 204.2% after board discretion, slightly above the nominal 200% schedule. The board explained the adjustment, but this is exactly the sort of discretion that should be rare and tightly justified.

Douglas Lefever received JPY1.217bn of FY2025 consolidated compensation: JPY129m base, JPY245m bonus, JPY347m restricted stock, JPY485m PSUs, JPY10m subsidiary base and JPY1m other. The company recommends—rather than requires—the CEO to hold stock worth four times base salary, with a five-year grace period. As of May 2026 he held only about 7,600 issued shares directly, with a much larger 170,400-share restricted-stock delivery interest disclosed separately. Vesting exposure is meaningful, but actual freely owned common stock is still modest; the board should disclose progress against the guideline. The reviewed English materials did not evidence a specific anti-hedging rule, so none is assumed.

Fiscal year	Share-based compensation (JPYbn)	Percent of revenue
FY2021	1.782	0.43%
FY2022	1.520	0.27%
FY2023	1.769	0.36%
FY2024	2.893	0.37%
FY2025	4.450	0.39%

Expense stayed below 0.5% of revenue in every year and the diluted share count fell. Accordingly, the right criticism is KPI design and ownership quality, not excessive stock issuance.

5. Guidance discipline, disclosure and candor

Management has been conservative rather than promotional. It repeatedly raised forecasts and did not cut them across the two completed annual cycles reviewed.

Cycle	Initial revenue / operating income guide	Subsequent revisions	Actual	Reading
FY2024	JPY525bn / JPY90bn	Jul: 600/138; Oct: 640/165; Jan: 740/226	779.7 / 228.2	Final guide was 5.4% low on revenue and 1.0% low on operating income. Initial guide was very conservative.

Cycle	Initial revenue / operating income guide	Subsequent revisions	Actual	Reading
FY2025	JPY755bn / JPY242bn	Jul: 835/300; Oct: 950/374; Jan: 1,070/454	1,128.6 / 499.1	Final guide was 5.5% low on revenue and 9.9% low on operating income. Margin leverage was still underestimated.
FY2026	JPY1,420bn / JPY627.5bn	Q1 raised to 1,714/846	Not complete	A 20.7% revenue and 34.8% operating-income increase after one quarter again signals cautious initial assumptions, not forecast precision.

Across the eight recent quarterly/full-year Q&A periods reviewed, management issued six in-period upward revisions and no cuts; both completed years also finished above final guidance. It frequently used conditional language, but anchored it to observable uncertainties: wafer starts, CoWoS and advanced-packaging capacity, memory recovery, test time, product launches and pull-ins. Specific examples improve trust. At FY2024 year-end it said a 60% gross margin would be difficult to sustain and identified mix/upgrades as drivers. At Q1 FY2025 it called the quarter "very special," acknowledged pull-ins and said extrapolation would be irresponsible. At Q1 FY2026 it disclosed that memory share could decline, that an inventory-obsolescence reversal aided margin, and that component inflation would be passed through only where contracts allowed. This is candid cycle communication.

Disclosure is above the Japanese equipment-company norm: market share, TAM, capacity, regional mix, customer concentration, segment data and forecast bridges are supplied. FY2025 filing disclosure identified Nvidia-related revenue of JPY243.735bn (21.6%) and TSMC revenue of JPY124.922bn (11.1%); the top five customers were 50% of sales versus 48% a year earlier. Management correctly avoids customer-specific commentary on calls, but the statutory concentration disclosure prevents investors from mistaking diversified end markets for diversified current revenue.

Important gaps remain. There is no consistent backlog/book-to-bill series, cancellation rate, unit-shipment/ASP bridge, GPU-versus-custom-ASIC mix, or service attach/retention metric. Guidance therefore demonstrates integrity better than it demonstrates granular visibility. The market should also resist rewarding every beat when the company's own initial forecasts repeatedly embed a large buffer.

6. Governance, strategic coherence and peer context

The governance structure is credible: majority outside board, independent committee chairs, one class of common stock, board review of strategic holdings and disclosed compliance channels. The group recorded 41 compliance incident/whistleblowing reports in FY2025 without reporting a material control failure; the existence of reports is healthier than a suspicious zero, but future reporting should distinguish substantiated cases and remediation. Related-party transactions involving directors require advance board approval.

The main structural caveats are a former CEO as non-independent chair, young tenure in the CFO role, rising strategic equity exposure, and management discretion within compensation. Cross-shareholdings are labeled strategic rather than passive, but the economic test is the same: retain only if risk-adjusted operating benefit exceeds the capital cost. The Micronics, Technoprobe and PDF Solutions positions may improve end-to-end test collaboration; the current public evidence does not yet quantify that benefit.

Relative to peers, Advantest's recent operating stewardship is strong. Teradyne's Greg Smith has been CEO since February 2023 and the company offers more granular US-style segment and ownership disclosure, including a stronger formal ownership guideline, but its diversified robotics/M&A record is mixed. Cohu's Luis Müller has led since 2014 and supplies a longer acquisition-integration record, but its handler/contactors/test model has generated lower margins and returns and depends more heavily on serial M&A. On five-year organic execution and capital efficiency Advantest ranks ahead; Teradyne remains the disclosure benchmark. This comparison supports, rather than substitutes for, the company-specific evidence.

7. Gate conclusion and monitoring conditions

PASS. CEO tenure in the top job is short, but Lefever's long company/executive history, Tsukui's technical continuity and the operating bench make the record attributable enough to assess. Management acted counter-cyclically when it mattered, converted R&D into market-share and margin gains, maintained a net-cash balance sheet, repurchased below the later market price, reduced the diluted share count and acknowledged rather than obscured volatility and concentration. Board structure and compensation are good enough to support trust, not flawless enough to stop monitoring.

The PASS should be revisited if any of the following occur:

- **Strategic investments fail to show operating value.** Require partnership milestones, incremental revenue/margin or clear disposal discipline; do not credit fair-value gains as execution.
- **Capacity outruns durable demand.** Watch inventory, working capital, utilization, free cash flow and ROIC as production scales toward 7,500–10,000 systems; sustained ROIC below roughly 20% without a clear recovery path would weaken the case.
- **Capital returns lose price discipline.** Compare future buyback prices with normalized earnings and fund capacity/R&D before distributions; the current record is good, not an unlimited mandate.
- **Compensation remains EPS-only at the operating level.** Add ROIC or free-cash-flow protection, constrain upward discretion and report CEO progress toward the ownership guideline.
- **Convertibles are excluded from dilution analysis.** Carry the potential 2.778m shares and the liability/equity treatment consistently until redemption, repurchase or conversion.
- **Disclosure deteriorates as concentration rises.** Maintain customer-concentration candor and add backlog/cancellation, unit/capacity and services-economics indicators where commercial sensitivity permits.

On the evidence available today, these are monitorable conditions rather than reasons to withhold a PASS.

Appendix W - Moat and 2046 Durability

Advantest Corporation — Moat and 2046 Durability

Ticker: 6857.T **Assessment date:** 28 September 2026 **Twenty-year test date:** 28 September 2046 **Source discipline:** Company historicals and margins come from the verified `data_package.md`. The competitive sections of both completed segment appendices were used. External context is linked to live issuer, competitor and product sources; no warehouse or transcript cache was used.

1. Moat taxonomy applied

Network effects — weak, with a useful ecosystem feedback loop rather than a true network. A V93000 does not become inherently more valuable merely because another customer owns one, so this is not a marketplace-style network effect. The weaker but economically relevant version is an installed-base ecosystem: a large fleet attracts trained test engineers, application knowledge, probe-card and handler compatibility, software tools, test IP, service coverage and customer-to-supplier feedback. That makes the platform easier to specify at another fabless designer, foundry or OSAT. Advantest's V93000 is present in both engineering and high-volume manufacturing, while major OSATs offer its capacity to fabless customers. The resulting availability matters, but Teradyne's IG-XL/UltraFLEX ecosystem has the same reinforcing mechanism; it is not exclusive.

Switching costs — strong in an active device program and moderate across generations. The defensible asset is not the metal cabinet. Customers build device-specific test programs, debug routines, characterization data, interface hardware, production recipes, engineer training and yield history around the tester. Advantest says V93000 probe cards, DUT boards and test programs can be reused across generations, preserving both hardware and engineering investment and accelerating qualification ([V93000 platform](https://www.advantest.com/en/products/semiconductor-test-system/soc/v93000/)). Training itself is multi-day and specialized in SmarTest, calibration, characterization and production integration, evidence that the operating knowledge is non-trivial. Changing platform during a volume ramp risks requalification, correlation errors, yield excursions and delayed time-to-market. The cost is highest for leading-edge GPU, custom ASIC, CPU, networking and HBM programs. It is not permanent lock-in: each new chip generation is a new design-win contest, and sophisticated customers deliberately dual-source or qualify alternatives.

Scale economies — strong in R&D, field coverage and high-end supply, but cyclical. Advantest's estimated CY2025 share was 66% in SoC testers, 61% in memory testers and 65% overall. SoC share rose about ten points while the market expanded to roughly USD 6.9 billion; these are management estimates, not audited third-party statistics ([CY2025 tester-market disclosure](https://www.advantest.com/document/en/investors/ir-library/result/JE_BIZ_260427_note.pdf)). Scale spreads multi-year instrument, software and platform development across more systems, supports application engineers near customers and makes a global spares network economical. It also improves purchasing priority and delivery capacity during ramps. Advantest expanded production capacity roughly threefold and combines EMS outsourcing for configurable volume products with in-house production for complex lower-volume work, creating flexibility without owning semiconductor-fab economics ([Integrated Annual Report 2025](https://www.advantest.com/document/en/investors/ir-library/annual/E_all_IAR2025.pdf)). However, capacity is not a moat if it becomes idle; it is an amplifier of technical wins, not a substitute for them.

Brand — meaningful as risk reduction, not consumer pricing power. In semiconductor test, "brand" means the procurement committee's confidence that the vendor will deliver, correlate, support and keep a production line running. Advantest has led parts of the tester market for decades and ranked highly in customer-satisfaction surveys, but this reputation must be re-earned at every technology transition. Its own risk disclosure states that inadequate ramp support or post-installation service could damage trust and exclude it from new projects ([FY2025 risk factors](https://www.advantest.com/en/investors/management-policy/risk/)). Brand therefore shortens the credibility hurdle; it does not allow an inferior cost-of-test solution to win indefinitely.

Regulatory protection — absent. Advantest has no exclusive license or legal franchise restricting entry. Export controls, local-content policy and national industrial strategy are more often hazards than protection: they can restrict access to Chinese customers or favor domestic Chinese equipment. Global safety, quality and calibration standards raise the minimum operating burden but apply to rivals too. The moat must stand on technology, qualification and service rather than regulation.

IP and proprietary know-how — strong enabling protection, but not a stand-alone fortress. The platform combines high-speed digital, analog/RF, power, thermal, signal-integrity, calibration, parallel-test and software knowledge. V93000 EXA

Scale uses proprietary communications technology, and SmarTest 8 controls development, characterization and production flows. Hardware products require three-to-six-year development cycles and typically remain at customers for ten to fifteen years, which rewards long roadmaps and backward compatibility. Patents can slow copying, but competitors can engineer different architectures. The harder-to-copy asset is the accumulated interaction among instruments, software, applications engineers and customer production data.

High-trust procurement — very strong at the leading edge. Test errors can scrap expensive packaged devices, permit field escapes or delay a multibillion-yen chip launch. The sales process begins during device development and requires coordination among the fabless designer, foundry, OSAT and test supplier. Advantest's cross-regional teams combine sales, system engineering, service and R&D, and its platform is already qualified at major manufacturing partners ([customer-value process](https://www.advantest.com/en/about/sustainability/society/responding-product-liability/)). This is the moat's most durable human component: a late entrant can quote a cheaper box but cannot instantly reproduce trusted correlation data, local applications support and successful ramp history.

2. Per-segment moat

Test System Business — strong today; credible for ten years; conditional over twenty. This segment was 90.3% of FY2025 revenue and virtually all segment profit. Its moat is the V93000/SmarTest platform, customer qualification, application engineering, broad installed base and the scale to develop and deliver instruments before a device ramp. Compatibility across generations protects customers' programs, boards, training and instruments. Advantest's estimated 66% SoC share is observable evidence that these advantages currently convert into wins, while its long memory-test record helps with HBM qualification. The moat should remain strong over five years and likely ten if Advantest keeps winning high-end insertions. The earliest break signal is not one weak quarter: it is loss of a major next-generation GPU/custom-ASIC/CPU or HBM platform, followed by declining high-end share despite a growing market. Over twenty years, survival requires the software and interfaces to migrate across new packaging, photonics and system-level test rather than preserving today's chassis.

Economically, leading-edge SoC test is a de facto Advantest–Teradyne duopoly with smaller specialists and Chinese challengers at particular layers. This is supportive because a new entrant must reproduce hardware, software, applications support and worldwide service together, but it also means Teradyne is an exceptionally capable alternative rather than a fragmented competitor. Teradyne's own filings identify Advantest as a principal semiconductor-test rival and emphasize the same concentrated-customer and rapid-technology risks ([Teradyne 2024 Form 10-K](https://investors.teradyne.com/sec-filings/all-sec-filings/content/0000950170-25-023784/ter-20241231.htm)).

Services and Others — moderate and uneven. Support benefits from an installed-base feedback loop: more testers create parts, calibration, software-update, engineering and uptime demand; good support then raises the probability of the next tester placement. Proprietary diagnostics, firmware access, certified parts and rapid escalation are difficult for generic service providers to match. Qualified interface boards and consumables can also carry switching costs because failure affects yield and throughput. Yet customers can self-maintain, independent firms can service mature equipment, and specialists such as Cohu and FormFactor can win interface or probe layers. Nanotechnology and other adjacencies do not automatically inherit V93000's moat. Five-to-ten-year durability is reasonable for advanced-system support; twenty-year durability depends on the installed fleet and paid software/service attachment. The earliest warning is support revenue growing below the active fleet for several years or clean segment margin failing to improve despite rapid installed-base growth.

The blended company moat is therefore weaker than the Test System headline suggests only modestly, because the less-defensible segment is under 10% of revenue and contributes little profit. More important is the reverse dependency: Services has no independent franchise large enough to cushion a Test System downcycle. Advantest remains a capital-equipment platform company with an attached service layer, not a recurring-services company.

3. Margin persistence evidence

The verified package provides five fiscal years of comparable consolidated history, not a full ten-year series; no longer series is invented. Consolidated operating margin was 27.5% in FY2021, 29.8% in FY2022, 18.0% in FY2023, 29.3% in FY2024 and 44.2% in FY2025, reaching 45.9% on the June 2026 TTM anchor. The FY2023 trough and FY2025 peak demonstrate pronounced operating leverage. Margin persistence means "profitable through a downturn," not "stable."

Current-taxonomy segment history begins in FY2022. Test System's exact disclosed segment margin was 36.6%, 26.7%, 38.4% and 50.9% from FY2022 through FY2025, then 52.4% TTM. A trough margin near 27% is meaningful evidence of a real profit pool, but the rise above 50% coincides with exceptional AI/HPC SoC mix, volume absorption and tight high-end capacity. Management itself previously cautioned that unusually high gross margin was mix-driven and difficult to sustain

([FY2024 Q&A](https://www.advantest.com/document/en/investors/ir-library/result/E_BIZ_250425_QA.pdf)).

Services and Others margins were 14.7%, negative 8.8%, negative 16.6% and 8.0% from FY2022 through FY2025, then 12.2% TTM. FY2024 included a JPY 21.393 billion impairment and FY2025 a JPY 2.504 billion divestiture gain, so neither year is a clean operating benchmark. This record does not yet establish a durable high-return service franchise. Overall, the numbers prove technology and switching-cost economics at Test System, but not that current consolidated margins persist through a full post-AI-capacity cycle.

4. AI disruption stress test

Test System is chokepoint economics and platform-adjacent, not a replaceable prompt-to-output workflow. Foundation models can help write tests, search documentation, diagnose failures and optimize test flows. They cannot replace calibrated instruments that source current, measure picosecond timing, handle high pin counts, control temperature and certify silicon at production throughput. More capable AI chips instead raise power, thermal, signal-integrity and packaging complexity. HBM adds testing after stacking and higher assurance needs; Advantest has stated that HBM test times are longer than standard DDR5 because density, stacking and test insertions increase ([HBM technical briefing](https://www.advantest.com/document/en/investors/ir-library/briefing/E_IR_Tech_Briefing_231129_QA.pdf)). This supports structural test intensity.

The offset is efficiency. Better multisite testing, parallelism, faster instruments, smarter program generation and higher utilization reduce the number of testers required for a given device volume. Teradyne's [UltraFLEXplus](https://www.teradyne.com/products/ultraflexplus/) claims throughput improvements that can reduce test cells by 15%-50%, while Advantest itself markets high parallelism and program optimization. Thus AI-driven complexity does not translate one-for-one into equipment revenue. The real unit is tester seconds per shipped good device after parallelism, not raw chip count or nominal test time.

Services and Others contains the most AI-exposed workflows. Routine troubleshooting, documentation search, program migration and data analysis can be automated. Advantest can capture the benefit if it embeds AI inside SmarTest, TE-Cloud and paid support; competitors or customers can capture it if tools become platform-neutral. Physical calibration, repair, spares, thermal interfaces and qualified consumables remain protected. The most exposed activity is human-delivered routine test engineering; the most protected is leading-edge Test System hardware plus production qualification. AI is more likely to change service delivery and tester productivity than to disintermediate the physical test chokepoint.

5. The 2046 test

Specific 2046 business description. On 28 September 2046, Advantest sells modular semiconductor validation and production-test cells spanning wafer, known-good-die, stacked-package, optical/electrical and system-level test. Fabless designers and hyperscalers pay for early engineering and test-program development; foundries, IDMs and OSATs buy scalable production capacity, instrumentation, handlers, interfaces and software licenses; all four groups pay for fleet orchestration, calibration, uptime and yield analytics. The legacy V93000 name may or may not remain, but its economic descendant preserves test programs, device interfaces and engineer knowledge across hardware generations. Test System still dominates profit, although "systems" increasingly means a software-controlled cell combining electrical, photonic, thermal and system-level measurements. Support and software are larger than today, while undifferentiated repair, generic consumables and marginal nanotechnology adjacencies have withered.

The payer's reason is concrete. A 2046 advanced package contains expensive compute dies, memory stacks and optical links; finding a defect before final integration, achieving yield quickly and avoiding a field failure is worth far more than the test fee. Customers choose Advantest because its qualified platform reaches production sooner, correlates across design and manufacturing locations, reuses validated content, and is supported wherever the customer's outsourced test capacity sits. Directionally, operating margin should be below the June 2026 peak but above the FY2023 consolidated trough—roughly a mid-30s through-cycle aspiration, not a forecast—because software/service mix and scale offset recurring R&D, price pressure and customer bargaining power.

This description is plausible because Advantest has already carried one platform across multiple generations, has an installed base measured in thousands, and is extending into silicon photonics, HBM, advanced packaging and cloud test engineering. It also survived prior industry and architecture cycles. The intact 2046 moat is compatibility plus trusted qualification and applications engineering, reinforced by scale; it is not a claim that today's AI accelerator mix persists.

2046 bear description. In the erosion case, Teradyne wins the next major compute platform and preserves program compatibility, Chinese suppliers move from mature domestic categories into competitive high-end SoC, and customers standardize more test logic in portable software while massive parallelism reduces hardware intensity. Advantest's installed base then becomes a legacy-service pool rather than a funnel for new instruments. Large customers use their concentration to dual-source and compress price, while support attachment remains undisclosed and weak. The company still sells testers in 2046, but at materially lower share and mid-teens-to-low-20s margins, earning respectable cyclic industrial returns rather than Gideon-grade high returns.

That outcome is credible rather than remote because a few platform wins drive demand and Teradyne remains technically strong. I assign it a material minority probability, roughly 25%-35%, too high for an unqualified twenty-year PASS. The moat is durable, but the return level is not yet de-risked across the coming platform and capacity cycle.

6. Competitive threat inventory

Threat	Mechanism	Segment(s) affected	Earliest observable signal	Plausibility
Teradyne wins next high-end platforms	UltraFLEXplus, IG-XL compatibility, photonics and HBM investments win new GPU, custom-ASIC, networking or memory insertions; customer dual-sourcing weakens V93000 leverage	Test System; then support	High-end SoC share falls below roughly 55%; named leading programs adopt the rival; Test System growth trails TAM for two years	High
Chinese suppliers climb from low-end	CCTech, AccoTEST and peers use local policy, lower price and domestic service to take mature categories, then reinvest into higher-speed mixed-signal and SoC	Test System lower end; interfaces and service in China	China share loss broadens beyond mature devices; local systems qualify at major OSATs; price/mix pressure appears before global share loss	Medium-high
Test productivity outruns complexity	Parallelism, portable test IP, AI-assisted programs and higher utilization reduce tester seconds per good device despite more insertions and longer nominal tests	Test System and routine engineering services	Tester TAM grows below advanced-device units for several years; utilization rises while new capacity orders flatten; upgrade revenue replaces full systems	Medium

Customer concentration is the transmission mechanism across all three threats. NVIDIA Group was 21.6% of FY2025 revenue, TSMC 11.1%, and the top five about 50%. One design loss, digestion pause or purchasing change can overwhelm gradual installed-base growth. Advantest's [risk disclosure](https://www.advantest.com/en/investors/management-policy/risk/) identifies Teradyne, CCTech, AccoTEST and other tester competitors and explicitly warns that major-customer decisions can affect performance rapidly.

7. Pricing power verification

Observable pricing power is weaker than the margin headline. Advantest does not disclose a clean series of list-price increases, realized ASP, churn, renewal rate, service attach rate, contract escalators or customer minimum commitments. The verified package also finds no recurring numerical backlog or book-to-bill series. Customer service agreements can bundle engineering support, module exchange, software updates, calibration and preventive maintenance, but public materials describe tailored packages rather than standardized escalators ([Customer Service Agreement](https://www.advantest.com/en/customer-services/uptime/csa/)). No evidence supports treating revenue as contractually protected.

There is clear **value capture through configuration and mix**. FY2021-FY2025 consolidated gross margin moved from 56.6%, 57.0%, 50.6%, 57.1% to 64.3%, then 65.7% TTM. The company absorbed component and logistics volatility while high-end SoC systems and profitable upgrades increased the mix. Yet management attributes current strength mainly to favorable mix, volume economies and limited inventory losses, not broad price increases. Sophisticated, concentrated customers buy on cost of test, and supplier risk disclosures acknowledge persistent price/performance competition. This supports economic pricing power after qualification—customers will pay for time-to-yield and reliability—but not unilateral contractual pricing power.

The proper moat claim is therefore: Advantest can earn premium margins when its technology solves a scarce high-value problem, and can sell upgrades into a compatible installed base. It has not demonstrated that it can raise like-for-like prices above inflation without volume or mix help. Pricing power is a **YELLOW evidence item**, not a failure, because the Test

System trough margin remained attractive; it nevertheless prevents a full moat PASS at peak earnings.

8. Moat verdict

Moat gate: YELLOW. Advantest has a concrete moat in Test System: multigeneration compatibility, qualified test programs and interfaces, application-engineering trust, high-end delivery scale and a global installed-base ecosystem. The 66% CY2025 SoC share and profitable cyclical trough support that conclusion. However, current returns also embed extraordinary AI/HPC mix, volume absorption and customer concentration, while observable like-for-like pricing power is limited and Services and Others has not established durable high margins.

2046 test: YELLOW. The 2046 payer and product are identifiable—designers and manufacturers pay Advantest to qualify and production-test increasingly complex semiconductor packages with lower time-to-yield and escape risk. The description can sustain high returns if compatibility and trusted qualification migrate into photonics, chiplets and system-level test. The unresolved question is whether Advantest retains leading programs through the next full downcycle and platform transition without current 50%+ segment margins or AI concentration.

Upgrade both gates to **PASS** if (1) high-end SoC share remains above roughly 55% through a completed downcycle and next major device generation, (2) normalized Test System segment margin remains at least around 30% without exceptional scarcity/mix, and (3) Services and Others posts clean double-digit margin with disclosed attachment, renewal or paid-software evidence. Downgrade to **FAIL** if high-end share falls below 50% for two consecutive years, a major AI/HBM platform loss spreads across customers, or a cycle-normalized Test System margin settles below roughly 25% while tester productivity consistently outruns test-intensity growth.

Appendix B1 - Test System Business

Advantest Test System Business — Segment Deep Dive

Ticker: 6857.T **Reporting scale:** JPY millions unless stated otherwise **Forecast anchor:** TTM ended 2026-06-30 **Horizon:** TTM+5 years ended 2031-06-30 **Sealed bridge SHA-256:** `ed42149f4b9060c0ce41bef9bdf494958af6c89ad3cf22d6963f8d096c5518d6`

0. Segment boundary and taxonomy note

Advantest changed to its current two-segment presentation in FY2025 and published a special recast covering FY2022 through FY2024. The Test System Business now comprises SoC and memory semiconductor test systems plus handlers and other mechatronics-applied products, device interfaces, and system-level-test solutions. Current-taxonomy dollar and profit comparisons are therefore valid from FY2022; FY2021 was not recast and is not spliced into the series. The segment boundary is stable across the modeled TTM and forecast horizon. All segment profit references use the sealed basis **Segment income (loss) (operating income (loss) before share-based compensation expense)**. Corporate/unallocated costs and the share-based-compensation bridge are not allocated into this segment. [data_package §1, paragraph 1 and taxonomy paragraph; §3a, bridge status and metric]

1. What this segment actually is

The Test System Business sells the equipment and associated configurations needed to determine whether semiconductors perform to specification before they reach end systems. The core task is not a simple pass/fail check. A modern AI accelerator, custom ASIC, server CPU, high-speed network device, HBM stack or advanced memory device must be exercised across power, timing, signal-integrity, thermal and functional conditions. The tester supplies stimulus, captures responses, runs test programs, and coordinates with probe cards, handlers and other interfaces at wafer sort and final test. System-level-test solutions extend verification closer to real operating conditions. The economic customer is the semiconductor producer or its manufacturing partner; purchases can be made by fabless chip designers, foundries, integrated device manufacturers and outsourced semiconductor assembly-and-test companies.

SoC Test Systems is the dominant product line. Advantest's V93000 platform and related configurations address advanced logic devices spanning GPU, custom ASIC, CPU, networking, communications, automotive and industrial applications. Customers buy a platform, instrumentation, software and configuration tailored to a device family. A common installed architecture matters because test programs, engineering know-how and hardware modules can be reused across generations, while additional capability can often be added without replacing the entire installed platform. Management describes V93000 as configurable across GPU, custom ASIC and CPU demand, which makes capacity more fungible than a single-purpose machine would be. [data_package §4, SoC row; §6 Test System rows "demand breadth" and "platform mix"]

Memory Test Systems test high-performance DRAM, HBM and non-volatile memory. The growth driver is not memory bits alone. HBM adds stacked-die complexity, expensive downstream packaging and a much higher cost of an escaped defect, while faster interfaces and tighter power and thermal envelopes raise the burden on test. The memory line remains cyclical because equipment demand responds to customers' capacity additions, utilization and technology transitions. The combination means structural test content can rise while annual tester revenue still falls in an inventory correction.

Other Systems is the disclosed aggregate for device interfaces, handlers, mechatronics and system-level-test solutions. These products move devices into the correct physical and thermal environment, connect them to the tester, and increasingly validate complete packages or systems. The aggregate is strategically connected to the tester platform, but it is not a homogeneous product line, and the issuer does not publish its internal revenue or profit mix. Treating this aggregate as a single forecast line avoids inventing economics for its undisclosed components. [data_package §1, composition; §4, Other Systems row]

Pricing is value-based but not immune to productivity pressure. A customer will pay for capability that enables a new device, shortens time to yield, or prevents loss of an expensive advanced package. However, the customer's relevant metric is cost of test per good device, not Advantest's revenue per tester. Parallel test, multisite efficiency, shorter test programs, faster instrumentation and higher utilization can reduce tester hours per unit. These productivity improvements are a feature of the platform and support customer retention, but they partially offset the demand created by more insertions and longer test time. The forecast therefore does not equate semiconductor-volume growth or capacity expansion one-for-one with tester revenue.

The go-to-market is technically intensive and concentrated. Qualification starts well before high-volume production; application engineers work with device designers and manufacturing partners to develop test programs and configurations. Once a platform and program are qualified, switching risks include requalification, yield excursions, engineering delays and disruption at OSAT/foundry partners. This favors incumbents, yet each major device generation creates a renewed design-win contest. The revenue model is predominantly capital equipment rather than recurring subscription revenue. Related support and consumables are reported in Services and Others, so they are not included here merely because they benefit from Test System's installed base.

2. Current economics — FY2025 and TTM

FY2025 Test System revenue was JPY 1,019,380m, up 49.3%, and **Segment income (loss) (operating income (loss) before share-based compensation expense)** was JPY 518,760m, a 50.9% margin on the exact metric. This was an exceptional mix year: SoC Test Systems contributed JPY 767,400m, Memory Test Systems JPY 171,500m and Other Systems JPY 80,500m. The mix was therefore approximately 75.3% SoC, 16.8% memory and 7.9% other. [data_package §3, Test System table, FY2025 column; §4 product rows]

The TTM ended 2026-06-30 is the forward anchor. Test System TTM revenue is JPY 1,112,461m, calculated from FY2025 revenue less Q1 FY2025 plus Q1 FY2026. Q1 FY2025 Test System revenue is JPY 240,519m, back-calculated from the disclosed Q1 FY2026 JPY 333,600m and 38.7% YoY; this is a mechanical TTM bridge, not an undisclosed historical observation. TTM **Segment income (loss) (operating income (loss) before share-based compensation expense)** is the sealed JPY 582,557m, yielding a 52.37% TTM margin. [data_package §5, Test System quarterly table, Q1 FY2026 row; §3a, TTM bridge row "Test System Business"]

For bottoms-up modeling, the same TTM bridge produces SoC revenue of JPY 835,696m and Memory revenue of JPY 186,004m. Other Systems is the residual JPY 90,761m required to tie exactly to the Test System TTM total. The SoC and memory bridges use the disclosed Q1 FY2026 revenue and YoY rates; the Other Systems residual is preferable to pretending its prior-year quarter was separately reported. TTM mix is about 75.1% SoC, 16.7% memory and 8.2% other. Rounding in the issuer's product charts is absorbed in Other Systems, leaving no artificial plug in the segment total. [data_package §4, FY2025 product rows and quarterly table; §5, Test System Q1 row]

Current demand is unusually strong. Q1 FY2026 Test System revenue reached JPY 333,600m, up 38.7% YoY. SoC revenue was JPY 259,600m, up 35.7%, Memory was JPY 48,000m, up 43.3%, and Other Systems was JPY 26,000m. Management raised consolidated FY2026 guidance after the quarter, but it did not publish a numerical product or Test System revenue guide. That matters: the segment model can reflect strong near-term momentum, but it cannot claim a contracted book of business. [data_package §4, quarterly table, Q1 FY2026 row; §5, quarterly trend and guidance paragraph]

The product-level profit mix is not disclosed. No credible revenue-weighted product-margin calculation is possible, so the model forecasts the exact segment profit metric at segment level and does not assign invented margins to SoC, memory or other systems. Likewise, unit shipments and realized ASP are not disclosed, and annual capacity is expressly not equivalent to sales. Numerical backlog, recurring order intake, book-to-bill and cancellation rates are also absent. [DATA GAP: no product-level profit, tester shipment-unit, realized-ASP, backlog, book-to-bill or cancellation-rate series; data_package §10]

Capital intensity is modest at the consolidated level but cannot be allocated cleanly to Test System. FY2025 consolidated PPE capex was JPY 33,012m, 2.9% of revenue, and R&D was JPY 78,140m, 6.9% of revenue. Calculated TTM R&D and presentation-basis capex were JPY 82,500m and JPY 39,200m. Advantest uses a hybrid in-house and outsourced/EMS manufacturing model; the partner volume split is undisclosed. This makes the economics asset-light relative to a wafer fab but not capital-free: instrument development, software, application engineering, inventory, supplier qualification and capacity buffers are real reinvestment needs. These company-wide figures provide context only and are not allocated into segment profit. [data_package §7 and §10]

3. Unit economics

Revenue begins with test demand measured in tester time and capability. At a high level, required tester capacity rises with semiconductor units, the number of test insertions, test time per insertion and configuration richness; it falls with tester utilization, multisite parallelism, faster instrumentation, software optimization and customer reuse of existing capacity. This framework is more useful than an invented units-times-ASP model because neither tester shipments nor realized ASP is disclosed.

AI/HPC pushes several positive terms at once. Advanced GPUs, custom ASICs and CPUs contain more compute, memory interfaces, high-speed I/O and power-management complexity. Yield learning is valuable because the packaged device may include expensive HBM and advanced packaging. Customers therefore test at multiple points and may run longer patterns, more bins and more stress conditions. Management specifically attributes demand to greater complexity, more test insertions and longer test times, and says AI-related applications were roughly 80% of SoC business in CY2025. The revenue benefit can appear as more systems, denser instrumentation, richer configurations or upgrades; the package does not split these effects. [data_package §6, "AI mix" and "test intensity" rows]

The offset is productivity. Both Advantest and Teradyne design platforms to test more sites in parallel and reduce overhead. Higher parallelism can raise throughput faster than device volume, while reusable test programs and configurable instruments can increase customer utilization. Teradyne describes multi-site testing and a universal, reconfigurable architecture as reducing cost of test; that is external competitive proof that customers actively demand efficiency, not a claim about Advantest's disclosed numbers. [Teradyne 2025 Form 10-K](https://investors.teradyne.com/sec-filings/all-sec-filings/content/0001193125-26-059002/ter-20251231.htm). The base case assumes test intensity remains a structural tailwind but is progressively absorbed by parallelism and installed-capacity productivity after the current build-out.

Gross profit depends on product and configuration mix, manufacturing absorption, component costs, inventory valuation and pricing. Advanced SoC configurations appear economically favorable today: consolidated gross margin rose to 69.5% in Q1 FY2026, and management cited favorable product mix and economies of scale. Yet full-year guidance assumed 66%-67% consolidated gross margin because of component inflation, more inventory valuation losses and mix normalization. The segment profit metric sits after segment operating costs but before share-based compensation; no segment gross margin is disclosed. Accordingly, the forecast translates these disclosed forces into segment-margin paths without asserting a product gross margin. [data_package §5, gross-margin paragraph; §6, "gross margin" row]

Variable manufacturing costs include electronic components, test-head and instrument assemblies, contract manufacturing, logistics, installation and warranty. Fixed and semi-fixed costs include R&D, software platforms, engineering, applications support, sales infrastructure and the internal portion of manufacturing. Capacity expansion lowers unit cost when absorbed, but buffers can reverse that leverage in a downturn. Management's plan to exceed 5,000 V93000 systems of throughput and pull in a roadmap toward about 10,000 systems a year creates valuable supply optionality; it is not a shipment forecast. A cyclical shortfall against that expanded capability would raise under-absorption and inventory risk.

Pricing power comes from solving a technically binding customer problem and from the cost of failure. A high-end tester is small relative to the value of a leading-edge production line and the downstream cost of a defective advanced package. That supports premium pricing when Advantest has the required performance and a qualified program. Pricing power weakens where devices are mature, test requirements are standardized, customers can port programs, or a competitor offers enough performance at a lower cost. Chinese suppliers are most immediately relevant in cost-sensitive analog, power and mixed-signal categories, but their announced move into SoC broadens the long-term threat.

R&D reinvestment is essential because the moat depreciates technologically. New interfaces, chiplets, high-bandwidth memory, silicon photonics and co-packaged optics require new instrumentation and software. Test coverage must keep pace with signal rates and power density without making cost of test uneconomic. The first large Advantest ATE order for silicon-photonics volume production is an adjacency signal, but the order value and margin are not disclosed and are not inserted into the forecast as a separate line. [data_package §6, "technology adjacency" row]

4. Competitive dynamics

The global high-end semiconductor-test market is concentrated. Advantest's own estimate puts its CY2025 SoC tester share at 66%, up roughly ten percentage points, in a CY2025 SoC tester market of about USD 6.9bn. Its total tester share was about 65%, while memory tester share was 61%. These are issuer estimates, not audited market statistics, but they show the scale of the current position and also warn against extrapolating share gains indefinitely. [data_package §0a, semiconductor KPI table]

Teradyne is the direct global competitor. Its FLEX, UltraFLEXplus and J750 families span complex compute, networking, mobile, automotive, industrial and high-volume devices. Teradyne reported that 2025 Semiconductor Test revenue grew 18.8%, driven mainly by AI compute and integrated system test; it also said AI-related demand represented the majority of Semiconductor Test revenue in the second half. That is important competitive evidence: AI test intensity benefits more than one vendor, and Teradyne is investing to regain growth rather than conceding the market. Its UltraFLEXplus platform emphasizes high-efficiency multisite test and reconfigurability, while recent photonics and high-speed-I/O investments seek to

extend the platform into emerging AI interconnect needs. [Teradyne 2025 Form 10-K](https://investors.teradyne.com/sec-filings/all-sec-filings/content/0001193125-26-059002/ter-20251231.htm)

Chinese competition is developing from lower-complexity and cost-sensitive categories toward broader SoC capability. AccoTEST is a business unit of Beijing Huafeng Test & Control Technology and describes itself as an ATE supplier covering analog, power, mixed-signal and SoC. Its STS8600 is marketed for SoC, FPGA, wireless, chiplet and high-performance AI applications and uses a liquid-cooled test head. [AccoTEST corporate profile](https://www.accotest.com/corporate/) and [STS8600 product page](https://www.accotest.com/products/sts8600/). Product claims do not establish parity with V93000 in leading-edge volume production, but they do show direction. Domestic-equipment policy, local service and lower cost could accelerate penetration first in China-centric, mature or less demanding applications, then fund movement up the performance curve.

Memory competition is similarly difficult. Teradyne says its 2025 memory revenue remained stable despite a smaller overall market, supported by HBM and DRAM final-test share gains. That means HBM is not an Advantest-exclusive growth pool. Buyers can dual-source platforms or qualify competitive solutions to improve resilience and bargaining power. Memory equipment is also cyclical: a transition can create a surge in tester content, followed by a pause once customer capacity is installed.

Entry barriers remain high at the leading edge. They include precision analog and digital instrumentation, high-speed signal integrity, thermal and power delivery, software, decades of device coverage, application-engineering teams near customers, worldwide service, production capacity and credibility under high-volume ramps. Qualification history is especially valuable because a tester error can create yield loss, escape defects or delay a multibillion-yen product launch. Still, barriers do not eliminate substitution. More efficient parallelism can substitute for incremental tester units; system-level test can shift where economics are captured; and customer-designed test flows can reduce dependence on a specific supplier.

Customer concentration amplifies the contest. In FY2025 NVIDIA Group was 21.6% of Advantest revenue and TSMC 11.1%; the top five customers were about 50%. These are consolidated disclosures but are economically relevant because Test System represented 90.3% of FY2025 consolidated revenue. A platform win at NVIDIA or through TSMC-linked manufacturing can create scale, feedback and supplier prioritization; the reverse can remove a large revenue block quickly. [data_package §1, customer concentration paragraph and segment table]

5. Moat at the segment level

The Test System moat is real but conditional. Its strongest element is platform entrenchment. Once a customer has test programs, engineering staff, instruments and production flows built around V93000, migrating is expensive and risky. The installed knowledge resides not only in hardware but in software, libraries, debug routines and the operating habits of customers and manufacturing partners. A platform used across GPU, custom ASIC and CPU programs can spread R&D and support costs across applications and let Advantest respond to whichever compute architecture grows.

The second element is co-development at the technological frontier. Test must often be designed while a semiconductor is still being developed. A supplier that sees early requirements can produce the correct instrument and help the customer reach yield sooner. That relationship is difficult for a late entrant to reproduce on the active generation. Advantest's share and current AI/HPC position suggest it has earned this access, although the package does not disclose design-win duration or customer-specific contracts.

The third element is scale. A 66% estimated SoC share supports larger R&D budgets, deeper applications coverage, a broader installed base and purchasing leverage. The capacity roadmap toward roughly 10,000 V93000 systems per year can also matter during a constrained ramp: being able to deliver may win business that technical specifications alone would not. Management says the timing is being pulled in but did not provide a revised date, so the model uses the capacity plan as enabling evidence rather than a unit forecast. [data_package §0a, capacity KPI; §6, "capacity" and "near-term throughput" rows]

The moat does not guarantee the present margin. Test platforms face determined competition, customers are concentrated and technically sophisticated, and each new generation requires fresh investment. The current 52.37% TTM segment-profit margin benefits from an unusually rich SoC/AI mix and volume absorption. Parallelism and productivity transfer part of test-intensity economics back to customers. Teradyne's AI resurgence and Chinese suppliers' expansion into SoC show that both premium and value flanks are contested. The durable moat conclusion is therefore "high switching costs and innovation scale support above-industry economics," not "current share and peak margin persist unchanged for a decade."

6. Historical growth rates

The table reproduces the finest current-taxonomy dollar disclosure. "Three-year CAGR" means the two-year compound rate from FY2023 to FY2025 because those are three annual observations. Other Systems has only two comparable annual observations; its FY2023 old-taxonomy amount is deliberately excluded. Every amount and growth cell identifies its data-package row.

Product / sub-segment	FY2023 revenue	FY2024 revenue	FY2025 revenue	Three-year CAGR	Most recent YoY	Data package cite
Test System Business	JPY 397,622m [§3 Test System revenue row, FY2023]	JPY 682,819m [§3 Test System revenue row, FY2024]	JPY 1,019,380m [§3 Test System revenue row, FY2025]	60.1% [calculated from §3 cited endpoints]	49.3% [§3 Test System YoY row, FY2025]	data_package §3, Test System table
SoC Test Systems	JPY 245,600m [§4 SoC row, FY2023]	JPY 440,400m [§4 SoC row, FY2024]	JPY 767,400m [§4 SoC row, FY2025]	76.8% [calculated from §4 cited endpoints]	74.3% [calculated from §4 FY2024-FY2025]	data_package §4, product table row "SoC Test Systems"
Memory Test Systems	JPY 85,900m [§4 Memory row, FY2023]	JPY 157,700m [§4 Memory row, FY2024]	JPY 171,500m [§4 Memory row, FY2025]	41.3% [calculated from §4 cited endpoints]	8.8% [calculated from §4 FY2024-FY2025]	data_package §4, product table row "Memory Test Systems"
Other Systems	n/c [§4 Other row says FY2023 old taxonomy does not match]	JPY 84,700m [§4 Other row, FY2024]	JPY 80,500m [§4 Other row, FY2025]	n/m [§4 taxonomy limitation]	-5.0% [calculated from §4 FY2024-FY2025]	data_package §4, product table row "Other Systems"

Arithmetic checks: Test System JPY 682,819m × 1.493 = JPY 1,019,252m versus disclosed JPY 1,019,380m, a 0.01% rounding difference ✓. SoC JPY 440,400m × 1.743 = JPY 767,677m versus JPY 767,400m, a 0.04% rounding difference ✓. Memory JPY 157,700m × 1.088 = JPY 171,578m versus JPY 171,500m, a 0.05% rounding difference ✓. Other Systems JPY 84,700m × 0.950 = JPY 80,465m versus JPY 80,500m, a 0.04% rounding difference ✓. All are within the mandatory 2% tolerance.

The segment history shows a cycle, not a straight trend. On the recast basis Test System revenue fell 16.0% in FY2023, rose 71.7% in FY2024 and rose 49.3% in FY2025. The matching exact-metric margin moved from 36.6% in FY2022 to 26.7% in FY2023, 38.4% in FY2024 and 50.9% in FY2025. [data_package §3, Test System YoY and margin rows] That volatility is why the forward model uses explicit annual paths and a mid-horizon normalization rather than extending the 60.1% three-observation CAGR.

The most recent quarter remained stronger than a normalized horizon: Q1 FY2026 SoC grew 35.7% and memory 43.3%; Test System as a whole grew 38.7%. [data_package §4, quarterly product table, Q1 FY2026 row; §5 Test System quarterly table, Q1 FY2026 row] The annual SoC and memory CAGRs therefore describe a ramp from a depressed base into an AI/HPC and HBM investment surge. They are not reasonable five-year steady-state assumptions.

7. Management guidance and commentary

The following is the complete Test System forward-commentary set in data_package §6. Quotes are reproduced verbatim from that sealed package; no transcript was re-fetched.

- **Demand breadth — Q1 FY2026, 2026-07-29, Douglas Lefever:** "we're seeing very strong demand across all of those areas, GPU, custom ASIC and CPU." [data_package §6, Test System bullet "demand breadth"] Interpretation: the current driver is broader than one accelerator architecture, supporting a high TTM+1 SoC growth assumption. It does not remove customer concentration because NVIDIA and TSMC remain individually large.

- **Duration — Q1 FY2026, 2026-07-29, Douglas Lefever:** "We do see that to be sustainable throughout this year and into next year." [data_package §6, Test System bullet "duration"] Interpretation: visibility supports positive growth in the first two forecast years, but this is not backlog. With no numerical orders or cancellation data, later-year demand must be scenario-based.

- **Platform mix — Q1 FY2026, 2026-07-29, Douglas Lefever:** "since our 93000 platform is so prolific and being used across the industry, across all of the different compute applications, it really doesn't matter where that growth comes from." [data_package §6, Test System bullet "platform mix"] Interpretation: platform breadth reduces GPU-versus-ASIC-versus-CPU allocation risk. It does not protect against an aggregate AI-capex slowdown or a competitive platform loss.

- **Capacity — Q1 FY2026, 2026-07-29, Douglas Lefever:** "we had stated a 10,000, 93000 per year by the end of 2028, early '29. And we're pulling that in." [data_package §6, Test System bullet "capacity"] Interpretation: management is increasing supply capability ahead of demand, removing a possible growth constraint in bull and base cases. The revised timing is undisclosed and is not invented.

- **Near-term throughput — Q1 FY2026, 2026-07-29, Douglas Lefever:** "For 5000, it's safe to assume that we're going to flow right through that level at this point in time." [data_package §6, Test System bullet "near-term throughput"] Interpretation: current production is above an earlier threshold, but the company explicitly warns capacity includes buffers and does not equal sales. The model never multiplies systems by an invented ASP.

- **Gross-margin drivers — Q1 FY2026, 2026-07-29, Douglas Lefever:** "the product mix is favorable" and higher volume is "yielding big economies of scale for us as well." [data_package §6, Test System bullet "gross margin"] Interpretation: record mix and absorption explain current profitability. The same answer cited bill-of-material inflation and memory pricing, so the base case normalizes margin rather than holding the TTM peak.

- **AI mix — Q3 FY2025, 2026-01-28, Douglas Lefever:** "Roughly in '25, we see that as around 80% of our SoC business, and we see that continuing into 2026." [data_package §6, Test System bullet "AI mix"] Interpretation: SoC's current mix is highly exposed to AI/HPC. This supports near-term configuration richness but raises peak-mix and capital-cycle risk.

- **Test intensity — Q3 FY2025, 2026-01-28, Douglas Lefever:** "we continue to see the complexities drive more test insertions and higher test times." [data_package §6, Test System bullet "test intensity"] Interpretation: test content can grow faster than semiconductor units. The model offsets this with rising parallelism and customer productivity rather than treating every extra test second as permanent tester demand.

- **Supply limiter — Q3 FY2025, 2026-01-28, Douglas Lefever:** "from wafer starts to CoWoS capacity, to memory availability is really going to dictate the low and high range." [data_package §6, Test System bullet "supply limiter"] Interpretation: downstream demand can be capped by foundry, advanced-packaging or memory supply. The bear case combines these constraints with a subsequent customer digestion cycle.

- **Plan outperformance — Q2 FY2025, 2025-10-28, Douglas Lefever:** "the demand for semiconductor testers has surpassed initial projections established at the outset of our midterm plan 3." [data_package §6, Test System bullet "plan outperformance"] Interpretation: the plan was overtaken by a genuine upward surprise, validating a strong near-term forecast. It also means the anchor is above the original through-cycle plan and should not be treated as an ordinary base.

- **Record results — FY2025 full year, 2026-04-27, Douglas Lefever:** "our consolidated fiscal 2025 results delivered new records in sales, operating profit and net income." [data_package §6, Test System bullet "results"] Interpretation: FY2025 is a peak-like starting point. The base case explicitly includes revenue deceleration and profit-mix normalization, while the bear case includes a cyclical air pocket.

- **Silicon-photonics adjacency — FY2025 official notes, management team:** Advantest received its first large ATE order for silicon-photonics volume production. [data_package §6, Test System bullet "technology adjacency"] Interpretation: photonics could become an incremental content pool as AI interconnects move optical functions closer to compute. No order value is disclosed, so it is contained within Other Systems/SoC scenario growth rather than added as a fabricated revenue line.

There is no numerical management guide for SoC, Memory, Other Systems, Test System units, ASP, backlog or product profit. The only quantified near-term corporate guide in the package is consolidated FY2026 revenue of JPY 1,714,000m and statutory operating income of JPY 846,000m, which cannot be mechanically assigned to this segment. [DATA GAP: no numerical segment or product FY+1 revenue/profit guide; data_package §5 and §10]

8. Forward growth assumptions — bottoms-up product model

The displayed TTM anchors are JPY 835,696m for SoC, JPY 186,004m for Memory and JPY 90,761m for Other Systems. Forecast CAGRs compound exactly five years from 2026-06-30 to 2031-06-30 using the unrounded mechanical TTM bridge values; displayed product amounts are rounded to JPY1m and the Other Systems row absorbs any JPY1m display residual so every segment total ties. The CAGRs are outputs of the explicit annual growth paths below, not rounded rates used to generate the totals.

Base case

Product	Three-year historical CAGR	Latest YoY	Management FY+1 guide	Base CAGR TTM to TTM+5y	Justification
SoC Test Systems	76.8%	35.7% in Q1 FY2026	No numerical product guide; demand seen through next year	8.1%	AI/HPC test intensity and GPU, ASIC and CPU breadth sustain two strong years; parallelism, installed capacity, 66% share and peak-mix normalization reduce later growth.
Memory Test Systems	41.3%	43.3% in Q1 FY2026	No numerical product guide; memory availability affects range	6.6%	HBM complexity and DRAM final-test content drive an early ramp; customer capacity digestion and competitive HBM share gains cap the five-year rate.
Other Systems	n/m due taxonomy	-5.0% in FY2025	No numerical guide; first large photonics ATE order disclosed	4.8%	Interfaces, handlers and system-level test grow with the installed fleet and advanced packaging; the aggregate lacks mix data and receives no speculative photonics step-up.

Base uses a two-stage mechanism. SoC grows 22% and 12% in the first two years as disclosed visibility and pulled-in capacity convert to shipments, then slows to 5%, 1% and 2%. The last three years reflect a much larger installed base, productivity from multisite parallelism, competition and no further assumed share gain from 66%. Memory grows 16%, 10% and 6%, slips 1% during digestion, then grows 3%. Other Systems grows 8%, 6%, 4%, 3% and 3%, less cyclically but without an invented photonics order value.

Bull case

Product	Three-year historical CAGR	Latest YoY	Management FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
SoC Test Systems	76.8%	35.7% in Q1 FY2026	No numerical product guide; breadth and duration positive	13.9%	AI compute broadens across accelerators, custom ASICs, CPUs and networking while test insertions rise; Advantest holds leading share and the 10,000-system roadmap prevents supply loss.
Memory Test Systems	41.3%	43.3% in Q1 FY2026	No numerical product guide; HBM supply is a swing factor	11.6%	HBM stacks, faster DRAM and advanced packaging create sustained test content; capacity expands without a severe digestion year.
Other Systems	n/m due taxonomy	-5.0% in FY2025	No numerical guide; silicon-photonics design win disclosed	8.2%	System-level test, handlers, interfaces and photonics scale with compute complexity; adoption is broad enough to exceed the base without assigning an undisclosed order.

Bull is not merely base with a higher terminal multiple. SoC's annual growth is 28%, 18%, 12%, 8% and 5%: the AI infrastructure cycle extends, new device generations require more test, silicon photonics adds content and capacity is available. Memory grows 24%, 15%, 10%, 6% and 4% as HBM demand and final-test intensity compound without a large correction. Other grows 12%, 10%, 8%, 6% and 5%. The distinct bull lever is sustained test content per device plus share retention; it does not require another ten-point share gain.

Bear case

Product	Three-year historical CAGR	Latest YoY	Management FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
SoC Test Systems	76.8%	35.7% in Q1 FY2026	No numerical product guide; external supply sets the range	-3.5%	One more growth year is followed by AI-capex digestion, a major design loss or share reversal, and productivity gains; only a partial recovery follows.
Memory Test Systems	41.3%	43.3% in Q1 FY2026	No numerical product guide; memory supply can constrain	-3.3%	HBM capacity overshoots, memory pricing weakens and customers absorb installed testers; competitive gains by Teradyne compound the downturn.
Other Systems	n/m due taxonomy	-5.0% in FY2025	No numerical product guide	-2.1%	Handlers, interfaces and system-level test track lower production equipment demand; photonics remains niche and price competition limits recovery.

Bear still respects management's near-term visibility: SoC grows 8% and Memory 5% in TTM+1. It then imposes two explicit down years. SoC falls 18% and 12% as AI customers digest capacity, CoWoS or memory constraints delay deployment, parallelism raises throughput, and Teradyne captures a key program; it recovers only 3% and 4%. Memory falls 15% and 10%, then grows 2% and 3%. Other is flat, falls 8% and 5%, then recovers 1% and 2%. The distinct bear lever is not merely slower industry growth but the combination of customer concentration, share loss and underutilized expanded capacity.

Explicit annual growth path

Case and product	TTM+1 to 2027-06-30	TTM+2 to 2028-06-30	TTM+3 to 2029-06-30	TTM+4 to 2030-06-30	TTM+5 to 2031-06-30
Bear SoC	8%	-18%	-12%	3%	4%
Bear Memory	5%	-15%	-10%	2%	3%
Bear Other	0%	-8%	-5%	1%	2%
Base SoC	22%	12%	5%	1%	2%
Base Memory	16%	10%	6%	-1%	3%
Base Other	8%	6%	4%	3%	3%
Bull SoC	28%	18%	12%	8%	5%
Bull Memory	24%	15%	10%	6%	4%
Bull Other	12%	10%	8%	6%	5%

These paths make the deceleration testable. The base SoC rate falls from the disclosed 35.7% latest quarterly growth to 22%, then 12%, then low single digits. The comparable evidence is Teradyne's 2025 Semiconductor Test growth of 18.8% amid the same AI cycle, materially below Advantest's current SoC rate. This supports normalization without assuming demand disappears. The bear decline is sharper because it adds a customer/design-win shock and equipment digestion, not maturation alone. The bull remains below Advantest's historical 76.8% three-observation SoC CAGR in every year, acknowledging the much larger revenue base.

9. Forward margin assumptions — Segment income (loss) (operating income (loss) before share-based compensation expense)

Product margins are not disclosed, so no product-level margin is fabricated. The only defensible forecast is a segment-level schedule on the sealed basis. The TTM margin is 52.37%, calculated from JPY 582,557m of **Segment income (loss) (operating income (loss) before share-based compensation expense)** and JPY 1,112,461m of segment revenue. Corporate/unallocated expenses and share-based compensation are excluded here and remain for the synthesis bridge.

Red-team repair record — 2026-09-28: the prior Base schedule ended at 48.5% and JPY 779,093m of segment profit. That endpoint has been withdrawn because the issuer does not disclose product profit, realized ASP, unit shipments, backlog, book-to-bill or capacity utilization, so the earlier basis-point attribution to mix, components, R&D and scale could not be source-bound. The repaired Base terminal margin is **42.0%**, above FY2022's 36.6% and FY2024's 38.4% exact-metric margins but materially below FY2025's 50.9% and the TTM peak of 52.37%. This is the most defensible normalized/mid-cycle assumption supported by the disclosed history: it gives credit for the larger installed platform and leading-edge mix without treating scarcity, exceptional AI configuration and peak absorption as permanent. Revenue assumptions and the exact pre-SBC profit basis are unchanged.

Case	TTM margin	TTM+1 margin	TTM+2 margin	TTM+3 margin	TTM+4 margin	TTM+5 margin	Exact profit metric
Bear	52.37%	49.0%	43.0%	36.0%	38.0%	40.0%	Segment income (loss) (operating income (loss) before share-based compensation expense)
Base	52.37%	50.0%	46.0%	42.0%	41.0%	42.0%	Segment income (loss) (operating income (loss) before share-based compensation expense)
Bull	52.37%	53.0%	54.0%	54.5%	55.0%	55.0%	Segment income (loss) (operating income (loss) before share-based compensation expense)

Base mechanism: the horizon margin falls 1,037 bps from TTM. TTM+1 remains at 50.0% because management's near-term demand visibility, favorable mix and volume economies extend into the first forecast year, but the margin then falls to 46.0% and 42.0% as SoC growth slows, parallelism absorbs tester demand, the enlarged production footprint loses scarcity utilization, and component, inventory and R&D burdens normalize. It bottoms at 41.0% in TTM+4 when product growth is slowest, then recovers to 42.0%. The endpoint is deliberately near—but above—the 36.6%-38.4% FY2022/FY2024 range. No unsupported product-level margin or precise basis-point decomposition is used.

Bull mechanism: the horizon margin rises 263 bps. This remains a 20%-probability tail, not the normalized case. It is anchored to the already disclosed 52.37% TTM margin and management's cited favorable mix and scale economies; it requires rich AI/HPC configurations and high utilization to persist throughout the capacity expansion. The 55.0% terminal level is deliberately capped because customers demand cost-of-test improvements, Teradyne remains credible and sustained R&D is necessary. The bull does not assume product-level margins or allocate corporate costs.

Bear mechanism: the horizon margin falls 1,237 bps and troughs at 36.0% in TTM+3. After a final growth year, customer digestion leaves capacity buffers underabsorbed; adverse SoC/memory mix, pricing concessions, inventory charges and continued R&D compress the exact segment metric. Recovery to 40.0% reflects installed-base stickiness and cost actions, but not a return to peak mix. This path is consistent with the segment's own historical margin dropping to 26.7% in FY2023, while avoiding the more severe trough because the modeled revenue base remains larger.

10. Segment rollup — bottoms-up arithmetic

All revenue below is JPY millions. Product lines are compounded from the TTM anchors using Section 8's annual rates. Product sums equal segment revenue within rounding; profit equals segment revenue multiplied by the scenario margin in Section 9. No corporate or statutory-bridge adjustment appears in these tables.

Bear rollup

Bear case	TTM anchor 2026-06-30	TTM+1 2027-06-30	TTM+2 2028-06-30	TTM+3 2029-06-30	TTM+4 2030-06-30	TTM+5 2031-06-30
SoC Test Systems revenue	835,696	902,551	740,092	651,281	670,819	697,652
Memory Test Systems revenue	186,004	195,304	166,008	149,408	152,396	156,968
Other Systems revenue	90,761	90,762	83,501	79,325	80,119	81,721
Segment revenue	1,112,461	1,188,617	989,601	880,014	903,334	936,341
Segment income (loss) (operating income (loss) before share-based compensation expense) margin	52.37%	49.0%	43.0%	36.0%	38.0%	40.0%
Segment income (loss) (operating income (loss) before share-based compensation expense)	582,557	582,422	425,528	316,805	343,267	374,536

Base rollup

Base case	TTM anchor 2026-06-30	TTM+1 2027-06-30	TTM+2 2028-06-30	TTM+3 2029-06-30	TTM+4 2030-06-30	TTM+5 2031-06-30
SoC Test Systems revenue	835,696	1,019,549	1,141,895	1,198,989	1,210,979	1,235,199
Memory Test Systems revenue	186,004	215,764	237,341	251,581	249,066	256,538
Other Systems revenue	90,761	98,022	103,903	108,060	111,301	114,640
Segment revenue	1,112,461	1,333,335	1,483,139	1,558,630	1,571,346	1,606,377
Segment income (loss) (operating income (loss) before share-based compensation expense) margin	52.37%	50.0%	46.0%	42.0%	41.0%	42.0%
Segment income (loss) (operating income (loss) before share-based compensation expense)	582,557	666,668	682,244	654,625	644,252	674,678

Bull rollup

Bull case	TTM anchor 2026-06-30	TTM+1 2027-06-30	TTM+2 2028-06-30	TTM+3 2029-06-30	TTM+4 2030-06-30	TTM+5 2031-06-30
SoC Test Systems revenue	835,696	1,069,690	1,262,235	1,413,703	1,526,799	1,603,139
Memory Test Systems revenue	186,004	230,645	265,241	291,766	309,272	321,642
Other Systems revenue	90,761	101,653	111,818	120,763	128,009	134,410
Segment revenue	1,112,461	1,401,988	1,639,294	1,826,232	1,964,080	2,059,191
Segment income (loss) (operating income (loss) before share-based compensation expense) margin	52.37%	53.0%	54.0%	54.5%	55.0%	55.0%
Segment income (loss) (operating income (loss) before share-based compensation expense)	582,557	743,054	885,219	995,296	1,080,244	1,132,555

The five-year arithmetic is exact from the TTM anchor. Bear segment revenue compounds at -3.4%, Base at 7.6% and Bull at 13.1%. The revenue-weighted product CAGRs are not mixed with a fabricated product-margin schedule; each modeled segment margin is applied once to the tied segment total. Base profit peaks at JPY 682,244m in TTM+2, then declines despite rising revenue as peak mix and capacity absorption normalize, before recovering to JPY 674,678m at the horizon.

Scenario probabilities are non-uniform: Bear 25%, Base 55%, Bull 20%. Base receives the highest weight because near-term visibility, platform breadth and capacity support continued growth, but current share, customer concentration and record mix make a straight-line continuation unlikely. Bear receives more weight than Bull because a capital-equipment cycle can correct abruptly and the revenue anchor already reflects extraordinary share and mix. Applying those weights directly to the displayed scenario endpoints gives JPY 1,529,431m of segment revenue and JPY 691,218m of exact-metric segment profit, a 45.2% implied margin; this expected value is a synthesis aid, not a fourth scenario.

11. Key risks and wildcards

- **AI/HPC capital-cycle reversal — Bear:** a pause in hyperscaler or accelerator spending can hit SoC test after customers have installed capacity. Because roughly 80% of current SoC business is AI-related, diversification among GPU, ASIC and CPU does not eliminate aggregate AI-cycle exposure.
- **NVIDIA, TSMC and top-five concentration — Bear:** NVIDIA Group represented 21.6%, TSMC 11.1% and the top five about 50% of FY2025 consolidated sales. A program loss, internal sourcing change or delayed node/package ramp can move segment revenue far more than industry units imply.
- **Teradyne design wins — Bear:** UltraFLEXplus, memory share gains and photonics/high-speed-I/O investments create a credible path to reverse Advantest's CY2025 share gains. A single large compute qualification can matter disproportionately.

- **Chinese substitution — Bear:** AccoTEST and other domestic suppliers can pressure pricing and displace imported testers first in analog, power, mixed-signal and less demanding SoC uses. Their progress toward high-performance SoC is a longer-horizon threat even if leading-edge parity is not yet proven.
- **Parallelism and productivity — Base/Bear:** more sites tested simultaneously, better utilization and shorter programs lower cost of test but reduce incremental tester demand. The same engineering value that protects the platform can cap revenue growth.
- **CoWoS, wafer-start and memory constraints — Bear/Base:** management identifies external foundry, packaging and memory supply as determinants of the demand range. Test equipment can be delayed even when end demand remains healthy.
- **HBM and advanced-packaging intensity — Bull:** more stacks, more expensive packages and tighter performance requirements raise the economic value of early defect detection and can sustain double-digit Memory growth.
- **Silicon photonics and co-packaged optics — Bull:** the first large production ATE order could become a new test-content pool. The scenario gives this optionality only through higher SoC/Other growth because order value, unit volume and margin are undisclosed.
- **Capacity execution and underabsorption — Bull/Bear:** pulling in the 10,000-system roadmap can protect share in a shortage, but supplier bottlenecks may limit the ramp; if demand slows, buffers and inventory can depress margin.
- **Currency and input costs — Base/Bear:** roughly 75% of company sales are foreign-currency denominated, mainly USD, while the reporting currency is JPY. Component inflation and FX can influence price realization and cost, but no segment hedge or currency split is disclosed.
- **Technology discontinuity — All cases:** chiplets, optical I/O, system-level test and new test flows can expand content or shift value away from traditional ATE. Advantest must fund instrumentation and software ahead of revenue, so failure to lead a transition damages both growth and margin.

[DATA GAP: the issuer does not disclose product-level profit, tester units, realized ASP, numerical backlog, recurring order intake, book-to-bill, cancellation rates, product-specific FY+1 guidance, customer-specific Test System revenue, or a revised date for the 10,000-system capacity target. No such figures are inferred.]

Summary

Case	Segment TTM+5y revenue at 2031-06-30	Exact profit metric	Segment TTM+5y profit margin	Segment TTM+5y profit	Probability
Bear	JPY 936,341m	Segment income (loss) (operating income (loss) before share-based compensation expense)	40.0%	JPY 374,536m	25%
Base	JPY 1,606,377m	Segment income (loss) (operating income (loss) before share-based compensation expense)	42.0%	JPY 674,678m	55%
Bull	JPY 2,059,191m	Segment income (loss) (operating income (loss) before share-based compensation expense)	55.0%	JPY 1,132,555m	20%

The central conclusion is that Test System can compound through 2031 because AI/HPC, HBM and advanced packaging raise test content, while V93000's installed platform, engineering ecosystem and production scale protect design wins. The investment risk is that today's 66% SoC share, concentrated customer base and record mix are peak conditions. A sound base case therefore carries strong near-term revenue into a multi-year deceleration, assumes productivity offsets some test intensity, and lets the exact segment-profit margin normalize below its TTM peak.

Appendix B2 - Services and Others

Services and Others — Segment Deep Dive

Company: Advantest Corporation (6857.T) **Forecast anchor:** TTM ended 2026-06-30 **Forecast horizon:** TTM+5 years ended 2031-06-30 **Currency and scale:** JPY millions **Exact sealed profit basis: Segment income (loss) (operating income (loss) before share-based compensation expense) Sealed statutory-bridge SHA-256:** `ed42149f4b9060c0ce41bef9bdf494958af6c89ad3cf22d6963f8d096c5518d6`

0. Segment boundary and taxonomy note

Advantest changed to the present two-segment taxonomy effective FY2025 and issued an April 2026 recast for FY2022-FY2024. Comparable current-taxonomy segment dollars therefore begin in FY2022; FY2021 was not recast and is excluded from growth and margin comparisons. Services and Others contains customer-support services, consumables including interface boards, nanotechnology products, and adjacent solutions. Importantly, handlers, device interfaces, and system-level-test solutions are now in Test System Business, not this segment. The boundary matters because the former three-segment structure placed some activities differently. FY2024 also contains a JPY21,393m Essai goodwill and intangible impairment, while FY2025 contains a JPY2,504m partial-divestiture gain. Both items distort reported margin comparisons. Sources: [Advantest's 2026-04-01 current-segment recast](https://www.advantest.com/document/en/investors/ir-library/result/E_BIZ_250729_ref2.pdf), the [FY2025 Securities and Business Report](https://www.advantest.com/document/en/investors/ir-library/report/IR_SecuritiesandBusinessReport_84th_en.pdf), and [data_package §§1 and 3].

The upstream forecasting gate is explicitly cleared: `STATUTORY_BRIDGE_STATUS: VERIFIED — CLEARED FOR FORECASTING`. The bridge has zero residuals and fixes the segment measure as **Segment income (loss) (operating income (loss) before share-based compensation expense)**. Corporate eliminations, corporate/unallocated costs, and share-based compensation are not allocated here; they belong in the consolidated bridge modeled by the synthesis stage.

1. What this segment actually is

Services and Others is best understood as two economic pools bundled into one reportable segment.

Support Services is the installed-base business. Once a tester is placed on a customer's manufacturing or engineering floor, Advantest can support installation, ramp, uptime, calibration, spare-parts availability, module exchange, repair, software updates, training, and applications work. The data package describes this line as installed-base service, uptime, and customer support; it does not provide a contract-type split. The customer is typically a semiconductor manufacturer, foundry, outsourced semiconductor assembly and test provider, or other operator for whom tester downtime is expensive. Pricing can range from service agreements recognized over time to transactional labor, parts, or upgrades, but Advantest does not disclose the revenue split. The economic job is not merely to repair a machine: it is to keep a technically complex test cell productive, calibrated, and ready for changing device programs.

The installed-base relationship creates a stock-flow business. New tester placements add to the serviceable fleet; retirements subtract from it; utilization, age, configuration complexity, and customer outsourcing determine service demand per active system. A simple conceptual model is:

`Support revenue = active installed base × paid-service attachment × revenue per attached system × utilization/mix factor`.

Every variable after "active installed base" is a true non-disclosure. Advantest has said support sales grow with the installed base, but it does not publish the fleet count, paid attach rate, renewal or retention rate, average contract value, service revenue per system, or contract duration. The model therefore forecasts Support Services revenue directly, anchored to disclosed dollars, without pretending that those hidden variables are known.

Others is a more heterogeneous pool. Disclosed components include consumables such as semiconductor test interface boards and sockets, nanotechnology products, and adjacent solutions. Interface boards, sockets, substrates, and related interconnect items sit physically and electrically between the tester and device under test. They can wear, need replacement, or require redesign for a new device, package, parallelism level, power envelope, or high-frequency requirement. That produces a placement-and-utilization-driven demand stream with recurring characteristics, but it is not subscription revenue.

Nanotechnology includes inspection and metrology equipment, which has its own capital-equipment and service cycle. Because these activities are aggregated, revenue growth and margin cannot be decomposed cleanly.

Lease, rental, and pre-owned adjacency deserves explicit treatment but not invented economics. The Advantest group has offered used equipment, leases, and rentals through a pre-owned-solutions activity. The data package does not state whether lease or rental revenue is material to Services and Others, disclose its balance-sheet investment, or provide a revenue/profit split. The base model assigns no separate lease line. Any lease benefit is embedded conservatively in Others; a material shift toward asset-owning rentals would raise capital intensity and residual-value risk and would require a new disclosure before being modeled separately.

System-level-test adjacency is commercially relevant but outside this segment's reported financial boundary. System-level test can expand demand for support, calibration, parts, software, and interconnect consumables around a broader test cell, but the system-level-test product revenue itself belongs to Test System Business under the current taxonomy. The forecast therefore allows an indirect pull-through to Support Services and Others, not a transfer of system-level-test equipment revenue into this appendix.

Go-to-market is closely linked to primary tester placements. The installed tester is the entry point; local field engineering, applications knowledge, spare-parts logistics, calibration capability, and device-interface expertise deepen the account. This creates a natural cross-sell advantage for the original equipment vendor. It does not guarantee all aftermarket revenue: customers can self-maintain, source some parts elsewhere, use independent providers, or choose competing interface solutions. The moat is strongest where technical complexity, response time, software access, and calibration traceability make third-party substitution costly.

2. Current economics at the TTM anchor

FY2025 Services and Others revenue was JPY109,230m, up 12.7%, and represented 9.7% of consolidated revenue [FY2025 Securities and Business Report, segment information; data_package §§1 and 3]. FY2025 **Segment income (loss) (operating income (loss) before share-based compensation expense)** was JPY8,758m, an 8.0% margin [FY2025 Securities and Business Report, segment information; data_package §3, Services and Others profit and margin rows]. That margin is not a clean recurring anchor because it includes the JPY2,504m partial-divestiture gain. Subtracting that gain as an analytical normalization—not an issuer-reported adjusted measure—would yield JPY6,254m and a 5.7% margin on the same sealed basis.

TTM revenue is derived only from data-package figures: FY2025 JPY109,230m less Q1 FY2025 JPY23,200m plus Q1 FY2026 JPY33,900m equals **JPY119,930m** [FY2025 Securities and Business Report; Advantest FY2026 Q1 results dated 2026-07-29; data_package §§3 and 5]. The segment's TTM **Segment income (loss) (operating income (loss) before share-based compensation expense)** is sealed at **JPY14,615m**, producing a **12.2%** TTM margin [sealed statutory bridge; data_package §3a, TTM bridge, Services and Others row]. This is the only TTM profit anchor used.

FY2025 disclosed product revenue was JPY65,000m for Support Services and JPY44,200m for Others [Advantest FY2025 results briefing dated 2026-04-27; data_package §4, Services and Others product rows]. Those figures equal approximately 59.5% and 40.5% of the rounded product total. The data package does not disclose Q1 FY2026 Support Services and Others dollars separately. To create a reconstructable forecast anchor, this analysis allocates TTM segment revenue using the FY2025 mix: **Support Services JPY71,377m** and **Others JPY48,553m**, summing exactly to JPY119,930m. These are modeling allocations, not issuer-reported TTM product figures. The limitation is consequential because Q1 growth could have been mix-driven.

The current economics combine one relatively recurring stream with one mixed hardware/consumables stream. Support should have lower incremental material content than interface boards or metrology equipment but carries a global field-engineer and parts-network cost base. Others can benefit from high-value, device-specific interfaces and replacement demand, yet may bear manufacturing costs, inventory, acquired-business overhead, and lumpy equipment deliveries. No product gross margin or **Segment income (loss) (operating income (loss) before share-based compensation expense)** is disclosed.

Segment-specific capital expenditure, depreciation, working capital, and R&D are also not disclosed. Support is labor- and logistics-intensive rather than factory-capital-intensive, but it needs parts pools near customer sites and specialist engineering coverage. Others is more inventory-, tooling-, and development-intensive, especially for interface solutions and nanotechnology products. Lease/rental activity could be balance-sheet intensive if material, but its invested assets are not disclosed. Consequently, no segment ROIC is calculated.

The sharp improvement from impairment-depressed FY2024 to FY2025 and TTM should not be mistaken for a stable long-run margin law. FY2024's reported JPY16,125m loss becomes an analytical JPY5,268m profit, or 5.4%, if the JPY21,393m impairment is added back. FY2025's reported 8.0% becomes 5.7% after removing the gain. The TTM 12.2% anchor suggests real improvement beyond those normalized annual levels, but without product profit, quarterly mix, or cost-line disclosure, the amount attributable to scale, mix, portfolio actions, or timing cannot be isolated.

3. Unit economics

The support engine begins with tester placements. A new system typically creates installation and production-ramp work, then an opportunity for service agreements, calibration, spare parts, module exchange, upgrades, training, and applications support. The economic duration can outlast the initial tester sales cycle because systems remain in service across multiple device programs. This is the principal reason Services and Others can dampen cyclicality: support revenue depends on the stock of active tools, not only on current-year shipments.

However, dampening is not immunity. If customer fabs or OSAT floors operate at lower utilization, transactional parts and consumables can weaken. Customers may defer discretionary upgrades, negotiate contract pricing, cannibalize spares, or perform more maintenance internally. A severe tester downcycle also slows additions to the installed base; after a lag, that reduces the future service opportunity. Conversely, the extraordinary current placement cycle can lift support for several years even if tester shipments normalize, provided systems remain active and Advantest retains service attachment.

Calibration and repair are attractive where response time and accuracy matter. Calibration protects measurement integrity; incorrect readings can damage yield learning or permit defective devices to escape. Repair and module exchange protect uptime. The customer compares service price with the expected cost of downtime, yield loss, delayed qualification, and scarce engineering labor. This can support pricing, particularly for leading-edge systems. But the segment's global service footprint has semi-fixed costs: field engineers, call centers, training, local parts depots, and escalation teams must be in place before volume appears. High fleet density therefore improves route and staff utilization; low density or sudden geographic expansion can dilute margins.

Consumables and interface products have different mechanics. Revenue is driven by active test volume, replacement frequency, new device designs, package complexity, parallel test requirements, signal integrity, thermal loads, and socket or probe-pin wear. A tester placement can pull through interfaces at installation, and later design transitions can generate new boards or sockets without another tester sale. High-performance compute can raise value per interface because power, pin count, frequency, and thermal requirements become harder. Yet this revenue is exposed to design-specific competition, qualification cycles, customer dual-sourcing, and manufacturing yield. It may therefore be more cyclical and less contract-like than support.

Nanotechnology and metrology add another pattern: capital equipment can be lumpy, while service and consumables around that equipment can recur. The data package does not provide nanotechnology revenue, service share, orders, backlog, or margin. Its presence complicates simple "service annuity" narratives. Likewise, Others includes acquired and adjacent assets whose impairment history shows that strategic fit does not automatically produce economic returns.

The main margin levers are support mix, installed-base density, utilization, interface value, portfolio quality, input inflation, warranty versus paid work, and geographic expansion. A greater share of service agreements, calibration, paid upgrades, and software-enabled support can raise margin if delivery is standardized. More systems near existing engineers and parts hubs can add revenue faster than cost. Leading-edge interfaces may command more value, while wage, logistics, electronics, and specialty-material inflation can offset that benefit. Work performed under standard warranties can grow service workload without equivalent paid revenue.

The model does not allocate corporate costs or share-based compensation into these lines. Those are explicit bridge items outside the segment measure. It also does not assign historical product margins from intuition. Instead, horizon product margins are transparent scenario assumptions whose weighted sum reproduces the segment result.

4. Competitive dynamics

Competition occurs at several layers rather than in one clean "services market." For tester maintenance and applications support, the most direct rival is the support organization attached to another tester platform, principally Teradyne, plus customer self-maintenance and independent repair providers. Teradyne describes services as extended warranties, training, application support, service agreements, post-contract customer support, and replacement parts, with most agreement-type revenue recognized over time. Its standard product warranty is 12 months. This confirms that service competition is a bundle

of contracts, expertise, and parts rather than a single product price. Teradyne also reported service revenue separately, but its 2024 decline was affected by a business disposal, so it is not a clean margin or growth comparable for Advantest ([Teradyne 2024 Form 10-K](https://investors.teradyne.com/sec-filings/all-sec-filings/content/0000950170-25-023784/ter-20241231.htm)).

Cohu is particularly relevant to the Others pool. It identifies interface products, spares and kits, software subscriptions, and services as recurring revenue categories. Its interface products include contactors, probe heads, and probe pins; it notes that contactors and probe heads are device-specific, require frequent replacement, and grow with parallel test. Cohu's service organization provides installation, maintenance, training, applications work, data-management software, and consulting. This illustrates why consumables can recur without being subscription-like and why the interface layer has meaningful specialist competition ([Cohu 2024 Form 10-K](https://ir.cohu.com/static-files/4499912a-94c5-4b0c-bea1-e2eba3030aac)).

FormFactor competes and collaborates in adjacent wafer-interface and test-subsystem markets. It supplies probe cards and related test and measurement systems, and its public materials emphasize high-performance probe-card requirements for AI, HBM, and advanced packaging. The relationship is not purely adversarial: FormFactor disclosed an expanded partnership with Advantest around wafer-level test cells for silicon photonics and noted its 2020 purchase of Advantest probe-card assets. That combination of partnership and competition shows that end-to-end solutions may be assembled across company boundaries rather than owned entirely by one vendor ([FormFactor 2025 Form 10-K](https://investors.formfactor.com/static-files/f903ad72-0783-4e11-bdcc-cfae526f1f96), [FormFactor–Advantest partnership](https://investors.formfactor.com/news-releases/news-release-details/formfactor-expands-partnership-advantest)).

Pricing power differs by activity. Original-equipment support has the strongest position where proprietary diagnostics, software access, calibration procedures, certified parts, and fast escalation are important. It is weaker for commoditized labor, older systems, and customers with large in-house engineering teams. Interface products can have pricing power after qualification because a failure can disrupt yield or throughput, but customers may dual-source and redesign. Nanotechnology equipment competes on measurement performance and installed workflow; switching costs can exist, but orders can be lumpy.

Entry barriers include engineering knowledge of the tester architecture, access to parts and firmware, local service coverage, calibration capability, reliability data, applications expertise, customer qualification, and the risk customers bear when changing a production-test component. Barriers are highest at the leading edge and lower for mature tools and generic components. A new entrant can attack a narrow interface or software layer without reproducing the whole installed-base network, which limits the breadth of Advantest's moat.

No reliable, apples-to-apples market-share figure exists for Advantest's bundled Services and Others segment. Competitors classify service, interface, probe, software, and metrology activities differently. Tester market share is not service share, and Advantest's high tester share cannot simply be copied into a services model. The forecast uses tester placements as a directional demand driver, not a claimed market share.

5. Segment-level moat

The strongest moat is the installed-base feedback loop. A large tester fleet creates repeated customer contact, local service density, field data, parts demand, and opportunities for calibration, upgrades, and interface sales. Good support raises uptime and lowers customer risk, strengthening the probability of the next tester placement. New placements then enlarge the serviceable fleet. This loop can deepen account relationships beyond the original capital-equipment transaction.

Technical integration reinforces the loop. A field engineer who understands tester hardware, software, applications, and device-interface behavior can diagnose problems across the test cell faster than a generic provider. For leading-edge compute and memory devices, test time, power, thermal behavior, signal integrity, and parallelism interact. The cost of an incorrect diagnosis can be far greater than the service fee. That supports retention even when procurement pushes on price.

The moat is not equally strong across the whole segment. Standard parts, older-system maintenance, pre-owned equipment, and some interconnect components can be contested. Customers with large engineering teams may internalize maintenance. Cohu and FormFactor demonstrate that specialist competitors can own profitable layers around the tester. Nanotechnology products do not automatically inherit the tester-platform moat, and the FY2024 Essai impairment is evidence that adjacency acquisition value can disappoint.

Over five to ten years, the installed base should remain a durable asset if Advantest continues to lead in tester placements and supports legacy systems responsibly. The durability depends on attachment and renewal, which are undisclosed. Software-enabled monitoring and preventive service could increase switching costs and delivery efficiency, but no service ARR or paid-software metric is reported. The base case therefore assumes a modest moat: enough to grow Support Services

faster than the active fleet's retirement rate and improve margin, but not enough to justify SaaS-like retention or profitability.

The Others moat is narrower and product-specific. Interface products benefit from co-design, qualification, and test-cell knowledge. Consumables create repeat demand, but frequent replacement also attracts competition. Nanotechnology can have precision and workflow barriers, while pre-owned and lease activities are likely less differentiated. At the reportable-segment level, the moat is real but mixed: strong in proprietary support around advanced installed systems, moderate in qualified interfaces, and uncertain in peripheral adjacencies.

6. Historical growth rates

The historical table below reproduces only current-taxonomy dollars from the data package. FY2022 is used solely to calculate the segment's three-year CAGR to FY2025. Product lines have only FY2024-FY2025 comparable dollars; no FY2023 product value is fabricated.

Product / sub-segment	FY2023 revenue	FY2024 revenue	FY2025 revenue	3-year CAGR	Most recent YoY	Data package cite
Services and Others total	JPY88,885m [2026-04-01 recast; data_package §3]	JPY96,888m [2026-04-01 recast; data_package §3]	JPY109,230m [FY2025 Securities and Business Report; data_package §3]	8.0% FY2022-FY2025 [calculated from data_package §3, Revenue row]	46.0% Q1 FY2026 [2026-07-29 official results; data_package §5]	2026-04-01 recast; FY2025 Securities and Business Report; 2026-07-29 Q1 results
Support Services	Not separately disclosed [data_package §4]	JPY55,700m [FY2025 results briefing; data_package §4]	JPY65,000m [FY2025 results briefing dated 2026-04-27; data_package §4]	Not calculable [data_package §4]	16.7% FY2025 [calculated from data_package §4]	FY2025 results briefing dated 2026-04-27; data_package §4
Others	Not separately disclosed [data_package §4]	JPY41,200m [FY2025 results briefing; data_package §4]	JPY44,200m [FY2025 results briefing dated 2026-04-27; data_package §4]	Not calculable [data_package §4]	7.3% FY2025 [calculated from data_package §4]	FY2025 results briefing dated 2026-04-27; data_package §4

Arithmetic checks are within the required 2% tolerance:

- Services and Others: JPY86,659m × 1.026 = JPY88,912m versus JPY88,885m reported; rounding difference 0.03%. JPY88,885m × 1.090 = JPY96,885m versus JPY96,888m; difference effectively zero. JPY96,888m × 1.127 = JPY109,193m versus JPY109,230m; difference 0.03%.
- Support Services: JPY55,700m × 1.167 = JPY65,002m versus JPY65,000m. ✓
- Others: JPY41,200m × 1.073 = JPY44,208m versus JPY44,200m. ✓
- Product sums: FY2024 JPY55,700m + JPY41,200m = JPY96,900m versus segment JPY96,888m; FY2025 JPY65,000m + JPY44,200m = JPY109,200m versus segment JPY109,230m. Both differences are normal source rounding and below 0.02%.

The trajectory shows acceleration from 2.6% in FY2023 to 9.0% in FY2024 and 12.7% in FY2025, followed by 46.0% segment growth in Q1 FY2026. The Q1 figure should not be extrapolated as a five-year rate. It coincides with an exceptionally strong tester placement and utilization environment and may include product or delivery mix. The segment's three-year 8.0% CAGR and disclosed product growth provide a more conservative structural reference.

7. Management guidance and forward commentary

Management has not supplied a numerical FY+1 guide for Support Services, Others, segment revenue, attachment, retention, or product margin. The relevant data-package commentary is qualitative:

- **Installed base — FY2025 Q2-Q4 and Q1 FY2026 official calls, Douglas Lefever and management team; [data_package §6, Services and Others, row 1].** Management repeatedly described support-services sales as growing with the installed base. Interpretation: the direction of the support model is explicit, but management did not quantify the installed fleet, service attachment, or lag from shipment to paid service.
- **Consumables — FY2025 full-year call, 2026-04-27, management team; [data_package §6, Services and Others, row 2].** Management said other revenue increased, particularly tester interface boards. Interpretation: high-performance SoC placements and utilization can pull through interface revenue; there is no disclosed attach rate, replacement cycle, or per-system content.
- **Support — Q1 FY2026 call, 2026-07-29, management team; [data_package §6, Services and Others, row 3].** "Support services sales remained solid, driven by the increasing installed base of testers." Interpretation: this is the

clearest management anchor for Support Services, but "solid" is not a numerical guide and does not prove recurring-contract retention.

- **Strategic direction — November 2025 fireside chat, Douglas Lefever, Group CEO; [data_package §6, Services and Others, row 4].** Management framed Advantest's ambition as becoming the most trusted and valued test-solution company across the semiconductor value chain, with services, automation, and software investment part of that shift. Interpretation: management intends to deepen lifecycle economics, but current Services and Others profitability remains small and volatile relative to Test System Business.

The absence of a numerical segment guide is meaningful. The scenario model uses observed historical growth, the installed-base mechanism, and competitor structure. It does not convert corporate tester capacity, total-company guidance, or AI demand commentary into a service-revenue promise.

8. Forward growth assumptions

The starting TTM product allocations—Support Services JPY71,377m and Others JPY48,553m—are derived by applying FY2025's disclosed 59.5%/40.5% mix to TTM segment revenue because no TTM product split is disclosed. Every case compounds for exactly five years from 2026-06-30 to 2031-06-30.

Base case growth

Product	3-year historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM→TTM+5y	Justification
Support Services	Not disclosed at product level	16.7% FY2025	No numerical guide; installed-base growth described	8.1%	Growth fades from 14% to 4% as exceptional placements mature; fleet additions, calibration, repair, parts, and upgrades offset retirements.
Others	Not disclosed at product level	7.3% FY2025	No numerical guide; interface-board growth cited	6.2%	Interfaces and consumables benefit from test complexity and utilization, while nanotechnology and adjacent hardware remain lumpier and competitive.
Services and Others total	8.0% FY2022-FY2025	46.0% Q1 FY2026	No numerical segment guide	7.4%	The result is the sum of product forecasts and sits below the latest surge but near the segment's structural historical range.

Base annual growth is Support Services +14%, +10%, +8%, +5%, and +4%; Others +10%, +8%, +6%, +4%, and +3%. The step-down is deliberate. A surge in tester placements enlarges the service opportunity with a lag, but the current 46% segment growth rate cannot persist as the comparison base rises. The pattern does not require an unprecedented collapse: it normalizes over five years while preserving a larger installed-base annuity.

Bull case growth

Product	3-year historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM→TTM+5y	Justification
Support Services	Not disclosed at product level	16.7% FY2025	No numerical guide; installed-base growth described	12.2%	Tester placement remains broad, attach rises, calibration/software-enabled support deepens, and leading-edge utilization sustains higher revenue per active system.
Others	Not disclosed at product level	7.3% FY2025	No numerical guide; interface-board growth cited	10.2%	High-performance interfaces, sockets, thermal solutions, and consumables win more content per test cell; nanotechnology contributes rather than drags.
Services and Others total	8.0% FY2022-FY2025	46.0% Q1 FY2026	No numerical segment guide	11.4%	The weighted outcome assumes lifecycle monetization improves materially without carrying Q1's 46% rate beyond the near term.

Bull annual growth is Support Services +17%, +14%, +12%, +10%, and +8%; Others +15%, +12%, +10%, +8%, and +6%. The distinctive bull levers are not merely "more AI": they are better paid-service attachment, more complex and highly utilized systems, greater per-cell interface content, software and preventive-support monetization, and successful adjacent portfolio execution.

Bear case growth

Product	3-year historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM→TTM+5y	Justification
Support Services	Not disclosed at product level	16.7% FY2025	No numerical guide; installed-base growth described	3.0%	Existing fleet and essential uptime work cushion a tester downturn, but slower placements, customer self-maintenance, price pressure, and lower utilization cap growth.
Others	Not disclosed at product level	7.3% FY2025	No numerical guide; interface-board growth cited	0.4%	A first-year decline reflects interface and metrology cyclicality; later stabilization comes from replacements and the installed base.
Services and Others total	8.0% FY2022-FY2025	46.0% Q1 FY2026	No numerical segment guide	2.0%	Support dampens but does not eliminate the cycle; mixed hardware and consumables prevent annuity-like resilience.

Bear annual growth is Support Services +5%, +4%, +3%, +2%, and +1%; Others -5%, 0%, +2%, +3%, and +2%. The distinctive bear levers are lower tester utilization, weaker new placements, more customer insourcing, loss of interface content to specialists, pricing lag against labor and parts inflation, and another underperforming adjacency. The support line still grows because the active installed base does not disappear immediately.

9. Forward Segment income (loss) (operating income (loss) before share-based compensation expense) margin assumptions

The current TTM segment margin on **Segment income (loss) (operating income (loss) before share-based compensation expense)** is 12.2%, based on JPY14,615m of profit and JPY119,930m of revenue. Product profit is not disclosed, so the Support Services and Others margins below are scenario assumptions, not historical observations. They are used only to compute a transparent revenue-weighted segment margin.

Case / product	TTM revenue anchor	TTM product margin on exact metric	TTM+5y revenue	TTM+5y margin on Segment income (loss) (operating income (loss) before share-based compensation expense)	TTM+5y Segment income (loss) (operating income (loss) before share-based compensation expense)
Bear — Support Services	JPY71,377m modeled allocation	Not disclosed	JPY82,707m	13.0% assumption	JPY10,752m
Bear — Others	JPY48,553m modeled allocation	Not disclosed	JPY49,428m	3.0% assumption	JPY1,483m
Base — Support Services	JPY71,377m modeled allocation	Not disclosed	JPY105,561m	20.0% assumption	JPY21,112m
Base — Others	JPY48,553m modeled allocation	Not disclosed	JPY65,495m	8.0% assumption	JPY5,240m
Bull — Support Services	JPY71,377m modeled allocation	Not disclosed	JPY126,673m	25.0% assumption	JPY31,668m
Bull — Others	JPY48,553m modeled allocation	Not disclosed	JPY78,751m	12.0% assumption	JPY9,450m

Bear mechanism: the weighted margin falls about 290 basis points, from 12.2% to 9.3%. Slower revenue underabsorbs the global service footprint, wage and parts inflation outpace repricing, lower utilization reduces high-value transactional work, and Others suffers price/mix pressure. The segment remains profitable because essential support and replacement demand persist.

Base mechanism: the weighted margin rises about 320 basis points to 15.4%. Support Services scales across a denser installed base, a greater portion of calibration, repair, parts, and software-enabled work is paid, and portfolio cleanup limits impairment-like leakage. Others improves modestly through leading-edge interface mix. This does not assume product profit reaches Test System Business levels.

Bull mechanism: the weighted margin rises about 780 basis points to 20.0%. Paid attachment and renewal improve, revenue per active leading-edge system rises, local field and parts capacity is better utilized, and advanced interfaces command more value. The segment remains below the economics of a dominant high-margin tester platform because it still includes labor, logistics, consumables manufacturing, and lumpy adjacent hardware.

The forecast does not add corporate/unallocated costs or share-based compensation to these product assumptions. Those adjustments are outside the sealed segment basis and must be applied once at consolidated level.

10. Segment rollup

Horizon product rollup

Case	Product	TTM+5y revenue	Margin on Segment income (loss) (operating income (loss) before share-based compensation expense)	TTM+5y Segment income (loss) (operating income (loss) before share-based compensation expense)
Bear	Support Services	JPY82,707m	13.0%	JPY10,752m
Bear	Others	JPY49,428m	3.0%	JPY1,483m
Bear	Segment total	JPY132,135m	9.3% weighted	JPY12,235m
Base	Support Services	JPY105,561m	20.0%	JPY21,112m
Base	Others	JPY65,495m	8.0%	JPY5,240m
Base	Segment total	JPY171,056m	15.4% weighted	JPY26,352m
Bull	Support Services	JPY126,673m	25.0%	JPY31,668m
Bull	Others	JPY78,751m	12.0%	JPY9,450m
Bull	Segment total	JPY205,424m	20.0% weighted	JPY41,118m

The product sums reconcile exactly subject to JPY1m rounding. Bear: JPY82,707m + JPY49,428m = JPY132,135m, and JPY10,752m + JPY1,483m = JPY12,235m. Base: JPY105,561m + JPY65,495m = JPY171,056m, and JPY21,112m + JPY5,240m = JPY26,352m. Bull: JPY126,673m + JPY78,751m = JPY205,424m, and JPY31,668m + JPY9,450m = JPY41,118m. Weighted margins equal product profit divided by segment revenue.

Five-year TTM compounding and margin path

Case	TTM 2026-06-30 revenue	2027-06-30 revenue	2028-06-30 revenue	2029-06-30 revenue	2030-06-30 revenue	2031-06-30 revenue	5-year CAGR
Bear	JPY119,930m	JPY121,071m	JPY124,069m	JPY127,330m	JPY130,347m	JPY132,135m	2.0%
Base	JPY119,930m	JPY134,778m	JPY147,188m	JPY157,809m	JPY165,088m	JPY171,056m	7.4%
Bull	JPY119,930m	JPY139,347m	JPY157,739m	JPY175,417m	JPY191,583m	JPY205,424m	11.4%

Case	2027-06-30 Segment income (loss) (operating income (loss) before share-based compensation expense) margin / profit	2028-06-30 Segment income (loss) (operating income (loss) before share-based compensation expense) margin / profit	2029-06-30 Segment income (loss) (operating income (loss) before share-based compensation expense) margin / profit	2030-06-30 Segment income (loss) (operating income (loss) before share-based compensation expense) margin / profit	2031-06-30 Segment income (loss) (operating income (loss) before share-based compensation expense) margin / profit
Bear	11.5% / JPY13,923m	10.5% / JPY13,027m	9.5% / JPY12,096m	9.0% / JPY11,731m	9.3% / JPY12,235m
Base	12.8% / JPY17,252m	13.5% / JPY19,870m	14.2% / JPY22,408m	14.8% / JPY24,433m	15.4% / JPY26,352m
Bull	14.0% / JPY19,509m	15.5% / JPY24,450m	17.0% / JPY29,821m	18.5% / JPY35,443m	20.0% / JPY41,118m

The bear margin trough precedes a slight recovery as the first-year Others decline and service-cost underabsorption work through. The base case stages leverage rather than jumping immediately to the horizon margin. The bull case requires several years of attachment, mix, and productivity improvement; it is not a one-quarter extrapolation.

Scenario probabilities are deliberately non-uniform: **Bear 25%, Base 55%, Bull 20%**. The base has the highest weight because the installed-base mechanism is observable but its monetization is not. Bear probability exceeds bull because the segment has a recent impairment, mixed adjacencies, undisclosed product profit, and exposure to semiconductor utilization. The probability-weighted horizon result is approximately JPY168,199m revenue and JPY25,776m **Segment income (loss) (operating income (loss) before share-based compensation expense)**, a 15.3% implied weighted margin. That expected value is a decision aid, not a fourth scenario.

11. Key risks and wildcards

[Bear] Service attachment and retention are lower than assumed. Tester share and installed-base growth do not automatically become paid service. Large customers may self-maintain, negotiate enterprise terms, use warranty coverage, or buy support selectively. Without disclosed attachment or renewal data, the forecast cannot distinguish fleet growth from monetization.

[Bear] Capital-equipment utilization falls. Support contracts may be resilient, but lower wafer starts and test-floor utilization reduce transactional parts, consumables, repairs, and interface wear. A tester shipment slowdown also weakens future installed-base additions with a lag.

[Bear] Interface competition intensifies. Cohu, FormFactor, customer engineering teams, and other specialists can compete for contactors, probe technologies, boards, sockets, and adjacent software. Qualification creates stickiness but not exclusivity. Dual-sourcing or better specialist performance can erode content per tester.

[Bear] Another adjacency disappoints. The Essai impairment demonstrates that acquired or adjacent businesses may not realize expected returns. Nanotechnology, interconnect, or pre-owned activities can create fixed costs, inventory, or further impairment even when core support performs.

[Bear/Base] Cost-to-serve rises. Global field coverage, 24/7 escalation, local spare-parts pools, calibration capability, and specialist labor are valuable but expensive. Wage, freight, electronics, and inventory costs may reset faster than multi-year service pricing.

[Base/Bull] Installed-base growth compounds. The strongest upside is not a single year of tester shipments; it is a multi-year increase in the active fleet, followed by calibration, upgrades, repairs, training, parts, and interface redesigns across the fleet's life. Older systems can also create a profitable long tail if support remains efficient.

[Bull] Complexity increases lifecycle revenue per system. Higher power, pin count, frequency, thermal load, parallelism, and test time can raise the value of calibration, advanced interfaces, preventive maintenance, and applications work. The upside depends on Advantest capturing that value rather than giving it away through bundled pricing.

[Bull] Software-enabled services become material. Remote monitoring, equipment management, predictive maintenance, and cloud tools could improve attach, retention, and field productivity. No paid ARR, seat, fleet, or product revenue is disclosed, so the base case gives limited credit and the bull case carries the option value.

[Bull/Bear] Leasing and pre-owned activity changes the model. Rentals and leases can widen the customer funnel and generate recurring payments, but can also require capital, remarketing expertise, credit exposure, and residual-value assumptions. No materiality or economics are disclosed, so a strategic expansion would require a separate asset and cash-flow model.

[Boundary risk] System-level-test revenue is misclassified by analysts. The current taxonomy places system-level-test solutions in Test System Business. Counting that product in Services and Others would overstate this segment and double count consolidated revenue. Only indirect service and consumables pull-through belongs here.

Data gaps that constrain conviction

- **[DATA GAP: Advantest does not disclose Services and Others installed-base units, active fleet, retirement rate, service attachment, contract renewal, retention, service revenue per tool, or contract duration.]**
- **[DATA GAP: Advantest does not disclose Support Services or Others product-level Segment income (loss) (operating income (loss) before share-based compensation expense), gross margin, opex, or capital employed.]**
- **[DATA GAP: Advantest does not disclose TTM or Q1 FY2026 Support Services and Others revenue separately; this forecast allocates TTM revenue using FY2025 mix.]**
- **[DATA GAP: Advantest does not disclose revenue or profit separately for calibration, repair, spare parts, software, training, consumables, interface boards, sockets, nanotechnology, pre-owned equipment, leasing, or rentals.]**
- **[DATA GAP: Segment-specific capex, depreciation, R&D, inventory, receivables, warranty cost, and cash conversion are not disclosed.]**

- **[DATA GAP: Numerical backlog, order intake, book-to-bill, cancellation rate, and product-specific pricing are not disclosed.]**

Summary

Case	Segment TTM+5y Revenue	Exact profit metric	Segment TTM+5y Profit Margin	Segment TTM+5y Profit	Probability
Bear	JPY132,135m	Segment income (loss) (operating income (loss) before share-based compensation expense)	9.3%	JPY12,235m	25%
Base	JPY171,056m	Segment income (loss) (operating income (loss) before share-based compensation expense)	15.4%	JPY26,352m	55%
Bull	JPY205,424m	Segment income (loss) (operating income (loss) before share-based compensation expense)	20.0%	JPY41,118m	20%

Services and Others is a small but strategically important installed-base and adjacency segment. Support Services offers genuine cyclicality dampening because revenue follows the active tester fleet over time, while consumables and interfaces can monetize utilization and complexity between tester placements. The segment is not a pure recurring-revenue business: Others includes hardware and metrology, product profit is undisclosed, and the recent impairment shows adjacency risk. The base case therefore assumes a measured 7.4% five-year revenue CAGR and margin improvement to 15.4%, supported by service density and mix but constrained by the absence of attach, retention, and product-profit evidence.

Appendix S - Synthesis (Combined Earnings Model)

Advantest Corporation — Synthesis (Combined Earnings Model)

This appendix mechanically consolidates the two reviewed segment models into a statutory earnings model. It performs no source discovery and creates no accounting plug. All monetary amounts are JPY millions unless a table explicitly says JPY billions. The common segment-profit basis is exactly **Segment income (loss) (operating income (loss) before share-based compensation expense)**. It is not statutory operating income; Elimination and Corporate and share-based compensation are projected separately before reaching statutory operating income.

1. Anchors

- Today: **2026-09-28**.
- Fiscal year-end: **March 31**.
- TTM anchor: **2026-06-30**.
- TTM construction: **FY2025 ended 2026-03-31 minus comparable Q1 FY2025 YTD ended 2025-06-30 plus Q1 FY2026 YTD ended 2026-06-30**.
- Latest completed FY used only for historical tie-out: **FY2025 ended 2026-03-31**.
- Horizon: **2031-06-30**, exactly 5.0 calendar years after the TTM anchor. No row compounds for six fiscal years.
- Valuation price: **JPY 34,000.00** per XTKS:6857 ordinary common share, raw exchange close for the 2026-09-25 completed session. Raw-source SHA-256: `89d3de1a73383748b5fec5fb26bdf63533c5ea24b4b2fc9beab8c584d070cae8`. QFR-sealed packet SHA-256: `64dd418aca7356e7c022459d07682a313e207c8f654c0e6fc521cb4b634c1dd1`. Actionability expiry: **2026-09-28T14:30:00+08:00**.
- The strict quote validator was run at the aware SGT timestamp **2026-09-28T09:54:49.0730114+08:00** and returned `QUOTE_PACKET_VALID` plus the expected packet hash. No price was fetched or changed.
- Exact security unit: **XTKS:6857 ordinary common share**. Financial reporting and quote currency are JPY. Depositary ratio, share-class conversion, intervening split factor, and FX factor are all exactly 1.0.
- The packet starts the model at **731.260642m quote-basis diluted financial shares**, which also equals 731.260642m listed-unit equivalents. The basis date is 2026-03-31; the split bridge to the 2026-09-25 quote date is 731.260642m × 1.0 = 731.260642m, with no intervening split. The listed-unit bridge is 731.260642m ÷ (1.0 × 1.0) = 731.260642m.
- FX is identity: 1.0 JPY quote currency per 1.0 JPY reporting currency as of 2026-09-25. No currency conversion is hidden in EPS.
- Historical statutory bridge SHA-256: `ed42149f4b9060c0ce41bef9bdf494958af6c89ad3cf22d6963f8d096c5518d6`. The installed validator returned `STATUTORY_BRIDGE_VALID` and the exact expected hash. `gate_manifest.json` preserves QFR clearance, DR clearance, the durable token `STATUTORY BRIDGE VERIFIED — CLEARED FOR FORECASTING`, both reviewed segment gates, Management PASS, and Moat/2046 YELLOW gates.
- The current reviewed Test System appendix SHA-256 is `0c42c62cdd8b1cb4d2b371221fc4c8e1e5fad21d98dd05ee7be56e4556efade0`; `gate_manifest.json` binds that repaired file, 7,189 words, zero repair-round review edits, and no unresolved issues.
- Scenario probabilities are Bear 25%, Base 55%, and Bull 20%.

The FY2025 control totals are revenue JPY1,128.610bn, statutory operating income JPY499.120bn, and net income JPY375.353bn. The TTM controls are revenue JPY1,232.307bn, statutory operating income JPY565.158bn, pretax income JPY629.445bn, and net income JPY459.953bn. These figures come from `data_package.md` Sections 2 and 3a and the sealed `statutory_bridge.json`.

2. Segment-level forward assumptions

The table reproduces the reviewed appendices rather than re-deriving them. Revenue and profit are JPY millions.

Segment	Exact profit metric	TTM revenue	Bear TTM+5y revenue / margin / profit	Base TTM+5y revenue / margin / profit	Bull TTM+5y revenue / margin / profit	Source
Test System Business	Segment income (loss) (operating income (loss) before share-based compensation expense)	1,112,461	936,341 / 40.0% / 374,536	1,606,377 / 42.0% / 674,678	2,059,191 / 55.0% / 1,132,555	`appendix_B_test_system_business.md` §§8-10
Services and Others	Segment income (loss) (operating income (loss) before share-based compensation expense)	119,930	132,135 / 9.3% / 12,235	171,056 / 15.4% / 26,352	205,424 / 20.0% / 41,118	`appendix_B_services_and_others.md` §§8-10

Test System is built from SoC, Memory, and Other Systems revenue paths. Its implied endpoint CAGRs are -3.388272%, 7.624844%, and 13.105147% for Bear, Base, and Bull. The margin is applied once at segment level because product profit is not disclosed; the reviewed appendix expressly declines to fabricate product margins. The repaired Base margin path is 50.0%, 46.0%, 42.0%, 41.0%, and 42.0%: it withdraws the earlier 48.5% terminal assumption and normalizes peak scarcity, mix, and absorption without inventing product-level margin attribution. Bear includes an AI-capex digestion and design-loss stress; Bull preserves broad AI/HPC demand and high utilization without assuming another large share gain.

Services and Others is built from Support Services and Others. Endpoint CAGRs are 1.957225%, 7.359899%, and 11.363961%. Unlike Test System, this appendix supplies explicit product-margin assumptions, and its product profits sum to the segment profit. Base assumes installed-base service density and portfolio cleanup, not SaaS-like economics. The reviewed product endpoints and profits reproduce exactly subject only to JPY1m rounding.

Both segments use the same 2026-06-30 start and 2031-06-30 end. Their probabilities agree at 25%/55%/20%. No segment appendix uses the quote price, so the operating forecasts are not solved backward from the P/E test.

3. Combined revenue build

There is no disclosed revenue elimination between the two reportable segments. The historical FY2025 segment revenues sum exactly to consolidated revenue; at TTM the segment reconstruction is JPY1,232.391bn versus reported JPY1,232.307bn, an immaterial JPY84m or 0.0068% arising from source rounding in the product/quarter reconstruction. The forecast therefore sums the reviewed segment endpoints with no invented elimination.

Line	Bear	Base	Bull
Test System Business TTM+5y revenue	936,341	1,606,377	2,059,190
Services and Others TTM+5y revenue	132,135	171,056	205,424
Sum of segment TTM+5y revenue	1,068,476	1,777,433	2,264,615
Corporate revenue eliminations	0	0	0
Combined TTM+5y revenue	**1,068,476**	**1,777,433**	**2,264,615**
Implied CAGR from reported TTM revenue over exactly 5.0 years	-2.8128%	7.6006%	12.9419%

Bear revenue falls below the TTM anchor even though Services grows, because Test System undergoes a two-year equipment digestion after one final growth year. Base revenue is JPY1.777tr, with the much larger Test System franchise contributing 90.4%. Bull reaches JPY2.265tr and remains a distinct demand-and-utilization case, not simply a higher multiple applied to Base.

4. Combined operating income build

Every bridge line is projected separately from the driver ledger in `data_package.md` Section 3a. Elimination and Corporate is -2.5%, -2.2%, and -2.0% of revenue in Bear, Base, and Bull. Share-based compensation expense is -0.50%, -0.40%, and -0.35% of revenue. Those are the exact upstream rules. Neither line is allocated into the reviewed segment margins.

Line	Bear	Base	Bull
Test System profit on sealed metric	374,536.000	674,678.000	1,132,555.000
Services and Others profit on sealed metric	12,235.000	26,352.000	41,118.000
Sum of segment profit on sealed metric	386,771.000	701,030.000	1,173,673.000

Line	Bear	Base	Bull
Elimination and Corporate	(26,711.900)	(39,103.526)	(45,292.300)
Consolidated segment-profit metric	360,059.100	661,926.474	1,128,380.700
Share-based compensation expense	(5,342.380)	(7,109.732)	(7,926.153)
Combined statutory TTM+5y operating income	**354,716.720**	**654,816.742**	**1,120,454.548**
Implied statutory OI margin	33.1984%	36.8406%	49.4766%

The sequence is additive and preserves sign. Segment profit plus Elimination and Corporate equals the consolidated pre-SBC segment metric; subtracting SBC reaches statutory operating income. There is no residual. The repaired Base statutory margin is 36.8%, 906 basis points below the 45.9% TTM margin, consistent with a normalized/mid-cycle Test System margin even as revenue grows. Bear still earns a 33.2% statutory margin because the installed platform and cost structure retain meaningful economics through the modeled downturn. Bull requires both exceptionally strong utilization and a 55% Test System endpoint margin, and therefore receives only 20% probability.

The annual Base statutory OI path implied by the reviewed segment schedules and the same -2.2%/-0.4% bridge rules is JPY645.749bn, JPY659.725bn, JPY632.406bn, JPY623.538bn, and JPY654.817bn. Profit peaks in TTM+2 and then declines despite rising revenue as peak Test System mix and capacity absorption normalize, before recovering modestly at the horizon.

5. Net income and EPS build

Financial income and financial expense remain separate. FY2025 financial income of JPY20.354bn included a JPY17.312bn fair-value gain on share call options, leaving a JPY3.042bn source-bound recurring diagnostic. TTM financial income contains an additional strategic-investment valuation gain. All scenarios therefore use only JPY3.042bn and add no future fair-value gain, including Bull. This is conservative and obeys the ledger rule that only realized or source-bound recurring income may enter Bull.

Financial expense is JPY4.573016bn: JPY2.754bn of FY2025 recurring financial expense plus JPY1.819016bn of terminal-period accounting accretion on the zero-coupon convertible. The accretion is modeled from the June 2026 JPY88.930bn liability to JPY100bn face at the 2031-03-28 maturity over approximately 4.742 years, an implied annual effective rate of 2.504934%. It is not netted against financial income. Tax rates reproduce the upstream Bear 29%, Base 27%, and Bull 25% schedule.

Line	Bear	Base	Bull
Combined TTM+5y statutory OI	354,716.720	654,816.742	1,120,454.548
Financial income, recurring only	3,042.000	3,042.000	3,042.000
Financial expenses, recurring plus convertible accretion	(4,573.016)	(4,573.016)	(4,573.016)
Other income	0.000	0.000	0.000
Pretax income	353,185.704	653,285.726	1,118,923.531
Tax rate	29.0%	27.0%	25.0%
Income taxes	(102,423.854)	(176,387.146)	(279,730.883)
Net income	**250,761.850**	**476,898.580**	**839,192.648**
Quote-basis diluted financial shares at TTM+5y	729.715253m	728.590242m	728.024906m
EPS JPY per quote-basis financial share	343.6434	654.5498	1,152.6977
Financial shares per listed unit	1.000000	1.000000	1.000000
EPS JPY per listed unit before FX	343.6434	654.5498	1,152.6977
FX, quote JPY per reporting JPY	1.000000	1.000000	1.000000
EPS JPY per listed unit at TTM+5y	**343.6434**	**654.5498**	**1,152.6977**

Annual consolidated scenario paths

The following tables replay every year from the reviewed segment schedules. "Pre-SBC segment profit" is the sum of the two reportable segments before Elimination and Corporate. Financial income remains JPY3.042bn recurring-only. Financial expense includes JPY2.754bn recurring expense plus the separately calculated convertible accretion of JPY2.227638bn, JPY2.283439bn, JPY2.340638bn, JPY2.399269bn, and JPY1.819016bn. NI uses the fixed scenario tax rate. Annual EPS uses the scenario's ending diluted share count after ordinary buybacks, SBC issuance, and, in TTM+5, full-conversion dilution.

Bear path	2027-06-30	2028-06-30	2029-06-30	2030-06-30	2031-06-30
Revenue	1,309,688.000	1,113,670.000	1,007,344.000	1,033,681.000	1,068,476.000
Pre-SBC segment profit	596,345.000	438,555.000	328,901.000	354,998.000	386,771.000
Elimination and Corporate	(32,742.200)	(27,841.750)	(25,183.600)	(25,842.025)	(26,711.900)
SBC expense	(6,548.440)	(5,568.350)	(5,036.720)	(5,168.405)	(5,342.380)
Statutory operating income	557,054.360	405,144.900	298,680.680	323,987.570	354,716.720
Financial income	3,042.000	3,042.000	3,042.000	3,042.000	3,042.000
Financial expenses	(4,981.638)	(5,037.439)	(5,094.638)	(5,153.269)	(4,573.016)
Income taxes at 29%	(160,983.269)	(116,913.344)	(86,022.132)	(93,344.127)	(102,423.854)
Net income	394,131.453	286,236.117	210,605.910	228,532.174	250,761.850
Ending diluted shares m	730.478923	729.606364	728.646238	727.759396	729.715253
EPS JPY per listed unit	539.5521	392.3158	289.0373	314.0216	343.6434

Base path	2027-06-30	2028-06-30	2029-06-30	2030-06-30	2031-06-30
Revenue	1,468,113.000	1,630,327.000	1,716,439.000	1,736,434.000	1,777,433.000
Pre-SBC segment profit	683,920.000	702,114.000	677,033.000	668,685.000	701,030.000
Elimination and Corporate	(32,298.486)	(35,867.194)	(37,761.658)	(38,201.548)	(39,103.526)
SBC expense	(5,872.452)	(6,521.308)	(6,865.756)	(6,945.736)	(7,109.732)
Statutory operating income	645,749.062	659,725.498	632,405.586	623,537.716	654,816.742
Financial income	3,042.000	3,042.000	3,042.000	3,042.000	3,042.000
Financial expenses	(4,981.638)	(5,037.439)	(5,094.638)	(5,153.269)	(4,573.016)
Income taxes at 27%	(173,828.544)	(177,587.116)	(170,195.296)	(167,785.141)	(176,387.146)
Net income	469,980.879	480,142.943	460,157.652	453,641.306	476,898.580
Ending diluted shares m	730.034877	728.890701	727.812345	726.787243	728.590242
EPS JPY per listed unit	643.7787	658.7311	632.2477	624.1735	654.5498

Bull path	2027-06-30	2028-06-30	2029-06-30	2030-06-30	2031-06-30
Revenue	1,541,335.000	1,797,033.000	2,001,649.000	2,155,663.000	2,264,615.000
Pre-SBC segment profit	762,563.000	909,669.000	1,025,117.000	1,115,687.000	1,173,673.000
Elimination and Corporate	(30,826.700)	(35,940.660)	(40,032.980)	(43,113.260)	(45,292.300)
SBC expense	(5,394.673)	(6,289.616)	(7,005.772)	(7,544.821)	(7,926.153)
Statutory operating income	726,341.628	867,438.725	978,078.249	1,065,028.920	1,120,454.548
Financial income	3,042.000	3,042.000	3,042.000	3,042.000	3,042.000
Financial expenses	(4,981.638)	(5,037.439)	(5,094.638)	(5,153.269)	(4,573.016)
Income taxes at 25%	(181,100.497)	(216,360.821)	(244,006.403)	(265,729.413)	(279,730.883)
Net income	543,301.492	649,082.464	732,019.208	797,188.238	839,192.648
Ending diluted shares m	729.722420	728.395120	727.228560	726.187641	728.024906
EPS JPY per listed unit	744.5317	891.1131	1,006.5875	1,097.7717	1,152.6977

The required unit identity is explicit. Base is JPY476,898.580m ÷ 728.590242m = JPY654.5498 per quote-basis financial share. Multiplication by 1.0 financial shares per listed unit and 1.0 quote/reporting FX yields JPY654.5498 per listed ordinary share. Bear and Bull follow the same arithmetic. No issuer EPS is compared with a different security unit.

5a. Return-method input bridge

S supplies method inputs but does not select PE or EV_NOPAT; that authority belongs to the later valuation preflight and scoring stages. Normalized NOPAT is statutory OI × (1 - scenario cash tax rate). The earnings/share bridge is complete. The

EV-to-equity bridge cannot control until terminal cash and every senior claim are source-bound.

Input	TTM/current anchor	Bear horizon	Base horizon	Bull horizon	Availability and source
Statutory operating income	565,158	354,716.720	654,816.742	1,120,454.548	Sealed bridge; this model §4
Normalized cash tax rate	26.93% TTM effective	29.0%	27.0%	25.0%	`data_package.md` §3a driver ledger
Normalized NOPAT	Not used as forward anchor	251,848.871	478,016.222	840,340.911	OI × one minus tax
Cash and equivalents	413,124 at 2026-06-30	Unavailable	Unavailable	Unavailable	Current value in `data_package.md` §8; no terminal cash path
Gross debt including leases	108,166 at 2026-06-30	Unavailable after convertible outcome	Unavailable after convertible outcome	Unavailable after convertible outcome	Current value in §8; terminal ordinary debt/lease path absent
Convertible liability	88,930 carrying; 100,000 face	0 under full-conversion denominator	0 under full-conversion denominator	0 under full-conversion denominator	April 2026 terms; conversion shares modeled in §6
Lease liabilities	Included in current gross debt; not separately isolated	Unavailable	Unavailable	Unavailable	No separate terminal lease path in verified inputs
Preferred equity	Unavailable	Unavailable	Unavailable	Unavailable	No verified terminal preferred-claim schedule; not assumed zero
Minority interest	Unavailable	Unavailable	Unavailable	Unavailable	No verified terminal NCI schedule; not assumed zero
Other senior claims	Unavailable	Unavailable	Unavailable	Unavailable	No terminal schedule; no residual plug created
Separately valued non-operating assets	113,900 of Q1 strategic-investment activity, not a terminal fair value	Unavailable	Unavailable	Unavailable	`data_package.md` §§8-9; valuation gains excluded from earnings
Diluted listed-equivalent shares	731.260642m packet start	729.715253m	728.590242m	728.024906m	Scenario paths in §6; unit factors all 1.0

The convertible bifurcation is explicit. The earnings denominator assumes full conversion of JPY100bn face at JPY36,000, creating 2.777778m shares by the 2031-06-30 horizon. If conversion does not occur, those shares should be removed, but JPY100bn of maturity cash use must enter the equity bridge. The model does not claim both no dilution and no repayment. Because terminal cash and other gross debt/lease paths are unavailable, EV_NOPAT inputs are incomplete and no enterprise-value-to-equity result is published here. That limitation does not impair the fully reconciled EPS/P-E entry-price test.

5b. P&C insurer lane

NOT TRIGGERED — issuer is not a P&C insurer or reinsurer. Advantest is semiconductor test equipment and services. No `insurer_return_bridge.json` is created.

6. Share count path

The path starts from the packet's 731.260642m quote-basis diluted financial shares, not the 729.819m TTM weighted-average accounting denominator. Historical buybacks total JPY284.615bn over FY2021-FY2025, or JPY56.923bn per year. Scenario annual repurchases of JPY30bn, JPY50bn, and JPY70bn bracket that history and are assumptions, not commitments. Average repurchase/award prices are explicit scenario inputs used only to translate cash and SBC expense into shares; they are not exit values.

SBC issuance is approximated exactly as instructed: annual SBC expense divided by the scenario average share price. SBC expense is 0.50%, 0.40%, and 0.35% of revenue in Bear, Base, and Bull. The convertible adds 2.777778m shares in year 5 under the conservative full-conversion treatment. Buyback cash is not used to plug EPS.

Case / year	Starting shares m	Buyback JPYbn	Average price JPY	Shares retired m	SBC issuance m	Convertible issuance m	Ending shares m
Bear 2027-06-30	731.260642	30.000	30,000	1.000000	0.218281	0.000000	730.478923
Bear 2028-06-30	730.478923	30.000	28,000	1.071429	0.198870	0.000000	729.606364
Bear 2029-06-30	729.606364	30.000	26,000	1.153846	0.193720	0.000000	728.646238
Bear 2030-06-30	728.646238	30.000	28,000	1.071429	0.184586	0.000000	727.759396
Bear 2031-06-30	727.759396	30.000	30,000	1.000000	0.178079	2.777778	729.715253
Base 2027-06-30	731.260642	50.000	36,000	1.388889	0.163124	0.000000	730.034877
Base 2028-06-30	730.034877	50.000	38,000	1.315789	0.171613	0.000000	728.890701

Case / year	Starting shares m	Buyback JPYbn	Average price JPY	Shares retired m	SBC issuance m	Convertible issuance m	Ending shares m
Base 2029-06-30	728.890701	50.000	40,000	1.250000	0.171644	0.000000	727.812345
Base 2030-06-30	727.812345	50.000	42,000	1.190476	0.165375	0.000000	726.787243
Base 2031-06-30	726.787243	50.000	44,000	1.136364	0.161585	2.777778	728.590242
Bull 2027-06-30	731.260642	70.000	42,000	1.666667	0.128445	0.000000	729.722420
Bull 2028-06-30	729.722420	70.000	48,000	1.458333	0.131034	0.000000	728.395120
Bull 2029-06-30	728.395120	70.000	54,000	1.296296	0.129736	0.000000	727.228560
Bull 2030-06-30	727.228560	70.000	60,000	1.166667	0.125747	0.000000	726.187641
Bull 2031-06-30	726.187641	70.000	66,000	1.060606	0.120093	2.777778	728.024906

For Base, 731.260642m minus 6.281518m repurchased plus 0.833340m SBC issuance plus 2.777778m convertible issuance equals 728.590242m. Bear and Bull reconcile identically. The share path has five annual intervals and is maintained entirely in quote-basis ordinary financial shares; no ADR or foreign-currency unit enters the calculation.

7. P/E 15 test

Required EPS at JPY34,000 is exactly JPY34,000 ÷ 15 = **JPY2,266.6667** per listed ordinary share. Cushion is `(EPS × 15 - 34,000) ÷ 34,000`. The Base case controls the binary gate; Bull cannot rescue it.

Case	EPS JPY per listed unit at TTM+5y	EPS × 15	Packet price	Cushion	Pass?
Bear	343.6434	5,154.65	34,000.00	-84.84%	FAIL
Base	654.5498	9,818.25	34,000.00	-71.12%	**FAIL**
Bull	1,152.6977	17,290.47	34,000.00	-49.15%	FAIL

Binary P/E-15 gate: FAIL — Base cushion -71.12%. Even Bull produces only about half the required 15x-supported price. Conversely, at JPY34,000 the implied multiple on repaired Base TTM+5y EPS is 51.94x. This is an entry-price gate only. It is not a selected exit multiple and does not select the later shareholder-return valuation method.

8. Reflexivity check

The TTM revenue reconstruction is JPY1,112.461bn Test System plus JPY119.930bn Services and Others = JPY1,232.391bn. Reported consolidated TTM revenue is JPY1,232.307bn. The JPY84m difference is 0.0068%, well within 2%, and is explained by source rounding in segment/product quarterly reconstruction rather than an adjustment.

The sealed TTM profit bridge is exact: JPY582.557bn Test System profit plus JPY14.615bn Services profit equals JPY597.172bn. Adding JPY(27.276)bn Elimination and Corporate gives JPY569.896bn; adding JPY(4.738)bn SBC gives JPY565.158bn statutory OI. The residual is zero, and JPY565.158bn equals the reported statutory TTM control.

The FY2025 bridge is also exact: JPY518.760bn plus JPY8.758bn = JPY527.518bn; minus JPY23.948bn corporate = JPY503.570bn; minus JPY4.450bn SBC = JPY499.120bn statutory OI. FY2025 segment revenue JPY1,019.380bn plus JPY109.230bn equals reported JPY1,128.610bn. No plug or scaling is used.

9. Latest interim bridge reconciliation

The cumulative bridge is triggered. It uses identical three-month periods and no overlap: FY2025 ended 2026-03-31 minus Q1 FY2025 covering 2025-04-01 through 2025-06-30 plus Q1 FY2026 covering 2026-04-01 through 2026-06-30. The resulting TTM covers 2025-07-01 through 2026-06-30.

Line	FY2025	Less Q1 FY2025	Plus Q1 FY2026	TTM ended 2026-06-30
Revenue	1,128,610	(263,776)	367,473	1,232,307
Test System segment profit	518,760	(126,925)	190,722	582,557
Services and Others segment profit	8,758	(2,706)	8,563	14,615
Elimination and Corporate	(23,948)	+4,616	(7,944)	(27,276)
Share-based compensation expense	(4,450)	+1,063	(1,351)	(4,738)

Line	FY2025	Less Q1 FY2025	Plus Q1 FY2026	TTM ended 2026-06-30
Statutory operating income	499,120	(123,952)	189,990	565,158
Financial income	20,354	(693)	44,680	64,341
Financial expenses	(2,754)	+3,288	(588)	(54)
Pretax income	516,720	(121,357)	234,082	629,445
Income taxes	(141,367)	+31,177	(59,302)	(169,492)
Net income	375,353	(90,180)	174,780	459,953

Every row reproduces `raw/.../ttm_statutory_calculation.json`, which is source-hashed inside `statutory_bridge.json`; `all_residuals` equals zero. Revenue, OI, pretax, and NI are all like-for-like. No cumulative half-year or duplicate standalone quarter enters the bridge.

10. Sensitivity — which variable matters most

Each sensitivity changes one Base variable and holds the other model inputs constant. Segment 1 uses the exact Base implied CAGR of 7.624844%; ±200bp is applied for five years and its repaired terminal margin remains 42.0%. Services margin moves ±200bp at unchanged revenue. Share count moves ±5% around the Base terminal denominator. Tax moves ±300bp around 27%.

Variable changed from Base	Down case EPS	Base EPS	Up case EPS	EPS impact range versus Base
Test System revenue CAGR -200bp / +200bp	597.7786	654.5498	715.7021	-56.7712 / +61.1524
Services and Others terminal margin -200bp / +200bp	651.1126	654.5498	657.9681	-3.4371 / +3.4183
Terminal diluted shares -5% / +5%	688.9998	654.5498	623.3807	+34.4500 / -31.1690
Tax rate -300bp / +300bp	681.4491	654.5498	627.6505	+26.8993 / -26.8993

Test System revenue CAGR is the largest tested driver because Test System dominates both revenue and profit. Share count and tax matter but cannot close a JPY1,507.50 per-share gap to the required JPY2,266.67. Services margin has very little influence. The practical kill/trigger variables are sustained Test System growth and profit retention, yet even the reviewed Bull endpoint fails the price gate.

11. Combined earnings summary

Case	Revenue JPYbn	OI JPYbn	OI margin	NI JPYbn	EPS JPY per listed unit	Probability	EPS × 15	Versus JPY34,000
Bear	1,068.476	354.717	33.20%	250.762	343.6434	25%	5,154.65	-84.84%
Base	1,777.433	654.817	36.84%	476.899	654.5498	55%	9,818.25	-71.12%
Bull	2,264.615	1,120.455	49.48%	839.193	1,152.6977	20%	17,290.47	-49.15%
Probability-weighted	1,697.630	672.919	39.64% implied	492.823	676.4528	100%	10,146.79	-70.16%

The weights are not uniform. Base receives 55% because current platform breadth and management's quantified near-term guidance support continued growth, while record share, customer concentration, and peak mix argue against extrapolation. Bear receives 25%, more than Bull's 20%, because semiconductor equipment can correct abruptly, Test System is concentrated, the moat review remains YELLOW, and capacity/productivity can overshoot demand.

12. Tie-out checks

- **PASS — Reported-financial and statutory-bridge tie-out.** FY2025: 518,760 + 8,758 - 23,948 - 4,450 = 499,120 statutory OI, residual zero. TTM: 582,557 + 14,615 - 27,276 - 4,738 = 565,158 statutory OI, residual zero. FY revenue: 1,019,380 + 109,230 = 1,128,610. TTM segment revenue 1,232,391 versus consolidated 1,232,307 differs by 84 or 0.0068%, within 2%. Sources: `statutory_bridge.json`, `data_package.md` §§2-3a.

- **PASS — NI / shares / listed-unit / FX equals EPS.** Bear: 250,761.850 ÷ 729.715253 × 1.0 × 1.0 = 343.6434. Base: 476,898.580 ÷ 728.590242 × 1.0 × 1.0 = 654.5498. Bull: 839,192.648 ÷ 728.024906 × 1.0 × 1.0 = 1,152.6977. All units are JPY per XTKS:6857 ordinary share. Sources: §§5-6 and sealed quote packet.

- **PASS — Segment sum at horizon.** With no disclosed forecast revenue elimination, combined revenue equals segment sums exactly: Bear 936,341 + 132,135 = 1,068,476; Base 1,606,377 + 171,056 = 1,777,433; Bull 2,059,191 + 205,424 = 2,264,615. Each ratio is 100.0000%. Sources: reviewed segment appendices §10.

- **PASS — Product-to-segment rollup.** Test Bear: 697,652 + 156,968 + 81,721 = 936,341; Base: 1,235,199 + 256,538 + 114,640 = 1,606,377; Bull: 1,603,139 + 321,642 + 134,410 = 2,059,191. Services Bear: 82,707 + 49,428 = 132,135; Base: 105,561 + 65,495 = 171,056; Bull: 126,673 + 78,751 = 205,424. All residuals are zero subject to displayed JPY1m rounding. Sources: each reviewed appendix §10.

- **PASS — Weighted margin check.** Services product profit ties: Bear 10,752 + 1,483 = 12,235 and 12,235 ÷ 132,135 = 9.26%; Base 21,112 + 5,240 = 26,352 and 26,352 ÷ 171,056 = 15.41%; Bull 31,668 + 9,450 = 41,118 and 41,118 ÷ 205,424 = 20.02%. Test product profit is genuinely undisclosed; its reviewed appendix therefore applies one sourced scenario margin to the tied segment total and does not fabricate a weighted product-margin schedule. This preserves the exact common metric and is the reviewed model convention, not a failed arithmetic row.

- **PASS — Share count and security-unit path.** 731.260642m financial-statement diluted shares × 1.0 split factor = 731.260642m quote-basis financial shares; dividing by depositary 1.0 × class 1.0 gives 731.260642m listed equivalents. Base five-year path: 731.260642 - 6.281518 repurchased + 0.833340 SBC + 2.777778 convertible = 728.590242m. Bear and Bull also tie to §6. No ADR units are used.

- **PASS — Growth plausibility.** Test Base CAGR 7.624844% is far below 1.2 × the disclosed 60.1% three-observation historical rate. Services Base CAGR 7.359899% is below 1.2 × its disclosed 8.0% historical rate, or 9.6%. Both reviewed appendices also compare current momentum with Teradyne and explain the normalization. No segment breaches the faster permitted reference.

- **PASS — Historical arithmetic over exactly five years.** Test: 1,112,461 × (1 - 3.388272%)^5 = 936,341; × (1 + 7.624844%)^5 = 1,606,377; × (1 + 13.105147%)^5 = 2,059,191. Services: 119,930 × (1 + 1.957225%)^5 = 132,135; × (1 + 7.359899%)^5 = 171,056; × (1 + 11.363961%)^5 = 205,424. Each reconstructed endpoint equals its table within rounding.

- **PASS — Recency anchor with quantified step-change evidence.** Base TTM+1 revenue is 1,333,335 + 134,778 = JPY1,468.113bn, 19.1% above reported TTM JPY1,232.307bn; Base TTM+1 OI is JPY645.749bn, 14.3% above TTM JPY565.158bn. The changes exceed 10%, but the reviewed appendices provide quantified primary-source support: management's 2026-07-29 FY2026 guide is JPY1,714bn revenue and JPY846bn OI after record Q1 revenue of JPY367.473bn and OI of JPY189.990bn. The modeled first-year figures are materially below that guide, so the step-up is evidenced rather than invented.

- **PASS — Period and horizon integrity.** The TTM bridge is FY2025 minus the identical 2025-04-01 to 2025-06-30 Q1 period plus 2026-04-01 to 2026-06-30 Q1. All row residuals are zero, no quarter overlaps, and the resulting TTM is 2025-07-01 to 2026-06-30. Every forecast runs from 2026-06-30 to 2031-06-30, exactly 5.0 calendar years. FY2025 is used only as a historical cross-check.

- **PASS — Valuation, unit bridge, hashes, and probability arithmetic.** Exact packet-byte hashes reproduce `64dd418aca7356e7c022459d07682a313e207c8f654c0e6fc521cb4b634c1dd1` and `ed42149f4b9060c0ce41bef9bdf494958af6c89ad3cf22d6963f8d096c5518d6`. XTKS:6857 raw close JPY34,000, split 1.0, depositary 1.0, class 1.0, and FX 1.0 reproduce the security unit. EPS × 15 equals JPY5,154.65, JPY9,818.25, and JPY17,290.47. Probabilities sum 25% + 55% + 20% = 100%; weighted EPS is 0.25 × 343.6434 + 0.55 × 654.5498 + 0.20 × 1,152.6977 = JPY676.4528. Base cushion is (9,818.25 - 34,000) ÷ 34,000 = -71.12%, and Base—not Bull—controls the gate.

The earnings synthesis is arithmetically complete. It grants no trade, portfolio, ranking, sizing, messaging, or publication authority. `trade_execution_authorized=false` remains controlling.

SYNTHESIS CLEARED — 11/11 TIE-OUTS PASSED

Appendix CS - Compounder Score

Advantest Corporation (6857.T) — Compounder Score

Analysis date: 2026-09-28 Price anchor: JPY34,000 on 2026-09-25 TTM operating anchor: 2026-06-30 Return horizon: 2031-06-30 Exact security-return horizon: 1,739 days / 4.761220285153015 years Currency: JPY Trade execution authorized: **NO**

1. Executive Verdict

Compounder Score: 71/100. Business Quality Score: 68/80. 20% Return Underwriting/Stretch Score: 3/20. Score-implied classification: Buy only at lower price.

The evidence supports Advantest as a high-quality semiconductor-test platform. Its five-year median FMP ROIC proxy is 26.19%, its latest FMP ROIC is 42.6%, and an issuer-convention FY2025 diagnostic is 52.9%. Cash conversion is real: aggregate five-year free cash flow is 83.54% of normalized NOPAT, aggregate CFO is 98.34% of net income, and diluted shares fell at a 1.62% annual rate over five years. The V93000 platform combines qualification history, reusable test programs and instruments, customer engineering knowledge, global applications support, and production scale. Advantest estimates it held 66% of the CY2025 SoC tester market. Those facts support a strong business-quality score.

The evidence does not support buying that quality at JPY34,000 under the 20% stretch rubric. The repaired synthesis lowers Base terminal Test System margin from 48.5% to 42.0%, Base statutory operating income to JPY654.816742bn, and Base EPS to JPY654.5497764160284. The valuation preflight locks P/E as the primary method and Bear/Base/Bull exit P/Es at 18x/28x/38x. Using the repaired terminal statutory diluted EPS and exact 1,739-day holding period, gross local returns are **-30.09% Bear, -12.17% Base, and +5.46% Bull**. Probability-weighted terminal shareholder wealth is JPY20,386.964635567514 per share, producing a **-10.19%** CAGR. Even the Bull case falls far short of 20%.

The score is not rescued by assuming dividends. The sealed scenario model contains a complete buyback/dilution schedule but no exact-horizon dividend schedule. This appendix therefore uses an explicit **zero-distribution diagnostic** rather than fabricating payments. The current JPY59 annual dividend and the stated minimum JPY30 policy are disclosed, but neither is inserted into terminal wealth. That is conservative and finite. Buybacks are already counted once through the scenario diluted-share paths.

The main underwriting risk is paying a 59.77x normalized current P/E for a cyclical equipment company at record AI/HPC mix and more than 50% Test System segment margin. The repaired Base terminal EPS of JPY654.5497764160284 and 28x exit P/E imply only JPY18,327.393739648796 per share. A 20% annual return from JPY34,000 would require JPY80,998.74164008851 of terminal wealth, JPY2,892.812201431733 of terminal EPS at 28x, or a 123.75x P/E on repaired sealed Base EPS. The evidence does not support those requirements.

The classification is therefore **Buy only at lower price**, not Investable now. The repaired Base-case maximum entry price for a 20% annual return is JPY7,693.0996029159805 under the same 28x P/E method and zero-distribution diagnostic. This diagnostic score does not override the later ER2 verdict, grant sizing authority, or authorize any trade.

2. Data Source Map

Every return input comes from the sealed ER2 chain. No price, multiple, share count, normalization, or scenario endpoint was re-fetched or substituted.

Evidence area	Controlling artifact	Period / use	Integrity result
Price, listing, security unit and shares	`quote_packet.json`	JPY34,000 XTKS:6857 close on 2026-09-25; 731.260642m diluted shares	SHA-256 `64dd418aca7356e7c022459d07682a313e207c8f654c0e6fc521cb4b634c1dd1`
Historical statutory bridge	`statutory_bridge.json`	FY2025 and TTM to 2026-06-30	SHA-256 `ed42149f4b9060c0ce41bef9bdf494958af6c89ad3cf22d6963f8d096c5518d6`; zero residuals
Consolidated history, balance sheet and cash flow	`quant_foundation.md`; `data_package.md`	FY2021-FY2025 and latest TTM	QF 8/8; DR cleared for forecasting
Test System economics and forecast	`appendix_B_test_system_business.md`	TTM to 2031-06-30 Bear/Base/Bull	Repaired and reviewed; SHA-256 `0c42c62cdd8b1cb4d2b371221fc4c8e1e5fad21d98dd05ee7be56e4556efade0`

Evidence area	Controlling artifact	Period / use	Integrity result
Services and Others economics and forecast	`appendix_B_services_and_others.md`	TTM to 2031-06-30 Bear/Base/Bull	Reviewed; SHA-256 `b4f64918a7760d30ed57603791ecbf7542af6efc64f0efc5f6dd24f86e612ea3`
Management and capital allocation	`appendix_management.md`	Through 2026-09-28	Management PASS; SHA-256 `e2e87eb4bc3717e1f879dae72ab8a1161be2bc69bbf3f64e7d145954098ce014`
Moat and 2046 durability	`appendix_moat.md`	Current and 2046 tests	Moat YELLOW / 2046 YELLOW; SHA-256 `c2d39226c390e4c86d6af0e00383128c36e9ed68a8996e5bd634ba28f65d214b`
Scenario EPS, shares and probabilities	`appendix_synthesis.md`	TTM to 2031-06-30	Repaired 11/11 tie-outs; SHA-256 `f8d048fa8c6ee53f1f9028bfefef226b6a7125b53a73c62a007fabeba3dc7c8a`
Method, denominator and exit multiples	`valuation_preflight.json`	Locked before returns	`VALUATION_PREFLIGHT_VALID`; SHA-256 `25e7db44e9f64615542a31f7688df480c02dc3251156811d6d95bd2b9413d9fd`

The repaired valuation-preflight hash reproduced exactly. Its status is `CLEARED`, all five foundations pass, and its blocker list is empty. The normalized anchor remains JPY568.853527654504 EPS and removes only JPY61,299m of non-recurring financial gains; the Q1 FY2025 divestiture gain is already absent from TTM. The newly sealed terminal denominator is JPY343.6434 Bear, JPY654.5498 Base and JPY1,152.6977 Bull. This appendix copies those earnings, the P/E method, diluted-share treatments, and exit multiples without reinterpretation. Advantest is not a P&C insurer or a balance-sheet-led financial company, so no insurer return bridge applies.

3. Key Financial and Quality Metrics

Metric	Result	Calculation / interpretation
Five-year median ROIC proxy	26.19%	Median FMP ROIC across FY2021-FY2025; not relabelled as a fully R&D-capitalized measure
FY2025 ROIC	42.6% FMP / 52.9% issuer diagnostic	Demonstrates strong current returns but occurs at peak-like volume and mix
Three-year ROIIC proxy	74.39%	Change in NOPAT at 25% tax divided by change in FMP invested capital, FY2022-FY2025
Five-year ROIIC proxy	77.45%	Same method, FY2020-FY2025; cyclical and denominator-sensitive
Revenue CAGR, five years	29.26%	FY2020-FY2025 sealed annual data
NOPAT CAGR, five years	47.82%	Statutory OI at a consistent 25% normalized tax rate
FCF CAGR, five years	40.54%	FCF from OCF less PPE capex, with FY2025 strict FCF used in conversion analysis
FCF / normalized NOPAT, aggregate five years	83.54%	JPY687.140bn aggregate FCF / JPY822.553bn aggregate normalized NOPAT
CFO / net income, aggregate five years	98.34%	Cash earnings closely support accounting earnings
FCF / net income, aggregate five years	84.15%	Includes a deep FY2023 cycle trough and FY2025 working-capital build
Diluted share CAGR, five years	-1.62%	793.425m to 731.260642m
Latest SBC / revenue	0.39%	JPY4.450bn / JPY1,128.610bn
Latest SBC / strict FCF	1.49%	JPY4.450bn / JPY299.152bn
Net debt / EBITDA	-0.59x	Net-cash balance sheet; June 2026 net cash JPY304.958bn
Current EV / normalized TTM NOPAT	59.47x	Recomputed from JPY24,557,903.828m EV and JPY412,976.698m NOPAT
Current TTM FCF yield	1.55%	JPY384.627bn / JPY24,862.862bn market value

The ROIIC figures are useful directionally but do not earn the rubric maximum. Advantest's asset-light accounting expenses the R&D and applications engineering that create its platform. A complete acquisition-inclusive ROIIC would require a consistent R&D capitalization/amortization schedule, comparable non-cash working-capital reinvestment, and segment

capital. Those are not sealed. The score therefore treats the calculated 74%-77% as a cycle-sensitive proxy rather than false precision. The proxy nevertheless aligns with observable outcomes: revenue, operating profit, market share, and FCF all rose sharply while diluted shares declined.

4. Rubric Scorecard

Category	Score	Maximum	Evidence-based conclusion
Incremental returns on capital	20	25	High ROIC/ROIIC proxies and cash conversion; capped for cycle sensitivity and incomplete acquisition-inclusive/R&D-adjusted denominator
Reinvestment runway	18	20	AI/HPC, HBM, advanced packaging, silicon photonics and installed-base services support growth; customer concentration and test productivity cap certainty
Durability of moat	13	15	Strong platform switching costs, scale and trusted qualification; 2046 remains YELLOW because each device generation can reopen competition
Accounting and financial quality	9	10	Strong cash conversion, net cash, low SBC and transparent statutory bridge; strategic-investment fair values require normalization
Capital allocation	8	10	Countercyclical R&D, rational historical buybacks and modest cash M&A; Essai impairment, strategic stakes and compensation design reduce the score
Price and 20% underwriting	3	20	Locked returns are deeply below 20%; only conservative multiple treatment and modeled per-share buybacks earn credit
Compounder Score	**71**	**100**	**High-quality business, unacceptable current return setup under this stretch rubric**

The subcategory logic is deliberately non-compensating. Business quality remains 68/80 because the repair changes the forward Base normalization rather than the sealed historical return, cash-conversion, market-share or moat evidence. Valuation remains only 3/20 because Base was already below the rubric's lowest IRR band; the repair makes the negative return worse. A high quality score cannot transform negative Base return arithmetic into an investable entry price.

5. ROIIC and Reinvestment Analysis

Normalized ROIC is high. The five-year FMP series was 23.6%, 28.7%, 12.7%, 26.2%, and 42.6%. The median is 26.19%, which earns four of five points rather than five because the series includes a material trough and the current result is elevated. FY2025's issuer-convention diagnostic of 52.9% reinforces the conclusion that current returns are high, but it uses a different invested-capital definition and is not mixed into the median.

The ROIIC proxy is also high. From FY2022 to FY2025, normalized NOPAT rose from JPY125.264bn to JPY374.340bn while FMP invested capital rose from JPY377.131bn to JPY711.948bn, producing 74.39%. Across five years, the analogous result is 77.45%. The evidence supports meaningful incremental value creation, not growth funded by chronic equity issuance. Yet the calculation is sensitive to Advantest's large cash balance, working capital, R&D expensing and cyclical endpoints. Six of eight ROIIC points are awarded, not eight.

Unit economics support the result. A tester platform combines instruments, software, interfaces, thermal and applications engineering. Reuse across devices and generations allows incremental configurations and modules to monetize prior R&D. Qualification and yield history make failure costly to customers. The downside is fixed engineering and support: Test System's exact segment margin fell to 26.7% in FY2023 and rose above 52% on the TTM anchor. That volatility prevents treating peak ROIIC as a steady-state law.

Cash conversion is genuine. Five-year aggregate CFO nearly equals aggregate net income, and aggregate FCF is more than 83% of normalized NOPAT. FY2023 FCF fell to JPY12.125bn while operating profit troughed, but the company did not conceal the cycle with financing. FY2025 strict FCF reached JPY299.152bn and TTM FCF JPY384.627bn. SBC is

economically included and is small relative to revenue and FCF. The diluted share count fell rather than rising.

6. Runway Analysis

The runway is large but not linear. Advantest estimated the CY2026 SoC tester market at USD10.5bn-11.5bn after USD6.9bn in CY2025, while memory testers were forecast at USD2.5bn-3.0bn. GPU, custom ASIC and CPU demand, HBM stacks, longer test times, more insertions, advanced packaging, system-level test and silicon photonics can all increase value captured per device. The Base model still normalizes Test System growth to a 7.62% five-year CAGR; it does not carry the latest 35.7% SoC quarterly growth indefinitely.

Advantest has proven it can reinvest at scale. It maintained and increased R&D through the FY2023 downturn, then converted that engineering capacity into share, revenue and margin. FY2025 R&D was JPY78.140bn. The production model combines internal manufacture with EMS partners and is being expanded toward approximately 10,000 V93000 systems annually. That capacity supports design wins during tight ramps, though idle capacity would become a margin drag. The repaired Base case now expresses that risk explicitly: Test System margin falls from 52.37% TTM to 50.0%, 46.0%, 42.0%, 41.0% and 42.0% rather than relying on an unsupported 48.5% terminal endpoint.

Services and Others adds a smaller installed-base runway. Support, calibration, repair, parts, interfaces and upgrades should follow the active fleet, but the issuer does not disclose attach, renewal or product-profit metrics. The segment suffered an Essai impairment and its FY2025 profit included a divestiture gain. The runway score therefore credits the installed-base mechanism while refusing to treat Services as a subscription annuity.

Test productivity is the most important offset. Parallelism, faster programs, adaptive test and better utilization can reduce tester demand per good device. Advantest may capture that value through instruments and software, but customers and Teradyne can capture it too. Growth does not automatically create value if capacity, inventory and R&D outrun durable demand.

7. Moat Analysis

The moat is strongest in active device programs. Customers invest in test programs, characterization data, interface boards, engineering knowledge, production recipes and qualification. Changing platforms during a volume ramp creates correlation, yield and time-to-market risk. V93000 compatibility across generations protects prior customer investment. A global applications and service network reinforces the platform, while an estimated 66% SoC share spreads R&D over a large installed base.

The moat is not a regulatory franchise. Teradyne is a capable alternative; Chinese vendors can advance from mature categories; and each new GPU, ASIC, CPU, memory or photonics generation creates a new design-win contest. The top five customers were approximately 50% of FY2025 revenue, with NVIDIA Group at 21.6% and TSMC at 11.1%. One major qualification loss can overwhelm gradual installed-base growth.

AI is more likely to increase physical test complexity than replace calibrated instruments. It can, however, automate routine engineering and improve test productivity. The 2046 review therefore stays YELLOW. Advantest can remain essential if its platform migrates across chiplets, optical I/O, new packages and system-level test, but a plausible 2046 bear case has lower share and mid-teens-to-low-20s margins. Thirteen of fifteen moat points are awarded.

8. Accounting and Capital Allocation Analysis

The statutory bridge is clean. FY2025 and TTM segment profit reconcile through corporate costs, SBC, financial income, financial expense, tax and net income with zero residual. The issuer-reported TTM diluted EPS is JPY630.23 on the TTM weighted-average denominator; the JPY628.986401814307 figure using the current 731.260642m share anchor remains a separate forward-share-path bridge. Corrected normalized comparable EPS is JPY568.853527654504 after removing only the JPY61,299m non-recurring financial gains at the sealed tax rate. The divestiture gain is already absent from TTM and is not deducted again. The reported P/E is 53.95x and normalized comparable P/E is 59.77x.

Capital allocation has been broadly disciplined. Management maintained R&D during the downturn, nearly stopped buybacks when FCF was weakest, and bought shares below the later JPY34,000 quote as cash generation recovered. Five-year buybacks totaled JPY284.615bn and dividends JPY138.829bn. Cash M&A was modest after the Essai warning. The April 2026 JPY100bn zero-coupon convertible is modeled honestly: full conversion adds 2.777778m shares and no bond repayment is also charged.

The main allocation concern is the growing strategic-investment portfolio. June 2026 strategic investments of JPY113.9bn produced material below-line fair-value gains. Those gains are removed from normalized earnings and not added again to terminal value. Management should demonstrate operating synergies or disposal discipline. Compensation is heavily equity-linked, but EPS and TSR dominate while ROIC and FCF are absent. Those issues reduce capital allocation to 8/10.

9. 20% Return Underwriting

Primary valuation method: P/E. The method is identical across Bear, Base, Bull, probability weighting, reverse return and net-SGD. Under P/E, terminal equity value per share equals terminal statutory diluted EPS times the locked exit P/E. No terminal cash, debt, lease, senior-claim or strategic-asset adjustment is added or subtracted. Financing and capital structure already affect statutory EPS and the equity multiple. Double-count check: **passed**.

Scenario	Probability	Exit P/E	Terminal EPS	Terminal diluted shares m	Terminal share value	Net cash/debt adjustment	Distributions	Terminal wealth	Gross local IRR
Bear	25%	18.00x	JPY343.6434266230146	729.715253	JPY6,185.581679214262	JPY0.00	JPY0.00	JPY6,185.581679214262	-30.09%
Base	55%	28.00x	JPY654.5497764160284	728.590242	JPY18,327.393739648796	JPY0.00	JPY0.00	JPY18,327.393739648796	-12.17%
Bull	20%	38.00x	JPY1,152.6977182838302	728.024906	JPY43,802.5132 94785545	JPY0.00	JPY0.00	JPY43,802.5132 94785545	5.46%
Probability-weighted	100%	P/E consistent	—	—	—	JPY0.00	JPY0.00	JPY20,386.964635567514	**-10.19%**

The probability-weighted IRR is `(20,386.964635567514 / 34,000)^(1 / 4.761220285153015) - 1`. It is not the arithmetic average of scenario IRRs.

Operating rows below use the sealed TTM 2026-06-30 operating anchor and exact five-year forecast cadence. Return rows use the actual 2026-09-25 purchase date and 2031-06-30 horizon.

Bear-case operating and return bridge

Bear case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	JPY1,232.307bn TTM	JPY1,068.476bn	-2.81% over 5 operating years	AI-capex digestion, design/share loss and utilization pressure after one more growth year
Operating margin	45.86%	33.20%	-12.66 pp	Test System underabsorption, adverse mix, pricing pressure and continued R&D
Operating earnings	JPY565.158bn statutory OI	JPY354.716720bn	-8.89% over 5 operating years	Revenue times scenario margins, then corporate and SBC bridge once
Diluted share count	731.260642m	729.715253m	-0.04% over 5 operating years	JPY30bn annual buybacks, SBC issuance and 2.777778m convertible shares
EPS	JPY630.230000 reported / JPY568.853528 normalized	JPY343.643427	-9.59% from normalized EPS	Reported uses TTM weighted-average shares; terminal uses reconciled scenario shares
Valuation denominator	Reported EPS includes financial one-offs; normalized JPY568.853528 is comparable	Terminal statutory diluted EPS	Comparable	JPY61,299m financial gains removed; divestiture gain already absent from TTM
Valuation	59.77x normalized P/E	18.00x P/E	-41.77x	VP-locked profitable cyclical-low evidence; not chosen to target return
Share value	JPY34,000.00	JPY6,185.58	-81.81%	JPY343.643427 EPS × 18.00x; no net-cash/debt adjustment
Annual dividend	JPY59.00 current	Unavailable — not separately modelled	n/a	Exact future payment schedule is not sealed
Dividend yield	0.17% current	Unavailable — not separately modelled	n/a	No fabricated terminal dividend
Cumulative dividends	—	JPY0.00	cumulative	Explicit zero-distribution diagnostic

Bear case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Total ending value	JPY34,000.00	JPY6,185.58	**-30.09% gross local IRR**	Terminal share value plus JPY0 distributions

Base-case operating and return bridge

Base case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	JPY1,232.307bn TTM	JPY1,777.433bn	7.60% over 5 operating years	Near-term AI/HPC breadth followed by mix, share and equipment-cycle normalization
Operating margin	45.86%	36.84%	-9.02 pp	Repaired Test System margin normalizes to 42.0%; Services scales, but corporate and SBC remain
Operating earnings	JPY565.158bn statutory OI	JPY654.816742bn	2.99% over 5 operating years	Repaired segment paths and sealed corporate/SBC bridge
Diluted share count	731.260642m	728.590242m	-0.07% over 5 operating years	JPY50bn annual buybacks offset by SBC and full convertible dilution
EPS	JPY630.230000 reported / JPY568.853528 normalized	JPY654.549776	2.85% from normalized EPS	JPY476.898580bn owner NI / 728.590242m shares
Valuation denominator	Reported EPS includes financial one-offs; normalized JPY568.853528 is comparable	Terminal statutory diluted EPS	Comparable	Same statutory-owner perimeter; corrected TTM normalization counts divestiture once
Valuation	59.77x normalized P/E	28.00x P/E	-31.77x	VP-locked company mid-cycle evidence around 21.6x-29.7x
Share value	JPY34,000.00	JPY18,327.39	-46.10%	JPY654.549776 EPS × 28.00x; no terminal net-cash/debt addition
Annual dividend	JPY59.00 current	Unavailable — not separately modelled	n/a	Exact future payment schedule is not sealed
Dividend yield	0.17% current	Unavailable — not separately modelled	n/a	No fabricated terminal dividend
Cumulative dividends	—	JPY0.00	cumulative	Explicit zero-distribution diagnostic
Total ending value	JPY34,000.00	JPY18,327.39	**-12.17% gross local IRR**	Terminal share value plus JPY0 distributions

Bull-case operating and return bridge

Bull case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	JPY1,232.307bn TTM	JPY2,264.615bn	12.94% over 5 operating years	Sustained AI/HPC, HBM, photonics and test-content growth with leading share retained
Operating margin	45.86%	49.48%	+3.62 pp	Rich configurations and scale sustain high Test System margin while customer bargaining limits it
Operating earnings	JPY565.158bn statutory OI	JPY1,120.454548bn	14.67% over 5 operating years	Bull segment margins, corporate costs and SBC bridged once
Diluted share count	731.260642m	728.024906m	-0.09% over 5 operating years	JPY70bn annual buybacks, SBC issuance and full convertible dilution
EPS	JPY630.230000 reported / JPY568.853528 normalized	JPY1,152.697718	15.17% from normalized EPS	JPY839.192648bn owner NI / 728.024906m shares
Valuation denominator	Reported EPS includes financial one-offs; normalized JPY568.853528 is comparable	Terminal statutory diluted EPS	Comparable	Same statutory-owner perimeter; no double subtraction of prior-Q1 divestiture gain

Bull case	Start (2026-09-25)	Horizon (2031-06-30)	CAGR / change	Justification
Valuation	59.77x normalized P/E	38.00x P/E	-21.77x	VP-locked below recent 39.61x Advantest premium and 41.81x-54.72x peer range
Share value	JPY34,000.00	JPY43,802.51	+28.83%	JPY1,152.697718 EPS × 38.00x; no separate asset or net-cash value
Annual dividend	JPY59.00 current	Unavailable — not separately modelled	n/a	Exact future payment schedule is not sealed
Dividend yield	0.17% current	Unavailable — not separately modelled	n/a	No fabricated terminal dividend
Cumulative dividends	—	JPY0.00	cumulative	Explicit zero-distribution diagnostic
Total ending value	JPY34,000.00	JPY43,802.51	**5.46% gross local IRR**	Terminal share value plus JPY0 distributions

Conservative net-SGD diagnostic

The same P/E terminal wealth is translated into an assumption-bound net-SGD diagnostic. Assumptions are 0.50% entry transaction cost, 0.50% exit transaction cost, 0.25% annual custody/implementation drag, 2.00% annual JPY depreciation versus SGD, and 20% withholding on distributions. Distributions are zero, so withholding has no numerical effect. No method, multiple, share count or terminal operating value changes.

Scenario	Same-method terminal wealth	Net-SGD indexed terminal wealth	Net-SGD IRR
Bear	JPY6,185.581679	5,523.993242 SGD-indexed units	-31.80%
Base	JPY18,327.393740	16,367.159049 SGD-indexed units	-14.32%
Bull	JPY43,802.513295	39,117.547865 SGD-indexed units	2.88%
Probability-weighted	JPY20,386.964636	18,206.445360 SGD-indexed units	**-12.39%**

This diagnostic is conservative, finite and reproducible. It is not tailored tax advice or a portfolio-fit assessment.

Reverse-return test

A 20% return over 4.761220285153015 years requires JPY80,998.74164008851 of terminal shareholder wealth. At the locked Base 28x exit P/E and zero distributions, required EPS is JPY2,892.812201431733. That requires a 38.44% five-year EPS CAGR from corrected normalized TTM EPS, versus repaired sealed Base EPS CAGR of 2.85% and Bull EPS CAGR of 15.17%. Alternatively, repaired Base EPS would require a 123.75x exit P/E. Neither path is supportable.

The repaired Base maximum buy price for 20% annual return is JPY7,693.0996029159805. This is a diagnostic price, not a limit order or trade instruction.

10. Hard Veto Checklist

Test	Status	Evidence
ROIIC below cost of capital	Pass	Even conservatively scored proxies are far above a reasonable cost of capital
ROIC high only because capital is tiny/negative	Watch	Asset-light and expensed R&D inflate simple returns, but invested capital is positive and cash outcomes support economics
Growth requires external financing	Pass	Strong FCF and net cash; convertible is explicitly modeled rather than ignored
Material share dilution without value	Pass	Five-year diluted share CAGR is -1.62%; terminal convertible dilution is included
Large acquisitions without disclosed returns	Watch	Cash M&A has been modest, but Essai impairment and strategic stakes require monitoring
Structural FCF shortfall	Pass	Aggregate FCF/NOPAT is 83.54%; CFO/net income is 98.34%
Concentration/cyclicality can impair equity	Watch	Top-five customers near 50%; Bear explicitly models design loss and digestion

Test	Status	Evidence
20% case requires multiple expansion	Pass	All locked exits are below the comparable 59.77x normalized current P/E; earnings, not expansion, are the binding failure
Flawless execution needed at current price	Watch	The 20% case is implausible, but the classification is already restricted to a much lower entry price
Moat cannot be explained	Pass	Qualification, platform compatibility, engineering knowledge, service and R&D scale are concrete
Accounting/governance impairs trust	Pass	Zero-residual statutory bridge and Management PASS; non-recurring gains are normalized
Balance-sheet risk can wipe out equity	Pass	June 2026 net cash JPY304.958bn; no P/E capital-structure double count

No hard veto is marked Fail. Watch items prevent an Investable-now classification and constrain confidence, but the decisive rejection at today's price is the return arithmetic itself.

11. Final Decision

Score-implied classification: Buy only at lower price. Advantest clears the business-quality threshold at 68/80 and the ROIIC-plus-runway subtotal at 38/45. It fails every price test that matters: total score is below 80/100, valuation score is 3/20, Base IRR is negative, Bear downside is severe, and the 20% reverse-return hurdle is not plausible. The evidence supports owning the business only after a substantially lower entry price or a materially stronger, newly sealed earnings path—not by changing the locked exit multiple.

Compounder Score note: **71/100 — high-return platform quality is overwhelmed by a JPY34,000 entry price that produces a deeply negative repaired-Base return under the locked valuation.**

Business Quality Score note: **68/80 — strong ROIC/ROIIC proxies, cash conversion, platform switching costs and runway; capped by cycle/customer concentration, peak margins, incomplete acquisition-inclusive ROIIC and 2046 YELLOW.**

20% Return UW Score note: **3/20 — repaired Base gross local IRR is -12.17%; even Bull is only +5.46%, and 20% requires JPY2,892.81 terminal EPS at 28x or a 123.75x P/E on sealed Base EPS.**

The key monitoring variables are high-end SoC and HBM design wins, Test System share versus Teradyne, tester demand relative to capacity, inventory and working-capital conversion, normalized margins after AI/HPC mix cools, and operating evidence from strategic investments. A lower quote alone changes expected return; it does not improve business durability. Conversely, a new earnings path must be rebuilt through the sealed ER2 chain before it changes this score.

12. Machine-Readable JSON

The complete structured artifact is `C:\Users\Admin\OneDrive\GPT\ER 2.0\Advantest\compounder_score.json`. It preserves full-precision scenario EPS, share counts, terminal values, distributions, gross local IRRs, probability-weighted terminal wealth, exact horizon, same-method net-SGD diagnostics, reverse-return requirements, score fields, validation flags and authorization boundaries.

Appendix CSA - Scoring Audit

Advantest Corporation (6857.T) - Production ER2 Scoring Audit

Analysis date: 2026-09-28 Price anchor: JPY34,000 on 2026-09-25 TTM operating anchor: 2026-06-30 Security-return horizon: 2031-06-30 Exact holding period: 1,739 days / 4.761220285153015 years Auditor status: **CLEARED - repaired return model verified; diagnostic score revised** Trade execution authorized: **NO**

1. Original vs Audited Scores

The current repaired valuation-preflight gate is valid. Its exact SHA-256 is `25e7db44e9f64615542a31f7688df480c02dc3251156811d6d95bd2b9413d9fd`, equal to the orchestrator lock and the hash copied by CS. The evidence-file validator returned `VALUATION_PREFLIGHT_VALID`. Status is `CLEARED`, all five foundations pass, and blockers are empty. CS exactly reproduces PE, the reported and normalized current denominators, the repaired terminal earnings bridge, all capital-structure treatments, and 18x/28x/38x Bear/Base/Bull exit P/Es.

The repaired return model clears. The quality score does not clear unchanged because the scorer awards 6/8 points for an ROIIC proxy whose denominator is change in FMP invested capital rather than the rubric-required cumulative reinvestment schedule. Acquisition-inclusive ROIIC, annual reinvestment, and R&D capitalization/amortization remain uncalculated. The mandatory CSA cap therefore sets 1B to zero.

Item	Original	Audited	Notes
Business Quality Score / 80	68/80	**58/80**	Strong operating evidence remains, but ROIIC, runway, pricing-power/moat, and capital-allocation evidence were over-scored.
Valuation / 20% Return UW Score / 20	3/20	**3/20**	Repaired P/E returns clear arithmetically but remain far below the 20% hurdle.
Compounder Score / 100	71/100	**61/100**	Exact sum of 58/80 and 3/20.
Score-implied classification	Buy only at lower price	**Reject**	The diagnostic rubric requires Reject below 70. This does not override ER2 gates.

Audited category scores are 13/25 Incremental Returns on Capital, 17/20 Reinvestment Runway, 12/15 Durability of Moat, 9/10 Accounting and Financial Quality, 7/10 Capital Allocation, and 3/20 Price and 20% Underwriting.

2. Score Reductions and Reasons

Complete business-quality evidence audit

Rubric item	Status	Audited points	Evidence and treatment
1A Normalized ROIC	Supported with limitation	4/5	Five-year median FMP ROIC is 26.19%; the 52.9% issuer diagnostic uses a different convention and peak FY2025 earnings.
1B ROIIC	Calculation error	0/8	The 74.39%/77.45% figures divide change in NOPAT by change in invested capital, not cumulative reinvestment.
1C ROIIC trend	Partly supported	1/3	Three- and five-year endpoint proxies point in the same direction but cannot establish a valid reinvestment-return trend.
1D Unit economics	Supported	3/3	Platform reuse, qualification, applications engineering, installed-base compatibility, and profitable trough economics are evidenced.
1E Cash conversion	Supported	3/3	Five-year aggregate FCF/normalized NOPAT is 83.54%; CFO/net income is 98.34%.

Rubric item	Status	Audited points	Evidence and treatment
1F Not an accounting artifact	Partly supported	2/3	Invested capital is positive and cash outcomes support earnings, but expensed R&D and asset-light accounting inflate simple returns.
2A Remaining market opportunity	Partly supported	3/5	AI/HPC, HBM, advanced packaging, and photonics are credible, but precise TAM is mainly management-estimated and lacks unit/backlog triangulation.
2B Reinvestment at scale	Supported	5/5	R&D was preserved through FY2023 and converted into subsequent revenue, share, and profit growth.
2C Organic growth	Supported	4/4	Historical growth is sourced; cash M&A was modest relative to internal R&D.
2D Repeatable playbook	Partly supported	2/3	V93000 platform extension and capacity execution are observable; new capacity has not been tested through a downcycle.
2E Market structure	Supported	2/2	High-end ATE is concentrated, but Teradyne remains a capable competitor.
2F Growth without ROIC collapse	Supported with risk	1/1	Trough profitability remained positive, although current margins are peak-like.
3A Source of advantage	Supported	4/4	Qualification, compatibility, customer knowledge, scale, and service coverage are concrete.
3B Pricing power	Partly supported	1/3	Value capture through mix/configuration exists, but no like-for-like price, ASP, escalator, or renewal evidence exists.
3C Competitive evidence	Supported	3/3	Estimated 66% SoC share, customer qualification, and a profitable trough are direct evidence.
3D Customer stickiness	Supported	2/2	Program migration, yield correlation, interfaces, training, and qualification create switching costs.
3E Stress resilience	Partly supported	1/2	FY2023 remained profitable, but each platform transition reopens competition and customer concentration is high.
3F Disruption risk	Supported	1/1	Physical test is not replaceable by software alone; productivity improvements remain a counterforce.
4A Earnings quality	Partly supported	1/2	Statutory bridge is clean, but material financial fair-value gains require normalization.
4B Cash supports earnings	Supported	2/2	Multi-year CFO and FCF conversion are strong.
4C SBC and dilution	Supported	2/2	SBC is expensed, remains below 0.5% of revenue, and share count declined.
4D Balance sheet	Supported	2/2	June 2026 net cash is JPY304.958bn after recognizing the convertible liability.
4E Disclosure	Supported	1/1	Statutory, segment, customer, and share bridges are detailed despite KPI gaps.
4F Governance/accounting flags	Supported	1/1	Management gate is PASS and no material restatement/control failure is reported.
5A Reinvestment priority	Supported	2/2	R&D was protected in the downturn and dominates acquisition spending.
5B Acquisition discipline	Partly supported	1/2	Cash M&A is modest, but Essai incurred a JPY21.393bn impairment.
5C Buyback discipline	Supported	2/2	Buybacks slowed when FCF was weakest and historical prices were below JPY34,000.
5D Incentives	Partly supported	1/2	Equity linkage exists, but EPS/TSR dominate and ROIC/FCF are absent.

Rubric item	Status	Audited points	Evidence and treatment
5E Owner mentality	Missing/insufficient	0/1	Freely owned CEO stock is modest and the ownership guideline is recommended, not required.
5F Past decisions	Supported with limitation	1/1	Core R&D/capacity execution is strong; strategic-investment returns remain unquantified.

Category 1 falls from 20/25 to 13/25. The source history supports 4/5 for ROIC: FMP ROIC was 23.6%, 28.7%, 12.7%, 26.2%, and 42.6% from FY2021-FY2025. The issuer's 52.9% FY2025 diagnostic is a separate convention and is not mixed into the median. Category 1B is zero because the required denominator is absent. Category 1C retains only one directional point.

Category 2 falls from 18/20 to 17/20. The repaired Base Test System margin path is more defensible, but it is a forward-model repair rather than new evidence proving the runway. Precise tester-market estimates remain management-provided, and the package discloses no shipment units, realized ASP, recurring orders, backlog, book-to-bill, cancellation rate, or service attach/retention.

Category 3 falls from 13/15 to 12/15. The moat appendix concludes `Moat YELLOW` and `2046 YELLOW`, assigns a material 25%-35% long-run erosion probability, and says observable pricing power is weaker than the margin headline. The repaired 42.0% Base Test System terminal margin appropriately normalizes peak scarcity and absorption; it does not create contractual pricing evidence.

Category 5 falls from 8/10 to 7/10. Five-year R&D is JPY323.492bn and cash M&A JPY44.539bn, supporting internal-investment discipline. Against that are the Essai impairment, JPY113.9bn of strategic investments without quantified operating returns, and compensation lacking ROIC/FCF controls.

No reduction is made for SBC or dilution. FY2025 SBC was JPY4.450bn, 0.39% of revenue and 1.49% of strict FCF. Five-year diluted-share CAGR was -1.62%, and the forward bridge includes buybacks, SBC issuance, and full convertible dilution.

Complete valuation-underwriting evidence audit

Rubric item	Status	Audited points	Evidence and treatment
6A Base IRR at least 20%	Supported failure	0/6	Repaired Base gross JPY IRR is -12.17%.
6B Conservative exit multiple	Partly supported	2/4	The 28x Base P/E is independently justified and below 59.77x normalized current P/E, but does not clear the hurdle.
6C Acceptable Bear	Supported failure	0/3	Bear IRR is -30.09%, not positive or limited downside.
6D Reverse-return beatable	Supported failure	0/3	Required EPS is JPY2,892.81 or 123.75x on repaired Base EPS; not supportable.
6E Price does not imply perfection	Supported failure	0/2	59.77x normalized current P/E at peak-like margins prices exceptional durability.
6F Cash returns help	Partly supported	1/2	Buybacks improve the diluted-share path; exact future dividends are unavailable and set to zero.

The 3/20 return score is preserved because the repair worsens a Base return already below the rubric's lowest band.

3. Unsupported Claims

The evidence does not support calling the 74.39% and 77.45% quantities rubric-compliant ROIIC. They are endpoint proxies and remain useful as sensitivities, but cannot earn 1B points. The missing construction is annual net capex plus non-cash working-capital reinvestment plus capitalized R&D additions and amortization plus acquisitions minus disposals.

The evidence also does not support a fully independent long-range tester TAM, subscription-like Services economics, or demonstrated like-for-like pricing power. Those items are partly supported by historical growth, platform share, installed-base mechanics, and customer qualification, so the audit caps rather than eliminates their scores.

The repaired scorer correctly avoids unsupported return enhancements. It does not fabricate dividends, add current net cash after EPS times P/E, or separately capitalize strategic investments after normalizing their fair-value gains out of earnings.

4. Calculation Errors

The material scoring error remains the Category 1B denominator. CS divides change in normalized NOPAT by change in FMP invested capital. The rubric requires change in NOPAT divided by cumulative reinvestment. Acquisition-inclusive ROIIC and reinvestment rate are null. Six points were awarded despite the missing required calculation.

The repaired operating bridge is arithmetically valid. Base Test System revenue is JPY1,606.377bn at a repaired 42.0% exact-metric margin, producing JPY674.678bn segment profit. Adding JPY26.352bn Services profit, subtracting JPY39.103526bn Elimination and Corporate and JPY7.109732bn SBC produces JPY654.816742bn statutory operating income. Adding JPY3.042bn recurring financial income, subtracting JPY4.573016bn financial expense, and applying 27% tax produces JPY476.898580bn net income. Dividing by 728.590242m terminal diluted shares yields JPY654.5497764160284 EPS.

The earnings normalization also remains valid. Reported current EPS is JPY630.23 on 729.819m TTM weighted-average diluted shares, giving 53.948558462783424x. Normalized owner net income is `JPY459,953m - JPY61,299m x (1 - 26.927213656475146%) = JPY415,160.112699283m`. Dividing by 729.819m gives JPY568.853527654504 normalized EPS and 59.769340167738306x normalized P/E. The JPY2,504m Q1 FY2025 divestiture gain is already removed by the TTM bridge and is not deducted again.

Full return replay

Scenario	Probability	Terminal EPS	Exit P/E	Terminal diluted shares m	Distributions	Terminal wealth/share	Audited gross JPY IRR
Bear	25%	343.6434266230146	18.0x	729.715253	0.0	6,185.581679214262	**-30.08715126017200 7%**
Base	55%	654.5497764160284	28.0x	728.590242	0.0	18,327.393739648796	**-12.17210494176955 7%**
Bull	20%	1,152.6977182838302	38.0x	728.024906	0.0	43,802.513294785545	**5.464802869311214 %**

Probability-weighted terminal wealth is JPY20,386.964635567514 from 25%/55%/20% terminal-wealth weighting. Annualizing this amount over exactly 1,739 days produces **-10.185437010996923%**. The model does not average scenario IRRs.

The date count is correct: 2026-09-25 to 2031-06-30 is 1,739 days, or 4.761220285153015 years using 365.2425 days. The operating forecast is separately five calendar years from 2026-06-30 to 2031-06-30.

The reverse-return bridge replays. A 20% return requires JPY80,998.74164008851 terminal wealth. At 28x and zero distributions, required EPS is JPY2,892.812201431733. From normalized current EPS, this is a 38.440754328674265% five-operating-year EPS CAGR. It is also a 123.74726042012446x P/E on repaired Base terminal EPS. Maximum purchase price at 20% is JPY7,693.0996029159805.

Capital-structure and distribution audit

The diluted-share schedules reconcile. Bear retires 5.296704m shares, issues 0.973536m through SBC, and adds 2.777778m on full conversion, ending at 729.715253m after displayed rounding. Base retires 6.281518m, issues 0.833340m through SBC, and adds 2.777778m, ending at 728.590242m. Bull retires 6.648569m, issues 0.635055m through SBC, and adds 2.777778m, ending at 728.024906m.

Buybacks enter once through the denominator and are not added as distributions. The JPY100bn zero-coupon convertible is treated as fully converted at JPY36,000; 2.777778m shares are added and terminal repayment is not also charged. Accretion expense remains in terminal statutory earnings. SBC is both an income-statement cost and a share issuance.

Under PE, terminal equity value per share is terminal statutory diluted EPS times exit P/E. No cash, debt, lease, senior claim, or strategic asset is added or subtracted after that product. Terminal net-cash/debt adjustment is zero in all scenarios. Cumulative distributions are explicitly zero because no exact-horizon dividend schedule is sealed. This is a conservative finite diagnostic, not an assertion that the dividend ceases.

Same-method net-SGD replay

The net-SGD overlay uses the identical P/E terminal wealth and applies 0.50% entry cost, 0.50% exit cost, 0.25% annual implementation drag, 2.00% annual JPY depreciation versus SGD, and 20% withholding on zero distributions. Audited net-SGD IRRs are **-31.80% Bear, -14.32% Base, 2.88% Bull, and -12.39% probability-weighted**. Full precision is preserved in the JSON.

5. Missing Data

The most important missing evidence is a rubric-compliant cumulative-reinvestment schedule. A complete calculation would preserve annual net capex, non-cash working-capital changes, capitalized R&D additions and amortization, acquisitions, and disposals on a consistent basis, then calculate organic and acquisition-inclusive three- and five-year ROIIC.

Other gaps are exact scenario dividends; shipment units and realized ASP; backlog, order intake, book-to-bill, and cancellations; Services attach, renewal, retention, and per-tool revenue; product-level profit; and investor-specific broker, tax, withholding, and portfolio-fit facts. Missing dividend detail does not make returns null because the zero-distribution diagnostic is explicit.

The repaired 42.0% Base Test System endpoint is a disclosed scenario assumption anchored to 36.6%-38.4% historical non-peak margins and a larger installed platform. It is not an issuer guide. The repair appropriately withdraws the unsupported 48.5% endpoint, but a five-year product-profit or capacity-utilization series remains unavailable.

6. Hard-Veto and Threshold Test Audit

No return-publication veto remains. PE controls Bear, Base, Bull, probability weighting, reverse return, maximum-price analysis, and net-SGD. The reported 53.95x P/E contains non-recurring financial gains and is disclosure only; normalized 59.77x P/E is the comparable current denominator. Provider-native ratios retain their native denominators.

Exit-multiple integrity clears. Bear 18x is inside the archived profitable cyclical-low range of 16.14x-21.62x. Base 28x is within the historical mid-cycle cluster around 21.62x, 27.51x, and 29.69x. Bull 38x is below Advantest's recent 39.61x premium and peer TTM diluted P/Es of 41.81x-54.72x. These multiples were selected before return calculation, not reverse-engineered to a score or verdict. The raw current multiple was not used as a cap.

The excessive-optimism challenge passes because Bull assumes very high earnings and a 55% Test System terminal margin yet uses 38x below the cited premium anchors; its return is still only 5.46%. The excessive-bearishness challenge passes because Bear preserves positive earnings and terminal equity at a demonstrated trough multiple rather than inserting bankruptcy or zero equity. Material red-team objection status remains `PENDING` because the repaired RT stage follows CSA.

The audited threshold set fails total score at least 80, Business Quality at least 65, Valuation at least 15, ROIIC-plus-runway at least 35, Base IRR at least 20%, and acceptable Bear return. The no-expansion check passes mechanically because all exits are below comparable normalized current P/E, but that does not make the required return attainable.

7. Final 20% Hurdle Pass/Fail

FAIL. Repaired Base gross local IRR is -12.17%, Bull is 5.46%, and Base net-SGD is -14.32%. A 20% result requires JPY2,892.81 terminal EPS at 28x or 123.75x on repaired Base EPS. The audited Valuation / 20% Return Underwriting Score remains 3/20.

8. Dream Business / Dream Investment Classification

Neither. Advantest is a strong current business, but 58/80 is below the diagnostic dream-business threshold because mandated ROIIC evidence is missing and long-run moat/pricing remains YELLOW. It is not a dream investment at JPY34,000 because probability-weighted local and net-SGD returns are negative and even Bull is far below 20%.

The single biggest investment failure is entry valuation: 59.77x normalized current P/E compresses sharply under independently supported exits. The single biggest quality-score defect is the missing cumulative-reinvestment ROIIC denominator.

9. Stage 7 Scorecard Notes

Compounder Score note: **61/100 - strong platform economics do not offset missing rubric-compliant ROIIC and a deeply unattractive repaired return setup at JPY34,000.**

Business Quality Score note: **58/80 - ROIC, cash conversion, switching costs, and execution are strong; ROIIC, pricing power, long-range runway, and strategic-investment returns remain insufficiently proved.**

20% Return UW Score note: **3/20 - repaired Base gross JPY IRR is -12.17%, Bull is 5.46%, and probability-weighted net-SGD is -12.39%.**

10. Auditor JSON

The complete structured audit is `C:\Users\Admin\OneDrive\GPT\ER 2.0\Advantest\compounder_score_audit.json`. It contains the current VP, synthesis, Test System, and CS hashes; full-precision repaired gross and net-SGD returns; exact horizon; scenario weights; terminal values; distributions; diluted-share/convertible/SBC/buyback checks; P/E double-count controls; exit-multiple integrity; all score evidence and reductions; non-insurer status; and false authority flags.

SCORING AUDIT CLEARED - REPAIRED RETURNS VERIFIED; SCORE REVISED

Appendix RT - Red Team

Advantest Corporation (6857.T) — Production ER2 Red Team

Assessment date: 2026-09-28 **Research-only boundary:** No trade, portfolio, ranking, sizing, messaging, or owner-action authority. **Repaired Test System appendix SHA-256:** `0c42c62cdd8b1cb4d2b371221fc4c8e1e5fad21d98dd05ee7be56e4556efade0` **Repaired synthesis SHA-256:** `f8d048fa8c6ee53f1f9028bfefef226b6a7125b53a73c62a007fabeba3dc7c8a` **Repaired valuation-preflight SHA-256:** `25e7db44e9f64615542a31f7688df480c02dc3251156811d6d95bd2b9413d9fd` — independently recomputed and matched. **Audited primary method and exits:** P/E; Bear 18x / Base 28x / Bull 38x. **Audited gross JPY IRRs:** Bear **-30.087151%**, Base **-12.172105%**, Bull **+5.464803%**, probability-weighted **-10.185437%**, using 25% / 55% / 20% probabilities. **Audited net-SGD IRRs:** Bear **-31.80%**, Base **-14.32%**, Bull **+2.88%**, probability-weighted **-12.39%**. **Audited diagnostic score: 61/100**, comprising Business Quality **58/80** and 20% Return Underwriting **3/20**; classification **Reject**.

The prior red team identified the unsupported 48.5% Base terminal Test System margin as a material defect. The repaired chain withdraws that number, substitutes a source-bound 42.0% endpoint, rebuilds every annual operating path, reruns the 11 synthesis tie-outs, reseals VP, and reruns CS and CSA. The resulting Base EPS is JPY654.5498 rather than JPY759.1668, and Base gross IRR has fallen from -9.393935% to -12.172105%. The repair is incorporated rather than narrated around. This rerun preserves all audited fields and tests whether a different material defect remains.

1. The most fragile assumption

The most fragile remaining central assumption is the Test System revenue path, specifically Base SoC Test Systems growth of **22%, 12%, 5%, 1%, and 2%** over the five annual intervals. It produces an 8.1% SoC CAGR and helps Test System reach JPY1,606.377bn of terminal revenue at a 7.624844% segment CAGR. The path is not obviously unreasonable—Q1 FY2026 SoC growth was 35.7%, management sees demand through the following year, and the first two modeled years intentionally fade. It is nevertheless fragile because the starting point contains roughly 66% SoC tester share, approximately 80% AI-related mix within SoC, and record industry spending.

The exposure is economically concentrated. SoC TTM revenue of JPY835.696bn is 67.8% of consolidated TTM revenue. Applying management's roughly 80% AI-related SoC mix implies approximately **54% of consolidated revenue is linked to AI-related SoC activity** before adding AI-linked memory and interface demand. Diversification across GPU, custom ASIC, and CPU reduces dependence on one architecture, but it does not diversify away from aggregate AI infrastructure budgets, leading-edge packaging capacity, or the small customer group controlling the ramps.

The repaired synthesis directly tests a 200-basis-point Base Test System CAGR shortfall while holding the new 42% margin constant. Terminal EPS falls from JPY654.5498 to **JPY597.7786** and terminal wealth at 28x falls to JPY16,737.80. Base IRR becomes **-13.829860%**, 1.66 percentage points below the audited return; probability-weighted IRR becomes **-11.008456%**, 0.82 point lower. That is adverse but below the ER2 material-objection threshold. The larger conceptual risk is correlation: a demand miss may also reduce utilization and mix, but the repaired 42% Base margin already builds a 1,037-basis-point normalization from TTM and is no longer a peak-margin extrapolation.

2. The Stage 5 number most likely to be optimistic

The most-likely-to-be-optimistic Stage 5 number is now the **55.0% Bull terminal Test System margin**, not the repaired 42.0% Base margin. It exceeds the 52.37% TTM margin and FY2025's 50.9% exact-metric margin. It requires rich AI/HPC configurations, strong volume absorption, and successful capacity execution to persist even as customers demand lower cost of test and Teradyne remains credible.

The number is aggressive by design, but it is not an unsupported central forecast. Bull receives only 20% probability, its Test System revenue grows at 13.1% annually, and 55% is only 263 basis points above the observed TTM margin. A non-controlling 50% Bull-margin stress, holding revenue, tax, shares, and 38x exit P/E constant, reduces Bull EPS from JPY1,152.6977 to **JPY1,046.6304**, terminal wealth to JPY39,771.95, and Bull IRR from 5.464803% to **3.348134%**. Probability-weighted IRR moves from -10.185437% to **-10.943253%**. The scenario IRR moves more than two points, but this is a conservative sensitivity to a deliberately conditional tail, not evidence that the 55% tail is internally inconsistent or that VP selected an invalid denominator. No audited field is replaced.

3. Strongest bear case

The strongest bear case is that Advantest is expanding capacity into the crest of an AI test-equipment build rather than a permanently higher earnings regime. NVIDIA Group, TSMC, and the top five customers represented 21.6%, 11.1%, and approximately 50% of FY2025 revenue. Management is pulling in the path toward 7,500–10,000 V93000 systems while parallelism, program optimization, and competing platforms can reduce tester seconds per good device. A major next-generation design loss plus a two-year digestion cycle would cut SoC equipment demand, reduce interface utilization, and reach support revenue with a lag.

The repaired model now captures much of that mechanism. Base Test System margin steps from 50% to 46%, 42%, 41%, and 42%, while Base statutory operating margin ends at 36.84%. Bear revenue falls to JPY1,068.476bn and statutory operating margin to 33.20%. The remaining risk is worse synchronization: design loss, AI-capex digestion, and productivity gains could occur while expanded capacity and strategic investments remain fixed. FY2023 Test System margin of 26.7% proves that downside can exceed the Bear terminal margin of 40%, although the Bear path does trough at 36% mid-horizon.

This bear mechanism would become visible within two to four quarters. Test System growth would fall before installed-base service revenue, gross margin would miss management's 66%-67% full-year guide, inventory days would move from roughly 210-223 toward the FY2023 stress level of 310, and free-cash-flow conversion would weaken. The competitive anchor is high-end SoC share falling below 55% or Test System growth lagging a still-expanding tester market.

4. Cross-examination of management commentary

Management's record is candid, but the forward statements still require adversarial interpretation.

First, Douglas Lefever said on 2026-07-29 that demand was "sustainable throughout this year and into next year." This is visibility, not a contracted backlog. The data package found no recurring backlog, order-intake, book-to-bill, or cancellation series. Management separately identified wafer starts, CoWoS capacity, and memory availability as determinants of the range. If the visibility proves overstated, the first evidence will be sequential Test System deceleration, customer delivery pushouts, or a guide reduction while AI end demand remains publicly strong.

Second, management argued that V93000's breadth means it "really doesn't matter where that growth comes from." Capacity can be configured across GPU, custom ASIC, and CPU, but design wins are not perfectly interchangeable. These programs have different qualification schedules, packaging constraints, test intensity, customers, and competing platforms. The first contradiction would be SoC share falling despite a growing tester market or Advantest Test System growth trailing Teradyne through a platform transition.

Third, management expects to flow through 5,000 systems and is pulling in the 10,000-system roadmap. Capacity is a ceiling with buffers, not a shipment forecast. If supply capability is ahead of demand, inventory and working capital deteriorate before revenue necessarily declines. Inventory days above **270**, coupled with rolling-year FCF/net income below **70%**, would indicate that the roadmap is creating under-absorption rather than protecting design wins.

5. Stage 5 tie-out reverification

The recency anchor is valid. TTM is FY2025 less the comparable Q1 FY2025 plus Q1 FY2026, with zero residuals. Q1 FY2026 consolidated revenue grew 39.3%, Test System grew 38.7%, and statutory operating margin reached 51.7%. The Base first-year model grows revenue 19.1% and operating income 14.3%, materially below management's raised FY2026 guide on absolute revenue and OI. The model is not starting from a stale or collapsing trend.

The repaired operating path is materially more credible. Base Test System margin is 50%, 46%, 42%, 41%, and 42%; segment profit peaks in year two and then declines despite rising revenue. Base statutory OI ends at JPY654.817bn on JPY1,777.433bn revenue, or 36.84%, 906 basis points below TTM. The prior critique—that peak mix and utilization were barely normalized—has been removed.

The share-count path remains plausible and immaterial to the core conclusion. Base assumes JPY50bn of annual repurchases, close to the JPY56.923bn five-year historical average, plus SBC issuance and 2.778m shares of full convertible dilution. Terminal shares are only 0.37% below the starting share base. Buybacks do not create an artificial rescue.

No Base product CAGR clearly exceeds the competitor deceleration pattern without explanation. The first-year 22% SoC growth exceeds Teradyne's 18.8% 2025 Semiconductor Test growth, but Advantest's 35.7% latest SoC growth and current platform wins support near-term divergence. The repaired model's largest remaining uncertainty is revenue durability, not arithmetic or an unnormalized Base margin.

6. Score-derived 20% return claim

The audited score already rejects the 20% case, and the red team agrees. Base gross JPY IRR is -12.17%, Bull is 5.46%, and probability-weighted net-SGD IRR is -12.39%. A 20% annualized result requires terminal wealth of JPY80,998.74 per share. At the locked 28x Base P/E, required EPS is **JPY2,892.81**, 4.42 times repaired Base EPS. It also implies a **123.75x** P/E on repaired Base terminal EPS at today's price. The maximum purchase price supporting 20% under the same method is **JPY7,693.10**, 77.4% below JPY34,000.

The first element that breaks any pro-20% claim is entry valuation. Neither modest dividends nor faster buybacks change the order of magnitude. The audited 3/20 score properly reflects a complete but deeply unattractive return bridge.

7. Two-sided valuation challenge

The strongest reason the audited valuation may still be too optimistic is the **28x Base exit P/E** applied to a company whose Base terminal SoC growth is 2%, Test System margin is normalized to 42%, and moat/2046 gates remain YELLOW. A 24x stress produces JPY15,709.19 of terminal wealth, Base IRR of **-14.970108%**, and probability-weighted IRR of **-11.556679%**. That is materially below the audited Base outcome. It is not a correction, however: the VP archive contains company observations near 21.62x, 27.51x, and 29.69x, and 28x is explicitly chosen at the upper-middle of that evidenced band for a net-cash, high-ROIC platform. The stress illustrates valuation uncertainty rather than a denominator, perimeter, or selection defect.

The strongest reason the audited valuation may be too bearish is the **18x Bear exit P/E** applied to a profitable, net-cash platform still earning a 33.2% consolidated operating margin. The archived profitable range extends to 21.62x. A non-controlling 22x sensitivity raises terminal wealth from JPY6,185.58 to **JPY7,560.16** and Bear IRR from -30.087151% to **-27.077564%**. Probability-weighted IRR improves only to **-9.869565%**. The sensitivity does not rescue the investment case and does not prove 18x wrong; 18x remains inside the demonstrated trough range and is consistent with the Bear scenario's design loss and margin compression.

Zero distributions are conservative but immaterial. Five annual JPY30 dividends would add JPY150 per share and raise probability-weighted IRR by about 0.14 point. Repeating JPY59 for five years would add JPY295 and improve probability-weighted IRR by about 0.27 point. Full conversion in Bear and Base despite sub-JPY36,000 terminal prices is also conservative, but the 2.778m shares are only about 0.38% of the denominator. Neither treatment approaches the material threshold.

The current method, normalized denominator, share bridge, convertible treatment, and no-double-count perimeter validate. The material operating defect from the first red team is now corrected through the full chain. Remaining multiple and tail-margin alternatives are disclosed stress ranges around independently supported scenario definitions, not supportable corrections to a faulty audited bridge.

RETURN_MODEL_OBJECTION_STATUS: MATERIAL_RESOLVED

8. P&C insurer bridge

Not applicable. Advantest is a semiconductor test-equipment and services company, not a property-and-casualty insurer, reinsurer, specialty carrier, or similar risk-bearing financial business. No insurer return bridge is required or present, and no P/B-ROE, retained-versus-managed, fee/NCI, common-book, or negative-EPS-to-zero-equity test is invoked.

9. Signal that forces an exit

The force-exit signal is **Test System segment margin below 35% for two consecutive reported quarters within the next four earnings releases**. The exact segment-profit basis is already disclosed and reconciled. Base bottoms at 41%; Bear bottoms at 36% before recovering. Two consecutive sub-35% quarters would therefore show that capacity absorption, mix, pricing, or platform share is deteriorating beyond the repaired Base and even the planned Bear trough. It would invalidate the assumption that the installed platform preserves high-30s or better economics through a cycle and would require the earnings path, exit multiple, and moat assessment to be rebuilt.

10. Conviction after red team

Thesis does NOT survive as an investment at JPY34,000. The business-quality thesis survives: Advantest has genuine switching costs, applications-engineering depth, global scale, strong current execution, and a capable management team. The investment thesis fails because the repaired model produces negative Base and probability-weighted gross returns, negative Base and probability-weighted net-SGD returns, and only 5.46% gross JPY IRR even in Bull.

The prior material defect is resolved rather than waived. Repaired Base Test System margin is now 42%, Base statutory margin is 36.84%, VP is resealed, and CS/CSA reproduce the repaired chain. Fresh operating and valuation attacks show wide scenario sensitivity but no new foundational defect or supportable correction to the audited bridge. The proper narrative is a high-quality cyclical platform whose current price requires an earnings and valuation regime more favorable than even the audited Bull can turn into an attractive return. The research conclusion remains **Reject / no action**, with no trade, sizing, ranking, portfolio, or messaging authority.

Appendix D - Data Package (Raw Historicals)

Advantest Corporation (6857.T) — Production ER2 Data Package

Run ID: `pulse-cio-20260928T080352+0800` Listing: `XTKS:6857`, Tokyo Stock Exchange Prime Market common stock Reporting currency and scale: JPY billions unless a table says JPY millions or USD billions Information cutoff: 2026-09-28 08:03:52 SGT Fiscal year: April 1 through March 31; issuer labels FY by the opening year Trade execution authorized: **NO**

This package uses only live FMP stable-endpoint pulls and live Advantest IR materials archived in this run. No investing warehouse or transcript cache was read. Advantest's official IFRS results control whenever the live provider is empty or classifies a line differently. In particular, official statutory operating income controls the material FMP operating-income mismatch described below.

0a. Industry classification and disclosure inventory

Advantest is a Japanese semiconductor-capital-equipment and hardware issuer whose core business is automatic test equipment, test handlers, device interfaces, system-level-test solutions, support services, and adjacent nanotechnology solutions. It reports under IFRS, ends its fiscal year on March 31, and currently has two reportable segments. The controlling source set is the official FY2025 annual results and securities report, FY2026 Q1 results and briefing, quarterly briefing notes and Q&A, the April 2026 recast of FY2022-FY2024 into the current segments, and Advantest's Integrated Annual Report 2025. Live FMP annual and quarterly product and geography endpoints returned empty arrays, so official product, region, market, capacity, customer and operating-KPI tables replace those empty vendor responses.

The official sources checked live in this run were: FY2026 Q1 financial results, slides with notes and Q&A dated 2026-07-29; FY2025 full-year results, slides with notes and Q&A dated 2026-04-27; FY2025 Q3 materials dated 2026-01-28; FY2025 Q2 materials dated 2025-10-28; FY2025 Q1 materials dated 2025-07-29; the 2026-04-01 current-segment recast; FY2023 full-year briefing; Integrated Annual Report 2025; FY2025 Annual Securities and Business Report; November 2025 IR fireside-chat script; November 2024 HPC and AI device-test briefing; and June 2024 Third Mid-Term Management Plan materials. Search terms included segment, SoC, memory, system-level test, device interface, handlers, end market, region, customer, top five, units, ASP, capacity, gross margin, inventory, orders, backlog, book-to-bill, cancellation, R&D, capex, outsourcing, EMS, installed base, platform and V93000.

Dataset or table family	Official source searched	Search terms or table names	Years available	Included?	If excluded, why	Downstream relevance
Segment economics	FY2025 securities report; April 2026 recast; FY2026 Q1 results	Segment Information; net sales; segment income	FY2022-FY2025 plus Q1 FY2026 and TTM	Yes	FY2021 was not recast into the new two-segment taxonomy	Segment appendices and synthesis
Product mix	FY2023 and FY2025 briefing notes; FY2026 Q1 notes	SoC Test Systems; Memory Test Systems; Other Systems; support services	FY2021-FY2025 where taxonomy permits; quarterly through Q1 FY2026	Yes	Older activities are shown with a taxonomy-boundary warning	Segment modeling and moat
Geography	FY2025 annual briefing; FY2026 Q1 briefing; securities report	Sales by Region; ship to region; net sales by region	FY2024-FY2025 annual; nine quarters through Q1 FY2026	Yes	FMP annual and quarterly endpoints were empty	Customer and FX exposure
Customer concentration	FY2025 securities report	Information of Main Customers; top five customers	FY2024-FY2025	Yes	Individual customers below 10% are not identified by the issuer	Concentration and cyclicality
Tester-market KPI	IAR 2025; FY2025 and FY2026 Q1 briefings	SoC tester market; memory tester market; market share	CY2021-CY2026 forecast	Yes	CY2025 memory-market dollars were not isolated in the text extraction	TAM and moat
Units and capacity	IAR 2025; FY2025 and FY2026 Q1 briefings; four transcripts	capacity; systems per year; production	Current capacity roadmap	Yes	Shipment units and realized ASP are true non-disclosures after source search	Supply and operating leverage
Gross margin and mix	Annual and quarterly briefings; live FMP income statements	Gross Profit; Gross Margin; sales mix; inventory valuation losses	FY2021-FY2025 plus Q1 and TTM	Yes	No omitted table	Margin forecasting
Orders, backlog, book-to-bill	Annual report; securities report; five latest briefings; transcript packet	orders; backlog; book-to-bill; cancellation	No recurring numerical series found	No	True non-disclosure; only a first large silicon-photonics ATE order is mentioned	Cycle visibility
R&D and capex	IAR 2025; securities report; quarterly briefing charts	R&D Expenses; CapEx; D&A	FY2021-FY2025 plus Q1 and TTM	Yes	No omitted table	Capital intensity and innovation

Dataset or table family	Official source searched	Search terms or table names	Years available	Included?	If excluded, why	Downstream relevance
Manufacturing footprint	IAR 2025; FY2025 and FY2026 Q1 briefings	EMS; outsourced; in-house; supply chain; production capacity	Current operating model	Yes	Partner-level volume splits are a true non-disclosure	Supply resilience

Semiconductor and hardware KPI history

KPI family	Granularity	FY2021	FY2022	FY2023	FY2024	FY2025	Latest interim or TTM	Source path
Gross margin	Consolidated percent	56.6%	57.0%	50.6%	57.1%	64.3%	Q1 FY2026 69.5%; TTM 65.7%	Live FMP statements; FY2026 Q1 notes
R&D expense	Consolidated JPY bn	48.4	60.1	65.5	71.4	78.1	Q1 21.5; calculated TTM 82.5	IAR 2025; FY2025 securities report; Q1 notes
Capital expenditure	Consolidated JPY bn	18.0	25.0	20.8	21.0	34.3	Q1 11.0; calculated TTM 39.2	IAR 2025; quarterly briefing charts
Inventory days	Calculated from FMP turnover	191.6	255.9	310.2	228.7	210.1	Q1 ending-balance diagnostic 222.5	Live FMP ratios and statements
SoC tester market	Global USD bn by calendar year	CY2021 4.3	CY2022 4.0	CY2023 3.3	CY2024 4.1	CY2025 6.9	CY2026 forecast 10.5-11.5	IAR 2025; FY2025 and Q1 FY2026 notes
Memory tester market	Global USD bn by calendar year	CY2021 1.3	CY2022 1.2	CY2023 1.1	CY2024 1.9	CY2025 approximately 2.1	CY2026 forecast 2.5-3.0	IAR 2025; FY2025 and Q1 FY2026 notes
SoC tester market share	Advantest estimate	Not re-extracted	Not re-extracted	Not re-extracted	About 56% implied	66%	66% remains latest disclosed annual estimate	FY2025 notes
Top-five customer concentration	Percent of sales	Not re-extracted	Not re-extracted	Not re-extracted	48%	50%	No Q1 update	FY2025 securities report
SoC system capacity	Systems per year	No clean unit series	No clean unit series	Capacity expanded about 3x over several years	Expansion underway	Roadmap toward about 10,000	Management says 5,000 will be exceeded and 10,000 timing is being pulled in	IAR 2025; FY2025 notes; 2026-07-29 transcript

Units shipped and realized ASP are not disclosed as a clean series. This is not inferred from revenue divided by the capacity target: management explicitly warns that the annual capacity target contains buffers and does not directly equate to sales. Backlog, book-to-bill and cancellation rates are also not numerically disclosed in the source set. The lack of these leading indicators should remain an uncertainty in the cycle model, not be filled with estimates.

1. Reporting structure and taxonomy

The current reportable segments are **Test System Business** and **Services and Others**. Test System includes SoC and memory semiconductor test systems, handlers and other mechatronics-applied products, device interfaces, and system-level-test solutions. Services and Others includes customer-support services, consumables such as interface boards, nanotechnology products, and other adjacent solutions.

FY2025 segment	Revenue JPY bn	Percent of consolidated revenue	Exact profit label	Segment income JPY bn	Source
Test System Business	1,019.380	90.3%	Segment income (loss) (operating income (loss) before share-based compensation expense)	518.760	FY2025 securities report
Services and Others	109.230	9.7%	Segment income (loss) (operating income (loss) before share-based compensation expense)	8.758	FY2025 securities report
Consolidated	1,128.610	100.0%	Statutory operating income after corporate and SBC bridge	499.120	FY2025 official results

Taxonomy changed effective FY2025. Advantest moved from the old three-segment presentation to the current two segments and published a special recast on 2026-04-01 covering FY2022-FY2024. The current taxonomy is therefore comparable from FY2022. FY2021 product figures remain useful activity context, but current-segment dollar and margin comparisons must not

splice that old taxonomy into the recast series. The FY2024 comparison includes a JPY 21.393bn impairment in Services and Others; FY2025 Services and Others includes a JPY 2.504bn partial-divestiture gain.

FY2025 ship-to geography was Taiwan JPY 569.5bn, China 213.3bn, South Korea 180.3bn, Other 72.8bn, Americas 44.5bn, Japan 25.1bn and Europe 23.1bn. Overseas sales were 97.8% of product sales, and about 75% of total sales were denominated in foreign currencies, mainly USD. The two customers individually above 10% in FY2025 were NVIDIA Group at JPY 243.735bn, or 21.6% of revenue, and TSMC at JPY 124.922bn, or 11.1%. The top five customers were approximately 50% of revenue versus 48% in FY2024. FY2024's disclosed 10% customers were TSMC at JPY 96.158bn and Samsung Group at JPY 87.734bn.

2. Consolidated historicals

The table covers FY-5 through FY-1: FY2021 ended 2022-03-31 through FY2025 ended 2026-03-31. Operating income for FY2025 is the official statutory JPY 499.120bn, not FMP's JPY 496.479bn classification. Earlier years use live FMP values, cross-checked to official historical highlights. FCF is consistently OCF less PPE capex in this table; the stricter FY2025 ER2 FCF including JPY 3.018bn intangible purchases is JPY 299.152bn.

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue JPY bn	416.901	560.191	486.507	779.707	1,128.610	Live FMP annual; official FY2025 control
Operating income JPY bn	114.775	167.019	87.662	228.161	499.120	Live FMP; official FY2025 control
Operating margin	27.5%	29.8%	18.0%	29.3%	44.2%	Calculated
Net income JPY bn	87.301	130.400	62.290	161.177	375.353	Live FMP; official FY2025 control
Diluted EPS JPY	111.82	173.67	84.16	218.01	513.30	Live FMP and official results
Diluted share count m	780.759	750.830	740.121	739.311	731.261	Live FMP and official results
PPE capex JPY bn	18.219	23.588	20.543	17.414	33.012	Live FMP cash flow
FCF JPY bn	60.670	46.636	12.125	268.557	302.170	OCF less PPE capex from live FMP
FMP return on invested capital	23.6%	28.7%	12.7%	26.2%	42.6%	Live FMP key metrics

The issuer's own ROIC convention is NOPAT divided by average invested capital, with NOPAT equal to operating income times 75% and invested capital equal to borrowings plus bonds plus total equity excluding lease liabilities. For FY2025, NOPAT is JPY 374.340bn using statutory OI of JPY 499.120bn. A simple average of year-end equity plus debt including leases is JPY 707.980bn, producing a conservative unadjusted 52.9% diagnostic; exclusion of lease liabilities would increase it. FMP's separately computed ROIC is 42.6%. Downstream modeling should use one consistent invested-capital definition rather than mixing these two provider and issuer conventions.

TTM ended 2026-06-30 is the forecast anchor. TTM revenue is JPY 1,232.307bn, statutory operating income 565.158bn, pretax income 629.445bn, net income 459.953bn, diluted shares 729.819m, diluted EPS JPY 630.23, and ER2 FCF JPY 384.627bn after both PPE and intangible purchases.

3. Segment historicals

Test System Business

Test System Business	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue JPY bn	n/c	473.571	397.622	682.819	1,019.380	April 2026 recast; FY2025 report
YoY	n/c	n/c	-16.0%	71.7%	49.3%	Calculated
Segment income (loss) (operating income (loss) before share-based compensation expense) JPY bn	n/c	173.534	106.298	262.120	518.760	April 2026 recast; FY2025 report
Margin on exact metric	n/c	36.6%	26.7%	38.4%	50.9%	Calculated

FY2021 is not comparable because it was not recast into the current two-segment taxonomy. Product activity history is preserved in Section 4 without presenting it as a current-segment profit series.

Services and Others

Services and Others	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue JPY bn	n/c	86.659	88.885	96.888	109.230	April 2026 recast; FY2025 report
YoY	n/c	n/c	2.6%	9.0%	12.7%	Calculated
Segment income (loss) (operating income (loss) before share-based compensation expense) JPY bn	n/c	12.757	-7.842	-16.125	8.758	April 2026 recast; FY2025 report
Margin on exact metric	n/c	14.7%	-8.8%	-16.6%	8.0%	Calculated

FY2024's JPY 16.125bn segment loss includes the JPY 21.393bn Essai goodwill and intangible impairment. FY2025 includes a JPY 2.504bn partial-divestiture gain, so its 8.0% reported segment margin is not a clean recurring anchor.

3a. Historical statutory-profit bridge and forecast-driver ledger

The exact common segment-profit basis is **Segment income (loss) (operating income (loss) before share-based compensation expense)**. It is not statutory segment operating income. Values below are in JPY millions and reproduce the sealed packet exactly. Sealed packet SHA-256: `ed42149f4b9060c0ce41bef9bdf494958af6c89ad3cf22d6963f8d096c5518d6`.

Latest completed FY: FY2025 ended 2026-03-31

Bridge line	Classification	Value	Source ID	Running subtotal
Test System Business	segment profit	518,760	adv_fy2025_official	518,760
Services and Others	segment profit	8,758	adv_fy2025_official	527,518
Sum of reportable segment profit	segment profit subtotal	527,518	adv_fy2025_official	527,518
Elimination and Corporate	corporate_unallocated	-23,948	adv_fy2025_official	503,570
Consolidated segment profit metric	subtotal	503,570	adv_fy2025_official	503,570
Share-based compensation expense	operating	-4,450	adv_fy2025_official	499,120
Statutory operating income	statutory subtotal	499,120	adv_fy2025_official	499,120
Financial income	other_non_operating	20,354	adv_fy2025_official	519,474
Financial expenses	interest	-2,754	adv_fy2025_official	516,720
Pretax income	statutory subtotal	516,720	adv_fy2025_official	516,720
Income taxes	tax	-141,367	adv_fy2025_official	375,353
Net income	statutory subtotal	375,353	adv_fy2025_official	375,353

TTM ended 2026-06-30

Bridge line	Classification	Value	Source ID	Running subtotal
Test System Business	segment profit	582,557	official_ttm_calc	582,557
Services and Others	segment profit	14,615	official_ttm_calc	597,172
Sum of reportable segment profit	segment profit subtotal	597,172	official_ttm_calc	597,172
Elimination and Corporate	corporate_unallocated	-27,276	official_ttm_calc	569,896
Consolidated segment profit metric	subtotal	569,896	official_ttm_calc	569,896
Share-based compensation expense	operating	-4,738	official_ttm_calc	565,158
Statutory operating income	statutory subtotal	565,158	official_ttm_calc	565,158

Bridge line	Classification	Value	Source ID	Running subtotal
Financial income	other_non_operating	64,341	official_ttm_calc	629,499
Financial expenses	interest	-54	official_ttm_calc	629,445
Pretax income	statutory subtotal	629,445	official_ttm_calc	629,445
Income taxes	tax	-169,492	official_ttm_calc	459,953
Net income	statutory subtotal	459,953	official_ttm_calc	459,953

All five residuals for each period are zero against a JPY 1m tolerance. The TTM financial-income line contains a JPY 41.075bn strategic-investment valuation gain recorded in Q1 FY2026. This below-line gain is not an operating driver.

Historical bridge line	FY value	TTM value	Forecast treatment	Driver and source	Bear, base and bull rule
Elimination and Corporate	-23,948	-27,276	Percentage of revenue with fixed-cost cross-check	Official segment note; recent 2.1%-2.2% of sales	Bear -2.5%; base -2.2%; bull -2.0% of sales
Share-based compensation expense	-4,450	-4,738	Percentage of revenue and diluted-share cross-check	Official bridge and share plan	Bear -0.50%; base -0.40%; bull -0.35% of sales
Financial income	20,354	64,341	Separate recurring interest from valuation gains	FY and Q1 official results	Bear and base exclude strategic fair-value gains; bull may include only realized or source-bound recurring income
Financial expenses	-2,754	-54	Debt and convertible schedule	FY results; Q1 convertible bond disclosure	Model coupon and accounting accretion separately; do not net against valuation gains
Income taxes	-141,367	-169,492	Effective-tax-rate schedule	Statutory bridge	Bear 29%; base 27%; bull 25% absent new evidence

STATUTORY_BRIDGE_STATUS: VERIFIED — CLEARED FOR FORECASTING

4. Product and sub-segment historicals

Advantest separately publishes SoC Test Systems, Memory Test Systems and other Test System activity in annual and quarterly briefing charts. Services and Others is split into support services and other activities in recent charts. The product table is official dollar disclosure; no back-solved dollars are used.

Segment	Product	What it is	Dollar disclosure?	Last three fiscal years revenue and source
Test System	SoC Test Systems	V93000 and related platforms for logic, compute, communications, automotive and industrial semiconductors	Yes	FY2023 JPY 245.6bn; FY2024 440.4bn; FY2025 767.4bn; official annual briefings
Test System	Memory Test Systems	Platforms for high-performance DRAM, HBM and non-volatile memory	Yes	FY2023 JPY 85.9bn; FY2024 157.7bn; FY2025 171.5bn; official annual briefings
Test System	Other Systems	Device interfaces, handlers, mechatronics and system-level-test solutions	Yes in aggregate	FY2023 old taxonomy does not match; FY2024 JPY 84.7bn; FY2025 80.5bn; FY2025 briefing
Services and Others	Support Services	Installed-base service, uptime and customer support	Yes	FY2024 JPY 55.7bn; FY2025 65.0bn; earlier years remain in old taxonomy
Services and Others	Others	Consumables, interface boards, nanotechnology and adjacent solutions	Yes in aggregate	FY2024 JPY 41.2bn; FY2025 44.2bn; earlier years remain in old taxonomy

Quarter	SoC Test Systems JPY bn	YoY	Memory Test Systems JPY bn	YoY	Other Systems JPY bn	Source
Q2 FY2025	173.7	58.6%	43.9	21.9%	19.8	FY2025 Q2 notes
Q3 FY2025	165.2	46.2%	57.3	4.9%	22.6	FY2025 Q3 notes
Q4 FY2025	237.2	59.4%	36.8	4.8%	22.3	FY2025 annual notes
Q1 FY2026	259.6	35.7%	48.0	43.3%	26.0	FY2026 Q1 notes

Management does not publish tester shipment units or realized ASP, so revenue growth cannot be cleanly decomposed into units and price. Commentary attributes growth to more wafer starts, more test insertions, longer test time, higher device complexity, richer configuration and mix. These are disclosed causal drivers, not a numerical ASP bridge. The V93000 platform is configurable across GPU, custom ASIC and CPU applications, reducing platform-specific demand fragmentation.

5. Most recent quarterly trend

Advantest FY ends March 31. Most recently completed fiscal quarter at time of writing: FY2026 Q1, covering 2026-04-01 through 2026-06-30, reported on 2026-07-29 via https://www.advantest.com/document/en/investors/ir-library/result/E_FR_FY2026_1Q.pdf.

Quarter	Consolidated revenue JPY bn	YoY	Statutory operating margin	Source date
Q2 FY2025	263.0	38.0%	41.3%	2025-10-28 official briefing
Q3 FY2025	273.8	25.5%	41.5%	2026-01-28 official briefing
Q4 FY2025	328.1	41.2%	46.7%	2026-04-27 official briefing
Q1 FY2026	367.5	39.3%	51.7%	2026-07-29 official briefing

Quarter	Test System revenue JPY bn	YoY	Services and Others revenue JPY bn	YoY	Source
Q2 FY2025	237.4	41.9%	25.6	10.3%	FY2025 Q2 notes
Q3 FY2025	245.1	26.3%	28.7	19.1%	FY2025 Q3 notes
Q4 FY2025	296.3	45.2%	31.7	12.4%	FY2025 annual notes
Q1 FY2026	333.6	38.7%	33.9	46.0%	FY2026 Q1 results and notes

Gross margin rose from 62.2% in Q2 FY2025 to 62.0% in Q3, 67.4% in Q4 and 69.5% in Q1 FY2026. Q1 benefited from favorable mix and limited inventory valuation losses. FY2026 guidance assumes a lower 66%-67% full-year gross margin because management incorporates higher component costs, more inventory valuation losses and product-mix normalization in the second half. FY2026 guidance, raised on 2026-07-29, is revenue JPY 1,714bn, operating income 846bn, pretax income 891bn and net income 660bn.

6. Management commentary on forward growth

The four live FMP transcripts are date-verified to Q2 FY2025 on 2025-10-28, Q3 FY2025 on 2026-01-28, FY2025 full year on 2026-04-27 and Q1 FY2026 on 2026-07-29. FMP's returned `quarter` field is blank for this issuer, so period identity was checked against the actual date and official call archive before use. Quotes below are short verbatim excerpts from those live files.

Test System Business

- **Q1 FY2026, 2026-07-29 — Douglas Lefever, Group CEO — demand breadth:** "we're seeing very strong demand across all of those areas, GPU, custom ASIC and CPU." The model should not reduce the AI driver to a single accelerator customer.
- **Q1 FY2026, 2026-07-29 — Douglas Lefever, Group CEO — duration:** "We do see that to be sustainable throughout this year and into next year." This is management visibility, not contracted backlog, because no numerical backlog is published.
- **Q1 FY2026, 2026-07-29 — Douglas Lefever, Group CEO — platform mix:** "since our 93000 platform is so prolific and being used across the industry, across all of the different compute applications, it really doesn't matter where that growth comes from." Platform configurability supports capacity fungibility across GPU, ASIC and CPU.
- **Q1 FY2026, 2026-07-29 — Douglas Lefever, Group CEO — capacity:** "we had stated a 10,000, 93000 per year by the end of 2028, early '29. And we're pulling that in." The exact revised date was not provided and must not be invented.
- **Q1 FY2026, 2026-07-29 — Douglas Lefever, Group CEO — near-term throughput:** "For 5000, it's safe to assume that we're going to flow right through that level at this point in time." Capacity is a ceiling with buffers, not a shipment forecast.

- **Q1 FY2026, 2026-07-29 — Douglas Lefever, Group CEO — gross margin:** "the product mix is favorable" and higher volume is "yielding big economies of scale for us as well." The same answer flagged bill-of-material inflation and memory pricing as headwinds.
- **Q3 FY2025, 2026-01-28 — Douglas Lefever, Group CEO — AI mix:** "Roughly in '25, we see that as around 80% of our SoC business, and we see that continuing into 2026." This is a mix indication, not separately disclosed application revenue.
- **Q3 FY2025, 2026-01-28 — Douglas Lefever, Group CEO — test intensity:** "we continue to see the complexities drive more test insertions and higher test times." This is the key content-per-device driver.
- **Q3 FY2025, 2026-01-28 — Douglas Lefever, Group CEO — supply limiter:** "from wafer starts to CoWoS capacity, to memory availability is really going to dictate the low and high range." A bear case should therefore stress external advanced-packaging and memory constraints even if tester demand stays strong.
- **Q2 FY2025, 2025-10-28 — Douglas Lefever, Group CEO — plan outperformance:** "the demand for semiconductor testers has surpassed initial projections established at the outset of our midterm plan 3." Management also cited customer-support infrastructure and supply capability as share drivers.
- **FY2025 full year, 2026-04-27 — Douglas Lefever, Group CEO — results:** "our consolidated fiscal 2025 results delivered new records in sales, operating profit and net income." Record earnings are the current base, so cyclicality and normalization must be explicit.
- **FY2025 official notes — management team — technology adjacency:** Advantest stated it had received its first large ATE order for silicon-photonics volume production. This is a design-win signal, but no order value was disclosed.

Services and Others

- **FY2025 Q2-Q4 and Q1 FY2026 official calls — Douglas Lefever and management team — installed base:** support-services sales were repeatedly described as growing with the installed base. This supports a recurring-growth driver tied to tester fleet growth rather than tester-market units alone.
- **FY2025 full year, 2026-04-27 — management team — consumables:** other revenue increased, particularly tester interface boards. The model should link consumables to high-performance SoC utilization but avoid assigning an undisclosed attach rate.
- **Q1 FY2026, 2026-07-29 — management team — support:** "Support services sales remained solid, driven by the increasing installed base of testers." No separate margin or retention metric is disclosed.
- **November 2025 fireside chat — Douglas Lefever, Group CEO — strategic direction:** the company framed its ambition as becoming the most trusted and valued test-solution company across the semiconductor value chain. Services, automation and software investment are part of that shift, but current segment economics remain small and volatile.

7. Capital allocation history

Fiscal year	PPE capex JPY bn	Capex to revenue	R&D JPY bn	R&D to revenue	Buybacks JPY bn	Dividends JPY bn	M&A JPY bn	Source
FY2021	18.219	4.4%	48.367	11.6%	70.148	25.456	28.976	Live FMP; IAR 2025
FY2022	23.588	4.2%	60.094	10.7%	50.042	25.418	3.505	Live FMP; IAR 2025
FY2023	20.543	4.2%	65.492	13.5%	0.017	24.881	8.260	Live FMP; IAR 2025
FY2024	17.414	2.2%	71.399	9.2%	50.080	27.320	3.790	Live FMP; IAR 2025
FY2025	33.012	2.9%	78.140	6.9%	114.328	35.754	0.008	Live FMP; FY2025 securities report

M&A is live FMP `acquisitionsNet` shown as an outflow magnitude and may include immaterial transaction classifications. R&D is official. Q1 FY2026 added JPY 21.5bn of R&D and JPY 11.0bn of presentation-basis capex. Q1 also used JPY

42.211bn for treasury shares and JPY 21.426bn for dividends. Management continues to describe R&D, software, automation, AI-enabled test technology, silicon photonics and advanced packaging as priority growth investments.

8. Balance-sheet snapshot

Item at 2026-03-31	JPY bn	Source
Cash and equivalents	339.966	Official FY2025 results
Short-term investments	0.000	Live FMP balance sheet
Total debt including current and non-current leases	20.192	Official FY2025 results
Net debt or net cash	319.774 net cash	Calculated
Net debt to EBITDA	-0.61x	Net cash divided by OI plus D&A
Goodwill plus intangibles	84.250	Official FY2025 results
Tangible book value	711.476	Parent equity less goodwill and intangibles
Parent equity	795.726	Official FY2025 results

At 2026-06-30, cash was JPY 413.124bn and gross debt including leases was JPY 108.166bn. The increase reflects JPY 100bn face value of zero-coupon convertible bonds issued in April 2026, recorded as JPY 88.930bn of bonds plus JPY 7.712bn of embedded stock-acquisition rights in equity. Q1 net cash remained JPY 304.958bn. Downstream dilution analysis must separately model the convertibles and may not treat the full proceeds as ordinary debt with no equity claim.

9. Recent corporate actions

- **2025-10 onward:** Advantest executed a new treasury-share repurchase program. By 2026-03-31 it had purchased 2.05m shares for JPY 44.2bn against a JPY 150bn authorization; Q1 FY2026 cash flow records a further JPY 42.2bn of purchases.
- **2026-04:** Advantest issued JPY 100bn face value of zero-coupon convertible bonds with stock acquisition rights. The Q1 statement records JPY 88.930bn as bonds and JPY 7.712bn in equity.
- **2026-04-27:** FY2025 results established record annual sales, operating income and net income; management initially guided FY2026 revenue to JPY 1,420bn and OI to 627.5bn.
- **2026-07-29:** After Q1 record revenue and operating income, FY2026 guidance was raised to revenue JPY 1,714bn and OI JPY 846bn. Management accelerated production-capacity plans.
- **Q1 FY2026:** The company invested JPY 113.9bn through an investment fund contribution and share purchases, partly offset by JPY 22.1bn of proceeds from selling held shares. It called these strategic investments toward becoming a comprehensive solutions provider.
- **FY2025 and Q1 FY2026:** FY2025 financial income contained a JPY 17.312bn fair-value gain on share call options; Q1 FY2026 financial income contained about JPY 44.7bn, including JPY 41.075bn of strategic-investment valuation gains. These are below-line and non-operating.

10. Open data gaps and classification

- **True non-disclosure — shipment units and ASP:** FY2025 annual results, FY2026 Q1 results, annual securities report, IAR 2025, five briefing-note packets, technical briefing and transcripts were searched for units, shipments, ASP and average selling price. No clean shipment-unit or realized-ASP series was disclosed. Capacity targets are not a substitute.
- **True non-disclosure — backlog, recurring order intake, book-to-bill and cancellation rate:** the same official set was searched for backlog, orders, order intake, book-to-bill and cancellation. No recurring numerical table was found. The isolated silicon-photonics volume-production order does not constitute a backlog series.
- **True non-disclosure — product-level profit:** SoC, memory, other systems, support and other product revenues are shown, but profit is disclosed only for the two reportable segments. Product margins must not be fabricated.
- **True non-disclosure — Services retention and attach rates:** management links support to installed-base growth but does not publish retention, attach rate or per-system service revenue.

- **Taxonomy boundary:** FY2022-FY2024 were officially recast into the current two-segment structure. FY2021 was not. The product activity history is presented separately and is not mixed into current-segment margins.
- **Official-source override:** live FMP FY2025 operating income was JPY 496.479bn versus official statutory JPY 499.120bn; Q1 FY2026 FMP was JPY 189.306bn versus official JPY 189.990bn. Official values control. Revenue, pretax income and net income tie.
- **Estimated — TTM R&D and capex:** TTM R&D JPY 82.5bn and presentation-basis capex JPY 39.2bn are calculated as FY2025 less prior Q1 plus current Q1 from official quarterly charts. They are labeled calculations, not issuer-published TTM values.
- **Not applicable — wafer starts, node mix and foundry utilization:** Advantest supplies test equipment rather than fabricating wafers. Customer wafer starts, advanced-packaging capacity and memory supply are demand constraints, not Advantest production KPIs.
- **True non-disclosure — EMS partner volume split:** IAR 2025 explains a hybrid in-house and outsourced model and says high-volume or configurable products may be fully outsourced to EMS partners. It does not quantify outsourcing percentages or partner-level commitments.
- **No statutory-bridge gap:** the exact segment-profit, corporate, SBC, financial-income, financial-expense, tax and net-income classifications are sealed, source-tied and zero-residual. This package does not reclassify them.

Source map for DR

Source ID	Live URL or endpoint	Covered period	Archived D-stage file
D-FMP-income-annual	`stable/income-statement?symbol=6857.T&period=annual&limit=6`	Six annual periods through FY2025	`raw/pulse-cio-20260928T080352+0800/d/fmp_income_annual_d.json`
D-FMP-income-quarter	`stable/income-statement?symbol=6857.T&period=quarter&limit=8`	Eight quarters through Q1 FY2026	`raw/pulse-cio-20260928T080352+0800/d/fmp_income_quarter_d.json`
D-FMP-product	`stable/revenue-product-segmentation` annual and quarter	Empty live responses	`raw/pulse-cio-20260928T080352+0800/d/fmp_product_annual_d.json` and quarterly peer
D-FMP-geography	`stable/revenue-geographic-segmentation` annual and quarter	Empty live responses	`raw/pulse-cio-20260928T080352+0800/d/fmp_geography_annual_d.json` and quarterly peer
D-official-Q1	https://www.advantest.com/document/en/investors/ir-library/result/E_FR_FY2026_1Q.pdf	Q1 FY2026	`official_FY2026_Q1_results_d.pdf`; notes; Q&A
D-official-FY	https://www.advantest.com/document/en/investors/ir-library/result/E_FR_FY2025_FN.pdf	FY2025	`official_FY2025_results_d.pdf`; notes; Q&A
D-official-recast	https://www.advantest.com/document/en/investors/ir-library/result/E_BIZ_250729_ref2.pdf	FY2022-FY2024 current taxonomy	`official_new_taxonomy_FY2022_FY2024_d.pdf`
D-securities	https://www.advantest.com/document/en/investors/ir-library/report/IR_SecuritiesandBusinessReport_84th_en.pdf	FY2025	`official_securities_report_FY2025_d.pdf`
D-IAR	https://www.advantest.com/document/en/investors/ir-library/annual/E_all_IAR2025.pdf	FY2024 with long history	`official_IAR2025_d.pdf`
D-transcripts	`stable/earning-call-transcript`	Q2, Q3, Q4 FY2025 and Q1 FY2026	Four `fmp_transcript_*_d.json` files

All new raw source bytes and SHA-256 hashes are recorded in `raw/pulse-cio-20260928T080352+0800/d/d_evidence_manifest.json`, which is bound into the parent `source_manifest.json` without replacing upstream QF or QFR records.